

CLIMATE CHANGE AND CONFLICT BETWEEN THE HERDSMEN AND FARMERS IN THE NIGER DELTA REGION OF NIGERIA

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ABSTRACT

This study examines the conflict between the herdsmen and the farmers in the Niger Delta region of Nigeria as a result of climate change that affects their livelihood. This paper adopted the Neo-Malthusian approach to environmental conflict propounded by Thomas Homer Dixon. This paper revealed that desertification, drought and insecurity forced the herders to migrate to the Niger Delta region so that their cattle's can be fed. The pastoralists and their cattle's destroyed the crops of the farmers in the region and all attempt to stop them resulted to violent conflicts. The Fulani herdsmen that are well-armed, opened fire on the innocent farmers and killed them, while some of them were kidnapped and raped. It was also revealed that the herdsmen are not ready for any form of negotiation, since they are all out to dominate and control any environment they get to, so that they can effectively carry out their occupation. The competition over the available natural resources is responsible for the conflict and threat between the herders and the farmers. However, climate change has also affected the Niger Delta because their only source of water contained high level of benzene, and they are also faced with the threat of coastal erosion. It was therefore, recommended that the herders coming to the Niger Delta should be registered, and be assigned to a particular zone to feed their cattle's.

Keywords: *Climate Change, Ecosystem, Desertification, Coastal Erosion.*

1. Introduction

The conflict between the herdsmen and the farmers was in place in Nigeria from the pre-colonial era, but on a minimal scale, and was also properly managed to prevent it from being escalated. This implies that farming and pastoralism have co-existed for generations and also inter-depend on each other for survival. Climate change has adverse effects on the ecosystem and the livelihood of man. So much attention was not paid to address the ills associated with it in Nigeria and Africa in general. Tadaerigha (2023) cited line and Sturman (2002) the expanding literature on violent conflicts in Africa and elsewhere has mostly neglected farmer-herder conflicts since they are frequently regarded as local, endemic, low intensity conflicts rather than wars.

Amobi and Onyisi (2015) made it clear that there is a growing concern on a worldwide scale about how to better comprehend the connection between migration, conflict, and climate change. Due to its wide-ranging effects globally, the subject of climate change is in fact receiving more attention. Based on its

consequences on the environment and the livelihood of greater number of people on earth, the inter-governmental panel on climate change (IPCC), a body set up in 1988 by the world meteorological organization (INMO) and the United Nations Environmental Programme (UNEP) to provide authoritative information about climate change is a reality and that it is being caused by anthropogenic activities.

According to Arcgher and Pierrhumbent (2015) inter-governmental panel on climate change predicts that climate change, caused by the emission of greenhouse gases especially carbon-dioxide will cause drought in some part of the world and flooding in other parts and the poor countries will be hit the most because of their low capacity to cope with the changes.

Haywood (2016) asserts that climate change is caused by the emission of greenhouse gases, mostly carbon-dioxide (CO₂) and methane. Burning fossil fuels for energy production creates most of these emissions. Certain agricultural practices, industrial processes, and forest loss are additional sources. Greenhouse gases are transparent to

sunlight, allowing it through to heat the earth as infrared radiation the gases absorb it, trapping the heat near the earth's surface and causing global warming.

Archer and Pierrhumbert (2013) clearly stated that the impact of climate change can now be observed on all continents and regions, with low-latitude, less developed areas facing the greatest risk. The WHO has classified climate change as the greatest threat to global health in the 21st century. Extreme weather leads to injury and loss of life, and crop failures. Various infectious diseases are more easily transmitted in a warmer climate, such as dengue fever and malaria. Young children are the most vulnerable to food shortages. Both children and older people are vulnerable to extreme heat. The World Health Organization has estimated that between 2030 and 2050, climate change would cause around 250,000 additional deaths per year. They assessed deaths from heat exposure in elderly people, increases in diarrhea, malaria, dengue fever. Over 500,000 more adult deaths are projected yearly by 2050 due to reductions in food availability and quality. Herdsmen or pastoralists have been forced to move from their original environment by climate change to a more favourable or conducive environment where their cattle's can be fed. This made them to have contact with people from different ethnic groups with variegated customs, tradition, religion, value system, norms and languages who have earlier inhabited and settled in their respective geographical locations for centuries. Greater number of the herders were found or concentrated in the northern part of Nigeria, but the impact of climate change forced them to migrate to other regions of the country. This movement embarked on by the herdsmen contributed immensely to the incessant violent conflicts that have been experienced in the middle belt region and other states in the southern part of Nigeria. The Fulani's and other ethnic groups from Northern part of Nigeria are disparate to feed their cattle's and to sustain their main source of livelihood that had been threatened by climate change. Disagreement emerged

