The Journal of Sustainable Development Law and Policy

Journal homepage: https://www.ajol.info/index.php/jsdlp

ISSN: 2467-8406
Online ISSN: 2467-8392
Volume 17, Issue 1
Lalude, Oluborode, Akindipe, Idowu & Abiri-Franklin 2026

GLOBAL CLIMATE ACTION AND PUBLIC HEALTH INITIATIVES: ADVANCING THE HUMAN RIGHT TO A SAFE AND HEALTHY ENVIRONMENT IN WEST AFRICA

Olalekan Moyosore Lalude, PhD[1] Remilekun Christianah Oluborode[2], Daniel Oluwadayo Akindipe, PhD[3] Oladimeji I. Idowu, PhD[4] and Sophia Abiri-Franklin, PhD[5]

1. Lecturer, Faculty of Law, Wisconsin International University College, Ghana, lekanlalude@gmail.com
2. MBBS, MPH, Physician and Independent Researcher, USA.
3. Lecturer, College of Law, Afe Babalola University, Ado-Ekiti, Nigeria, akindipedayo@abuad.edu.ng
4. Senior Lecturer, Redeemer's University, Ede, Nigeria, idowui@run.edu.ng
5. Lecturer, College of Law, Caleb University, Lagos State. sophia.abiri-franklin@calebuniversity.edu.ng

Article Information:

Article Type:
Research Article

Manuscript Received:
31 April 2025

Final Revision Received:
24 June 2025

Published Online:
10 July 2025

Climate change has worsened poverty and increased vulnerability to public health problems. Despite Africa's vulnerability in the face of climate change, it has contributed only a small fraction of global carbon emissions, with countries in the Global North ranking as the highest emitters in the world. This is because Africa's level of industrialisation is still a long way off. Without doubt, the sub-region of West Africa has been besieged by public health issues, post-COVID era, and this has resulted in increased mortalities, especially in countries like Nigeria. Therefore, it has become necessary to understand how global climate action can aid public health initiatives, and promote the right to a safe and healthy environment in West Africa. The study is a cross-national study that adopted a mixed-method approach, of quantitative and qualitative analysis, where data visualisation and thematic analysis were done on survey responses, and unstructured interviews, using tools like Looker Studio and Taguette. There was a focus on Ghana and Nigeria, as these two countries are highly vulnerable to climate change impacts, including rising temperatures, shifting rainfall patterns, desertification, coastal erosion, and flooding. The study examined how global climate action can drive public health initiatives, and promote the right to a safe and healthy environment in West Africa. It was concluded that the urgent need for global climate action can protect the right to a safe and healthy environment and mitigate the public health problems in West Africa, especially when it prioritises on public health initiatives.

Cite this article: Olalekan M. Lalude, PhD, Remilekun C. Oluborode, Daniel O. Akindipe, PhD, Oladimeji I. Idowu, PhD, and Sophia Abiri-Franklin, PhD(2026). Global Climate Action and Public Health Initiatives: Advancing the Human Right to a Safe and Healthy Environment in West Africa. The Journal of Sustainable Development, Law and Policy. Vol. 17:1. 276-304. DOI: 10.4314/jsdlp.v17i1.10

Publisher: Institute for Oil, Energy, Environment and Sustainable Development (OGEES Institute), Afe Babalola University, Ado Ekiti, Nigeria.

1. INTRODUCTION

Away from the negative economic impacts of low industrialisation in Africa, is the potential impact of climate change on public health initiatives and efforts. Climate change is one of the most pressing challenges facing Africa in the twenty-first century, with its impacts increasingly evident and growing in severity in the region. And it remains one of the most impactful phenomena on the environment and ecosystems across Africa, causing immense impacts on human communities and natural systems. Climate change has had the most devastating effects on Africa.[1] This is because Africa is the worst performing region in the global GDP per capita ranking.[2] These environmental transformations have direct connections to increasing poverty and escalating vulnerability to numerous public health concerns across the continent.

A lot of the impacts vary geographically, but West Africa, in particular, is facing really severe challenges as one starts to increasingly see changes in climatic patterns and the emergence of severe weather events. Rising temperatures, changing precipitation patterns and rising seas coalesce into multi-dimensional threats for communities already grappling with complex social and economic challenges.[3] Climate crisis demonstrates an immense global inequity that needs to be quickly addressed. Despite providing only a fraction of global carbon emissions, African countries face the worst consequences of climate change.[4] The causes of climate change, largely greenhouse gases from industrial nations of the Global

[1] Godwell Nhamo, Lazarus Chapungu and Gideon Walter Mutanda, 'Trends and Impacts of Climate-Induced Extreme Weather Events in South Africa (1920–2023)' (2025) 55 Environmental Development

[2] Kayla Zhu, 'Mapped: Africa's GDP per Capita by Country' (*Visual Capitalist*, 14 November, 2024) https://www.visualcapitalist.com/mapped-africas-gdp-per-capita-by-<country/#:~:text=Despite%20economic%20progress%20in%20some,every%20African%20country%20in%202024.> accessed 10 April 2025

[3] DD Joseph and RA Doon, *The Impact of Climate Change on Vulnerable Populations Social Responses to a Changing Environment* (MDPI 2024)

[4] Olalekan Moyosore Lalude and Ayoyemi Lawal-Arowolo, 'A Portraiture of Environmental Justice in Communities of Concern: Protecting Africa While Achieving Sustainable Development' (2022) 13(1) International Journal of Environmental Sustainability and Green Technologies

North, are borne by countries in Africa.[5] The central climate justice concern tied to this foundational imbalance between responsibility and impact, speaks to the responsibility of coordinated global climate action. At the same time, the small carbon footprint of African continent due to limited industrialisation is a double burden for the communities because it limits the economic resources that can be channeled towards climate adaptation and mitigation interventions.[6] In this sense, a situation such as this, warrants recognition of the need to deal with questions of equity and shared yet differentiated responsibilities between nations. The public health systems of both Nigeria and Ghana continue to manage traditional health issues while adapting to new environmental threats. The West African region provides significant insights into climate and health interactions through these two countries as well as their varying governance approaches to response capacities.

Understanding climate vulnerability in Ghana means paying attention to geographic and socioeconomic drivers. Approximately 25 percent of Ghanaian people live within coastal zones facing increasing threats of erosion and saltwater intrusion. These coastal communities include urban hot spots with critical infrastructure as well as traditional fishing-farming villages that depend on marine resources threatened by ocean warming and acidification.[7] Nigeria's great population and relatively large territory means that it is also susceptible to climate vulnerability. The country's long coastline is now facing erosion, flooding, and other infrastructural damages due to worsening storms. While the

[5] Dirk Kohnert, 'The impact of the Industrialized Nation's CO2 Emissions on Climate Change in Sub-Saharan Africa: Case studies from South Africa, Nigeria and the DR Congo' (*GIGA Institute for African Affairs, Hamburg,* 18 February 2024) <https://mpra.ub.uni-muenchen.de/120212/1/MPRA_paper_120212.pdf> accessed 10 April 2025

[6] Olalekan Moyosore Lalude and Ayoyemi Lawal-Arowolo, 'A Portraiture of Environmental Justice in Communities of Concern: Protecting Africa While Achieving Sustainable Development' (2022) 13(1) International Journal of Environmental Sustainability and Green Technologies

[7] Environmental Sensitivity Atlas Team, 'Environmental Sensitivity Atlas for the Coastal Area Of
Ghana' (*Environmental Protection Agency,* Volume II: Environmental Sensitivity Ranking, 2020)
content/uploads/2016/12/New%20folder/New%20folder/ESA%20GHANA%20-%20Volume%20II%20.pdf> accessed 10 April. 2025

coastal area is densely populated, heavily shifting rainfall patterns also increase flood risks.[8] These environmental factors coupled with the already alarming rate of diseases, infectious and non-infectious, maternal care in rural region, childcare and weak health systems give dire concern to the overall capacity of Nigeria to provide good healthcare.

