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Climate-Induced Displacement and Conflict -Addressing Nigeria's Climate Vulnerability and Resilience Gaps

Nigeria Outlook - May, 2025

Ibrahim Wambai and Ifeoma Malo

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Background

In March 2023, floods affected approximately 33,983 individuals across Nigeria, causing extensive displacement and destruction of property.[1] The previous year had witnessed severe flooding that impacted over 3 million people across West Africa, with Nigeria being one of the hardest-hit countries to suffer massive displacements, exacerbated malnutrition and the spread of diseases.[2] Across Africa, Nigeria suffered the largest flood displacement events between 2018 and 2023 (Figure 1).

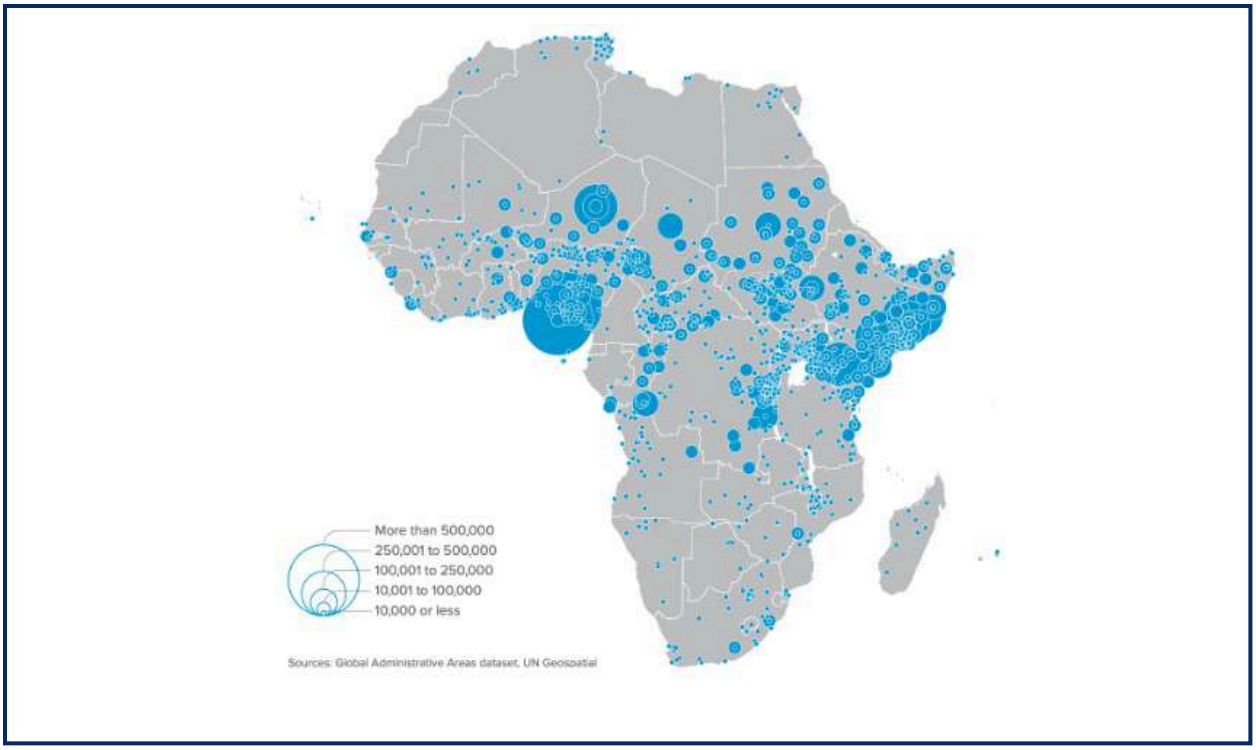

Figure 1: Location of flood displacement events in Africa (2018-2023).[3]

At the same time, intense heatwaves are increasing in frequency.[4] Heatwaves are projected to almost quadruple to more than 20%, with the number of very hot days set to increase by

[1] Fortune Eromosele (10 August 2023). "Over 33,983 persons already affected by flood in 2023 — NEMA", *Vanguard*. https://www.vanguardngr.com/2023/08/over-33983-persons-already-affected-by-flood-in-2023-nema/.

[2] Diaw, Modou (19 November 2024) "Les populations d'Afrique de l'Ouest sont vulnérables au changement climatique, auquel elles n'ont pourtant que très peu contribué", *Le monde*.https://www.lemonde.fr/idees/article/2024/11/19/les-populations-d-afrique-de-l-ouest-sont-vulnerables-au-changement-climatique-auquel-elles-n-ont-pourtant-que-tres-peu-contribue_6402652_3232.html?utm.