between the herders and the farmers in the South-South region because of competition over the use of available land. In the process of grazing their cattle's, crops are destroyed, and all attempts to stop them resulted to violent conflicts.

Dessler and Parson (2019) stated that most of the severe impacts are expected in Sub-Saharan Africa, where most of the local inhabitants are dependent upon natural and agricultural resources, and South-East Asia. The World Bank estimates that climate change could drive over 120 million people into poverty by 2030. This explanation shows that it is not peculiar to Nigeria; the conflicts had also been experienced in Mayo Kobo district in Cameroon. Leif (2021) posits that in Mali, the cycles of farmer-herder violence and reprisal have led to 700 death fatalities between 2015 and 2020. It was also partly responsible for the crises in Sudan and in Ghana, there have been numerous violent clashes between the farmers and the herdsmen who invaded farm lands with their cattle's without considering crops that were planted. The conflict between the Herdsmen and the farmers is increasing and getting worse on daily basis since the government decided to pay lip-service to it. It has intensified because of climate change that forced the herders to move to the middle belt (North central) and the Southern part of Nigeria. The herdsmen are mostly Fulanis whose history can be traced to the Futa-Jalon Mountains of West Africa. They are found in great numbers in the Sahel and Semi Tropical Forest Belt of West Africa. The Fulanis migrated and have occupied about 13 countries in Africa, such as Nigeria, Cameroon, Senegal, Mali, Guinea. They finally settled, permanently in Northern Nigeria and usurped political power after the 1804 Jihad led by Utman Dan Fodio.

Egbas (2018) posits that from 1996 to 2006 about 121 people lost their lives in Baudu and Gombe states as a result of conflict between herdsmen and farmers. Many communities, particularly in the North Central and South Eastern States have also recently faced severe attacks allegedly perpetrated by Fulani herdsmen. About 500 inhabitants of

Agatu have been killed in Benue State. In similar vein, Okwukwu (2022) pointed out that in Abia State, communities of Uzuakoli in Bende Local Government Area, Ebem and Akanu in Ohafia land, Umuchieze in Umunoch I, there have been cases of deadly clashes between rural farmers and the cattle rearers. According to Global Terrorism Index Report (2018) herdsmen killed nearly 1,700 people between January and September 2018.

Definition of Terms

The followings concepts are clearly explain to avoid all forms of ambiguities;

Climate Change

This concept vividly describes an environmental condition in which some of the natural resources are gradually altered over the years as a result of man's activities and industrial production. This alteration resulted to a change in temperature, black sort, flooding, desertification, rainfall etc. This change has affected the ecosystem, sources of livelihood of many persons as well as increasing migration.

Conflict

Conflict refers to misunderstanding between two or more separate groups of people over what they considered as important for their survival. It could be an ideological disagreement, clash of value when competing over scarce valuable resources in a particular environment, state or region. Conflict can also occur as a result of differences in class, caste, race, political ideologies, and cultural values, religious and ethnic differences.

Herders

These are also known as pastoralists, who cared for and control cattle's or flocks in an open field. Herders grassed their cattle's in an open field or land belonging to other people and it requires them to move from place to place in search of green pastures for their cattle's.

Farmers

Farmers in this context are referring to those who practice agriculture. They planted different varieties and species of crops for consumption and sales.

Migration

This refers to the movement of individual or groups from one place to the other for the purpose of residing permanently or temporarily.

Forced Migration

This refers to the type of migration that is induced by other forces such as natural disasters or violent conflict. In this context, climate change induced forced migration, in the sense that those who experienced desertification, flooding high temperature, landslide etc are forced to move to a favourable environment where they will be saved to feed their cattle's.