2. LITERATURE REVIEW

It was problematic for the draftsmen to frame climate change as an infringement on human rights from the provisions of Article 3(4) of the United Nations Framework Convention on Climate Change which placed emphasis on economic development rather than health in assessing climate change measures of member states.[9] Climate change is rooted in science, verifiable figures, and not in philosophy. The nexus between climate change and public health was nearly improbable right from the beginning because the concept of legal jurisprudence and science evolved from a completely different trajectory. For instance, in *Native Village of Kivalina v Exxon Mobil Corporation*,[10] the court did not adopt a scientific understanding on the effect of gas flaring and oil exploration activities of Exxon Mobil and how these activities can exacerbate climate change. The court focused on balance of probabilities and the plaintiff had to prove that Exxon Mobil's actions would be consequential to the indigenous people of Kivalina which was rebuttable by the defendant. On the contrary, the court held in *Tătar v Romania*,[11] that only the defendant should prove that its activities would not exacerbate climate change and provided less evidential burden to the plaintiff. The turning point where judicial decisions reflect scientific understanding of climate change within the West Africa's legal landscape is the crux of this paper.

Climate Change has a detrimental effect on human health which continues to undermine human rights as provided across various international legal instruments. The right to life which is a constitutionally

[8] Verere S Balogun and Andrew G Onokerhoraye, 'Climate Change Vulnerability Mapping Across Ecological Zones in Delta State, Niger Delta Region of Nigeria' (2022) 27 Climate Services

[9] *United Nations Framework Convention on Climate Change* 1994, art 3.4.

[10] *Native Village of Kivalina and City of Kivalina v ExxonMobil Corporation and Others* (2012) 696 F3d 849, 16–17 and 20–21.

[11] *Tătar v Romania* (2009) 67021/01, paras. 105, 124–25.

guaranteed right has been jeopardised to a large extent by climate change. The number of climate change related death is expected to reach over 250,000 from 2030 to 2050.[12] The resultant effects of climate change is manifested in increase in temperatures, toxic atmospheric conditions, extreme weather patterns, transmission of diseases, food insecurity and rise in mental health issues.[13] These negative externalities pose a significant threat to the lives of people living in Africa and most especially, the Sahel region. Climate change and public health are both significant elements of the Sustainable Development Goals Agenda. Specifically, Goal 13 signifies Climate Action and Goal 3 represents good health and well-being.[14] The adverse effect of climate change on public health underscores the correlation between the two concepts. A study conducted by the World Health Organization in 2021 revealed that the consequential economic effect of climate change on public health will cost about 4 billion US dollars in a year.[15] In a similar vein, the report estimated that climate change disaster will increase mortality rate to about 60,000 in a year with significant effect on developing countries.[16] Climate change affects the overall health of human being including mental health. Extreme weather conditions such as flood and erosion can have negative impact on food security and environmental degradation. This can undermine farming activities and slow production of agricultural products.[17] Several diseases suffered by humans can be triggered by extreme weather occurrences such as excess heat. The United Nations Special Rapporteur on Human Right and the Environment warned in 2019 that as global heat increases, people's right to good standards of health will be jeopardised leading to extreme heat related sickness and deaths.[18] The report underscored that the effect

[12] Benjamin Meier, Flavia Bustreo and Lawrence Gostin, 'Climate Change, Public Health and Human Rights' (2022) 19(21) International Journal of Environmental Research and Public Health <https://doi.org/10.3390/ijerph192113744> accessed 17 April 2025.
[13] ibid.
[14]Prashant Rajput and others, 'The Nexus between Climate Change and Public Health: A Global Overview with Perspectives for Indian Cities' (2023) 16(1) Arabian Journal of Geosciences 3 < https://doi.org/10.1007/s12517-022-11099-x> accessed 7 April 2025.
[15] ibid 4.
[16] ibid.
[17] ibid.
[18] UN Human Rights Council, 'Safe Climate: A Report of the Special Rapporteur on Human Rights and the Environment' ((*UN Human Rights Council*, Geneva, 2019)

of rising global temperatures will affect the world disproportionately as vulnerable groups and people already living with respiratory ailment will be the most affected.[19] This is a palpable example of an infringement of right to health which is a significant component of human right.

The adverse effects of climate change cannot be over-emphasised. For instance, drought can reduce farming activities which can affect food production and can lead to a malnourished population. This can have a multiplier effect on the economy where the governments will have to allocate extra funding for the health sector which will increase government's expenditure. The reduction of farming activities will also affect the Gross Domestic Products of the countries within the region which can also affect the overall wellbeing of the people. From the findings of the Climate Risk Index, most countries in the Sahel region in West Africa which include, but are not limited to Gambia, Mali, Senegal and Nigeria are susceptible to climate change which undermines public health.[20] Studies have attributed diseases in this region such as Lassa fever, Ebola Virus, Lyme disease and Malaria to climate change.[21] From the findings of Atwoli and others in 2023, climate change significantly alters environmental conditions which has adverse effects on human health and causes increase in morbidity and mortality rates.[22] In the context of this study, Opoku examined the impact of climate change on Niger, Burkina-Faso and Nigeria which revealed loss of lives in countries in the Sahel region as a result of flooding.[23] Cisse did not just correlate climate change

<https://www.ohchr.org/Documents/Issues/Environment/SREnvironment/Report.pdf> accessed 18 April 2025.

[19] ibid 5.

[20] SH Hamissou, Z Samiratou and M Soulé, 'Impacts of Climate Change on Human Health in the West Africa Sahelian Countries: A Review' (2023) 2(1) Journal of Business and Environmental Management 53 <https://www.journals.airsd.org/index.php/jbem/article/download/295/105> accessed 7 April 2025.

[21] ibid.

[22] L Atwoli and others, 'COP27 Climate Change Conference: Urgent Action Needed for Africa and the World' (2023) 23(1) The Lancet Infectious Diseases 19-21 <https://doi.org/10.1016/S1473-3099(22)00696-X> accessed 7 April 2025.

[23] SK Opoku, and others, 'Climate Change and Health Preparedness in Africa: Analysing Trends in Six African Countries' (2021) 18(9) International Journal of Environmental Research and Public Health 3 <https://doi.org/10.3390/ijerph18094672> accessed 7 April 2025.

with health issues but provided a broader insights into the nexus. He opined that the extent of climate change on human health depends on factors which include but are not limited to social, environmental, ecological and economic conditions. He also opined that the diseases from these climatic conditions are transmitted as a result of the survival of organisms that affects the body's immune system.[24] Pursuing this further, Manikandan 2022, advanced the argument of Cisse on the socio-economic factors that contributes to climate change. His study found that diseases such as malaria, rift valley fever, yellow fever and schistosomiasis are prevalent in countries with precarious socio-economic conditions such as Africa than in developed countries.[25] This study also posits that technology is an important factor that reduces the adverse effect of climate health on human health.

