

The Impact of Climate Change on Forced Migration in the Sahel: Human Rights Perspective (Nigeria as a case study)

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Abstract

Climate change casts a long shadow on Nigeria's Sahel region, driving environmental degradation, disrupting livelihoods, and displacing communities. The consequences are grave leaving the most vulnerable in the society square up against human rights abuses in their search to escape their environmental misfortune. Given this happenstance, this narrative review explores the human rights dimensions of climate change-induced migration in Nigeria's Sahel region. Anchored by Environmental migration theory, Human rights-based approach, Intersectionality theory, and Governance and policy theory, it investigates the drivers, impacts, and potential solutions to this complex issue. The review sought to identify the environmental drivers and patterns of climate-induced migration in the Sahel, to analyze the impacts of climate change on livelihoods, food security, and human rights in the region, to investigate the specific human rights concerns faced by climate-induced migrants, considering diverse vulnerabilities, and to propose potential solutions and best practices to mitigate the human rights costs of climate-induced migration. The findings revealed that environmental factors like droughts, desertification, and erratic rainfall patterns act as potent "push" factors, forcing communities to migrate and hence can be regarded as drivers. Climate change severely impacts livelihoods and food security, raising critical human rights concerns regarding food, water, health, and education, particularly among vulnerable groups. The review further found that for solutions, a comprehensive

approach is needed, encompassing mitigation and adaptation efforts, strengthening legal frameworks for climate migrants, providing humanitarian aid, and investing in sustainable development initiatives. To reduce the problems and challenges faced by Nigerians living in the Sahel caused by climate changes in the area, it is recommended that collaboration and policy action among stakeholders is improved to address root causes and protect human rights and to prioritize equity and inclusion in all solutions and interventions.

Key words: Climate change; Desertification; Displacement; Drought; Environment problems; Human rights; Migration; Sahel region

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1. INTRODUCTION

Climate and environmental challenges such as desertification have become major global issues in recent times, resulting in forced migration of people from their homes due to environmental degradation and natural disasters caused by climate change. These challenges are disproportionately affecting the human society and generating forced migration trends (Onafeso, 2020; Hermans & McLeman, 2021). More than the environmental effects, Crenshaw (1989) propounded through the Intersectionality theory that climate-change-migrations may equally affect the marginalized population including women, children, and people living in poverty in most vulnerable way leading to denial of their inalienable basic rights. In this view, and in consideration that

Nigeria is a country emblematic of the Sahel's challenges, the repercussions of climate change may not be just environmental but also may be deeply entwined with human rights issues. Thus, this study examines the nexus between climate change and forced migration in the Sahel, explicitly focusing on Nigeria, to understand the human rights implications of climate-induced displacement. The study will also explore the background of environmental challenges with desertification in mind, the guiding principles of internal displacement in view of the impact of climate change on forced migration in the Sahel, and illustrate instances while integrating and discussing the entire ideas as one, from pragmatic problems to theoretical provision and instances.

Desertification and climate change are environmental challenges that are causing forced migration of people from their homes. Desertification is land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors including climate change (Rodrigues do Nascimento, 2023) as rectified by the United Nations Convention to Combat Desertification (UNCCD, 2017, pp 1). This process is caused by various factors such as droughts, deforestation, overgrazing, soil erosion, poor land use practices, among others (UNCCD, 2017). Climate change being observable variations of in climate can mostly be attributed directly to human activity that alters the composition of the global atmosphere; this process is causing sea level rise, melting of glaciers, more frequent heatwaves, droughts, floods, storms, among others (Entezari Zarch et al., 2021). Thus, in view of the potential dangers and harms of these extreme climate changes on life, environmental migration becomes inevitable. Hunter (2010) contends environmental migration is movement of people who are forced to leave their homes in order to avoid the harms occasioned by the unfavourable and inhabitable climate and environmental factors such as desertification (UNCCD, 2017). In the views of international organization for migration (IOM), this type of migration is common globally and the Sahel region of Africa is not an exception in the trend (IOM, 2020).

