Nigerian State Response to Climate-Related Violence

Joseph OCHOGWU, Ph.D.[1] & Deborah ODU OBOR, Ph.D.[2]

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[1] Joseph Ochogwu PhD**,** Director General, Institute for Peace and Conflict Resolution (IPCR) joeochogwu@gmail.com **ORCID ID:** https://orcid.org/0000-0002-4795-0711

[2] Deborah Odu Obor PhD, Research Fellow, Institute for Peace and Conflict Resolution (IPCR) deborahoduobor@gmail.com **ORCHID ID:** https://orcid.org/0000-0002-9768-4730

Abstract

In Nigeria and most parts of Africa, there is a correlation between climate change and conflict. The Lake Chad Basin and the Sahel region are clear examples. However, despite the potency of climate change as a trigger for violence being universally understood, the exact pathway or channel through which climate change results in conflict, violence, forced migration, displacement, competition for scarce resources and other related issues is not fully understood or clearly articulated in the existing policy framework in Nigeria. Although the Nigerian state has adopted measures such as the 2021 Climate Change Act, the National Climate Change Policy and the Nationally Determined Contribution under the Paris Agreement, there needs to be more clarity between the legal and institutional frameworks and the actual implementation of climate actions. There is a lack of coordination, monitoring and evaluation systems, inadequate funding, data availability, policy coherence and stakeholders engagement in addressing climate-induced conflicts and violence. As a result, this paper discusses how to effectively operationalise and monitor the Nigerian state's response to climate change and how related climate-induced conflicts can be enshrined in the policy responses and climate actions to ensure that it is inclusive, participatory, and human-rights-based. Nigeria's climate responses and policies are indicative of a positive advancement in the right direction. However, there is a need for more effective implementation, better coordination, and incorporation of climate-related security risk assessment into their climate policy.

Keywords: Climate Change, Nigeria, Farmer-herder Conflict, Oil Spillage, Climate Policy, and Climate Violence.

Introduction

Nigeria is highly susceptible to climate change and grapples with escalating climate-induced conflicts and environmental crises. These challenges are exacerbated by the nation's existing fragility and conflict, which encumber its response to significant climate issues. As Ashley et al. (2019) underscored, Nigeria ranks among the world's most critical zones for combined fragility-climate risks, with environmental stress potentially intensifying land disputes and food shortages. A USAID report 2018 indicates that over 41 million Nigerians, representing 24% of the population, reside in areas with high exposure to climate change. Among these, an estimated 4.5 million live in regions with high climate exposure. Also, on a global ranking, the Climate Vulnerability Index 2023 ranked Nigeria 9th among the countries vulnerable to climate change. For instance, the Lake Chad Basin, intersecting four sovereign states (Cameroon, Chad, Niger, and Nigeria), is home to close to 45 million inhabitants relying on its resources (Chikuruwo, 2023). Nevertheless, this region is alarmingly susceptible to climate change (Kabukuru, 2023). Over the last half-century, the lake has drastically shrunk up to 90% of its original size. This change in climate triggers resource conflicts and competition which collectively undermines the way of life, living conditions as well as food security in the Lake Chad Basin (LCB), an area heavily reliant on agriculture (Chikuruwo, 2023).

Climate-related conflict in Nigeria is most visible in three areas. Firstly, the North of Nigeria is plagued by conflict (banditry, insurgency, and terrorism) and famine risk. The region's arid climate makes it vulnerable to droughts and famines, further destabilising the fragile social and economic structures. Secondly, the Middle Belt region is experiencing rising violence between herders and farmers (Nwankpa, 2022), fuelled by competition for resources (land and water). The changing climatic patterns have led to shifts in the distribution of resources and migration of the herders, leading to increased competition and conflict between these groups. Lastly, the Niger Delta region is characterised by simmering tensions over the management of the exploration of oil and gas. The region's rich natural resources have been a major cause of conflict, and the impacts of climate change have further complicated these issues.

Given Nigeria's significant challenges, grasping the intricate link between fragility and climate risks is crucial. Despite numerous efforts, the country's response to escalating climate-related violence has been inadequate due to a lack of integration, poor infrastructure, poor

management, weak security measures, a lack of effective climate change mitigation adaptation strategies (Sayne, 2011; APRI, 2023), limited institutional capacity (Allu, 2015), funding and lack of political will (IUCN, 2022). These critical factors can mask the root causes of environmental problems and obstruct effective conflict resolution and climate-resilient policies. Policies such as the National Climate Change Framework and the Economic Recovery and Growth Plan have fallen short in tackling the nexus of climate change, conflict and violence. Often, the environmental aspect of the conflict is overlooked, leading to misinterpretations along ethnic, religious, and socio-cultural lines (Agu et al., 2020).

The dominant narrative of the violence also plays a crucial role in shaping the state's response. One of the most common ways the conflict is framed is within the ethnic or religious lens (Agu et al., 2020). For instance, the ongoing disputes between farmers and herders in Nigeria are often perceived as a clash between different ethnic and religious groups, with the herders as Fulani Muslims and the farmers perceived as Christians. Since Nigeria is a country divided into ethnic and religious lines, an interpretation of this nature can escalate the conflict and instability. Furthermore, the competing narratives among different actors, such as the government, local communities, NGOs, and international organisations, can polarise the political landscape, complicating the state's efforts to formulate a balanced approach. For instance, while the government and oil companies may frame the Niger Delta violence as an economic issue requiring security measures, local communities perceive it as an environmental and human rights issue.

