Climate Change, Insecurity and Conflict: Issues and Probable Roadmap for Achieving Sustainable Development Goals in Nigeria

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Abstract
Climate change is a change in global and regional climate patterns attributed largely to increase levels of atmospheric temperature. It is also seen as the change in the statistical distribution of weather patterns when both change lasts for an extended period of time or a change or shift in worldwide weather or seasonal change over a long period of time; which can result in flooding, desertification, dew, heat wave, melting of ice, depletion of ozone layer to mention but a few, and which portends a great danger and challenge to sustainable development. In recent times, it has attained a global dimension as never before. In fact, its ramifications as well as its problems and consequence are well known, conversely relatively unknown is its tendency to induce violence, insecurity and conflict. As this has led to series of devastation that has crippled the earth and has been the precursor of most crises in the world, hence this paper examined climate induced conflict insecurity and other antecedent effects. It also provides probable solution as a roadmap for achieving sustainable development goals. More fundamentally, it showed how climate change accounts for the heightening incidence of conflict and insecurity between herders and farmers in Sub-Sahara Africa and specifically in Northern Nigeria. This paper also argued that achieving sustainable development goals in a conflict situation is not possible without addressing the issue of climate change because one of the features of herdsmen is migration and at the heart of migration is climate change and this automatically make them desperate with their unwilling hosts. This of course triggers conflict. Anchoring our analysis on the "Eco – Violence theory", the study posits that much as the immediate cause of herdsmen and farmers conflict in Nigeria is natural resource scarcity cause by climate change. The study made some robust policy recommendations that can tackle climate change, re-orient the people's idea toward nature and more research should be done on natural and climatological science that can cushion the effect of climate change. Also recommended is proper legislation to regulate violations of climate induced infiltration such as gas flaring, deforestation, illegal construction on natural water ways, that government should develop a proactive template of revamping the environs and genuine co-existence amongst farmers and Fulani herdsmen.

Keywords: *Climate change, Conflict, Insecurity, Sustainable development goals, Herdsmen, Farmers.*

1.0 Introduction:

Climate change has become an everyday reality with the growing intensity and frequency of floods, droughts, earthquake and extreme weather disasters. Climate change is a change in the statistical properties of climate system that persists for several decades. These statistical properties include averages, variability and extremes of weathers. Climate change may be due to natural processes, such as change in the sun's radiation, volcanoes or internal variability in the climate system, or due to human influences such as deforestation, burning of fossils, gas flaring, over grazing, continuous cropping, construction, etc. which can cause changes in the composition of the atmosphere or land use.

With climate change leaving no room for doubt, the year 2007 became a watershed in terms of study on the security implications of climate change in Africa. It was the year that both African Union (AU), and the United Nations Security Council (UNSC), held their first ever debate on the security implications of climate change. Further, at Durban, South Africa, the issue occupied the front burner during the 17th meeting of the conference of the parties to the Kyoto Protocol in November, 2011. There is no doubt that the world has invested resources in combating climatic hazards, yet, the world is experiencing and recovering from series of climate and environmental-related disasters, such as the Japanese tsunami and nuclear crisis, the Haiti earthquake, the Indian Ocean tsunami, Indonesia earthquake and tsunami, Hurricane Katrina, the Kogi, Delta, Benue, and Lagos flood, among others, which have killed, displaced millions, and destroyed properties worth millions of dollars.

The subtle nature of climate change makes it look as if it is not a major security threat. To this effect, Ezirim & Onuoha (2008) noted that: Climate change does not fit into the mode of traditional threats to national security such as war, terrorism, insurgency, kidnapping, militancy, espionage or sabotage. Yet, its non-violent and gradual dynamics of manifestation serve only to disguise its impact on livelihoods, social order, peace and stability. Little wonder the conflict between herders and farmers was not taken seriously in the past until it degenerated to its present situation particularly in northern region of Nigeria.