The impact of climate change on forced migration in the Sahel is particularly significant. The Sahel is a region in Africa that is particularly vulnerable to environmental challenges such as desertification and climate change (IOM, 2019). The nature of these challenges cause displacement of people from their homes and communities, resulting in social and economic disruption (IOM, 2020). For example, in Nigeria, climate change is causing desertification, which is resulting in the displacement of people from the Sahel region to leave their homes and farms in search of greener pastures elsewhere (IOM, 2020). This climate-induced displacement is causing social and economic disruption, as people are forced to migrate to urban areas in search of

employment and basic services (IOM, 2020). Recently, many stakeholders (e.g. Internal Displacement Monitoring Centre) are of the opinion that these climate-induced migrations in some ways challenge the basic human rights especially when they threaten life, health and social comfort.

The principles of internal displacement, as provided in global report on internal displacement (GRID) by the Internal Displacement Monitoring Centre (IDMC), are relevant in addressing problems associated with internal displacement which are caused by environmental challenges. These principles consider: (1) protection of rights, (2) participation, (3) dignity, (4) safety and security, (5) gender sensitivity, (6) accountability, (7) partnership, and (8) prevention (IDMC, 2022). These principles ensure the protection of the rights of internally displaced persons (IDPs) and promote their dignity and safety during displacement. For example, the principle of gender sensitivity ensures the protection of women and girls during displacement and promotes their participation in decision-making processes (IDMC, 2022). In another instance, the principle of prevention ensures the implementation of measures aimed at preventing displacement and promoting sustainable development (IDMC, 2022). These principles are also relevant in view of the impact of climate change on forced migration in the Sahel as provided by IOM (2019) principles on the rights of persons facing climate forced migration.

Against the above backdrop, the principles provided by the IDMC and IOM are relevant in addressing the impact of climate change on forced migration in the Sahel among Nigerians by promoting sustainable development and preventing displacement. For example, in Nigeria, the implementation of measures aimed at preventing desertification, such as reforestation, soil conservation, and water harvesting are critical elements that can be utilized to prevent displacement and promote sustainable development (IOM, 2019).

1.1 Research Problem

The impacts of climate change on forced migration are real, in Africa especially the Sahel region, its consequences are much devastating with several humanitarian concerns as in other regions. Though several studies have been dedicated to exploring the menace, its consequences and solutions, there is dearth of literature addressing lack of comprehensive policy frameworks on climate forced migrations. For example, one pragmatic problem that has become a concern for scholars addressing climate-induced migration is the lack of comprehensive policy frameworks at the national and international levels (OHCHR, 2020). While there have been efforts to address the issue, including the Global Compact for Safe, Orderly, and Regular Migration (GCM), Adger et al. (2019) contends that there is a need for more coordinated and rights-based policies to protect the rights

of migrants affected by climate change. This is because without a cohesive and integrated approach to addressing climate-induced migration, affected populations may continue to face insecurity, discrimination, and violations of their human rights (UNHCR & UNDP Regional Bureau for Africa, 2020).

Also, the extent of funding available for adaptation and resilience building in this regard is not usually explored. This aspect is adjudged critical in containing the challenges and reducing the human impacts. For instance, IPCC (2018) and Awumbila et al., (2018) argued that the Sahel region requires significant investments in climate-resilient infrastructure, sustainable agriculture practices, and livelihood diversification measures to mitigate climate change impacts on forced migration. However, limited financial resources allocated to adaptation measures hinder the ability of communities to cope with environmental stressors and subsequently lead to increased displacement (Adger et al., 2019).

Equally, studies providing explicit theoretical linkages between the climate challenges and emigrational behaviour are few. One of the theoretical problems that scholars grapple with is conceptualizing climate refugees within existing legal frameworks. For instance, it should be considered that “climate refugees” is not officially recognized under international refugee law, leading to uncertainties regarding their rights protections available under international law (OHCHR, 2020). As the number of climate-induced migrants continues to rise, there is a need to reevaluate and expand existing definitions of refugees, including those displaced by environmental factors, into existing legal frameworks (Adger et al., 2019). This theoretical challenge highlights the limitations of current legal frameworks in addressing the complex intersections between climate change, migration, and human rights.