Githeko and others provided a practical insight to the transmission of these diseases facilitated by climatic condition. His study found a correlation between harmattan winds and increase in meningitis in the Sahel from November to May.[26] For countries in the Sahel, dry season comes in different months which further extends the spread of this disease across the Sahel region. In a similar vein, Opoku posits that specific climatic conditions such as rain increases cholera outbreak in the Sahel region such as Nigeria. This is as a result of flood which undermines the quality of drinkable water.[27] To further underscore specific climatic condition and diseases, the National Framework for Climatic Services in its 2022 report revealed that 60, 1447 and 53 1681 cases of malaria were

[24] G Cissé, 'Food-Borne and Water-Borne Diseases under Climate Change in Low- and Middle-Income Countries: Further Efforts Needed for Reducing Environmental Health Exposure Risks' (2019) 194 Acta Tropica 181-88 <https://doi.org/10.1016/j.actatropica.2019.03.012> accessed 7 April 2025.

[25] S Manikandan and others, 'A Review on Vector Borne Disease Transmission: Current Strategies of Mosquito Vector Control' (2022) 2(85) Indian Journal of Entomology 1-11 <https://doi.org/10.55446/IJE.2022.593> accessed 7 April 2025.

[26] AK Githeko, 'Climate Change and Vector-Borne Diseases: A Regional Analysis' (2000) 78(9) Bulletin of the World Health Organization 136-1147.

[27] SK Opoku, and others, 'Climate Change and Health Preparedness in Africa: Analysing Trends in Six African Countries' (2021) 18(9) International Journal of Environmental Research and Public Health 3 <https://doi.org/10.3390/ijerph18094672> accessed 7 April 2025.

identified in Niger from 2021 and 2022 respectively.[28] The mortality rate of climate related death varies across the Sahel region. Some countries recorded higher mortality rate and others recorded low mortality rate. Nouaceur, in his study in 2020, found that climate change increased mortality rate in Mauritania by 32%, from 2000 to 2019; climate change increased mortality rate in Senegal by 18% and from 2010 to 2017; climate change increased mortality rate in Niger by 86 percent.[29]

The mortality rate connected to climate change will increase in the absence of an all-inclusive mechanism to curb the adverse effect of climate change on human health. Closely related to this, Moyo and others, in their study conducted in 2023, found that climate change mortality rate will increase by 80 percent by 2030 in Africa with malaria leading the highest cause of mortality rate.[30] Climate change has enabled the rapid transmission of infectious diseases from mosquitoes across more than 100 countries in 2022.[31] The rate of transmission of climate related diseases across the globe undermines right to life and a strong violation of human right. The way forward is necessary to change the trajectory to this destructive path. This was further underscored by the study of Opoku and others, who posit that an effective collaboration between health organisations and the weather-related entities will ensure proactive measures in the reduction of climate-related mortality rates.[32] A significant

[28] SH Hamissou, Z Samiratou and M Soulé, 'Impacts of Climate Change on Human Health in the West Africa Sahelian Countries: A Review' (2023) 2(1) Journal of Business and Environmental Management 60-61 <https://www.journals.airsd.org/index.php/jbem/article/download/295/105> accessed 7 April 2025.

[29] Z Nouaceur, 'Renewed rains and flooding in Sahelian West Africa' (2020) 15 Physical Geography and Environment <https://doi.org/10.4000/physio-geo.10966> accessed 7 April 2025.

[30] Enos Moyo and others, 'Health Effects of Climate Change in Africa: A Call for an Improved Implementation of Prevention Measures' (2023) 2(2) Eco-Environment & Health 75 <https://doi.org/10.1016/j.eehl.2023.04.004> accessed 7 April 2025.

[31] World Health Organization (WHO), 'Dengue and Severe Dengue' (*WHO*, 2022) https://www.who.int/news-room/fact-sheets/detail/dengue-and-severe-dengue accessed 7 February 2022.

[32] SK Opoku, and others, 'Climate Change and Health Preparedness in Africa: Analysing Trends in Six African Countries' (2021) 18(9) International Journal of Environmental Research and Public Health 21 <https://doi.org/10.3390/ijerph18094672> accessed 7 April 2025.

element of the all-inclusive mechanisms is the financial costs in the reduction of climate change mortality rate.

Historically, there has been much resistance to intersect climate change and human rights. For instance, in 2009, the Office of the United Nations High Commission on Human Rights (OHCHR) stated that the climate change such as the effect of extreme weather conditions cannot be classified as a breach of human rights because these conditions were not created by the member states.[33] In a similar vein, the 1997 Kyoto Protocol, Paris Conference on Climate Change and the United Nations Conference on Environment and Development in Rio de Janeiro further undermined the intersection of climate change and human rights.[34] These international legal instruments did not adopt a normative approach for the inclusion of human rights in the discussions on climate change and provided no legal justification to bring cases under climate change as a violation of human rights. Several civil society groups and human activists have elicited a chorus for international organizations such as the United Nations to entrench the nexus between human rights and safe atmospheric conditions into various international legal instruments. The founding document of the World Health Organization in 1948 provides a legal framework that recognises right to health without a clear nexus to human rights. However, subsequent international instruments such as the Universal Declaration of Human Rights 1948, the International Covenant on Civil and Political Rights 1966 and the International Covenant on Economic, Social and Cultural Right have underscore the inclusion of a healthy environment as a human right.[35] The 1994 draft Declaration of Human Right and Environment in clear terms provided a nexus between human rights and rights to a safe and healthy environment through its provisions but nation

[33] Chuan-Feng Wu, 'Challenges to Protecting the Right to Health under the Climate Change Regime' (2021) 23(2) Health and Human Rights Journal 122 <https://pmc.ncbi.nlm.nih.gov/articles/PMC8694293/pdf/hhr-23-121.pdf> accessed 20 April 2025.

[34] ibid 123.

[35] Benjamin Meier, Flavia Bustreo and Lawrence Gostin, 'Climate Change, Public Health and Human Rights' (2022) 19(21) International Journal of Environmental Research and Public Health < https://doi.org/10.3390/ijerph192113744> accessed 17 April 2025.

states declined to advance discussions that would have addressed climate change at that time.[36]

In recent times, the World Health Organization has also made it clear that good atmospheric condition is a human right.[37] In the same vein, the Human Rights Council in 2021 has officially recognised rights to a safe and healthy environment in response a broad range of human rights which has been undermined by climate change.[38] This should be the normative approach to ensure that good atmospheric condition is linked to human right which was not specifically stated in the 1992 United Nations Framework Convention on Climate Change (UNFCCC), 2015 Paris Agreement and 2021 Glasgow Climate Pact.[39] The commitment to reduce green house gases in all these international right instruments should be classified under human right obligations of member states because a human right based approach will provide justifications to address climate change. The 1989 UN Convention on the Rights of the Child (CRC) makes provisions for member states to ensure atmospheric conditions are healthy and not hazardous to human health has been proven not to be effective with the astronomical levels of deaths associated with climate change.[40] In the same vein, the International Covenant on Economic, Social and Cultural Rights (ICESCR) which makes provisions for member states to adopt safeguards against the prevention and transmission of infectious diseases has been proven not to be effective because of the record numbers of climate related deaths across member states.[41] This necessitates an urgent call on governments across Africa to take decisive measures to protects human health against climate change.