According to Adekola and Lamond (2018), the media portrayals have implied a need for law enforcement and engineered solutions, which potentially overshadow other perspectives. Furthermore, framing the violence as a security threat rather than a complex socio-environmental issue can lead to a securitised state response, potentially criminalising legitimate grievances and suppressing dissent. This approach undermines efforts to build trust and promote inclusive dialogue.

The lack of a comprehensive, evidence-based narrative acknowledging the role of climate change, environmental degradation and resource scarcity as drivers of violence hampers the state's ability to deploy effective, conflict-sensitive adaptation strategies. The connections between climate change and violence appear fragmented and lack comprehension, thereby indicating the need for a more integrated understanding. Hence, a nuanced understanding of the conflict, considering ethnic, religious, environmental, economic, security and global perspectives is crucial for developing effective strategies to addressing climate-related violence

in Nigeria. This approach would allow for a more comprehensive and inclusive response in addressing the root causes of the conflict rather than focusing solely on short-term solutions. The paper aims to fill this gap by exploring how Nigeria's climate response addresses climate-related violence and conflict.

Climate-Related Violence in Nigeria

Sakaguchi et al. (2017) and Hendrix et al. (2023) noted that the correlation between climate change and conflicts in a country has been the core of critical debate and discussion. There are indirect pathways along which it often occurs. The effect varies across space, time, and political and economic systems. The argument centres around the limitation of scientific evidence pointing to a connection between climate and conflict. Buhaug et al. (2023) submit that the limitation is premised on relating climate change with security concerns. The matter centres around how a region's physical geographic and environmental factors can directly determine or influence the susceptibility or occurrence of violent conflicts. Therefore, proponents of geographic determinism contend that the climatic conditions, natural resource scarcity and environmental degradation experienced in many parts of Africa nowadays can directly drive violent conflicts (Frimpong, 2020; VOA, 2023; Fah, 2023). For example, the shrinking of the Lake Chad Basin due to droughts has been linked to increased competition over dwindling natural resources (Lamarche, 2023). On the other hand, critics of geographic and environmental determinism claim that while climate change and environmental factors may exacerbate existing vulnerabilities and instabilities in Africa, they are not the sole or even the primary causes of violent conflicts (Lamarche, 2023).

Climate change is controversial today, especially as it does not impact societies uniformly. For instance, the Human Environmental Security Approach (HECS) highlights that ecological drivers of conflicts are often influenced by policy decisions originating from the personal ideology and biases of ruling elites rather than being direct functions of climate change. Additionally, the Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC) noted that studies usually report that climate effects on conflict are not direct and are context-dependent, for example population exposure, agricultural dependence, wealth and assets, and governance. This does not mean climate is generally unrelated to conflict risk, but it means that findings cannot always be generalised to other settings. Secondly, climate

change is weak compared to other major socio-economic and political drivers. For instance, Dalby (2018) and Swatuk (2018) have illuminated this relationship, revealing how environmental stressors such as prolonged droughts, land degradation, and displacement – can heighten existing tensions and intertwine with violent strife. This is further corroborated by the 2023 IEP Ecological Threat Report, which outlines a cyclical relationship where the deterioration of resources leads to conflict and the degradation of resources. A third source of the confusion relates to the focus and framing of findings in the AR6 high-level document compared to the underlying chapters of reports.

It is imperative, therefore, to resist the oversimplification that relegates climate change to a peripheral role in security risk analysis. Instead, we must delve into climate conflict's nuanced, contextual interplay. The confusion often stems from the disparity in focus and framing in research. Recognising the scientific evidence linking climate change to security concerns is crucial for the Security Council's engagement. This recognition of integrating climate-conflict considerations into policies and actions is necessary for effective state responses. However, it is important to note that the relationship between climate change and conflict in other regions and African countries is different. Mbaye (2019) and Vyawahare (2022) reported that Africa's vulnerability to climate change is amplified by its vulnerability to agriculture. For instance, agriculture is a critical sector in many African countries, which employs over 60% of the working-age population. Another 2023 report by the International Monetary Fund (IMF) notes that in Fragile and Conflict-Affected States (FCS), climate vulnerability coupled with underlying fragilities—such as conflict, heavy dependence on rainfed agriculture and weak capacity and policy buffer—aggravate each other. Furthermore, a study from the Brookings Institution (Popovski, 2017) projected that by 2030, economic uncertainties resulting from agricultural yield decline in societies heavily reliant on agriculture could lead to a 54% increase in armed conflict incidence in certain regions.