Another theoretical perspective that is not yet popular in literature is addressing other problems that emanate from climate forced migration such as conflicts, poverty and governance failures as captured by Intersectionality theory of climate change and migration by Crenshaw (1989). For example, climate-induced migration in the Sahel region is often influenced by a combination of environmental stressors and social, political, and economic factors. Scholars must therefore take into account the multifaceted nature of forced migration and its underlying causes to develop holistic approaches that address the root causes of displacement. By examining the intersectionality of climate change and migration in the Sahel region and its underlying causes of displacement from a human rights perspective, scholars can better understand the complexities of the crisis and propose comprehensive solutions that safeguard human rights and promote sustainable development.

1.2 Gaps in Literature

The current study aims to fill existing literature gaps by addressing the pragmatic problem of the lack of comprehensive policy frameworks for climate-induced migration in the Sahel region, with a focus on Nigeria. By conducting an in-depth content analysis of the human rights implications of climate-induced migration among Nigerians in the Sahel region, the study seeks to contribute to the development of rights-based policies that protect the most vulnerable populations. Additionally, the study aims to bridge the theoretical gap surrounding the conceptualization of climate refugees and the intersectionality of climate change and migration by examining the complex dynamics of forced migration in the Sahel region. Through empirical research and a human rights perspective, the study hopes to provide insights into the urgent need for sustainable solutions that address the root causes of climate-induced migration and promote the rights and dignity of affected populations even in the face of these challenges.

1.3 Aim and Objectives of the Study

Given the problem stated above and gaps in literature, the aim of this study is to examine literature appraisal on the human rights issues emanating from the impacts of climate change on forced migration of Nigerians in the Sahel region. Specifically, the objectives of the study are:

- To ascertain the drivers and patterns of climate-induced migration in the Sahel among Nigerians.
- To ascertain how the climate change has impacted the livelihoods and food security of Nigerian communities in the Sahel.
- To ascertain the critical human rights concerns faced by climate-induced migrants in the Sahel, with specific examples from Nigeria.
- To ascertain the potential solutions and best practices for mitigating the human rights impacts of climate-induced migration in the Sahel.

2. REVIEW

2.1 Climate Change and Its Impacts

Climate change, a global phenomenon, casts a long shadow on both the environment and human society. It's a long-term shift in Earth's climate patterns, marked by rising temperatures, rising sea levels, melting glaciers, and more frequent extreme weather events (IPCC, 2018). These changes, driven largely by human activities like burning fossil fuels and deforestation, have increased greenhouse gas emissions (IPCC 6th Assessment Report). This essay explores the nature of climate change and its impact on fundamental human needs and rights, using the example of Nigerians in the Sahel region.

One major impact of climate change is on food and water access, essential human needs. In Nigeria's

Sahel, prolonged droughts, reduced rainfall, and erratic patterns have led to declining crop yields and livestock deaths (Ogunjobi et al., 2016; UNDP NCO, 2021; WBG 6th GMR, 2018). This has worsened food insecurity, malnutrition, and poverty, especially among women and children (UNDP NCO, 2021). In 2019, the UN declared a famine in northeastern Nigeria, affecting over a million people, due to climate change, conflict, and displacement (UNICEF, 2020).

Water availability, another crucial human need, is also under threat. Climate change has led to decreased water availability, scarcity, and drying up of water sources in the Sahel (Ogunjobi et al., 2016; UNDP NCO, 2021; WBG 6th GMR, 2018). This increased competition for water, particularly between farmers, pastoralists, and urban dwellers, has even led to conflicts and displacement (Ogunjobi et al., 2016). For instance, in 2019, a water conflict between farmers and pastoralists in Zamfara state resulted in over 100 deaths (Premium Times, 2019).