The courts across many jurisdictions have inextricably linked human rights and climate change. The normative position therefore is the need for increased judicial interventions to hold that climate change

[36] ibid.
[37] ibid.
[38] ibid.
[39] ibid.
[40] UN Office of the High Commissioner for Human Rights (UN OHCHR), 'Convention on the Rights of the Child' (*UN OHCHR*, Geneva, 1989) https://www.ohchr.org/en/professionalinterest/pages/crc.aspx accessed 18 April 2025.
[41] Benjamin Meier, Flavia Bustreo and Lawrence Gostin, 'Climate Change, Public Health and Human Rights' (2022) 19(21) International Journal of Environmental Research and Public Health < https://doi.org/10.3390/ijerph192113744> accessed 17 April 2025.

undermines human rights and a serious infringement of right to life. This principle was upheld in *Leghari v Pakistan*[42] and *Urgenda v Netherlands*[43] and the African judicial system must adopt this human right based approach in addressing climate change. *In Juliana v United States*, the court underscored the nexus between human rights and climate change when it held that good atmospheric condition is a right that is required to sustain human life which is recognizable under the public trust doctrine.[44] The Nigerian case of *Gbemre v Shell Petroleum Development Company of Nigeria Ltd*,[45] underscored the nexus when the court held the activities of the multinational companies in the upstream and midstream sectors which includes but are mot limited to oil drilling, exploration and gas flaring violates the right to life and dignity of the indigenous people in that community.[46] These activities disrupt natural climatic conditions and jeopardises human health. In *Clean Air Foundation Limited and Gordon David Oldham v Government of the Hong Kong Special Administrative Region*,[47] the court in its judgment, underscored the constitutional obligation of the government of Hong Kong to provide clean atmospheric conditions to its people as necessary to health safety.

The court in *Montana Environmental Information Center v US Office of Surface Mining*,[48] held that burning of coal is hazardous to human health and the government should protect these rights by preventing the negative impacts of such harmful activities. In *Earthlife Africa Johannesburg v Minister for Environmental Affairs*,[49] the court relied on human right statutes to confer meaning on public interest in consideration of ecological examinations and activities that causes harm to the environment. It is palpable from these cases that the court can facilitate the human-rights based approach in addressing climate change.

---

[42] *Leghari v Pakistan* (2015) WP No 25501/2015.
[43] *Urgenda v Netherlands* (2015) ECLI NL RBDHA 2015/7145.
[44] *Juliana v United States* (2016) 217 F Supp 3d 1224, 1233.
[45] *Gbemre v Shell Petroleum Dev. Co. Nigeria Ltd. et al*. [2005] 6 AHRLR 151.
[46] ibid.
[47] (2007) HCAL 35.
[48] (2017) 274 F Supp 3d 1074.
[49] (2017) 65662/16.

3. METHODOLOGY

Using a mixed-methods approach that combines descriptive quantitative analysis and phenomenological qualitative inquiry, this cross-national study examined connections between climate action, public health, and environmental rights in the context of Nigeria and Ghana. This dual approach facilitated systematic review of demographic transitions and in-depth investigation of lived experiences for a well-rounded recognition of climate-health threats in Accra, Lagos, and their environs. A descriptive analysis is the engagement of present or historical quantitative data to analyse trends and relationships.[50] While phenomenological studies engage analytically, the lived experiences of people.[51] For the survey, geographically stratified, simple random sampling approach was used to recruit 85 (18–60-year-old) residents in climate-vulnerable urban/suburban areas. Application involved at least 5 years of living at the program location and personal experience with climate stressors (e.g., flooding, heatwaves). The responses to the survey, which was distributed via an anonymous online survey platform (Google Forms), included: Demographics (age, occupation and income), views about climate's influence on health, and the impact of climate change on the environment. There were 32 respondents from Ghana and 53 from Nigeria. For the phenomenological studies, five public health experts from Nigeria's Institute of Genomics and Global Health (Redeemer's University) were recruited via purposive sampling. In collecting data for the quantitative part of the study, a 35-item survey included Likert-scale questions and multiple-choice prompts, validated through pilot testing (Cronbach's $\alpha = 0.82$). Data were aggregated in Looker Studio for visualization of trends in climate vulnerability and health priorities. And for the phenomenological study, regional climate vulnerability assessment, specific health impacts in Ghana and Nigeria, global climate action and local impacts, and recommendations for policy. Descriptive statistics, in the form of bar charts were used to convey the distribution of responses

[50] Catherine Cote, 'What is Descriptive Analytics? 5 Examples' (*Harvard Business School Online*, 9 November, 2021) <https://online.hbs.edu/blog/post/descriptive-analytics> accessed 20 April 2025

[51] Danuta M Wojnar and Kristen M Swanson, 'Phenomenology: An Exploration' (2007) 25(3) Journal of Holistic Nursing

to primary survey questions, such as the proportion of respondents who believe climate change affects public health or who have experienced climate-related health impacts. Taguette software was used for thematic analysis which was carried out in accordance to the six steps approach suggested by Braun and Clarke,[52] such as; transcript familiarization, initial code generation, theme identification, theme review and refinement, final thematic mapping, triangulation with survey findings. Informed consent (with opt-out rights) was obtained from all participants. Specific details such as names, references to exact relationships, etc., have been removed from transcriptions. The results were given collectively. This integrated approach between macro and micro levels enabled the generation of knowledge for climate-resilient health policies in West Africa.

[52] Virginia Braun and Victoria Clarke, *Thematic Analysis: A Practical Guide* (Sage Publications 2022)

4.0 RESULTS, FINDINGS AND DISCUSSION

4.1 Climate Change Impacts on Public Health in Nigeria

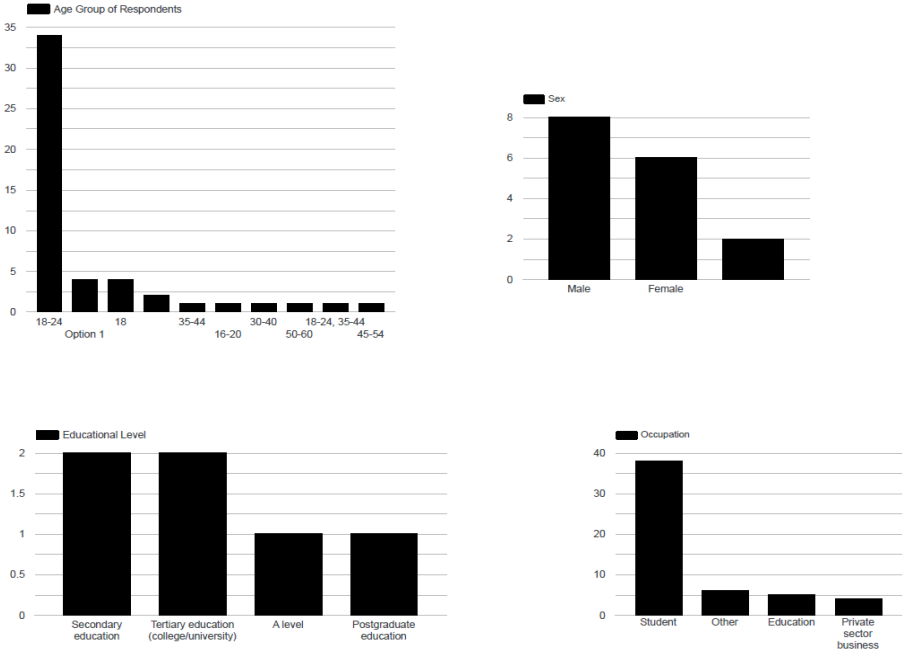

Figure 1 Demographic Labels of Nigerian Respondents

In understanding climate change impacts in Nigeria, a survey was conducted in Nigeria, and data was gotten from 53 respondents. The data presented in the demographic section of the study took account of questions such as 'What is your age group?' 'What is your sex? 'What is your highest level of educational attainment? The data reflects the age distribution of 51 survey respondents. The vast majority of respondents, accounting for 68.6% (35 out of 51), fall within the 18-24 age group. This indicates that the sample is heavily skewed toward young adults. Smaller

