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Climate Change and Environmental Conflict in The Lake Chad Region

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Abstract

Environmental conflicts manifest in different ways, with context-specific impacts on the affected regions. Emerging as a crucial point of national and international security, issues of climate change have taken the fore. In the Lake Chad Region, more people have become more susceptible to the climate change, given the poverty level, unemployment and inadequate governance in these regions. Christened as the world's most complicated humanitarian disaster, the receding lake which has served as a major source of livelihood in time past is now a haven for violent conflict and extremist groups. Assuming top on the agenda of African Union (AU) Peace and Security Council and the UN Peacebuilding Commission meetings held in 2022, its importance cannot be underestimated. To this end, this paper strengthens the evidence on climate-related conflict in the Lake Chad Basin and its simultaneous effect on human security. Using qualitative method, data was gathered through secondary sources, such as journal articles, reports from the Lake Chad Basin Commission (LCBC), books and online sources on the subject matter. Data gathered were analyzed using content analysis. Findings reveals that the vulnerability of the area based on poverty, historical antecedents to conflict and crime, as well as the growing population makes the response to the receding lake naturally violent. It is recommended therefore, that the Lake should be revived and nourished by joint collaboration from states within the region and international actors as a long term plan. Also, resilient measures through employment opportunities and skilled training should be available for the youths and most vulnerable people.

Keywords: Climate Change; Environmental Conflict; Lake Chad Basin; Violence

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INTRODUCTION

One of the world's worst humanitarian crises, the Lake Chad Basin has been a recurrent topic of discussion in environmental and sustainable development circles. A once oasis of economic sustenance and natural grandeur is now a shadow of itself. With over 30 million people residing in the area, bounded by Niger, Chad, Nigeria, and Cameroon and indirectly connected to the lake by Central African Republic, Libya, Algeria, and Sudan (Owonikoko, 2020), the Lake and its environs is now a harbor for conflict. As a major sustainer of life in the Sahel, a semi-arid band spanning through the width of Africa, separating the Sahara in the north, from the savanna in the south, the effect of climate change in the region is far reaching. The variety of species and annual catch of fish have decreased as a result of the lake's shrinkage. For instance, approximately 100,000 tonnes of fishes were caught in 2011 compared to 220,000 metric tons in 1974 (ACAPS, 2022).

The fishes caught served largely as a source of food security and income to the basin's populace, making a 25,000 km2 open region in the 60s the largest inland body of water in the world. However, at the start of the 1970s, it withered to an alarming 2,000 km2 during the 1980s, decreasing by more than 90% in its area (Owonikoko, 2020). Since the start of the 1970s, as the number of prolonged droughts increased, the lake's surface size was 26,000 square kilometers, but today, it is less than 1,500 square kilometers (Mohanty, Robson, Ngueping, & Nanda, 2021). This has informed aversive effect on social, political, security, and humanitarian conditions to the population in Cameroon, Chad, Niger, and Nigeria. More disturbing, is that it is anticipated that these consequences will persist for a long time. As of November 2021, 3,014,634 people were still internally displaced by the environmental-induced violence in the region (IOM UN Migration, 2022).

Hence, with its population growing at an exponential rate, the area has been torn apart by conflict on an unparalleled scale. In other words, the Lake Chad basin's population, which depends on the lake for a living, has been more negatively impacted by the lake's resource loss during the past 50 years. Combining jobs from fishing, agriculture, livestock farming and trade, which is typical for many residents of the lake, these occupations are climate-sensitive, with residents of the lake having to switch between these occupational roles in the most recent time (Vivekananda & Born, 2018). This adaptive strategy by residents has proven even more difficult, considering the complexity of the security layout in the region. As a source of water for drinking, fishing, sanitation, farming, pastoralists and irrigation, the frightening reality of the lake within the last decade has intensified hardship and created security threat.

As such, this has led to competition for resources between different occupations and nationals within the lake, particularly the conflict between cattle herders and crop farmers, leading to gross humanitarian disaster. According to Amina Mohammed, the UN Deputy Secretary-General, over 5 million people in the region are unable to get enough food to survive, 2.3 million people have been forced to flee their homes, and 500,000 children are severely malnourished (Usigbe, 2020).