The Concept of Climate Change

The term climate change has been defined differently by several scholars and international organizations. This implies that it does not have a universally acceptable definition. However, the United Nations framework convention on climate change (UNFCCC) defines climate change as change of climate which is attributable directly or indirectly to human activity that alters the position of the global atmosphere and which is in addition to natural climate variability observed over a comparable time (IPCC 2001).

According to Gillis (2015) climate change is the variation in global or regional climates over time. It reflects changes in the variability or average state of the atmosphere over time scales ranging from decades to millions of years. These changes can be caused by processes internal to the earth, external forces (e.g variation in sunlight intensity) or more recently, human activities. In addition to the above, the inter-governmental panel on climate change (IPCC) defines it as statistically significant variations that persist for an extended period, typically decades or longer. It includes slights in frequency and magnitude of sporadic weather events as well as the slow continuous rise in global mean surface temperature. In the same vein, Olaniyi (2015) asserts that it has the intensification of the planet's temperature, arising from both natural

events and the actions of humankind.

Reasons Responsible for Herdsmen and Farmers Conflict in Bayelsa State

The conflict between the herders and the farmers was in place from time immemorial or from creation. Buseth (2016) re-iterates this fact, that disputes between farmers and herdsmen are not a recent phenomenon and have existed from the time of the Biblical patriarchs. The conflict between Cain and Abel was a good example to justify that this conflict had existed from time immemorial. The reasons for this conflict is listed and explained briefly below as follows;

Killing of Unarmed Farmers in their Farms by the Pastoralists

Several unarmed farmers have been brutally and gruesomely killed by the herdsmen who disregarded the existence of others and their crops in the process of feeding their cattles. Odiekwu (2016) explained how the farmers were angry due to the activities of the herders allowing their cows to graze in their farmland and at the same time destroying their crops. Some of the affected communities include, Yenuzie, Okatukulu, Biogbolo and Epie in Yenegoa Local Government Area of Bayelsa State.

Oyadongha (2021) reveals how aggrieved women from Epie, Atissa communities in Yenegoa, Amassoma community in Southern Ijaw Local Government Area, and communities in Ogbia Council in Bayelsa State staged a protest against what they described as the excesses of herdsmen in the area.

Ebiowei (2021) posits that an unidentified Fulani herder attacked 18 years - old boy, named Kohgi Nation in Otuan bush of Otuoke community in Ogbia Local Government Area of Bayelsa State, inflicted injuries which took Doctors four hours to treat. That same day, they allegedly attacked 58 years old father of the boy, named good head nation. This attack by the herdsmen is also replicated in all parts of the country. Adogi (2013) asserts that attacks on communities in Benue State have resulted in numerous deaths, the destruction of

entire communities and a number of buildings, and over 40,000 people have reportedly been forced from remove it their homes as a result of the attacks.

Odike (2019) posits that the rate at which they commit these crimes have increased exponentially. According to the statistics provided by the institute for economics and peace, 1,229 people were killed in 2014 up to 63 in 2013 and Benue State seems to be the hardest hit in recent times. Five days to the end of Governor Gabriel Suswan's administration in May 2015, over 100 farmers and their family members were reported massacred in villages and refugee camps located in the Ukwa, per-Gasa and Tse-Gusa Local Government Areas of the State. In Cross Rivers State, this conflict is most prominent in dry season. In 2012, suspected herdsmen attacked and razed the entire Ntan Obun village in Odukpani Local Government Area, killing more than 100 people including the clan head and rendering the inhabitants homeless. It has been a recurrent issue in 2016, 2017 and 2018 precisely in March; Mbiabo Edere, Ikot Offiong, Ito and Ntan Obu villages in the same Local Government were also hit by the herdsmen who culminated to the arrest and detention of a clan head of which case is still pending in court.

Proliferation of Small Arms and Light Weapons

A good number of youths in the rural areas in the Niger Delta Region and Nigeria at large either purchase their weapons or were given by politicians. The herdsmen are well equipped with sophisticated riffles that are used to terrorize and kill the farmers. On the other hand, some farming communities also raised funds to purchase guns which are used for self defence. Proliferation of arms from the both sides made this conflict to be difficult to control.