proportions are distributed across other age groups. Other age groups are minimally represented, 3.9% (2 respondents) are in the 35-44 age group, while the 16-20, 19, 21, 24-29, 30-40, 45-54, and 50-60 age groups each account for only 2% (1 respondent each). This distribution suggests that the survey primarily reached or appealed to younger adults, with very limited participation from older age groups. The data shows a strong youth representation. A total of 50 responses were collected.

In the section concerned about the sex of the respondents, it shows that male respondents are the majority, accounting for 35 out of 50, which is 70 percent of the total responses. In contrast, female respondents make up 30 percent, with 15 out of 50 participants. This indicates a significant gender disparity among the surveyed individuals, with females being more than twice as many as males. On the question of the highest level of educational attainment among 53 survey respondents. The data reveal that a substantial majority, 81.1 percent, have completed tertiary education, indicating that most participants have attended college or university. This is followed by 11.3 percent of respondents whose highest qualification is secondary education, suggesting a much smaller proportion with only high school-level education.

A smaller fraction, corresponds to those with postgraduate education, which appears to be a minority among the respondents. The chart also includes very small percentages for other categories each making up only a minimal fraction of the sample. The dominance of tertiary-educated individuals in the survey suggests that the respondent pool is highly educated, which may influence the perspectives and insights captured in the broader study, particularly regarding issues such as climate change and public health. This educational profile reflects the accessibility of the survey and the networks through which it was distributed, potentially limiting the representation of less-educated populations. shows that the majority of respondents, 71.percent, identify as students. This finding aligns with the high proportion of tertiary-educated individuals, as many may be currently enrolled in higher education institutions. Other occupational categories are much less represented, 11.3 percent fall under 'Other,' which could include a variety of professions not specified in the survey; 9.4 percent are unemployed, and 7.5 percent work in the private sector business. There are very few respondents working in

agriculture, the public sector, healthcare, or education. The dominance of students and the unemployed, combined with the high education levels, suggests that the survey sample is largely composed of young adults at the beginning of their careers or still in the process of completing their education. This demographic profile may affect the generalizability of the findings, as it does not fully capture the perspectives of older, working professionals or those in less-educated or rural sectors.

The data indicate that the survey respondents are mostly young, highly educated individuals, predominantly students. This could result in a more progressive or informed outlook on issues such as climate change and public health, but may also mean that the views of other important demographic groups are underrepresented in the survey results. Climate change represents one of the most significant challenges to public health and environmental rights in Nigeria presently. As Africa's most populous nation with over 200 million citizens, Nigeria faces disproportionate impacts from climate change that threaten fundamental human rights to health and a safe environment.[53] Recent evidence indicates that Nigerian stakeholders are increasingly recognising these challenges and working to implement solutions at both national and regional levels, though significant barriers remain.[54]

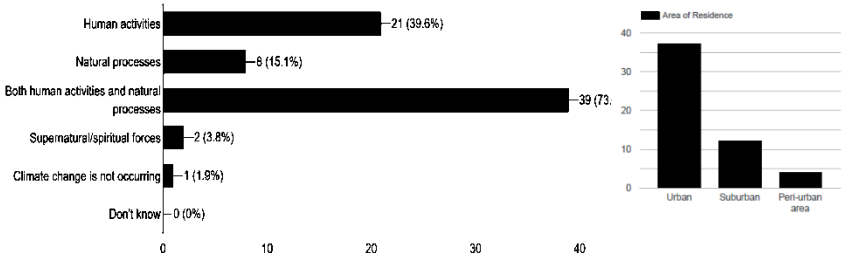

Figure 2 Climate Change Impacts in Nigerian Communities

[53] Salifu Dumbuya, Rhodah Chabinga, Manaye Asefa Ferede, Mohamed Saber, 'Climate Change Impacts on Maternal Health and Pregnancy Outcomes in Africa' (2024) 22 (11) Journal of Water & Health

[54] Adaku Jane Echendu ,'The Impact of Flooding on Nigeria's Sustainable Development Goals (SDGs)' (2020) 6(1) Ecosystem Health and Sustainability

Figure 2 present the results of a survey with 53 respondents, focusing on perceptions of climate change causes and the demographic distribution of where respondents reside. The first bar chart analyzes beliefs about the main causes of climate change. A large majority; 73.6 percent believe that both human activities and natural processes contribute to climate change, indicating a nuanced understanding among respondents. Furthermore, 39.6 percent attribute climate change solely to human activities, while 15.1 percent believe only natural processes are responsible. A small minority selected supernatural/spiritual forces 3.8 percent, and just one respondent, 1.9 percent believes climate change is not occurring. Notably, no respondents selected 'Don't know,' suggesting a high level of confidence or awareness about the topic among participants.

The second bar chart shows the residential distribution of respondents. Most live in urban areas 69.8 percent, followed by suburban residents, 22.6 percent, and a smaller portion from peri-urban areas which are 7.5 percent. This urban-centric sample may influence the survey results, as urban populations often have greater exposure to climate change information and may be more aware of environmental issues due to local policies, education, and media coverage. The data suggests that the majority of respondents are well-informed about climate change, recognizing both human and natural factors. The urban dominance in the sample could also reflect higher environmental awareness typically found in cities. The small percentages attributing climate change to supernatural causes or denying its existence highlight that misinformation or alternative beliefs persist, but are relatively uncommon in this group. The data in Figure 2 reinforces the assumption that climate change is closely linked to public health outcomes in West Africa and affects the well-being of the population through various environmental and socio-economic channels. Increased temperatures, more intense and frequent droughts, and altered rainfall patterns are not just threatening food and water security, but are also heightening the risks of infectious diseases and disrupting public health initiatives.[55]

[55] Anam Saleem, Sobia Anwar, Taufiq Nawaz, Shah Fahad, Shah Saud, Tanzeel Ur Rahman, Muhammad Nasir Rasheed Khan and Touqir Nawaz, 'Securing A Sustainable Future: The

These disruptions are particularly acute in West Africa, where the impacts of climate change are compounded by existing vulnerabilities such as poverty, gender inequality, and fragile health systems.[56] The region's exposure to environmental hazards like floods and heatwaves often results in direct health threats, while indirect effects, such as deteriorating air and water quality, further endanger public health. In West Africa, climate-related stressors intensify pre-existing challenges like food insecurity, displacement, and limited access to essential health services. These pressures heighten the risks of maternal mortality, gender-based violence, and harmful practices. Despite some progress, maternal deaths and other adverse health indicators remain significantly above global averages.[57] National climate policies in the region are beginning to recognise these links, but only a minority of countries have explicitly integrated sexual and reproductive health and rights, or measures to address gender-based violence, into their climate action plans.[58] This gap signals a need for more comprehensive and inclusive strategies that address the differentiated impacts of climate change on various population groups.