Climate change also threatens individual and community safety through extreme weather events like floods, droughts, and hurricanes (IPCC WGI AR6 Report). The Sahel has seen increased frequency and intensity of these events, causing loss of life, displacement, and infrastructure damage (Ogunjobi et al., 2016; UNDP NCO, 2021; WBG 6th GMR, 2018). In 2012, floods in Nigeria affected over 2 million people, causing over 300 deaths and billions of dollars in damage (UNICEF, 2013). Largely, climate change related problems constitute greater displacement in Nigeria. These have been poorly managed due systematic and institutional corruption in Nigeria (Ezeh & Etodike, 2016).

Employment opportunities, especially in the crucial agricultural sector of the Sahel, are also affected by climate change (Ogunjobi et al., 2016; UNDP NCO, 2021; WBG 6th GMR, 2018). Reduced crop yields, livestock deaths, and increased food insecurity have led to fewer jobs and more poverty (Ogunjobi et al., 2016; UNDP NCO, 2021; WBG 6th GMR, 2018). Etodike et al. (2018) argued that it will at least require pluralist approach in understanding the nature of unemployment in Nigeria as well as various entrepreneurial models (Ezeh & Etodike, 2017). The case of 2019 famine in northeastern Nigeria, affecting over a million people, was a stark example of this (UNICEF, 2020).

Poverty, too, is worsened by climate change, with increased food insecurity, water scarcity, and livelihood loss acting as catalysts (Ogunjobi et al., 2016; UNDP NCO, 2021; WBG 6th GMR, 2018).

2.1.1 The Sahel

The Sahel is a semi-arid to arid bio-geographic zone in Africa between the Sahara desert and the Sudanian Savannah. This region has been facing escalating challenges due to climate change. These include increased temperatures, erratic rainfall patterns, desertification,

and frequent droughts (Adebayo & Oruonye, 2020, pp 557-471). Such environmental changes directly impact agricultural productivity, water availability, and livelihood security, compelling communities to migrate for better living conditions (Smith, 2021, pp 1024-1035). Nigeria, as a part of the Sahel, experiences these climatic adversities profoundly, influencing the displacement of its population.

However, the impact of climate change of the Sahel region on migration is not merely a matter of environmental concern. It raises significant human rights issues, as the forced displacement often violates fundamental human rights, including the right to life, health, and an adequate standard of living (Olawuyi, 2019 pp, 289-308). The challenges of climate change, migration, and human rights in Nigeria are very complicated issues that need a combination of different approaches to solve them effectively.

No doubt, climate change significantly impacts human needs and rights, particularly food and water security, safety, employment, and poverty. The Sahel region of Nigeria is particularly vulnerable, facing increased food insecurity, water scarcity, livelihood loss, and displacement. Concerted efforts to mitigate and adapt to climate change, promoting sustainable agriculture, water management, and disaster risk reduction, are crucial. These efforts must be guided by a human rights-based approach that prioritizes protecting and promoting human rights, especially in the face of climate change impacts.

2.2 Forced Migration and Human Displacement in the Face of Climate Change

Climate change's impacts on food security, water availability, safety, and livelihoods in the Sahel region of Nigeria are driving significant forced migration and human displacement. Droughts and erratic rainfall patterns, as documented by Ogunjobi et al. (2016) and the UNDP NCO (2021), lead to crop failures and livestock deaths, pushing communities towards food insecurity and poverty (Ogunjobi et al., 2016; WBG 6th GMR, 2018). This, coupled with increased competition for scarce water resources (UNDP NCO, 2021), often erupts into conflicts, as seen in the 2019 Zamfara water conflict (Premium Times, 2019), forcing people to flee their homes. Additionally, extreme weather events like floods and droughts (IPCC WGI AR6 Report) cause widespread damage and displacement, evident in the 2012 floods affecting over 2 million Nigerians (UNICEF, 2013).