Desertification

According to Eseyin (2020) desertification is the change of productive land into unfits to grow anything. This is caused by poor land management and climate change. Deedam (2022) asserts that desertification or desert encroachment is increasing at a very

high degree in the northern part of Nigeria. The grasses with which their cattles depend on as their major source of food are withering and giving way to dry land. This ugly scenario forced the cattle rearers to move towards the southern part of Nigeria as well as the middle belt area so as to feed their cattles. This forced movement caused by desertification made the herders to invade the farm land of the people of Niger Delta, which resulted to violent conflicts that claimed the lives of so many farmers.

Militia Groups

The present of Militia groups such as Deywell, Deygbam, Green landers, Eye, Ice landers, Jagaband etc has also increased and escalated herders – farmer conflicts in the Niger Delta Region. These cult groups are also well armed, the way the herdsmen are also armed with sophisticated riffles. The both groups are antagonistic to each other, and are fighting for their survival. The herdsmen are fighting to feed their cattle's so as to maintain their long aged occupation, while the farmers and the various militia groups are fighting to preserve their land and to protect their crops.

Break Down in Traditional Conflict Resolution Mechanism

In the past decades, the traditional authorities used to settle all manner of conflicts in their respective domain. This traditional conflict resolution mechanism increases peaceful co-existence among people from different ethnic groups, but the reverse is the case in this contemporary time were people relied on the modern method of adjudication. In the modern method of adjudication, cases are not easily resolved within a short period of time. People no longer respect the traditional conflict resolution mechanism.

Ethno-Religious Perception

Ethno-religious perception causes religious intolerance between the Moslems and the Christians. Deedam (2023) asserts that the Muslim-Christian dichotomy has been in existence from time immemorial. The Muslim

believed that non-Muslims are evil doers or animists and therefore have no legal justification to live and enjoy equal rights with them. The Muslims do not also believe that the Christians are worshipping the true God and the Christians also have the same belief. This belief and ideologies made it difficult for each of them to tolerate each other.

This perception motivated the herdsmen that are predominantly Moslems to invade the farms of the Christians in the southern part of Nigeria and kill them.

Consequences of Herders/Farmers Conflict

The consequences associated with herders and farmers conflict in the Niger Delta are multifarious and multi-dimensional, as it touches almost all spheres of human endeavour. The consequences covered the following areas, security, socio-economic activities, ethno-religious, agricultural, excess spending by government.

Insecurity

Herders and farmers conflict is increasing and threatening the fabrics of the society. The rate of insecurity in the Niger Delta region is increasing as a result of the activities of the herders that are parading the length and breadth of the region. Some farmers in Bayelsa and part of Delta State were not able to go to their farms for fear of rape, harassment and death. The level of kidnapping, assassination, killing are high than before. There is high rate of insecurity across the African sub-region, not only the middle belt or southern part of Nigeria. Olaniyan (2015) posits that in the case of the Fulani-Konkomba violence in Ghana in 2011, an inquiry revealed thirteen (13) deaths and eleven (11) serious injuries in addition, numerous residences were burned and properties were ruined.

Socio-Economic Activities

The indigenous people of Niger Delta, at a time were afraid to go to their farms and carryout other economic activities peacefully because of fear of being attack by the pastoralists that are well armed socio-economic activities are paralised or reduced to its barest

minimum as a result of insecurity. Salmon (2000) in Dagogo avers that insecurity is the anxiety you experience when you feel vulnerable and insecure. It is a vague unpleasant emotion that is experienced in anticipation of some (usually ill-defined misfortune). It is the state of being exposed to risk or anxiety. It is the condition of being susceptible to harm or injury.

Agricultural activities have been affected in the entire country because of the high level of insecurity, ranging from Bendits, Boko Haram, IPOB, cultism and Fulani herdsmen attacks. The peasants who resided in the communities find it difficult to access their farms. So many of them have been killed, injured while some were displaced. This implies that their main source of livelihood is under threat. This situation has increased the rate of hunger and poverty among the rural dwellers. The high cost of food items can also be attributed to herders and farmers conflicts across the nation.

Government Spending

The high rate of insecurity has forced the government to increase its budget on defence (security). These funds would have been used to provide infrastructure, build new refineries and establish new industries that would have helped Nigeria to develop unfortunately, these funds are spent on securing lives and properties as well as to take care of thousands of people that are in internally displaced people's home across the nation.