Policy responses are evolving, with regional and national initiatives aiming to build resilience and minimise the health consequences of environmental change. Plans of action emphasise the importance of

---

Climate Change Threat to Agriculture, Food Security, and Sustainable Development Goals' (2024Journal of Umm Al-Qura University for Applied Sciences

[56] Caradee Y Wright, Thandi Kapwata, Natasha Naidoo, Kwaku Polu Asante, Raphael E Arku, Guéladio Cissé, Belay Simane, Lynn Atuyambe and Kiros Berhane, 'Climate Change and Human Health in Africa in Relation to Opportunities to Strengthen Mitigating Potential and Adaptive Capacity: Strategies to Inform an African "Brains Trust"' (2024) 90(1) Annals of Global Health

[57] World Health Organization African Region, 'African Region's Maternal and Newborn Mortality Declining, But Progress Still Slow' (*World Health Organization African Region*, 07 April, 2025) <https://www.afro.who.int/news/african-regions-maternal-and-newborn-mortality-declining-progress-still-slow#:~:text=Despite%20a%2040%%20decline%20in%20maternal%20mortality%2C,Africa%20region%20%E2%80%93%20many%20from%20preventable%20causes.> accessed 15 April, 2025

[58] Framework Convention on Climate Change, 'Differentiated Impacts of Climate Change on Women and Men; The Integration of Gender Considerations in Climate Policies, Plans and Actions; and Progress in Enhancing Gender Balance in National Climate Delegations' *(Framework Convention on Climate Change*, Synthesis Report by the Secretariat, 12 June 2019)

strengthening health systems, improving surveillance, and engaging cross-sectoral collaboration to enhance preparedness and adaptive capacity.[59] These efforts are designed to ensure that health systems can better anticipate, withstand, and recover from climate-related shocks. There is also a call for greater investment in research, data collection, and the use of gender-disaggregated information to inform more targeted and effective interventions. Finally, the data points to the necessity of integrated approaches that bridge climate action and public health, supporting the realisation of the right to a safe and healthy environment for all in West Africa.

In the context of the study on global climate action and public health initiatives in West Africa, these climate stressors illustrate the tangible environmental changes that exacerbate vulnerabilities in the region. The irregular rainfall and rising temperatures contribute to increased drought frequency and intensity, while more severe flooding events disrupt communities and health infrastructure.[60] Such environmental disruptions amplify the incidence of climate-sensitive diseases, including malaria and respiratory infections, which have been documented as rising health concerns in the study. The connection between these climatic factors and health outcomes demonstrates the urgency of integrating climate adaptation into public health planning to promote the right to a safe and healthy environment.

[59] Edward Wilson Ansah, Mustapha Amoadu, Paul Obeng and Jacob Owusu Sarfo, 'Health Systems Response to Climate Change Adaptation: A Scoping Review of Global Evidence' (2024) 24 BMC Public Health

[60] Degfie Teku and Sintayehu Eshetu, 'Impact of Climatic Variabilities and Extreme Incidences on the Physical Environment, Public Health, and People's Livelihoods in Ethiopia' (2024) 6 Frontiers in Climate.

4.2 Climate Change Impacts on Public Health in Ghana

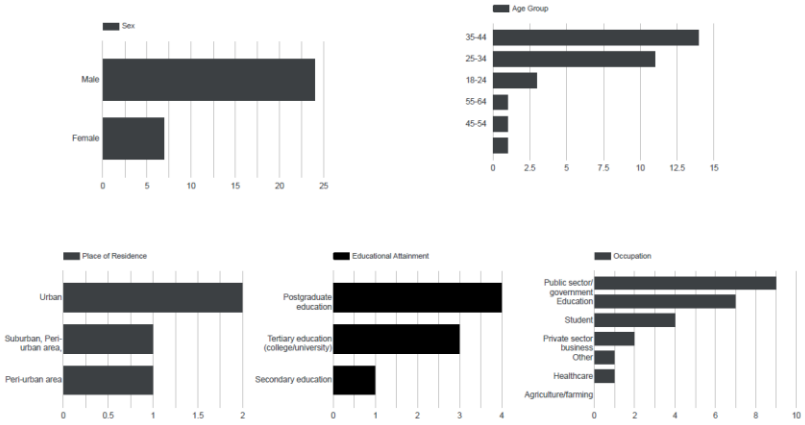

Figure 4 Demographic Labels of Ghanaian Respondents

The demographic profile of survey respondents in Ghana, reveal in the first chart presents the sex distribution among 32 respondents. The results show a significant imbalance, with 78.1 percent identifying as male and only 21.9 percent as female. This suggests that the surveyed population is predominantly male, which may influence the perspectives and outcomes of any further analysis based on this group. The second chart displays the age group breakdown of 31 respondents. The majority fall into the 25-34 (38.7 percent) and 35-44 (45.2 percent) age brackets, indicating that most participants are young to middle-aged adults. There is minimal representation from those aged 18-24 (9.7 percent), 45-54 (3.2 percent), and 55-64 (3.2 percent), with no respondents aged 65 or older. This age distribution points to a relatively youthful and potentially professionally active demographic.

The third chart examines the current place of residence for 32 respondents. An overwhelming majority (93.8 percent) reside in urban areas, with only a small number living in suburban (3.1 percent) or peri-urban (6.3 percent) areas. This urban-centric sample suggests that the findings may primarily reflect urban experiences and perspectives, with limited insight into suburban or rural contexts. The fourth chart focuses

on the highest level of educational attainment among 32 respondents. The largest segment (59.4 percent) has postgraduate education, followed by 37.5 percent with tertiary (college/university) education. Only a very small proportion has secondary education (3.1 percent), and none reported primary or no formal education. This indicates a highly educated sample, which could correlate with specific professional or socioeconomic characteristics. The data reveals a predominantly male, urban, highly educated, and young-to-middle-aged group of respondents. These demographic characteristics should be considered when interpreting the results, as they may not be representative of broader or more diverse populations. The chart presents the distribution of primary occupations among 32 respondents. The largest segment, comprising 37.5 percent of the participants, is employed in the public sector or government roles. This indicates a significant leaning towards public service within the surveyed group. Education represents the next largest category at 25 percent, suggesting that a quarter of respondents are involved in teaching or academic professions. Students make up 15.6 percent of the responses, reflecting a notable presence of individuals currently pursuing their studies.

Private sector business accounts for 12.5 percent of respondents, indicating a moderate representation from this sector. The remaining categories-agriculture/farming, healthcare, unemployed, and other-each constitute a much smaller proportion of the total, with agriculture/farming and healthcare both appearing to be the least represented. This distribution highlights a workforce primarily oriented towards public service and education, with fewer participants in private enterprise, healthcare, or agriculture. The relatively high percentage of students also suggests a younger or transitional demographic within the sample.