Particularly, the competition between herders and farmers over grazing land and other natural resources have up-scaled violent conflict and emboldened armed groups in the region and beyond. This has resulted to extremism, banditry, kidnapping to wanton killings. For instance in Nigeria, from 2016 to 2019, roughly 4,000 deceased persons were recorded (Owonikoko, 2020) as a result of

farmers-herders conflict, flowing indirectly from the depletion of the Lake.

Stemming from the notion that a large number of former fighters of Chadian and Central African civil wars are hosted within the lake, the region has become a haven for criminal activities and antisocial vices. This is not isolated from the understanding that the lake from the time of the trans-Saharan trade has been a harbor for criminal groups and traffickers of all kinds (Zakwa, 2020). The situation is made worse with the emergence of the Boko Haram insurgency and other groups, such as Al Qaeda in the Islamic Maghreb (AQIM), Daesh or the Islamic State (IS) and multiple splinter or allied groups in the greater Sahel-Sahara, ranging from Mauritania, Mali, Algeria, Niger to Libya (Zakwa, 2020). Corroborating the above assertion, Vivekananda & Born (2018) avers that the root causes of insecurity in the region are deeply engraved in the historical context of the region.

In essence, the interaction between increasing unemployment, poverty, conflict and the environmental change has brought untold hardship to the Lake Chad Basin. Within the last one decade, the violent trap between state security forces and armed opposition groups have escalated, earning countries of the Lake Chad basin as one of the 10 least peaceful countries in Africa, according to 2020 Global Terrorism Index report (Mohanty, Robson, Ngueping, & Nanda, 2021). Considering that approximately 80 per cent of the humanitarian crises, attracting humanitarian appeal are conflict related, with climate change expected to aggravate it (Bodanac, Hyslop, & Valente, 2016), a study of this kind is apt. Several studies in the past have captured the nexus between climate change and violence with less attention on the concurrent effect of both as causes of human security.

The significance of this paper is therefore hinged on several factors. First, at the 1086th session of the African Union (AU) Peace and Security Council (PSC) meeting in 2022, the security situation in the area was top on the agenda, Likewise, the UN Peacebuilding Commission meeting on April 20, 2022, deliberated on peacebuilding priorities in the area (Insights on the PSC, 2022). Using qualitative method, data was gathered through secondary sources, such as journal articles, reports from the Lake Chad Basin Commission (LCBC), books and online sources on the subject matter. Data gathered were analyzed using content analysis. To this end, this paper seeks to strengthen the evidence on climate-related conflict in the Lake Chad Basin and its simultaneous effect on human security.

For decades now, there has been increasing concerns on the rate of violent conflict among vulnerable communities depicting the negative effect on climate change. The Intergovernmental Panel on Climate Change (IPCC) as stated in its Fourth Assessment Report asserts that the climate system is warming and could become a significant contributing factor to conflicts. These conflicts are increased by making it more difficult to access important natural resources like freshwater and by driving large-scale population shifts (migration) as a result of extreme weather events like droughts and desertification as well as rising sea levels (Koubi, 2019). Consequently, the political and economic instability in most of these states within the region projects its vulnerability to environmental changes. According to the Multidimensional Poverty Index, Chad, one of the world's poorest countries, already has 62% of its population living in extreme poverty (Ibrahim, 2019).

Chad, one of the world's poorest countries, already faces extreme poverty and ongoing violence. Apart from Chad, Cameroun and Niger, like Nigeria records about 40% of its population as poor. With over 82 million Nigerians living on less than $1 a day, Nigeria is the second

poorest country in the world after India. Hence, the economic and political imbalances in these states are breeding ground for conflict. The vulnerability in the region to climate related challenge is further reflected by low socio-economic development indicators, such as; high levels of poverty, poor levels of national integration, historical government neglect, low levels of education, and apparent and actual marginalization (Vivekananda & Born, 2018). In this wise, frequency of conflict can have a negative impact on options for livelihood, such as the Lake Chad region's sparse grazing land and restricted access to water, which has manifested in the internal displacement of persons.