The Intergovernmental Panel on Climate Change, IPCC (2003) had also observed that in the 20th century, there have been consistent patterns indicative of climate change issues. For example, since the 1950s, average global temperature rose by about 0.1 -C per decade, winter snow covers declined by 10%, Northern ice thickness fell by 40%, the frequencies and intensities of droughts, storms, and warm periods rose heat wave, glaciers retreated, and the sea level rose by 20 cm. The Panel attributed these changes to increase carbon emissions from fossil fuel burning. Assuming business as usual, these problems are expected to intensify *(Ezirim & Onuoha. 2008).*

The term "conflict" on the other hand, has been variously conceptualized. However, the multiplicity of definitions has always pointed at one fact: that conflict is an enduring aspect of social existence. It is believed that wherever a community of individuals is found, conflict is basically a part of their experiences. Thus, most conflicts are social in character and usually arise as human beings pursue their different survival and security needs. Thus, whenever there is conflict between sedentary farmers and Fulani herdsmen or pastorals, it is normally viewed by scholars such as Adekunle & Adisa (2010), among others within the context of resource scarcity. Much as we believe that it is lack of natural resources that can cause this kind of conflict, it is our position that resource scarcity is the immediate cause of conflict between these two groups while climate change creates resource scarcity and

reinforces the conflict. Mostly, conflict arises from religious, ethnic and political differences, poverty, resource scarcity or combination of all. However, no serious attempts have been made by scholars to interrogate how climate change precipitates or elicits conflict particularly between farmers and herders.

Recently, violent clashes between farmers and herders have become almost a daily occurrence in Nigeria. Since the early 2000s, with grave consequences on peace, armed conflict and distort coexistence. Roger Blench (2005) noted that although the phenomenon is as old as the beginning of agriculture, its intensity since the late 1980s is a function of the increasing war over resources, mostly grass and water, which is occasioned by climate change. In a well-articulated report on the impact of climate change in Nigeria, Sayne (2011) pays particular attention to the creeping desertification of northern Nigeria and weak state capability as responsible for the phenomenon of herders' migration leading to violent conflicts. In respect to this, Folami & Folami (2013) established a linkage between climate change and inter-ethnic conflict, concluding (with various examples) that there is an escalation of conflicts between ethnic groups (and within communities) over access to dwindling resources. Odo & Chilaka (2012) linked the perennial violent clashes in northern Nigeria with climate change and, therefore, enjoined researchers to look beyond religion and politics in explaining causal bases of violence in the north. The re-emergence of conflict between herders and host communities in some states in northern and southern Nigeria has become a major issue of concern apart from Boko Haram terror attacks, Niger Delta Avengers and other forms of insurgencies.

In like manners, Oladele (2010) did not only examine, but also linked the debilitating consequences on food production in the Savannah area of the Oyo State to the pastoralists/farmers conflict over access to resources in the area. In other words, climate change-induced depletion of soil fertility has been identified as the primary causal factor of farmer-herder conflict in North-Central Nigeria. Onuoha & Ezirim (2010) are also clear in their study on human insecurity in Nigeria that climate change is one of its causal factors. In other words, the reality of growing aridity (i.e. insufficient rain) of several parts of northern Nigeria has been universally acknowledged. It has been argued that about 35 percent of land areas that were cultivable before the 1960s are increasingly getting arid in 11 of Nigeria's northernmost states (Borno, Bauchi, Gombe, Adamawa, Jigawa, Kano, Katsina, Yobe, Zamfara, Sokoto, and Kebbi). As a result, "the livelihoods of some 15 million pastoralists in northern Nigeria are threatened by decreasing access to water and pasture- shortages linked to climate change" *(Federal Government of Nigeria, 1999:11).* The fallout from the dire situation is the migration of grazers away from the areas towards the southern region that is much lusher (excessive).And the consequence of this migration is conflict between the herdsmen and the host communities.

1.1 Statement of the Problem

The climate change induced conflict and insecurity in Nigeria is basically of low interest to researchers in this part of the world. Specialists in climate change were not paid attention to since it is a consensus belief that lack of natural and management of available resources is the only remote cause of conflict in Nigeria without looking at what cause the scarcity of these resources. What most researchers fail to understand is that climate change can create resource scarcity, reinforces and induces it, particularly between herdsmen and their host communities. The consequence of which is lack of sustainable development goals. However, little attempt have been made by researchers to interrogate how climate change has motivated herders

migration to the southern part of the country and how it has elicited or induced conflict between herdsmen and sedentary farmers in Nigeria. The exigency of this lacuna is the motivation of the researchers to critically address this issue. This study, therefore, examined climate induced conflict, insecurity between farmers and herders in Nigeria and its antecedent effects and probable roadmap for achieving sustainable development goals.