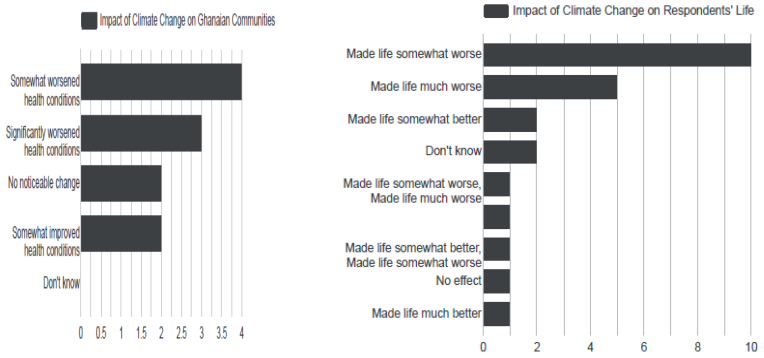

Figure 5 Impact of Climate Change on Respondents' Lives and Environment

The first image presents a bar chart summarizing responses to the question, 'How has climate change affected health conditions in your community over the past five years?' Out of 32 responses, half (50 percent) believe that climate change has significantly worsened health conditions in their community. Another substantial portion, 34.4 percent, feel that it has somewhat worsened health conditions. A smaller share, 6.3 percent, report no noticeable change, while 6.3 percent think health conditions have somewhat improved. The remaining responses are divided between those who believe health conditions have significantly improved and those who are unsure, both representing very small fractions of the total. The chart indicates a strong perception that climate change has had a negative impact on community health.

The second chart addresses the question, 'How has climate change affected your life personally?' Again, with 32 respondents, the largest group (46.9 percent) say climate change has made their life somewhat worse, and 28.1 percent say it has made their life much worse. A minority report positive effects: 3.1 percent say it made life much better and 9.4 percent say somewhat better. Only 3.1 percent report no effect, and 12.5 percent are unsure. This distribution demonstrates that most respondents perceive a personal negative impact from climate change, with only a small minority experiencing positive or no effects.

Viewed alongside broader West African initiatives aimed at securing the human right to a clean and healthy environment, Ghana's focus on demographic and occupational detail offers a model for tailoring interventions to local realities.[61] Internationally, there is growing momentum behind linking greenhouse-gas reduction targets with health-sector strengthening, and Ghana's data-driven approach could help align climate finance with investments in primary care, water and sanitation infrastructure, and community-level disease surveillance. This alignment between demographic insight and policy design not only strengthen the legitimacy of interventions but also enhances their effectiveness, ensuring that commitments made at international fora translate into healthier, more resilient communities across West Africa.

This survey data reflects a noticeable disruption in both health conditions and general wellbeing, attributed to shifts in temperature, rainfall patterns, and more frequent extreme weather events. These impacts echo trends observed across West Africa, where nations grapple with similar vulnerabilities. In this context, Ghana's response framework shows both ambition and constraint. The government's initiatives, while outlined with intent, face obstacles common to many countries in the region such as limited funding, gaps in data collection, and the challenge of coordinating across multiple sectors.[62] The document emphasises the importance of raising awareness and improving infrastructure, particularly in health services, to withstand the pressures of a changing climate. This aligns with the regional push for integrating public health into climate adaptation plans, recognising that environmental degradation and public health are tightly connected. Where Ghana's climate action strategy stands out is in its community-level focus.[63] The inclusion of citizen voices in evaluating the effects of climate change reflects a growing recognition that local input is essential to engaging effective responses. This grassroots

[61] Christabel E Dadzie, Mawuko Fumey, and Suleiman Namara, 'Youth Employment Programs in Ghana Options for Effective Policy Making and Implementation' (*World Bank Group, International Development in Focus*, 2020)
[62] National Development Planning Commission, 'Vision 2057: Long-Term National Development Perspective Framework' (*National Development Planning Commission,* 2024)
[63] Albert Arhin and Richard Tetteh, 'Community Resilience: Integrating Local Approaches into Ghana's Climate Change Adaptation Agenda' (*Africa Policy Research Institute,* Africa's Climate Agenda, Policy Brief, 5 February, 2024)

dimension can serve as a model for other West African countries, reinforcing the idea that safeguarding health and environmental rights starts from the ground up.

Taken alongside regional climate and health initiatives, Ghana's efforts can be seen as part of a larger move to operationalise environmental justice. The country's experiences demonstrate the urgency of coordinated action at both nationally and across borders in ensuring that development policies are resilient to environmental threats and that the most vulnerable populations are not left behind. In many ways, Ghana's case typifies the broader regional demand for climate justice as a public health imperative.

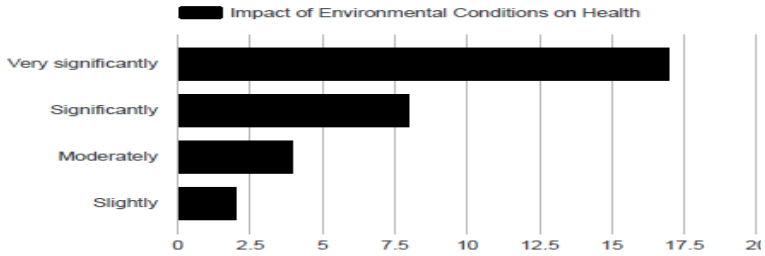

Figure 6 Impact of Climate Change on Respondents and their Communities

Figure 6 displays a bar chart on the perceived impact of environmental conditions on health, asking, 'To what extent do you believe environmental conditions in your area affect your health?' The majority, 53.1 percent, believe environmental conditions affect their health 'very significantly,' while 25 percent say 'significantly.' Another 15.6 percent rate the impact as 'moderate,' and 6.3 percent as 'slight.' Notably, no respondents selected 'not at all.' This data reveals a strong consensus that environmental conditions are an important determinant of health among the surveyed group, with most respondents perceiving a significant or very significant effect.

What is peculiar in the Ghanaian context is the layered understanding of climate impacts, not only are there widespread acknowledgments of worsening conditions, but there is also a measured awareness of the degrees of those effects. People are not just responding with blanket fear or confusion, their answers suggest lived knowledge, formed by frequent interaction with a changing natural world. This awareness is part of a critical foundation for policy approaches that need to move beyond generalised messaging and into tangible, health-focused responses that match what people actually report facing. In the broader West African framework, these findings support the argument that climate action cannot remain detached from health systems planning. Governments, with support from regional and international partners, will need to treat health not as a secondary consequence of environmental change but as a starting point for any effective strategy. Ghana's case shows the potential of public input as a guiding tool, especially in designing programs that respect rights and respond to actual needs. This approach could serve as a model across the region, where the right to health and the right to a clean and safe environment are inseparable.

4.3 Climate Change Impacts, Global Climate Action and Public Health Initiatives

Climate change has emerged as one of the most consequential factors affecting public health outcomes across West Africa, impacting disease patterns, transforming environmental conditions, and challenging healthcare systems. Analysis of interviews with public health experts at the Institute of Genomics and Global Health, Redeemer's University, Nigeria, focusing on Ghana and Nigeria reveals profound connections between climate phenomena, health outcomes, environmental rights, and global action, as public health expert 1 noted, 'Initially climate change meant to me, rising sea levels and extreme weather. However, over the years, I have come to understand that climate change affects health as well such as the rising cases of waterborne and vector-borne diseases.'[64] The transformation of climate change from a distant environmental concern to

[64] Interview with Public Health Expert 1, Institute of Genomics and Global Health, Redeemer's University, Nigeria (Ede, Nigeria, 10 April, 2024)

an immediate public health emergency stands out as regional temperatures rise, rainfall patterns shift, and extreme weather events intensify, with particularly severe impacts on vulnerable populations despite their minimal contribution to global emissions.