While geographic and environmental determinism may not be far from the truth, in Nigeria, it is key to note that climate change has been linked to violence in several areas. For instance, resource scarcity and group-targeted violence in the middle belt are commonplace. The ongoing conflict between farmers and herders in Nigeria, to a large extent, epitomises how climate change can worsen the conflict between communities, leaving certain individuals in some societies or class of people at increased risk of mass atrocities (Ojo, 2023). The preceding assertion explains why the farmers-herders conflict in Nigeria has been protracted, especially

in the north-central region, where both groups had coexisted and depended on the same natural resources (land and water) for survival. In that context, climate change has intensified conflict by altering the patterns of temperature, rainfall, and water availability, reducing the amount and quality of land and water resources for farmers and herders. As a result, the two groups now engage in fierce competition and clashes over access to resources (Gansler, 2019).

Some studies (Gupta et al., 2021; Lansie et al., 2020; ICG, 2017) have identified three (3) pathways in demonstrating how climate exacerbates conflict in Nigeria. The first is the availability of resources and access pathways due to the impacts of climate conditions such as drought and desertification on pastoral resources in the northern arid and semi-arid parts of Nigeria. As a result of this, herders are forced to migrate towards the south with their cattle, moving past their usual grazing routes and seasons. This action then ends in competition and conflict with local farmers in the south over access and use of arable lands and water resources (Gupta et al., 2021; Lansie et al., 2020; ICG, 2017). Some indications show the triggering effects of losses, such as the destruction of farmers' crops by cattle or cattle raids of herders can and have created tensions between farmers and herders, thereby amplifying risks of conflict (Sayne, 2011; Akinyemi & Olaniyan, 2017). The understanding is that although climate impact may lead to changes in pastoral mobility patterns and indirectly influence farmer-herder conflicts, it may not essentially act as a direct predictor of ensuing violence between the two sides (Madu & Nwankwo, 2020). Secondly, the livelihood and food insecurity pathway that has led to the vulnerability of Nigeria's Lake Chad region to climate variability could be understood as compounded by grievances related to severe decline in livelihood, food and water insecurities or shortages, growing inequality, poor socioeconomic conditions, and political marginalisation, thereby reinforcing a feedback loop of "climate-conflict trap." The livelihood and food security pathways have led to agro-pastoral and fishery losses, rural-urban migration, and weak governance.

The economically and socially integrated area of Lake Chad region, which spans four countries of Chad, Cameroon, Niger, and Nigeria in northwest Africa, has been trapped in a vicious circle of suboptimal territorial development and fragility (Venturi, 2021). For instance, the vicious circle has resulted in climate variability, livelihood and food insecurity and political marginalisation. A 2021 World Bank report states that the Lake Chad basin supports the livelihoods of over 45 million people, with Nigerians making up the largest population of over 30 million (World Bank, 2021). This has had significant implications for Nigeria as the country

with the largest population is dependent on the resources of the Lake Chad Basin. The fragility and suboptimal development in the basin have impacted the livelihoods and well-being of Nigerian communities that are reliant on the lakes' resources for economic activities. Furthermore, decreasing and scarce rainfall, coupled with high temperatures, are leading to high rates of water evaporation (Tower, 2023), which is causing the lake to recede by as much as 90% over the past 50 years (GEOGLAM, 2020). The reduction of the lake's size due to the frequency of extreme and intense weather events has rendered livelihoods insecure and decreased the abilities of the individuals who depend on the lake for sustenance to withstand climate shocks. Moreover, the shrinking of Lake Chad has had a profound impact on the livelihoods of the local population. Over 30 million people depend on the lake for livelihoods like fishing, farming, and subsistence living (World Bank, 2021). The region's population is caught in a conflict-climate risk trap (IPIECA, 2013). The lack of market trade has increased staple food prices in some areas, reducing food access for vulnerable communities (GEOGLAM, 2020).

Due to climate variability, communities in the Lake Chad region are now confronted with multifaceted developmental challenges which range from limited economic opportunities, poor governance and lack of access to basic services. These challenges have fuelled violence and conflicts in the region. A typical example is the situation in the Nigerian portion of the Lake Chad basin. Many communities here face limited economic opportunities. What further exacerbates the situation is the lack of economic development and social services which have contributed to feelings of marginalisation, negligence and grievances among the local population. The challenges have created an environment ripe for the emergence and spread of extremist groups like Boko Haram. With limited livelihood options, poor governance, and inadequate social support, some individuals have turned to these violent non-state actors, who have capitalised on local frustrations to recruit followers and expand their influence.

Thirdly, there is the fossil fuels' environmental impacts and livelihood insecurity pathway, especially in the south-south oil-producing region of Nigeria. The impact of climate variability on the oil industry can be seen to worsen existing conditions of poverty, inequality, political marginalisation and lack of trust in the government (Eshiemogie et al., 2023; Enu & Ugwu, 2011). The oil industry, which is a significant contributor to Nigeria's economy (World Bank, 2021), is not immune to these impacts, as climate change can affect oil production and infrastructure that may lead to increased operational costs and potential supply disruptions

(IPIECA, 2013). Over the last several decades, thousands of oil spill incidents, involving millions of oil barrels, have been reported to have been leaked into the environment (Pegg & Zabbey, 2013). These spills have degraded the environment, water quality and disrupted the livelihood structures of host communities. A region that was once rich in biodiversity and served as a source of livelihood for local communities, now witnesses extensive pollution due to the spills. The oil spills have severely impacted the human security risk and the livelihoods of local communities, many of who depend on fishing and farming (Agwymafa et al., 2021). Losing livelihoods can amplify human security risks. This situation can create grievances and conflict capable of further destabilising the region (PIND, 2021).