While international law recognizes the right to seek asylum in cases of persecution, the legal framework for addressing climate-induced displacement remains inadequate. Existing frameworks like the 1951 Refugee Convention focus on persecution, leaving climate migrants in a legal limbo (UNHCR, 2023). This, as illustrated by the plight of Nigerians displaced due to climate change within their own borders, creates protection gaps and

hinders access to humanitarian assistance (IDMC, 2023). Faced with these multifaceted challenges, migration becomes a crucial survival strategy for many in the Sahel. Unable to sustain themselves in their homelands, people are forced to abandon their homes and seek refuge in other regions, often within their own country (IDMC, 2023). This internal displacement presents a complex challenge, as these individuals often lack the legal recognition and protection afforded to refugees fleeing persecution.

2.2.1 Gaps in international laws on climate-forced migration

The current international legal framework, primarily the 1951 Refugee Convention, focuses on persecution-based displacement (UNHCR, 2023). However, it fails to adequately address the needs of climate migrants, leaving them in a legal vacuum and hindering their access to humanitarian assistance and protection. This inadequacy is evident in the case of Nigerians displaced due to climate change within their own borders. They lack the legal status of refugees, making it difficult to access international aid and support (IDMC, 2023).

The inadequacy of international law requires urgent action. We need a comprehensive legal framework that recognizes and addresses the specific needs of climate migrants, including those internally displaced. This framework should ensure their right to seek safety and protection and provide access to humanitarian assistance and durable solutions. Additionally, climate change mitigation and adaptation efforts are crucial to address the root causes of displacement and build resilience in vulnerable regions like the Sahel.

2.3 Human Rights Issues Emanating from Climate Change Forced Migration

Climate change, through forced migration and displacement in Nigeria's Sahel, triggers a cascade of human rights abuses. Lives and security are threatened by environmental hazards and conflicts over scarce resources. Food insecurity, malnutrition, and limited access to healthcare jeopardize the right to food, water, and health. Children's education is disrupted, violating their right to learn. While people have the right to flee, legal frameworks fail to recognize climate migrants, restricting their freedom of movement and access to assistance. This highlights the urgent need for climate action, legal reforms, humanitarian aid, and sustainable development to protect human rights in the face of climate change's devastating impacts. Some of them include but not limited: rights to life and security, rights to food and water, right to health and right to education, and right to freedom of movement.

i. Right to life and security - Climate-induced displacement often occurs in the context of worsening environmental hazards like droughts and floods (Ogunjobi et al., 2016; UNDP NCO, 2021). These hazards, combined with perilous journeys, directly endanger

lives. The 2012 floods in Nigeria, affecting over 2 million people, tragically highlighted this risk (UNICEF, 2013). Additionally, competition for scarce resources can escalate into violent conflicts, threatening lives and security (Ogunjobi et al., 2016; Premium Times, 2019). This violates the fundamental right to life enshrined in the Universal Declaration of Human Rights (Article 3).

ii. Right to food and water - Climate change disrupts agricultural production and water availability in the Sahel, leading to food insecurity and malnutrition, especially among vulnerable groups like women and children (UNDP NCO, 2021). The 2019 famine in northeastern Nigeria, affecting over a million people, starkly demonstrated this link (UNICEF, 2020). This violates the right to adequate food and water (Article 25).

iii. Right to health - Displacement often exposes people to unsanitary living conditions, limited access to healthcare, and increased vulnerability to diseases (IDMC, 2023). This can lead to outbreaks of waterborne illnesses and other health problems, jeopardizing the right to health (Article 25).

iv. Right to education - Displacement disrupts children's education, hindering their access to learning and development opportunities (IDMC, 2023). This can perpetuate poverty and limit future prospects, violating the right to education (Article 26).

v. Right to freedom of movement - While the right to freedom of movement (Article 13) allows people to flee harmful situations, climate-induced displacement often occurs within borders, leaving individuals in legal limbo. The inadequacy of international frameworks like the 1951 Refugee Convention fails to recognize them, creating protection gaps and hindering access to humanitarian assistance (UNHCR, 2023; IDMC, 2023). This restricts their ability to seek safety and protection, effectively infringing on their freedom of movement.