[3] International Displacement Monitoring Centre (2025). "Internal Displacement in Africa". https://www.internal-displacement.org/regional-reports/internal-displacement-in-africa/.

[4] Johnson, Michael (13 August 2024). "Relentless Heatwaves in Nigeria", Climate Scorecard. https://www.climatescorecard.org/2024/08/relentless-heatwaves-in-nigeria/#:~:text=Heatwaves%20in%20Nigeria%20have%20profound,of%20air%20conditioning%20or%20fans.

about 90 days in most regions of Nigeria. Heat-related mortality is projected to increase from about 2 to almost 10 deaths per 100,000[5] people per year by 2080.

Over the past 30 years, Nigeria has lost 90 per cent of its total forest cover, that is 10 million hectares or 10 per cent of its total land area, with the largest desertification rate in the world of approximately 3.5 per cent, degrading 350,000 to 400,000 hectares annually.[6] This also creates a significant loss of approximately $5.1 billion annually, impacting over 70 million Nigerians, 75 million hectares of land and 1.4 billion people worldwide, out of which over 70 percent are vulnerable populations.[7]

Particular regions are more prone to certain kinds of vulnerabilities. Northern Nigeria faces longer dry spells, which adversely affect rain-fed agriculture and reduce crop yields by 25% to 85%, increasing poverty and heightened food insecurity among rural communities.[8] Unpredictable rainfall patterns and extreme temperatures have reduced staple crop yields by up to **30% in the Sahel region**, fueling food insecurity and malnutrition.[9] Studies indicate that altered climate conditions have resulted in regional average yield reductions of 10–20% for millet and 5–15% for sorghum.[10] Rising temperatures and extreme weather events are projected to decrease maize yield, a critical staple in the Sahel.[11] The average annual production losses across West Africa from 2000 to 2009, attributed to historical climate

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[5] ifo (2021). Climate Risk Profile. Munich: ifo Institute for Economic Research and Climate Analytics gGmbH. https://www.ifo.de/DocDL/SLICE_Climate-Risk-Profile_Nigeria_EN_17-2.pdf.

[6] Nature News (22 August 2022). "Nigeria loses 55.7% primary forest, tops global desertification rates", Nature news. https://naturenews.africa/nigeria-loses-55-7-primary-forest-tops-global-desertification-rates/; Aigbe, Humphrey I. & Oluku, Sunny (2012). Depleting Forest Resources of Nigeria and its Impact on Climate. Journal of Agriculture and Social Research, 12(2): 1-6. https://www.researchgate.net/publication/274375070_DEPLETING_FOREST_RESOURCES_OF_NIGERIA_AND_ITS_IMPACT_ON_CLIMATE.

[7] Odiogor, Hugo (3 May 2010). "Special Report on Desertification in Nigeria: The sun eats our land", *Vanguard*. https://www.vanguardngr.com/2010/05/special-report-on-desertification-in-nigeria-the-sun-eats-our-land/; Rivera-Marin, Daniela, Dash, Jadunandan, & Ogutu, Booker (2022). The use of remote sensing for desertification studies: A review. *Journal of Arid Environments*, 206: 104829. https://doi.org/10.1016/j.jaridenv.2022.104829.

[8] Lee, Seongeun (2024). Alert on potential crop failure due to dry spells. Presentation at the Abuja Food Security Sector (FSS) Online Meeting, 29 August. https://fscluster.org/sites/default/files/2024-08/Alert%20on%20potential%20crop%20failure%20Nigeria.pdf; Marcos-Garcia, Patricia, Carmona-Moreno, Cesar & Pastori, Marco (2024). Intra-growing season dry–wet spell pattern is a pivotal driver of maize yield variability in sub-Saharan Africa. *Nature Food*, 5: 775–786. https://doi.org/10.1038/s43016-024-01040-8.

[9] Alliance Sahel (3 July 2024). Sahel Alliance Members' Priority: Resilience to Shocks Through Food Security. https://www.alliance-sahel.org/en/news/agriculture-rural-development-and-food-security/priority-food-security.

[10] Sultan, Benjamin, Defrance, Dimitri & Iizumi, Toshichika (2019). Evidence of crop production losses in West Africa due to historical global warming in two crop models. Scientific Reports, 9: 12834. https://doi.org/10.1038/s41598-019-49167-0.

[11] Christino, Martha (19 December 2023). "How Climate Change Fuels Conflict in the Sahel", American Security Project (ASP). https://www.americansecurityproject.org/how-climate-change-fuels-conflict-in-the-sahel/.

change, are estimated at $2.33–4.02 billion USD for millet and $0.73–2.17 billion USD for sorghum[12]. Competition over water and arable land has further intensified intercommunal clashes, with **90% of farmer-herder conflicts now linked to climate stressors**[13].