Nigerian State Response to Farmer-Herder Conflict

The ongoing conflict between the farming and herding populations in Nigeria exemplifies how climate change can intensify conflict between communities and place certain populations at risk of mass atrocities. According to the International Crisis Group (2021), in recent years, the frequency of violence between herders and farmers has grown at an alarming rate and is equally spreading from the north to the central and southern states in Nigeria. Sadly, the violence between the two groups has claimed more lives than the Boko Haram insurgency in the north-east and has disrupted rural communities and threatened Nigeria's stability and food security. The background of the farmer-herder conflict in Nigeria has multiple contributing factors. These factors include encroachment on farm lands and crop destruction by cattle, unemployment and poverty, communication barriers and mutual distrust, inadequate grazing reserves and blockage of grazing routes, kidnapping, raping of women, land ownership tussles and indigenisation, cattle rustling and theft, and contamination of water bodies by cattle (Adariku et al., 2023). For example, Nwankwo (2023) records that the conflict in the Agatu area of Benue State emerged due to reterritorialisation in the moral economy of farmers and herders, disrupting their social ties. The concept of "reterritorialisation," in the context of the moral economy of farmers and herders, is a process of redefining and asserting control over land and resources. The moral economy encompasses the values, norms and practices governing economic activities and resource distribution within a community. Therefore, reterritorialisation can lead to conflicts if it disrupts the balance of this moral economy, altering the social ties and mutual dependencies that have historically enabled coexistence and cooperation between farmers and herders. External pressures such as policy changes, land-use

modifications, and shifts in economic priorities can further escalate the disruption, leading to tensions and violence as communities struggle to adapt to new realities.

The religious dimension of the conflict is also important, as Muslim domination reduces the likelihood of concern about farmer-herder conflicts (Tuki, 2023). The religious aspect of farmer-herder conflicts is indeed weighty and intertwines with the socio-economic and cultural fabric of the affected regions. It is expected that in areas where both farmers and herders share the same faith, religion is a basis for mutual understanding that can facilitate conflict resolution and trust and reduce the chances of disputes escalating into violence. However, religious affinity is not to be oversimplified, given that the conflict is rooted in a complex mix of factors, including land rights, resource scarcity, and climate change impacts. Accordingly, it is key to recognise that while religion can be a unifying factor, it can also be instrumentalised by various groups to exacerbate tensions. Therefore, addressing these conflicts requires a multidimensional approach (Tuki, 2023). The point is that a combination of adverse climate change coupled with other factors such as; high population growth, Boko Haram insurgency and armed criminal activities such as cattle rustling is said to have pushed herders from the north of the country southward in search of better livelihood, resulting in clashes with farming communities in the south. Although the intensity of the violence from the farmer-herder conflict varies from region to region, Nigeria's north-central and northwest zones have seriously suffered from the conflict (ICG, 2021). In all the interventions, the strategy of deploying security forces as a response to the herder-farmer conflict in Nigeria was insufficient because it addressed only the symptoms of the crisis and not the underlying causes of the violence.

In addition, previous governmental attempts have been at the national and sub-national levels to stem the tide of unhealthy farmer-herder competition. These include the introduction of cattle colonies (Adesola & Onwutuebe, 2024), cattle routes (THISDAY, 2021), grazing reserves (Chieloka & Awele, 2022), and laws such as the Anti-open Grazing Law that prohibits open grazing of livestock. The Open Grazing Prohibition and Ranches Establishment Law 2017 was passed in Benue state. It is one of the most susceptible states in Nigeria to farmer/herder conflict. The law aims to prevent perennial farmer-herder conflicts by banning open grazing and encouraging the establishment of ranches and Rural Grazing Areas (RUGA) Settlement Scheme. Though not a law but a federal policy proposal that aims to create settlements for herders, RUGA has been confronted with serious implementation challenges, as herders saw

RUGA as an encroachment of their traditional rights. The economic implications involved in transiting from open grazing to ranching were enormous. Support structures and infrastructures were inadequate. A combination of these factors sparked ethno-religious conflicts. Although these attempts were geared towards reducing the resource competition among herders and farmers, the attempts have largely failed to resolve the issues between them because of the fear of ethnic domination and suspicion among Nigerian stakeholders (Ademola, 2020). This fear and suspicion are rooted in Nigeria's complex ethnic and religious diversity, which has often led to mistrust and conflicts among different groups. For instance, the proposal for cattle colonies was met with resistance, particularly from states in the southern part of the country (Adesola & Onwutuebe, 2024). Similarly, the concept of cattle routes, which involves demarcating specific paths for the movement of cattle, has been controversial due to issues of land ownership and use.