1.2 Objective of the Study

The main objective of this study is to examine climate change induced conflict insecurity, its antecedent effects and probable roadmap for achieving sustainable development goal. While the specific objectives of the study are:

- **(i)** To examine the extent to which climate change has elicited conflict and insecurity in Nigeria.
- **(ii)** To examine the extent to which climate change has adversely affected sustainable development goal, and
- **(iii)** To proffer possible solutions to eliminate climate induced conflicts and insecurity and create a robust sustainable developmental goals.

1.3 Research Questions

The following research questions were raised to guide this study:

- **(i)** To what extent has climate change elicited conflict and insecurity in Nigeria?
- **(ii)** To what extent has climate change affected sustainable development goal in Nigeria?
- **(iii)** What are the possible solutions to these problems caused by climate change in order to achieve sustainable development goals?

1.4 Methodological Review

This study adopted explorative, comparative and qualitative analyses to x-ray the relationship between Climate changes induced Conflict and insecurity and create road map for achieving the sustainable development goals. In other worlds, this study relied solely on secondary sources of data collections such as documents, journals, articles, books, correspondence and internet, etc.

2.0 Literature Review:

2.1 Theoretical Framework

The study adopted the Homer-Dixon theory of "Eco-violence". Homer-Dixon (1998), argue that large populations in many developing countries are highly dependent on four key environmental resources that are very fundamental to crop production: fresh water, cropland, forests and fish. Scarcity or shrinking of these resources as a result of misuse, over-use or degradation under certain circumstances will trigger off conflicts and insecurity.

According to Homer-Dixon (1999):

> "The decrease in the quality and quantity of renewable resources, population growth, and unequal resource access, act singly or in various combinations to increase the scarcity, for certain population groups, of cropland, water, forests, and fishes. This can also 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, deprivation and conflicts" *(Homer-Dixon, 1999).*

The fundamental assumption of the theory is that resource scarcity is the product of an insufficient supply, too much demand or an unequal distribution of a resource as a result of environmental hazards that forces some sector of a society into a condition of deprivation and violence. These four sources of scarcity are in turn caused by variables such as population growth, economic development, pollution, transnational crime, unemployment, terrorism, and obviously climate change which is the front burner because it is the precursor of the other ones. Thus, environmental resource scarcity will constrain agricultural and economic productivity, further inducing the disruption of economic livelihoods, poverty and migration. Migration can occur either because the environmental quality of a habitat has become unliveable or, more commonly, because the migrant's economic outcome is likely to be better in areas with greater resource availability. Both constrained productivity and migration are likely to strengthen the segmentation around already existing religious, class, social, political, psychological, ethnic or linguistic cleavages in a society and thus precipitate conflicts and insecurity *(Gleditsch & Urdal, 2002).*

It is fundamental to state that one basic feature of herdsmen is migration and at the heart of migration is climate change and this automatically makes them desperate guests with their unwilling hosts, this of course triggers conflict. Within the context of herdsmen and farmers' conflict, the eco-violence theory is capable of capturing the intricate linkages that can develop between climate change and conflict.
As a result of climate change, seas have dried up leading to shortage of fish and fresh water. Drought and desertification have also eaten up crop lands and forest thereby making these environmental resources that trigger violence in short supply.

To avert these situations, individuals especially herdsmen drift to where they will get moderate weather, market opportunity, green-vegetation, forage and food, thereby threatening the means of production and reproduction of some other people who would not like such encroachment. This in itself engenders conflict. And when they are accepted, the long run effect will be pressure on land, food shortage, conflict of interests, over population, social disorganization, religious, social, and cultural intolerance which are in themselves conflict triggers. Further, most of the impact of climate change is directly on agriculture, the theory helps us to explain the link between climate change and conflict. That agriculture has been neglected in Nigeria is no longer news. This situation has worsened considerably over the years as a result of government insensitivity to climate adaptation and mitigation and puts more pressure on the populace who suffer more as a result of climate change. As a result of low yield, farmers cultivate more lands now than they hitherto do, living little land for grazing of cattle. It is within this context that the link between climate change, conflict and insecurity in northern Nigeria can be understood.