In the Niger Delta, 43% of the population lives below the poverty line, and these states have one of the highest unemployment rates in the country.[14] Between 1976 and 1996, the region experienced **4,835 reported oil spill incidents**, resulting in the spillage of **over 2.4 million barrels** of oil.[15] Notably, **77%** of this oil spillage, equating to about **1.9 million barrels**, was lost directly to the environment.

These regional climate vulnerabilities and aggregate national vulnerability are major reasons why the Children's Climate Risk Index (CCRI) ranked Nigeria second (extremely high-risk) out[16] of 163 countries based on risk exposure to the impacts of climate change.[17] The country is at the frontline of climate-induced conflict and fragility, facing rising temperatures, erratic rainfall, desertification, coastal erosion, and extreme weather events. These environmental stressors intensify **human security threats**, including food and water scarcity, displacement, and conflicts over dwindling natural resources.

This (Technical brief) report evaluates Nigeria's **climate-human security landscape**, highlighting data-driven vulnerabilities, policy gaps, and the potential for **culturally grounded resilience strategies**.

1. Climate Change Vulnerability in Nigeria

Climate vulnerability refers to the degree to which a system—whether ecological, social, or economic—is susceptible to, or unable to cope with, the adverse effects of climate change. It is shaped by three core factors: exposure to climate risks (such as floods, droughts, and extreme heat), sensitivity to those risks (such as reliance on rain-fed agriculture or fragile health systems), and adaptive capacity

[12] Sultan et al., Evidence of crop production losses in West Africa.

[13] Siegfried, Kristy (12 November 2024). "Climate change fuels deadly conflict in Nigeria's Middle Belt", *UNHCR*. https://www.unhcr.org/us/news/stories/climate-change-fuels-deadly-conflict-nigeria-s-middle-belt.

[14] Igwe, Uche (11 July 2024). "Energy poverty in Nigeria's Niger Delta is reversible by embracing the energy transition", LSE. https://blogs.lse.ac.uk/africaatlse/2024/07/11/energy-poverty-in-nigerias-niger-delta-is-reversible-by-embracing-the-energy-transition/#:~:text=Forty-three%20per%20cent%20of,unemployment%20rates%20in%20the%20country.

[15] Vidal, John (30 May 2010). "Nigeria's agony dwarfs the Gulf oil spill. The US and Europe ignore it", *The Guardian*. https://www.theguardian.com/world/2010/may/30/oil-spills-nigeria-niger-delta-shell.

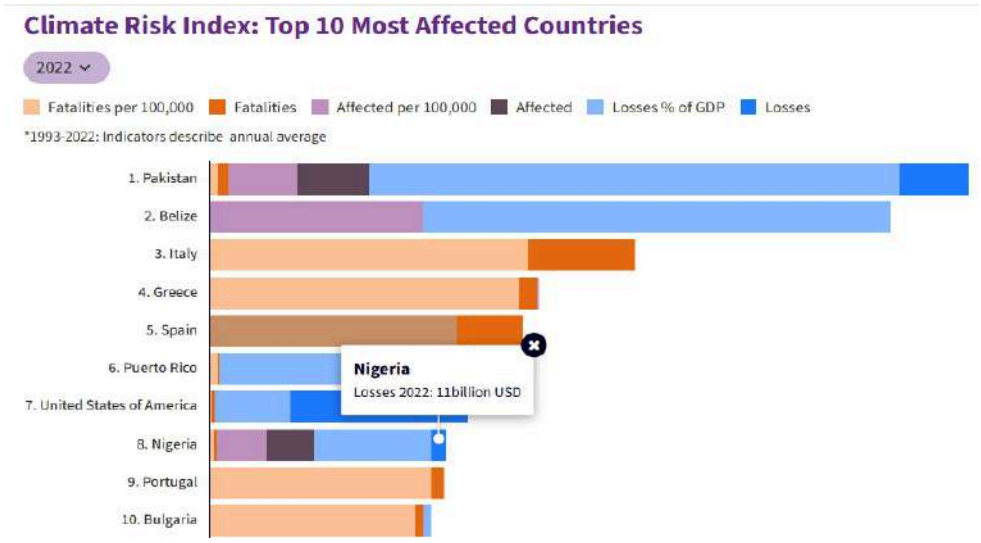
[16] https://www.unicef.org/press-releases/more-15-million-children-risk-devastating-floods-hit-nigeria

[17] UNICEF (21 October 2022). "More than 1.5 million children at risk as devastating floods hit Nigeria". https://www.unicef.org/press-releases/more-15-million-children-risk-devastating-floods-hit-nigeria.