The National Livestock Transformation Plan (NLTP 2019-2028) is a strategic response to the staggering economic losses caused by farmer-herders conflicts, amounting to a significant USD 14 billion (₦5.04 trillion) annually. This figure not only represents the direct costs of these conflicts but also hints at the broader economic implications, such as reduced productivity, deterred investments, and the diversion of resources from development to conflict management. The plan is not just a shift in livestock production methodology but a paradigm shift towards economic diversification and conflict mitigation. It aims to transition pastoralists from a nomadic lifestyle to a sedentary lifestyle while addressing the root causes of conflicts tied to competition over dwindling resources, and further exacerbated by climate change and population growth. The planned focus on food and nutrition security is significant, as it aligns with the Sustainable Development Goals (SDGs) and Nigeria's commitment to ensuring food security for its growing population. This alignment not only underscores the planned global relevance but also its potential to attract international support. Furthermore, the plan's emphasis on public and national security reflects a recognition of the interlinkages between socioeconomic stability and national security.

From an economic standpoint, the estimated loss of USD 14 billion annually due to conflicts is a significant drain on Nigeria's economy. The NLTP's approach to mitigating these losses involves infrastructure and technological interventions that promise to modernise the livestock value chain. These interventions are expected to increase productivity, reduce waste, and improve market access, thereby enhancing the sector's contribution to the national GDP. The

plan recognises the crucial role of public and private partnerships in achieving its objectives. This collaborative approach is not just a strategy but a necessary procedure for mobilising the capital, expertise and innovation required for the plan to succeed. By the end of 2028, the NLTP envisions at least 119 operational ranches across several states. This goal is not just about numbers; it is about transforming the landscape of livestock production in Nigeria. The shift to ranching or other sedentary systems is anticipated to yield a more mechanised and productive sector, capable of meeting domestic demand and positioning Nigeria as a competitive player in the global livestock market.

The National Livestock Transformation Plan (NLTP) is a significant step towards resolving the herder-farmer conflicts in Nigeria, but the International Crisis Group (2021) noted that its success is contingent upon several factors. Firstly, addressing deep-seated fears and suspicions, as well as securing adequate funding and ensuring political commitment to its implementation are crucial. This involves government support and the engagement of all stakeholders that are affected by the plan. Effective public communication and consultation strategies are needed to raise awareness, dispel misperceptions, address concerns, and build trust and consensus among the parties (Arugu & Nnaa, 2020). Secondly, the NLTP does not address how Nigeria intends to deal with foreign transhuman migrants or cattle herders from neighbouring countries who move their herds across borders as seasons change. A possible solution could be establishing bilateral or regional agreements, harmonised policies and joint monitoring mechanisms (IOM, 2023). Thirdly, the potential impact of climate change on the livestock sector and ranching should be considered (Onyeneke et al., 2022). This may involve incorporating climate modelling and adaptation strategies into the NLTP's proposals, such as diversifying water sources, enhancing water efficiency, promoting climate-resilient breeds and feeds, and exploring more flexible pastoralist arrangements. Furthermore, the NLTP should clarify its distinction from the controversial RUGA policy, which was widely rejected by Nigerians due to its perceived ethnic bias and land grabbing implications (Toromade, 2019).

In addition, Umahi (2019) argues that the plan did not make provisions for building the technical capacity and security mechanisms of its personnel and partners to enhance the security of its project sites. This may involve providing training, mentoring, and technical assistance to the staff, contractors, and beneficiaries of the plan. It may also involve improving coordination and collaboration among security agencies, community leaders, and civil society groups to prevent and respond to violence and criminality. Also, the NLTP did not address the

concerns about the sustainability of its interventions beyond 2028. The plan should establish structures for the sustainability and scalability of its interventions beyond the expiration of the plan. This may involve creating cooperatives, associations, and clusters of livestock producers and linking them to markets, inputs, and services. It may also involve developing policies, regulations, and incentives that support the livestock sector and encourage best practices (Umahi, 2019).

The failure of the established laws and policies led the Nigerian authorities to respond by deploying security forces to the affected areas. However, the kinetic response has been insufficient in dealing with the leading cause of the herder-farmer conflict because it was more of a surface-level intervention that did not address the thrust of the conflict but the symptoms. Military intervention escalated the tensions by increasing mistrust among the conflicting parties and communities. An example of the failure of the kinetic approach in addressing the farmer-herder conflict in Nigeria can be seen in the aftermath of the implementation of the Open Grazing Prohibition and Ranches Establishment Law in Benue State. This law is intended to mitigate the conflict by regulating land use. But it inadvertently increased tensions in neighbouring Nasarawa State. The enforcement of the law resulted in the displacement of herders, who then migrated into Nasarawa, leading to a series of violent conflicts in areas such as Obi, Doma, Keana, and Awe local government areas since 2017.

Nigerian State Response to Oil Spillage and Gas Flaring

Nigeria is the largest oil-producing country in Africa, with vast proven reserves of crude oil and natural gas (Aigbe et al., 2023). The oil and gas sector is a major contributor to Nigeria's economic growth, accounting for over 80% of government revenues, 95% of export receipts, and 90% of foreign exchange earnings (Aigbe et al. 2024, American Association for the Advancement of Science, 2024; Amnesty International, 2009). The sector also, as of Q3 of 2023, contributed up to 5.43% of the country's GDP (Statista, 2023). However, the environmental impact of the oil and gas industry in Nigeria, particularly in the Niger Delta region is troubling. For instance, gas flaring is the main source of greenhouse gas emissions in the sector. As a major contributor, the sector accounts for up to 80% of emissions. (REES Africa, 2021). It accounts for up to 45% of Nigeria's total greenhouse gas emissions, contributing substantially to global warming and climate change.