In more extreme forms, political movements through socio-political change can be accelerated by these factors (Venugopal &Yasir, 2017). As a threat multiplier, it has the propensity to infuse interrelating factors driving conflict like natural resource scarcity and environmental migration (CNA Corp, 2007). The USAID Climate-Resilient Development Framework, states that conflict analysis must take into account the setting, institutional effectiveness, goals, resources, and tactics of the major players (Reiling & Brady, 2015). As in the case of Kenya, the effect of drought and limited access to resources birthed new coping strategies for managing climate change. Locals diversified into agriculture and in some cases, illicit means like cattle rustling (Omolo, 2010). Despite the fact that the area is particularly susceptible to climate change, old measures and techniques are being revived by farmers as coping mechanism.

The *ZAI* method, which concentrates nutrients and boost crop production to about 500%, in a manner that pits are dug to catch rain water, with compost and plant seeds added to it (Ibrahim, 2019) is an indigenous method of managing environmental degradation. Subsequently, in a complex interaction between different risk factors Nagarajan et al. (2018), identifies major risks of climate-fragility:

Fragility and conflict increasing vulnerability: Community resilience, particularly the population's capacity to adjust to climate change, has been badly impacted by the ongoing violence. As a result, any upcoming actions and initiatives to address conflict and climate threats will be hindered.

Natural resource conflicts: Conflicts over natural resources could get worse due to climate change. In the context of the continuous struggle with armed opposition groups, disputes over natural resources, particularly over land and water, which usually arise between different occupational groups, such as pastoralists and farmers, had lessened, but have recently returned.

Insecurity of livelihoods and recruitment into armed groups: Despite social and economic inequalities, precarious livelihoods, and a track record of armed groups offering financial inducements to join them, recruitment into non-state armed opposition groups persists.

The high vulnerability of the region and the weak capacities of the requisite states to position resilient measures, have exacerbated conflict. In several African countries, vulnerability to climate change is high, as their capacity to adapt is low, because of the consequence of climate change on food, water and livelihood in such groups (Hassan, 2008). The extreme vulnerability of the people to the environmental change in the region has increased the impact of climate change on the area. From Ngagam in Diffa to Maiduguri, Pulka, and Gwoza in Borno state in Nigeria more extremely vulnerable people are being displaced by conflict (Lowcock, 2017). The crisis in the Lake Chad region is multifaceted as issues as extreme poverty, insecurity, bad governance, climate shocks and

unemployment ravage the region and makes it more susceptible to conflict.

Although, recent studies have shown that the lake is not shrinking, as popularly believed (Sparkman, 2019), however, research demonstrates that the region now faces a complex array of climate-fragility threats as a result of environmental change. The trajectory of this revelation is couched on the effects of the droughts in the 70s and 80s, which subdivided the lake into northern and southern pool, with the regular dryness of the northern pool warning the world of a potential lake loss. (NASA, 2001). To a large extent, this showed how rapid and dramatic climate change affected this region. As recent studies however reveals, since the amount of water removed for human purposes was so small in comparison to the change in lake volume, the amount of water extraction in the 80s and 90s was likely exaggerated (Lemoalle, Bader, Leblanc & Sedick, 2012). Basically, with the region overtly vulnerable to crisis; the shrinking Lake however climaxes the already volatile setting into violent conflict and humanitarian disaster.

RESEARCH METHODS: Conceptual Issue

The emergence of environmental conflict, increasingly spreading through local, national and global security has drawn scholarly attention in international relations literature. Accordingly, the contextual use of climate change and environmental conflict, central to this paper, will be clarified. According to the Australian Academy of science (2021), climate change is a long-term alteration in weather patterns that also affects the oceans, land surfaces, and ice sheets. These changes may be the consequence of a combination of natural processes, such as variations in the sun's radiation, volcanic eruptions, or internal climatic variability, as well as human activities, such as modifications to the composition of the atmosphere or changes in land use. In effect, the frequency and severity of extreme weather events like storms, floods, landslides, and droughts are anticipated to increase due to climate change.

According to a recent review of 20 years' worth of satellite observations, ground measurements, long-term hydrological data from the lake's basin, and varied rainfall and climate change, below-ground water storage in the area has increased over the past 20 years (Sparkman, 2019). Environmental conflict, an assemblage of two words is environmental social conflict that results from individual or collective mobilization in reaction to alleged environmental risks with negative social repercussions (Scheidel, 2020). As such, environmental conflict can take different dimensions, bothering majorly on access and control over environmental resources, occurring particularly during resource scarcity. The probable effect of resource scarcity fueled by environmental factors like climate change may lead to conflict. Mark and Synder (1971), submits that resource scarcity is a major component of conflict.