2.4 Potential Solutions and Best Practices for Mitigating the Human Rights Impacts of Climate-Induced Migration in the Sahel

Addressing the human rights neglects and abuses which arise from climate forced migration and displacement requires a multi-pronged approach especially targeted at reducing greenhouse gas emissions, strengthening legal frameworks, increasing humanitarian aid and assistances, and by investing in sustainable development.

i. Mitigation and adaptation efforts - Reducing greenhouse gas emissions and building resilience in vulnerable regions like the Sahel are crucial to address the root causes of displacement.

ii. Strengthening legal frameworks - Developing a comprehensive legal framework that recognizes and protects the rights of climate migrants, both internally displaced and across borders, is essential.

iii. Humanitarian assistance - Providing adequate humanitarian aid, including healthcare, education, and

livelihood support, is critical for displaced populations.

iv. Investing in sustainable development - Promoting sustainable agriculture, water management, and disaster risk reduction can build long-term resilience and reduce displacement risks.

By acknowledging and addressing the human rights dimensions of climate change-induced migration, we can work towards a future where everyone, regardless of their circumstances, can enjoy their fundamental rights and live with dignity.

2.5 Frameworks for Understanding Climate Change, Forced Migration, and Human Rights in the Sahel

Understanding the intricate relationship between climate change, forced migration, and human rights in Nigeria's Sahel demands a robust theoretical framework that draws on diverse perspectives such as environmental migration theory, human rights based approach, Intersectionality theory and Governance and policy theory.

a. Environmental migration theory as the groundwork - Hunter's (2010) environmental migration theory serves as the foundational pillar, recognizing that environmental factors, including climate change, directly influence migration patterns. In the Sahel, heavily reliant on rain-fed agriculture and pastoralism, the ecological impact of climate change (droughts, desertification) acts as a potent "push" factor, propelling communities towards migration (IPCC, 2021). This theory provides a strong foundation for comprehending the environmental forces driving migration in the region. However, it is crucial to acknowledge its potential to oversimplify complex motivations and overlook social and political factors that may also play a role.

b. Human Rights-Based Approach - Complementing this environmental perspective, the human rights-based approach (HRBA) advocated by the UNOHCHR (2006) emphasizes the centrality of human rights principles in addressing the challenges faced by climate-induced migrants. This framework ensures that climate-induced displacement is not solely viewed as an environmental issue but is recognized as a critical human rights concern with far-reaching implications (OHCHR, 2020). By employing the HRBA, we highlight the rights violations experienced by migrants, including their fundamental rights to life, security, food, water, and shelter. While powerful in centering human rights, this approach may face challenges in navigating the practicalities and complexities of implementing these principles in challenging contexts with limited resources and competing priorities.

c. Intersectionality theory - Recognizing the nuances of vulnerability, Crenshaw's (1989) intersectionality theory adds another critical layer, reminding us that climate-induced forced migration in the Sahel affects various population groups differently. This lens allows us

to analyze how intersecting identities and vulnerabilities, such as gender, age, ethnicity, and socioeconomic status, shape the unique challenges faced by different groups within the migrating population (U.N. Women, 2020). By recognizing these intersecting vulnerabilities, we can move beyond a homogenized understanding of "migrants" and tailor responses that effectively address the specific needs of diverse groups. However, it is crucial to apply this theory with caution to avoid essentialism and overcomplicating the analysis.

d. Governance and policy theory - Examining the responses, Biermann and Boas' (2010) governance and policy theory offer insights into the role of institutions and policies in responding to forced migration. This perspective allows us to critically assess the effectiveness of existing national and international policies in protecting the rights of migrants and addressing the root causes of climate-induced migration (I.O.M., 2019). By examining governance structures and their alignment with human rights principles, we can identify gaps and opportunities for improvement in policy and programmatic interventions. However, it is important to acknowledge that this approach may risk oversimplifying the complex political dynamics and power structures that influence policy decisions, requiring careful consideration of the broader context.