The interviews reveal several patterns and relationships concerning climate change impacts, global climate action, public health initiatives, and the right to a safe and healthy environment in West Africa, specifically Ghana and Nigeria. A significant theme is the evolving understanding of climate change as a direct public health crisis, not merely an environmental issue. Experts note a heightened awareness of the connections between environmental degradation and disease patterns, particularly vector-borne and zoonotic infections. This understanding has grown over time, shifting from viewing climate change as rising sea levels and extreme weather to recognizing its impacts on water safety, disease prevalence (like malaria and cholera), and agricultural productivity.[65]

Several climate-related health challenges disproportionately affect West African communities. These include increased cases of vector-borne diseases due to expanding mosquito habitats, waterborne diseases from floods and poor sanitation, respiratory illnesses from worsening air quality, and malnutrition from erratic rainfall and drought. Extreme heat events exacerbate conditions, leading to dehydration, heatstroke, and cardiovascular complications, especially among vulnerable populations like the elderly, children, and outdoor workers. Mental health issues, stemming from displacement, loss of livelihoods, and the stress of environmental changes, are also becoming more evident, though data and recognition in this area are still lacking.[66] The level of awareness and prioritisation of climate-related health issues is increasing among health professionals and policymakers, particularly in the context of disaster response and disease outbreaks. However, awareness remains low at the community level, hindering adaptation efforts. Many people do not connect their health problems to climate issues directly, and policy action often lags until a disaster occurs.

[65] Interview with Public Health Expert 2, Institute of Genomics and Global Health, Redeemer's University, Nigeria (Ede, Nigeria, 10 April, 2024)
[66] Interview with Public Health Expert 2, Institute of Genomics and Global Health, Redeemer's University, Nigeria (Ede, Nigeria, 10 April, 2024)

Climate patterns such as floods and droughts significantly impact public health outcomes. Recurrent floods displace communities, leading to waterborne diseases. Droughts lead to food shortages, increasing malnutrition and vulnerability to infectious diseases. Rising temperatures and declining rainfall reduce agricultural productivity, alter disease transmission patterns, and increase heat-related illnesses. Urban areas face challenges like air pollution and heatwave effects, while rural communities are more vulnerable to food and water insecurity. Existing data collection and monitoring systems, such as disease surveillance networks and meteorological systems, are often not integrated, creating gaps in tracking climate change impacts on health.[67] There is a need for more comprehensive and coordinated systems that can provide early warnings and inform targeted interventions. International climate finance mechanisms have been ineffective in supporting public health adaptation in West Africa.[68] North-South partnerships need to prioritise technology transfer, fair trade practices, and climate justice to address the disproportionate burden on African communities.[69]

Lessons from events like the Planetary Health Conference 2020 in The Gambia emphasise the urgency of addressing climate-related health risks and highlight the potential of innovations like satellite-based disease surveillance, solar-powered cold chains for vaccines, and AI tools for predicting disease outbreaks based on climate data.[70] Technological innovations such as satellite monitoring, data analytics, and weather forecasts show promise for addressing climate-related health challenges. Community-based adaptation strategies, like early-warning systems for floods and disease outbreaks, are effective in building health resilience. Integrating traditional ecological knowledge into climate-health response strategies can also bridge the gap between modern science and local

[67] Interview with Public Health Expert 3, Institute of Genomics and Global Health, Redeemer's University, Nigeria (Ede, Nigeria, 10 April, 2024)
[68] Interview with Public Health Expert 5, Institute of Genomics and Global Health, Redeemer's University, Nigeria (Ede, Nigeria, 10 April, 2024)
[69] Interview with Public Health Expert 3, Institute of Genomics and Global Health, Redeemer's University, Nigeria (Ede, Nigeria, 10 April, 2024)
[70] Interview with Public Health Expert 2, Institute of Genomics and Global Health, Redeemer's University, Nigeria (Ede, Nigeria, 10 April, 2024)

experience, enhancing the effectiveness and cultural relevance of interventions.

5. CONCLUSION

The evidence assembled from Nigeria and Ghana demonstrates that environmental changes in West Africa are placing escalating pressures on public health systems and undermining people's ability to enjoy a healthy environment. Rising temperatures, altered precipitation patterns, and more frequent extreme weather events have been shown to exacerbate disease transmission and disrupt access to essential services. These insights demonstrate the need for policies that weave together environmental justice and health-system resilience, treating access to a safe, healthy environment as a legally enforceable right. Moving forward, national governments must align domestic laws with international climate agreements and strengthen collaboration between ministries of health, environmental agencies, and climate-change units. Securing dedicated funding, both from international climate finance mechanisms and national budgets, for health-sensitive adaptation projects will be critical. Equally important is investing in training for health practitioners, environmental officers, and community leaders so they can anticipate and manage climate-driven risks. Centering the voices of those most affected, through community-led planning and participatory decision-making, will ensure interventions respond to real needs and reinforce the bond between human dignity and environmental stewardship.

6. RECOMMENDATIONS

To effectively advance the human right to a safe and healthy environment in West Africa through global climate action and public health initiatives, the following recommendations are proposed. Firstly, that West African governments, particularly in Nigeria and Ghana, should integrate climate adaptation strategies into national public health policies. There is a critical need for legislation that explicitly recognises the right to a safe and healthy environment as a justiciable right. Policymakers must also harmonise environmental laws with public health mandates, ensuring a coherent legal framework that supports climate-resilient health systems. International

climate agreements should be domesticated and enforced at the national level to bridge the gap between global commitments and local implementation.

Institutional synergy is essential. There must be improved coordination between environmental protection agencies, ministries of health, and climate change units. West African countries should establish or strengthen inter-agency task forces or commissions that focus specifically on climate-health linkages. Furthermore, regional bodies like ECOWAS should facilitate transboundary cooperation on climate-induced health risks such as infectious diseases, food insecurity, and displacement. Regional action plans can help in managing shared vulnerabilities and scaling up interventions across borders. Access to climate finance remains a major barrier. Governments must actively seek funding from international climate finance instruments such as the Green Climate Fund and the Adaptation Fund, ensuring that a fair portion is directed toward health-related projects. National budgets should also allocate dedicated resources to climate-health initiatives. Additionally, public-private partnerships can be explored to support infrastructure development, early warning systems, and emergency response services that are climate-sensitive.

Capacity building should target both institutional and community levels. Health professionals need training on climate-related diseases and adaptation strategies, while environmental officers should be equipped with tools for health impact assessments. Academic and research institutions should collaborate across borders to generate and disseminate climate-health knowledge relevant to the West African context. There is also a need for accessible data platforms to support evidence-based decision-making and resource allocation. Communities are on the frontline of both climate change and public health crises. Hence, community-led initiatives should be recognised and supported. Public awareness campaigns can educate citizens about climate change, environmental rights, and health resilience practices. Traditional leaders, youth groups, and women's associations should be integrated into climate-health planning processes.