Thus, connecting conflict to climate change, Koubi (2019) states two probable paths. The first path is the direct physiological or psychological reasons, while the second path is indirect link to conflict through lowering economic output and agricultural incomes, boosting food prices, and increasing migrant movements. According to Bob & Bronkhorst (2010) across the globe, the connection between the environment and conflict varies and are multifaceted. Thus, depending on the local situation, climate change may either increase risks or create possibilities. In any case, control of essential environmental resources, as well as disputes over natural resources at the community and household levels, are some of the causes of these conflicts. Although, climate change does not lead to violence, it however may manifest into conflicts factored by how it

connects to the state's vulnerability to climate change and the fragility of states driving the potential for conflict (Bodanac, Hyslop, & Valente, 2016).

In essence, insecurity and armed conflict is more prone in countries with environmental challenges and the lack of capacity for handling the vulnerabilities accompanied with it. Thus, least developed or most fragile countries are more vulnerable to climate change and environmental degradation. For instance, low-income or lower middle-income countries make up the climate-conflict nexus, thereby presenting evidence of state fragility. Once more, high-income nations tend to be better able to manage the shocks brought on by climate change than low-income nations with similar resource supply histories (World Bank, 2021). Most states, especially in Sub-Saharan Africa, have low state capacity and lack of functional institutions to address issues of natural disaster and climate change. Reiling & Brady (2015), on the other hand, identifies three major categories that conflict and climate change frequently falls into:

1. Direct resource competition occurs when climate change causes a specific natural resource to be more scarce or abundant.
2. Increased complaints about relative deprivation factored by changes in relative prosperity, due to resource scarcity or plenty as a result of climate change (and the competitiveness that results) might exacerbate already-existing feelings of resentment or mistrust across groups.
3. A complex crisis and human insecurity in which climate change causes or worsens natural disasters such as floods or droughts, which can have socioeconomic consequences.

Similarly, Homer-Dixon and Blitt (1998), suggest that developing countries with large populations depend largely on key environmental resources like fresh water, cropland, forests and fish, wherein limitation or unavailability of these resources may spur conflict. As in the case of the Lake Chad Basin, issues on ownership over limited resources informed by the shrinking lake and the increasing population size has exacerbated conflict. Succinctly, Onuoha (2008) states that conflict over the resources of the lake stems from the question of territorial control between the riparian states and the legitimacy to manage the resources of the lake. This invariably has spiked the conflict between herders and farmers in most parts of Nigeria. With limited grazing lands and reduced pasture around the lake for cattles to feed on, most herders from the Lake Chad Basin area and the Sahel countries have moved southwards into other parts of Nigeria.

More so, the struggle over limited resources has led to the migration of residents out of the region for survival. This is factored by the height of human insecurity, which reduces the resources people need for sustaining their livelihoods (Bretthauer, 2016). On the nexus between conflict and environmental factors like climate change, Fetzek and Mazo (2014) argues that governance issues, poverty, environmental dilapidation, ethnic disparities, demographic pressures and resource pressures contribute to conflict. Aligning with the above assertion, Watts et al. (2019) avers that the management of risk like the shrinking of Lake Chad is determined by government's capacity and poverty. In the same vein, Uexkull (2016) establishes the indirect linkages to conflict induced by political and economic factors. As a reference point the subtle connection between organized violence and climate variability in sub-Saharan Africa confirms the interconnectedness. Ide et al. (2014) on the other hand, shows how drought and war coexist in areas that are heavily dependent on agriculture for food and

revenue generation, as well as those that are experiencing adverse climate changes.

RESULTS AND DISCUSSION

Climate change is being labeled as a security issue since it has a significant impact on human security and may raise the possibility of violent conflict. An international human security concern is presented in the Lake Chad Basin, which spans four states. A deadlock has developed on altering cropping patterns, planting times, or grazing routes as a result of demands on livelihoods like farming and fishing. In Niger and Nigeria respectively, there are 1.8 million people who lack access to food, 800,000 children who suffer from acute malnutrition, and about 250,000 people who are either internally displaced or refugees (Lowcock, 2017). According to the Executive Secretary of the United Nations Convention to Combat Desertification, the fighting and bloodshed in the area, as well as abuses of laws and morals, are responsible for the displacement of people (Thiaw, 2020).