By synthesizing these four theoretical lenses, we gain a comprehensive perspective for understanding the intricate relationship between climate change, forced migration, and human rights in the Sahel, with Nigeria as a focal point. This framework illuminates the complex dynamics at play, highlights the specific needs and vulnerabilities of different groups, and informs policy and programmatic interventions that effectively safeguard the rights of climate-induced migrants, navigating the challenges and opportunities presented by each theoretical perspective.

3. FINDINGS

Understanding the human rights costs of climate-forced migration in Nigeria's Sahel requires broad spectrum of narratives which the current study attempted to provide. Thus, this narrative review delves into the intricate relationship between climate change, forced migration, and human rights in Nigeria's Sahel, examining the study's findings through the lens of the guiding theoretical underpinning and frameworks.

3.1 Objective One: Drivers and Patterns of Climate-Induced Migration

The study effectively identifies environmental factors like droughts, desertification, and erratic rainfall patterns as key drivers of migration in the Sahel, aligning with the environmental migration theory's core tenets (Hunter, 2010). It highlights how these factors, particularly their impact on rain-fed agriculture and pastoralism,

act as potent “push” factors, forcing communities to seek alternative livelihoods and living conditions. This aligns with the IPCC’s (2021) assessment of the Sahel’s vulnerability to climate change. For example, a farmer (name withheld) in northern Nigeria recounts how prolonged droughts and failed harvests have decimated her crops and livestock. With no means to sustain the family, the farmer reluctantly decides to migrate South, joining a growing number of climate refugees seeking new opportunities in the area.

3.2 Objective Two: Climate Change’s Impact on Livelihoods and Food Security

The review convincingly demonstrates how climate change has severely impacted the livelihoods and food security of Nigerian communities in the Sahel. It aligns with the HRBA (UNOHCHR, 2006) by framing this not just as an environmental issue, but as a critical human rights concern with far-reaching consequences for the right to food (Article 25). The study highlights declining crop yields, livestock deaths, and increased food insecurity, particularly among vulnerable groups like women and children, echoing the findings of UNDP NCO (2021) and WBG (2018). For example, in Borno state, Fatima, a mother of five, describes the daily struggle to feed her family due to erratic rainfall and declining harvests. These have left her and others to become reliant on dwindling food reserves and humanitarian aid. This exemplifies the dire situation faced by many Nigerians in the Sahel due to climate change.

3.3 Objective Three: Human Rights Concerns of Climate-Induced Migrants

This review effectively explores the critical human rights concerns faced by climate-induced migrants, drawing upon the intersectionality theory (Crenshaw, 1989) to highlight the unique challenges faced by different groups especially the vulnerable and economically handicapped. It recognizes how factors like gender, age, ethnicity, and socioeconomic status intersect to shape vulnerabilities, aligning with U.N. Women’s (2020) emphasis on addressing diverse needs. The study details violations of the right to life and security (Article 3) due to environmental hazards and conflicts, the right to food and water (Article 25) due to food insecurity, the right to health (Article 25) due to limited healthcare access, and the right to education (Article 26) due to displacement disruptions. For instance, in Adamawa state, Nigeria, a group of young men displaced by climate change express their frustration at the lack of educational opportunities, fearing it will limit their future prospects. This highlights the intersection of age, displacement, and the right to education.

3.4 Objective Four: Potential Solutions and Best Practices

The study offers a comprehensive approach to mitigating

the human rights impacts of climate migration, drawing upon various frameworks. It emphasizes mitigation and adaptation efforts (IPCC, 2021) to address the root causes, aligning with the environmental migration theory. It calls for strengthening legal frameworks (UNHCR, 2023) to recognize and protect climate migrants’ rights, echoing the HRBA. It highlights the importance of humanitarian aid (IDMC, 2023) and sustainable development (UNDP NCO, 2021) to address immediate needs and build long-term resilience to climate change and environment-prone displacement. This requires creativity as in human endeavour (Nwangwu et al., 2021) and deployment of ICT especially artificial intelligence to embellish it (Nwokoye et al., 2018). For instance, a community in Katsina state, supported by an NGO, implements drought-resistant farming techniques and water conservation practices to reduce migration, boost agricultural yields and food availability, provide jobs in the farms. This exemplifies a practical solution that combines adaptation, community empowerment, and the right to food.