2.2 Empirical Review:

2.2.1 Climate Change and its antecedent Conflicts and insecurity

The idea of climate change instigating violent conflict and insecurity is a subject of considerable debate in expert literature and a consensus is yet to be reached. Opinions are therefore divided into opposing camps, whose members could be described as enthusiasts and sceptics. One important reality of the climate change discourse is its changing political economy of meaning, perception, and interpretation. According to Brown, *et' al* (2007), climate change initially emerged as an environmental issue. However, it became an energy problem before becoming recast as a security threat; and then lifted to the level of the United Nations Security Council (UNSC) involvement. Robert Kaplan (1994) envisaged such

environmental issues as soil erosion, water shortage, air pollution, and an increase in sea level as capable of prodding or inspiring mass migration which could trigger violent conflicts *(Brown & McLeman, 2009*:*289).* Hendrix & Glaser (2007) examined the impact of both long term and short term trends in rainfall predictability with respect to the propensity towards conflicts. Their conclusion was that climatic variations in both long and short terms are capable of leading to violent conflict. Hussein, Sumberg, & Seddan (1999:397-418) saw increasing evidence of farmer-herder conflict as a result of climate change driving pastoralists from their natural setting to wetter lands in search of pasture. Buhaug, Gleditsch, & Theisen (2008) identify three potential environmentally-induced events -- resource scarcity, a rise in sea level and natural disasters such as drought, floods, and desertification (transformation of habitable land into desert) – as capable of influencing security implications.

Barnett and Adger (2007) identified the growing possibility of climate change undermining human security by reducing access to important natural resources, and undermining the capacity of the state to act in ways that could promote human security. Linking climate change with acute violence, Homer-Dixon (1991) identified such events as population displacement and drop in agricultural outputs as capable of breeding insurgencies, guerrilla warfare, and terrorist attacks. Blench, (2005), Ufuoku & Isife (2009) warned about the prospects of severe climate-induced violent consequences due to herder migrations to lush green territories of sedentary farmers in Nigeria. Burke, Miguel, Satyanath, Dykema, & Lobell (2009) conducted a study that established a strong historical connection between civil war incidents and temperature changes in Africa. Using the Malian crisis as a case study, Cole (2013) identified the severe drought of the 1970s as the main factor responsible for the migration of ethnic Tuareg to Libya, where they were organized into a mercenary group by Maummar Gaddafi; he also described how their disbandment in the late 1980s prompted a massive return to Mali – fuelling subsequent secession bids and the emergence of Ansare Dine terrorist group in the country.

However, the claims of climate conflict enthusiasts have been subject to severe criticisms. For instance, Salehyan (2008:315-326) agreed that climate change posed a problem but doubted a direct linkage with conflict and insecurity. To him, proponents of a climate-conflict nexus suffered from environmental deterministic tendencies and offered ready-made tools for NGOs prone to apocalyptic predictions. He insisted that conflicts seldom occurred without the conjunction of several social factors. For their part, Fjedlde & Uexkull (2012:444) argued that after several years of research, academics were yet to come up with concrete evidence to buttress the assertion of climate-conflict linkage. Rather, what was obtained was an avalanche of variegated N-studies that offered, at best, speculative support for direct linkage between environmental stress and armed conflict. Gleditsch (2012) described most of the present ranges of work on security dimensions of climate change as unconvincing, mostly speculative, and of questionable orientations. In another work, Gleditsch (2012) faulted most works justifying climate change-driven conflict as based on case studies of conflict areas only.

Adano, W., Dietz, T., Witsenburg, K & Zaal, P. (2012), using a case study from Kenya as a reference point, discovered more killings during wetter periods than during dry ones, thereby disproving a strong linkage between drought and violent conflicts. Using an empirical evaluation which combined “high resolution meteorological data with geo-referenced data”, Theisen, Holtermann & Buhang (2011:79-106) found no strong link between drought and the occurrence of civil wars in Africa. While countering proponents of the climate-conflict thesis,

Gartzke (2012:177-192) pointing to the absence of convincing evidence of climate change-inducing conflict initiated a debate on the possibility of climate change reducing the frequency of inter-state conflicts. For him, the phenomenon of climate change did not need to be associated with conflicts, no matter the appearance of a relationship. In the opinion of Schoch (2011), proponents of the climate-conflict thesis were yet to provide credible examples of violent conflict triggered by climate change; rather, what resulted were numerable questionable works, full of mere and unsubstantiated extrapolations. For his part, Bettini (2013:63-72) contended that most enthusiasts of climate change and conflict thesis were alarmists, projecting nothing but apocalyptic narratives. Consequently upon this, theorist, policy makers and government became cynical, sceptical and myopic about climate change, hence disregard the warring which has crippled the resources and create conflict and insecurity. However, other researchers were of the opinion that the evident of climate induced conflict was seen in the migration of the ethnic Tuareg to Libya where they were organized into mercenary group by Gaddaffi in the 70s *(Cole,2013),* and in the recent conflict between sedentary farmers and Fulani herdsmen in some states in northern and southern Nigeria, and which has resulted to the death of thousands of people and displacement of hundreds of thousands of villagers, and in which the government is seem to be comatose, and amongst others.