Ethno-Religious Conflict

The herders that are attacking other ethnic groups in Nigeria currently are mostly Fulanis. Hence, it is believed by all other ethnic groups that have been attacked that this is a war deliberately carried out to exterminate other ethnic groups from Nigeria. It's all about conquest and acquisition of territories belonging to the non-Moslems. It has been demonstrated in Benue and plateau states respectively, as some of their communities were taken over by Fulani herdsmen.

Therefore, other ethnic groups are

planning to resist them, not minding whether it will end up in war.

Education

Pupils and students in secondary schools were unable to go to school because of insecurity. Many families abandoned their homes; even teachers could not go to school. Schools were deserted in communities that experienced herders and farmers conflicts. This is going to create a Lakuna in educational attainment as well as the standard of education. In the case of Northern Nigeria, the students were usually kidnapped in great numbers from their schools by the Bandits, Boko-Haram or Fulani Herdsmen.

Climate Change and Environmental Insecurity

At present, climate change serves as a threat to the environment and all living things including man. According to IPCC (1990) working with records over the last 100 years has shown that a strong correlation exists between greenhouse gases emission and climate change, and between global temperature and sea level rise. Global temperature is expected to rise between 0.20c and 0.50c per decade.

The rise in temperature is expected to cause thermal expansion of sea and melting of polar ice. The rise in the sea level is partly responsible for flooding experienced in the Niger Delta. It is an obvious fact that flooding made so many people homeless annually. Flood which is the product of high sea level paves way for hunger, poverty, misery, homelessness and insecurity. The rise in the sea level has also increase constal erosion, which is now a threat to the inhabitants of the region. Udofia and Fajemirokun (1978) show a rise in sea level along Nigerian coastal water. They carried out mechanical analysis of tidal data from 1960-1970 and reported mean sea level rise to be 0.462m above zero level of the tide gauge. Coastal erosion has affected farming, fishing and other economic activities within and around the coastal areas in the Niger Delta Region. Dagogo (2022) posits that the Niger Delta could lose over 15000 square kilometers of land by the year 2100 with a one meter rise

in sea level. It is estimated that with a sea level rise of 30cm, about 1+2 million people will be affected. It is predicted that Nigeria will lose about 50 billion as a result of the sea level rise while at least 80% of the people of the Niger Delta will be displaced due to the low level of the region (Utigue and Agho, 2007). The rise in sea level also increased the salinity of both surface and underground water, which will result to the death of aquatic plants and animals that cannot withstand or tolerate high salinity. On the other hand, Agbo (2007) asserts that while climate change will lead to increase acidity and desertification in northern Nigeria, it will lead to increase in flooding in the southern part especially in the coastal region of Niger Delta. Another effect of climate change that is generating challenges to farmers and non-farmers is change in rainfall pattern. Normally, in the Niger Delta, raining season commenced effectively in May to September, while dry season begins in October and ends in April. Presently, it has been observed that rain falls even in November, December and January, when the Niger Delta people were supposed to be experiencing hamathan. This drastic change has effect on the growth of crops. In some years, rain delay or will not fall until April and May, this also affected agriculture as planting is delay.

Dagogo (2023) the major cause of climate change is the release of greenhouse gases such as carbondioxide, nitrous-oxides chlorofhiorocarbon and hydrocarbon such as methane, ozone, aldehydes and water vapour into the atmosphere. Some of these gases especially carbondioxide and the oxides of nitrogen are dissolved in rain water and fall to the earth as acid rain. Acid rain helps to destroy roofing sheets speedily as well as loss of biodiversity, forest and economic crops. Constant gas flaring has also impacted negatively on the environment. A total of 123 flaring sites are found in the Niger Delta, making Nigeria one of the highest emitter of dangerous gases in Africa. It has increased the temperature of the region and discharged about 45.8 billion kilowatts of heat into atmosphere. Pollution and over-exploitation of

our natural resources have resulted to loss of biodiversity, which include the loss of different types of species of crops, animals, habitats.