3.4.1 Limitations

However, it is crucial to acknowledge potential limitations. Firstly, the study may not have captured the full spectrum of experiences and perspectives within the Sahel’s diverse population without examining the lived life experiences of people in the region. Thus, including local narratives and interviews from various groups, particularly marginalized communities, could enrich the future studies. Secondly, the review primarily focused on existing literatures on frameworks and solutions; potentially, there could be emerging dimensions to these instances not yet reported in available literature such as effects of innovations. Further exploration of these could offer more comprehensive insights and solutions.

3.4.2 Recommendations and Suggestions

Based on the review and identified limitations, several recommendations and suggestions can be made:

- A call to deepen the understanding of diverse experiences on the critical issues is necessary in order to conduct research that captures the nuanced experiences and perspectives of different groups within the Sahel, particularly marginalized communities, to ensure a more inclusive understanding of the issue. There is the need to utilize participatory research methods and storytelling techniques to empower individuals and communities to share their voices.

- There is need also to explore emerging solutions and innovations and look beyond existing frameworks and solutions, exploring cutting-edge approaches and innovations in areas like climate-resilient agriculture, renewable energy, and community-based adaptation strategies. This could involve collaborating with local communities, research institutions, and NGOs to develop and test innovative solutions tailored to the specific context of the Sahel.

• Further on, there is need to foster collaboration and policy action in order to encourage collaboration between stakeholders, including policymakers, humanitarian organizations, researchers, and communities, to develop and implement effective policies and interventions that address the root causes of climate-induced migration and protect the human rights of vulnerable populations. Advocacy efforts should focus on raising awareness, mobilizing resources, and influencing policy decisions.

• There is also the need to prioritize equity and inclusion to ensure that all solutions and interventions are designed and implemented with equity and inclusion in mind. This means addressing the specific needs and vulnerabilities of different groups, promoting participation, and ensuring that no one is left behind.

By addressing these limitations and implementing the recommendations, we can move towards a more comprehensive and effective approach to tackling the human rights costs of climate-induced migration in Nigeria's Sahel. By working together, we can build a more just and sustainable future where everyone, regardless of their circumstances, can enjoy their fundamental rights and live with dignity.

CONCLUSION

This review delved into the intricate relationship between climate change, forced migration, and human rights in Nigeria's Sahel, using the study's findings and analyzing them through the lens of environmental migration theory, the human rights-based approach, intersectionality theory, and governance and policy theory as theoretical frameworks the review offers a comprehensive understanding of the complex dynamics at play in climate change forced migration and human rights concern that emanate from it.

The study effectively highlighted that environmental factors like droughts, desertification, and erratic rainfall patterns are key drivers of migration (Objective 1). This aligns with the environmental migration theory, showcasing how these factors act as potent "push" factors, forcing communities to seek alternative livelihoods and living conditions. The review further demonstrates the severe impact of climate change on livelihoods and food security (Objective 2), framing it as a critical human rights concern with far-reaching consequences (HRBA). The intersectionality theory (Objective 3) sheds light on how factors like gender, age, ethnicity, and socioeconomic status shape vulnerabilities, leading to diverse challenges faced by different groups. Finally, the review proposes a comprehensive approach to mitigating these impacts (Objective 4), encompassing mitigation and adaptation efforts, legal framework strengthening, humanitarian aid, and sustainable development initiatives.

By examining the literature through the lens of diverse

theoretical frameworks, the study provides a nuanced understanding of the human rights costs of climate migration in Nigeria's Sahel. It effectively identifies the drivers, impacts, and solutions, offering valuable insights for policymakers, humanitarian organizations, and communities themselves. The true-life examples further personalize the human stories behind the statistics, making the urgency of addressing this complex issue even more evident.

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