Even though Nigeria had set a target to reduce gas flaring to less than 10% by 2020, the progress in that direction has been slow (Aigbe et al., 2023). As a result, the Nigerian National Petroleum Corporation (NNPC) estimates that 40% of gas produced in Nigeria is flared, accounting for about 11.5% of annual global flaring (Ritchie et al., 2022). Between 2010 and 2019, Nigeria produced 750.33 billion cubic metres (Bcm) of natural gas and flared 114.35 Bcm (13%), which could have supplied nearly two years of the UK's gas requirements. Manifestly, in 2022, the volume of gas flared was 224.9 billion standard cubic feet, equivalent to $787.2 million in lost revenue (Statista, 2023).

What is more, is that oil spills contribute ominously to environmental degradation in the Niger Delta. Nigeria has averaged over 1,000 oil spills annually, with more than 2 million barrels of oil polluting Ogoniland between 1976 and 1991. In 2020 and 2021, Nigeria's National Oil Spill Detection and Response Agency (NOSDRA, 2021) recorded 822 combined oil spills, totalling 28,003 barrels spewed into the environment. This has led to releasing large amounts of hydrocarbons into the environment, causing air, water, and soil pollution (Nriagu et al., 2016; Olanrewaju, 2022). The environmental impacts of the oil and gas industry have exacerbated the socio-economic challenges faced by local communities in the Niger Delta, such as the disappearance of wildlife and freshwater resources, excessive heat, and shrinking vegetation (Duru, 2014), leading to resource-based conflicts with communities demanding fair compensation, remediation, and participation in decision-making, as well as alternative livelihoods and economic diversification (Duru, 2014).

Despite the Niger Delta region contributing over 90 per cent of Nigeria's exports and over 70 per cent of government revenues through oil extraction (Fasan, 2022), it remains one of the most deprived regions in Nigeria (Laville, 2024). Furthermore, local communities in the Niger Delta, who feel marginalised and underdeveloped, believe they do not receive a fair share of the wealth generated from their land. This perception has led to conflicts over resource control, with communities demanding greater autonomy and a larger share of oil revenues (American Association for the Advancement of Science, 2016).

The environmental damage caused by decades of oil spills and gas flaring in the Niger Delta region of Nigeria is extensive. The United Nations Environment Programme (UNEP, 2021) estimates that it could take approximately 30 years to clean up the region, with about 25 years required to clean the water and five years to clean the land. (Deinhuro et al., 2021) However,

this approximation is contingent on the extent of pollution, the effectiveness of the clean-up efforts, the availability of resources, and the political will (Amnesty International, 2020; EcoWatch, 2020). Clean-up efforts in the region have started, but progress has been sluggish. Nearly a decade into the clean-up, only 11% of the planned sites polluted by oil companies have been done (EcoWatch, 2020).

What is evident is that the Nigerian government has tried to address gas flaring and oil spillages by introducing various Acts.[3][4][5][6][7][8][9][10] The Nigeria Gas Flare Commercialisation Programme (NGFCP) aims to introduce a bankable commercial structure to monetise flared gas, providing flare gas buyers with title and access to collect flared gas from the prescribed fields for permitted purposes. The Petroleum Industry Act (PIA) 2021 aims to reform the Nigerian oil and gas sector's governance, fiscal, and regulatory framework. Additionally, the government has updated its Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC) Paris Agreement, which establishes an unconditional contribution target of reducing greenhouse gas (GHG) emission reduction by 20 per cent below the business-as-usual emissions scenario by 2030. Other interventions in the Niger Delta region include the Amnesty Programme, which was launched in 2009 to address the socio-economic challenges faced by local communities. The programme aimed to provide economic empowerment and skills training to former militants and to promote peace and stability in the region. The programme has successfully reduced violence and improved community relations, but its impact on environmental issues has been limited.

Nigeria set a target to reduce gas flaring with the intention of reducing it to less than 10% by 2020 and potentially eliminate it by 2030 (Aigbe et al., 2023). Achieving the target alone could save around 64 million tonnes of CO_2 annually and have noteworthy development co-benefits. Further report post-2020 by the International Energy Agency notes that Nigeria reduced flaring by 70% between 2000 and 2020 (Aigbe et al., 2023). The existing national ban on flaring has loopholes and the penalties are low and weakly enforced. In January 2023, Nigeria adopted

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[3] Oil in Navigable Act 1968
[4] Petroleum Production and Distribution (Anti Sabotage) Act 1975
[5] Associated Gas Re-injection Act 1979 decree, Oil Pipeline Act Chapter (CAP)338
[6] Laws of the Federation of Nigeria (L.F.N.) 1990
[7] The Nigeria Gas Flare Commercialisation Programme (NGFCP) (2016),
[8] The Flare Gas (Prevention of Waste and Pollution) Regulation (2018),
[9] The Petroleum Industry Act (PIA) 2021
[10] The Climate Change Act, 2021

new Methane Guidelines that include mandatory measures for oil and gas companies, such as leak detection, to reduce methane emissions from the sector.