Consequent on this, the growing livelihood challenges informed the increase of armed groups and recruitment in the region by terrorist groups like Boko Haram in northern Nigeria. The incessant and deadly operation of the ongoing insurgency reduces livelihood security in region. For instance, Boko Haram deadly attacks have resulted to over 10,000 deaths between 2009 and 2016, from April to June 2017, 246 attacks were recorded, leading to the deaths of 225 civilians (Krampe, 2017). After several years of unrest in northeast Nigeria, the conflict between government troops and armed non-state groups in the region soon expanded to southeast Niger, western Chad, and the far north of Cameroon. Between May 2011 and July 31, 2020, the fighting in the Lake Chad Basin claimed the lives of about 37,500 individuals, according to the Armed Conflict Location and Event Data Project (ACLED).

About 321,886 internally displaced people and 115,000 Nigerian refugees are located in the Nigerian states of Borno, Adamawa, and Lake Chad (UN, 2020). Clashes between armed militia, terrorist group and the military have become a routine. These launched attacks against insurgents, beyond been capital intensive has claimed the lives of soldiers within the region. A notable offensive attack was the attack that recently claimed the life of the Chadian President. The social stability in the region has been wavering and fragile. Outside the north and most parts of the Lake Chad Basin, the conflict has floated down southern Nigeria. The search for grazing route across all parts of Nigeria has manifested in grave security threats in other regions. The herders have been accused of killing, raping, maiming and creating heinous activities on other regions in Nigeria.

The stability of the region is further threatened in 2020, given the occurrence of Covid-2019 pandemic and unusual shortage of animal fodder, which added to herders' woes and by extension the security of the region. On the whole, national and international decisions have touched on issues advanced toward promoting regional stability. A joint multinational task force composed of soldiers from Nigeria, Niger, Cameroon, Chad, and Benin is launching a military attack against the terrorists, while the United Nations' involvement in the Lake Chad Basin has taken the shape of humanitarian relief, development assistance, human rights, justice, and law enforcement, as well as averting and fighting terrorism. These measures though are short term measures, but remain critical in enhancing security for long term effects in the region. Similarly, the Abuja Declaration, in 2018 that suggests re-examining the transaqua project is pivotal. The declaration advocates that the

building of a 2,400 km canal to transport water from the Congo River's upstream tributaries to the Chari River basin, feeding Lake Chad is central to addressing the issues. Howbeit, for this to be activated, the conflict situation must first lessen, and security restored.

CONCLUSION

Environmental conflicts manifest in different ways, with context-specific impacts on the affected regions. Emerging as a crucial point of national and international security, the issues of climate change have taken the fore. More people in the Lake Chad region are now at risk from climate change, given the poverty level, unemployment and inadequate governance in these regions. Hence, the nexus between conflict and Climate Change may be indirect but its impact is far-reaching.

Technically, national and international responses have examined issues on;

- Joint multinational troops to curb terrorism and herder- farmer crisis
- Buhari led joint commission to the UN on lessening the effects of climate change in the Lake Chad region (The Abuja Declaration)
- Proposition for integrating internally displaced people into their host community.
- UN hosted conferences, international donors pledged $2.17 billion in Berlin and $672 million in Oslo

Despite several responses, the issue in the region has reached a crescendo. As such, bearing in mind that an assessment of temperature and weather changes must incorporate the connection between international procedures (emission effects and global protocols), and local process. In this wise, more action-driven solutions must be implemented immediately, in order to address national and local consequences, their implications on national policies, local actions, and flexibility (Thomas & Twyman, 2005). In effect, it is important to strategically address and embrace the causal relationship between the environment and human security. Military intervention alone cannot defeat Boko Harm and the other splinter groups, thus, a combination of political governance and socio-economic measures should be enhanced to create lasting peace.

Good governance and international development cooperation should be promoted. Once more, rebel groups should be invited to participate in the development and implementation of peacebuilding initiatives, with emphasis on integrating internally displaced people and refugees into society. Resilient measures through more employment opportunities and skilled training should be available for the youths and most vulnerable people. As a long term solution, the Lake should be revived and nourished by joint collaboration from states within the region and international actors.

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