2.2.2 Climate Change and Sustainable Development Goals

Sustainable developmental goals play an important role in what the United Nations called the "Post-2015 Development Agenda". Sustainable development – a term that is difficult to define. In 1987, the Bruntland Commission published its report, "Our Common Future", in an effort to link the issues of economic development and environmental stability. In doing so, this report provided the off-cited definition of sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" *(United Nations General Assembly, 1987*). Albeit somewhat vague, the concept of sustainable development aims to maintain economic advancement and progress while protecting the long-term value of the environment; it "provides a framework for the integration of environment policies and development strategies" *(United Nations General Assembly, 1987).* However, long before the late 20th century, scholars argued that there need not be a trade-off between environmental sustainability and economic development.

Human Development Report by the United Nations Development Programme (UNDP) shows that those countries furthest from achieving sustainable human development are typically those most affected by violence and fragility: countries like the Democratic Republic of Congo, the Central African Republic, South Sudan, Somalia, and Nigeria in recent time. Without peace and stability, progress on education, health and other determinants of wellbeing in these countries will be difficult, if not impossible. In those fragile states most in need of development progress, it is Sustainable Development Goal (SDG) 16 - the promotion of peaceful and inclusive societies for sustainable development - that is most central to achieving immediate and future wellbeing. In these countries, achieving peace and stability is a necessary first step toward the achievement of the other SDGs. Climate change will complicate the achievement of SDG 16 in fragile states. It is increasingly well accepted that climate change can be a contributor - at times subtle, at times significant - to the causal network that generates conflict and threatens human security. This is particularly true for fragile states, many of which are found in regions where the worst climate impacts are anticipated, such as the Horn of Africa, the Sahel, and the Middle East.

Climate change is not expected to directly result in violence. Rather, there is growing consensus that climate change will instead act as a "threat multiplier," exacerbating existing challenges and sources of tension such as weak governance, poverty, historical grievances and ethnic differences. With climate change making many fragile parts of the world hotter, drier and less predictable, it could contribute to the root causes of conflict by: undermining livelihoods; increasing competition for scarce natural resources; displacing large numbers of people; and overwhelming state institutions by placing additional stress on social, economic and natural systems. These problems are evident in the Nigerian case particularly farmer-herders' climate elicited conflict.

3.0 Possible Solutions to Climate induced Conflict and insecurity in achieving Sustainable Development Goals:

The following are workable solutions or recommendations to climate elicited or induced conflicts:

(1) Proper legislation should be done to remedy the impact of climate change and provide alternate measures in revamping stopping it.

(2) Environmental friendly policies should be encouraged so as to prevent excess gas flaring, over cultivation and deforestation of green vegetation.

(3) Politicization of issues concerning herdsmen and farmers should be avoided by the government and the masses. In other words, the government should not be seen supporting any of the groups.

(4) Government should develop a proactive template to preach genuine co-existence amongst farmers and herdsmen since climate change alone does not result in conflict until it is mixed with factors such as intolerance, economic competition, insensitivity, ethnicity and poor state response.

(5) Ranching should be pursued as one of the possible models in areas with lower population densities and with adequate farm lands. In other words, a comprehensive and workable policy should be made or developed to benefit pastoralists and farmers.

(6) In order to meet the feeding needs of herds, alternative low water and drought resistant grasses should be produced in response to the impact of desertification on fodder production.

4.0 Conclusion

Climate change has become an everyday reality with the growing intensity and frequency of floods, droughts and extreme weather events. There is no doubt that the world has invested resources in combating climatic hazards yet, the world is experiencing and recovering from a series of climate and environmental-related disasters, such as the Japanese tsunami and nuclear crisis, the Haiti earthquake, the Indian Ocean tsunami, Hurricane Katrina, the Lagos and Ibadan flood, Abuja tremor among others, which have killed, displaced millions, and destroyed properties worth millions of dollars.

However, government efforts to ameliorate the situation by providing symptomatic remedy instead of causative agent (climate change) looks so obsolete and un-resoluble, therefore efforts should be geared towards reclamation of the ozone layer and other climate change agents to more robust alternatives that create an enabling platform for serene human existence.

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