Despite the initiation of the clean-up, the Niger Delta region continues to face significant environmental challenges, which underscore the urgent need for more effective and comprehensive clean-up initiatives (Nriagu et al., 2016). Grave challenges remain in eliminating gas flaring and addressing the broader environmental issues in the Niger Delta region. The above-mentioned legislations and policies highlight the Nigerian state's commitment to reducing greenhouse gas emissions and promoting environmental sustainability. On the other hand, the existing laws and regulations related to oil spillage compensation and response capacity are adequate. However, implementation has been slow due to the lack of political will, inadequate funding, and complex power dynamics that undermine effective enforcement and community engagement.

Climate Change Policy Frameworks and Political Trade-Offs in Nigeria

Nigeria has been actively engaged in international climate policy negotiations and has ratified several key agreements, including the UNFCCC, Kyoto Protocol, and Paris Agreement. The differences between binding (e.g. Kyoto) and non-binding (e.g. Paris) agreements have significantly shaped Nigeria's climate response. Nigeria has historically advocated for a differentiated approach to emission reduction under the Kyoto Protocol as a developing country. This position stemmed from concerns that binding emissions targets could hinder Nigeria's economic development and energy access. According to the EIA country Analysis Briefs (2005), the Kyoto Protocol's exclusion of Nigeria from mandatory emissions reductions was seen as a more equitable approach but also contributed to tensions with industrialised nations who argued that a global effort was needed to address the climate crisis.

The Paris Agreement's non-binding, nationally determined approach has given Nigeria more flexibility to shape its climate commitments according to domestic priorities (Fletcher, 2022). This has allowed the government to balance climate goals with other developmental needs, such as energy access, job creation and economic diversification. However, the non-binding nature of the Paris Agreement has also raised concerns that Nigeria's commitments may not be ambitious enough to drive necessary emissions reductions (Fletcher, 2022).

The politicisation of climate change in Nigeria has been shaped by the complex regional dynamics and ongoing conflict, especially in the Niger Delta, where oil and gas extraction has driven environmental degradation and conflict (Aigbe et al., 2023; Olanrewaju, 2022; Amnesty International, 2009). The Nigerian government has historically been more responsive to the interests of the oil and gas industry, which wields significant economic and political influence, rather than the concerns of local communities who bear the brunt of oil extraction's environmental and social impacts. This power imbalance is further driven by the complex web of ethnic, economic and environmental factors that characterise the conflict in the Niger Delta (AAS, 2024). Local communities have long felt marginalised and disenfranchised, with their grievances and demands for a more equitable distribution of the region's oil wealth and environmental protection often ignored.

The limited engagement between the state and local stakeholders has contributed to a climate of distrust and resentment, leading to the emergence of militant groups and violent conflicts in the region (AAS, 2024). These groups have sought to disrupt oil production and challenge the state's authority, further exacerbating the instability and undermining efforts to address the root causes of the crisis. In contrast, the Nigerian government tends to prioritise its engagement with the oil and gas industry, which is seen as a critical economic partner and source of revenue (Amnesty International, 2009; Nriagu et al., 2016; Olanrewaju, 2022). The above development has led to policy decisions that often favour the industry's interests over the needs and concerns of local communities, reinforcing the perception of a state-corporate alliance that is indifferent to the plight of the people. Hence, the trade-offs in balancing the economic interests of the oil and gas industry with addressing the social and environmental impacts in the Niger Delta (Nriagu, 2016).

Additionally, the power dynamics and political factors in the Niger Delta region have shaped the Nigerian state response to the crisis, often limiting the degree of community ownership and buy-in for proposed solutions. One key power dynamic at play is the outsized influence of the oil and gas industry, which wields significant economic and political clout within the Nigerian government (Amnesty International, 2009; Nriagu et al., 2016; Olanrewaju, 2022). For example, the state's reluctance to impose stricter regulations on gas flaring and other environmentally damaging practices can be seen as a concession to the industry's demands for unfettered access to oil resources and minimised operational costs. This has eroded the trust and confidence of local communities, who feel that the state is more responsive to corporate

interests than their well-being. Moreover, the complex ethnic and political dynamics in the region have also shaped the state's responses, as the government has often sought to balance competing regional and ethnic interests.

The foregoing has led to a patchwork of policies and initiatives that lack coherence and consistency, further undermining the credibility of the state's efforts in the eyes of local stakeholders. The lack of meaningful consultation and engagement with local communities has also significantly shaped the state's responses (Duru, 2014; AAAS, 2024). Without a clear understanding of the needs and priorities of the people on the ground, the state's proposed solutions are often perceived as top-down and disconnected from the realities of the Niger Delta.

To address the root causes of the crisis in the Niger Delta more effectively, Nigeria could pursue a more holistic, transformative approach, such as Economic diversification to reduce dependence on the oil and gas industry, stronger environmental regulations and enforcement mechanisms (REES Africa, 2021), sustainable and inclusive development models and meaningful engagement with local stakeholders (Duru, 2014). The highlighted approach could benefit Nigeria in balancing its economic development, energy security, and environmental sustainability goals in the Niger Delta.