Conclusively, climate change induced the migration of people from an unfavourable condition to favourable condition. This affected the pastorlists greatly, who suffered as a result of insecurity in the North East, drought and desertification. Their movement to the Niger Delta for greener pastures resulted to conflict between them and the farmers whose crops were destroyed by cattles. Besides the above, the entire environment is now hostile to man's existence as the temperature increased, the pattern of rainfall has altered, the level of the sea has increased, while flood, coastal erosion and high heat waves are threatening man, and making the region in secured for habitation

2. Theoretical Framework

This paper anchored on the Neo-Malthusian theory of environmental conflict. Thomas Homer Dixon is the most notable and influential Neo-Malthusian scholars when considering environmental degradation and the conflict associated with it. This approach was derived from Thomas Robert Malthus theory of population, which stipulates that food production grows arithmetically while population grows geometrically which will result to acute food shortage. Greater number of people will face hunger, misery and will be afflicted by diseases that will cause death. Thomas Malthus recommended abstinence from sex and celibacy. Although, he was highly criticized but in the late 1960s and early 1970s, several Neo-Malthusian sprang up to predict that the world's rapidly growing population would soon outstrip its resources. This will lead to severe environmental degradation, widespread famine and violent conflict because the resources required for food production have been recklessly exploited by man, while the emission of dangerous gases into the atmosphere by industries has destroyed the natural environment which man depend on for survival. The neo Malthusian theorists are mainly concerned about these natural resources that helped to produce food. More

food will not be produced when these resources are lacking or affected.

Dixon and Blitt (1998) state that increasing environmental scarcity can have social consequences that raise the risk of internal violent conflict. This view point is based on the fact that environmental scarcity can reduce agricultural and economic productivity, resulting to migration and widespread poverty, which can lead to conflict. This implies that the struggle and competition over scarce valuable resources due to ecological change will result to conflict among individuals. In this context, climate change has greatly altered the

ecosystem which led to high rate of temperature, coastal erosion, increase in heat wave, drought, desertification, high salinity of the water, and increase in the level of water. This alteration forced the herders to move from Northern Nigeria where they have been confronted with desertification and drought to the southern part of Nigeria where their cattle's can be fed. This implies that both the herders and the farmers in the Niger Delta region competed for the available land for agriculture and grazing of cattle's. This competition led to violent conflict between the two groups of people.

3. Recommendations

The following recommendations are proffered as panacea based on the findings:

The government should ensure that all herders coming into any state in the Niger Delta region is registered, and be assigned a particular zone to graze their cattle's.

Any herder found in possession of fire arm should be arrested and prosecuted. This will go a long way to check their excesses.

The federal government and the state government should provide ranches for the herders in all the states of the federation so as to avoid this long aged conflict between the herders and the farmers.

The federal government should put appropriate policies in place to preserve and conserve natural resources to avoid reckless exploitation that could lead to climate change. Infect, gas flaring should be stopped so that all the dangerous gases emitted into the atmosphere will be reduced.

Both the federal and the state government in the Niger Delta should provide portable water for all the communities because their water contains high level of Benzene.

The federal government should embark on afforestation along the coast of Niger Delta so as to avoid coastal erosion that is threatening the existence of the inhabitants of coastal communities in the Niger Delta.

4. Conclusion

Climate change has detrimental effects on the environment and man. The climate change that occurred in northern Nigeria resulted to drought and desertification that forced the herders to migrate to the southern part of Nigeria so that they can graze their cattle's. It was discovered that Northern Nigeria was no longer comfortable for rearing of cattle's since there is high level of insecurity caused by Boko-Haram and bandits. It was discovered that the herders and their cattle's destroyed the crops of the farmers in the Niger Delta, and any attempt to stop them resulted to conflict between the two separate groups of people. So many innocent farmers lost their lives and properties, yet the herders were not arrested and prosecuted.

The constant flaring of gases into the atmosphere has increased climate change in Niger Delta, as the air, water and soil are polluted. Some of the natural resources, species of crops and animals have been destroyed while some have been extinct, so there is competition over the available resources. This competition enhances conflicts among those that are competing for them. It was revealed that the herders are well aimed with sophisticated weapons. They adopted this strategy so that they can dominate and control the environment where they find themselves. Several attempts to resolve these conflicts failed. Infect, the herders have adopted the principal of survival of the fittest propounded by Charles Darwin.

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