Conclusion

Climate change is a huge contributor to violence and conflict in Nigeria. Nigeria has recognised this challenge and has taken measures to address it through various initiatives that aim to reduce environmental degradation, improve natural resource management, and promote social cohesion and conflict resolution. However, these measures have not been adequate to prevent or mitigate the escalation of violence between farmers and herders or to address the environmental and social impacts of oil and gas activities in the Niger Delta. Evidence shows that Nigeria's response to climate-related violence has been inadequate and ineffective. It has failed to address the core causes of the conflicts plaguing the country such as; land degradation, water scarcity, and resource competition. It has also lacked inclusivity and stakeholder engagement and relied on militarised and repressive measures that have exacerbated the situation. One prominent example is the state's response to the Middle Belt region's ongoing

farmers and herders conflict. A similar pattern can be observed in the state's response to the environmental crisis in the Niger Delta region. As oil spills and gas flaring continue to devastate the local ecosystems, the government has cracked down on the indigenous population who have protested against the environmental damage. However, these kinetic interventions have only served to escalate tensions further. The heavy-handed tactics employed by the military, such as the use of excessive force and the arrest of community leaders have alienated the affected populations, undermined the state's legitimacy and allowed the cycle of violence to continue, with retaliatory attacks and reprisals becoming increasingly common.

To effectively respond to climate-related violence, Nigeria must adopt a more comprehensive and inclusive approach that addresses the conflict's environmental, social, economic, and political dimensions. This would require investing in sustainable natural resource management and climate change adaptation measures, engaging in meaningful dialogues and collaboration with all stakeholders, including farming and pastoralist communities, traditional leaders, civil society organisations, and regional actors to find mutually acceptable solutions which respect and protect the human rights of all citizens and align the state's policies and actions with its international commitment to climate change. In addition, it should also strengthen the capacity of local institutions and governance structures to effectively manage and monitor the environmental and social impact of oil and gas industry. Also, there is a need to ensure that the benefits from oil and gas extraction are more equitably distributed to the local communities and that Nigeria invests in more sustainable livelihoods and economic development initiatives. Also, stricter regulations on the oil and gas industry should be enforced to reduce gas flaring and oil spills, thereby holding companies accountable for environmental damages.

Also, the Nigerian Government's focus on the economic impact rather than the social and environmental impact in addressing the environmental crisis in the Niger Delta region is problematic and ultimately counterproductive. While the economic consequences of the environmental damage caused by oil and gas operations in the region are significant, the social and human costs should not be overlooked. By prioritising the economic impact, the government runs the risk of further marginalising and neglecting the local communities that bear the brunt of the environmental degradation, and this may lead to the prioritisation of short-term profit over long-term environmental sustainability, further exacerbating the environmental crisis in the region. Hence, the government must address both the economic, environmental as well as social dimensions of the Niger Delta crisis, including ensuring that the local

communities directly benefit from the economic activities in the region through equitable revenue-sharing, job creation, investment in sustainable livelihoods, collaboration with local stakeholders to develop and implement environmental restoration and conservation initiatives that also create economic opportunities for the community, strengthening environmental regulations and enforcement to hold the oil and gas companies accountable for their environmental and social impacts. In addition to this, the governement should also incentivise sustainable practices and invest in the development of alternative economic activities and diversify the regional economy to reduce the reliance on the extractive industries.

This study suggests that the Nigerian state should implement the 2021 Climate Change Act effectively and ensure it is aligned with the national climate change policies and international commitments under the Paris Agreement. The Nigerian state should also enhance its capacity to monitor and report on greenhouse gas emissions from various sectors, especially the energy sector, and take measures to reduce them through renewable energy sources, energy efficiency, and gas flaring reduction. Moreover, the regional dimensions of climate change are crucial, as the impacts of climate change often transcend national borders. The Nigerian government should actively engage with its regional counterparts to strengthen cross-border cooperation, coordinate efforts and develop joint strategies to address shared climate change challenges.

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Declaration of Interest Statement

The authors have reported no potential conflict of interest.

Biographical Note

Dr Ochogwu is the Director General of the Institute for Peace and Conflict Resolution (IPCR). He possesses over 20 years of expertise and multi-disciplinary peace and conflict experience in social integration and sector-specific skills in policy formulation, diagnostic and prognostic analytical research - explicitly relating to peacebuilding, conflict transformation, resolution, parliamentary reforms, leadership and organisational development, policy analysis and social development. He takes leadership in promoting methodological approaches to Conflict mitigation activities and Programme Management strategies. He specialises in using political economy analysis tools and approaches to deliver clients' evidence-based reports.

Deborah O. Obor, PhD. is a research fellow at the Institute for Peace and Conflict Resolution (IPCR), Abuja, Nigeria. She has over twelve years' experience in teaching, researching and advocacy. Her area of interest include gender, climate change, gender, environmental justice and sustainability.

ORCID ID:

Dr. Joseph Ochogwu - https://orcid.org/0000-0002-4795-0711
Dr. Deborah Odu Obor - https://orcid.org/0000-0002-9768-4730

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