(the ability of communities and institutions to anticipate, respond to, and recover from climate-related shocks). In Nigeria, climate vulnerability manifests in deepening food insecurity, displacement, increased intercommunal conflict, and overstretched governance systems.

The most general measure of climate vulnerability is the **ND-GAIN Vulnerability Index**, which assesses a country's exposure, sensitivity, and adaptive capacity across six life-supporting sectors: food, water, health, ecosystem services, human habitat, and infrastructure. The index draws on 36 indicators to quantify a nation's overall vulnerability to climate change and its readiness to improve resilience**.** It ranks Nigeria **73rd globally**, indicating high exposure to climate shocks with **limited adaptive capacity**.

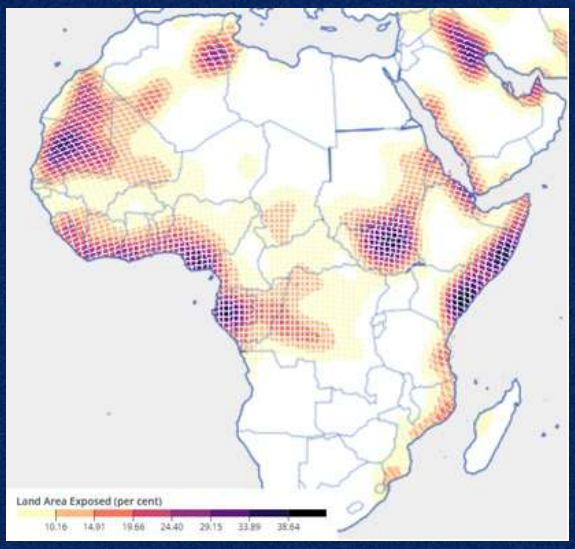
While the ND-GAIN index measures vulnerability to climate change and readiness for climate change impacts, the **Climate Risk Index (CRI)** ranks countries by their economic and human impacts (fatalities as well as affected, injured, and homeless), with the most affected country ranked highest. According to the CRI, Nigeria ranked among the **top 10 most climate-affected nations globally** in 2022. In 2022, Nigeria was exceeded only by the DRC and Ethiopia in the number of people (26.2 million and 24.3 million, respectively) affected by climate change, but Nigeria holds the highest number of climate change fatalities (610 people) and largest economic loss from climate change in Africa ($11 billion).



109	Netherlands	97.17	106	106	59	103
66	New Zealand	66.33	90	76	52	52
49	Nicaragua	58.00	72	52	82	45
9	Niger	18.17	17	12	46	11
73	Nigeria	70.00	27	84	47	89

Figure 2: Climate Risk Index rankings in 2022.[18]

In terms of populations affected through displacement, in 2023, according to the Global Migration Data Portal, as of December 2023, the total number of internally displaced persons (IDPs) due to disasters in Nigeria stood at 81,000, representing nearly half (49.8%) of West Africa's total (162,800) and 3% of Africa's total (2.5 million IDPs).[19] The Climate Mobility Impacts dashboard created by IOM's Global Data Institute (GDI) visualizes where hazard exposure, high population density, and economic vulnerability are projected to coincide in future (Figure 2). Projections are available for two warming scenarios and three socio-economic scenarios.



[18] Germanwatch (n.d.). Climate Risk Index. https://www.germanwatch.org/en/cri?utm.
[19] Global Migration Data Portal (2024). "Total number of internally displaced persons (IDPs) due to disasters, as of Dec 2023". https://www.migrationdataportal.org/international-data?t=2023&i=idp_stock_disaster.

Figure 3: Climate Mobility Impacts dashboard visualizing where hazard exposure (to six mobility-related climate hazards: heat waves, droughts, wildfires, river floods, tropical cyclones, and crop failures), high population density, and economic vulnerability are projected to coincide and the land area exposed by 2030.[20]

Displacements and fatalities may be driven directly by extreme weather events or indirectly through the impacts of climate change on conflict amplification. The Climate-Conflict Vulnerability Index (CCVI) shows that this latter form of vulnerability varies across Nigeria. The CCVI combines measures of climate (e.g. drought, heatwave, heavy precipitation, wildfires, floods and cyclones), conflict (intensity and persistence of local and surrounding violence and popular unrest) and vulnerability (sociopolitical, political and demographic).[21] There are several **high-risk zones** in Nigeria, particularly in the **Lake Chad Basin, Middle Belt, and Niger Delta**, where climate change

[20] Global Migration Data Portal (2024). "Climate and Environmental Migration". https://www.migrationdataportal.org/themes/environmental-migration.
[21] Vulnerability encompasses economic dependency on agriculture, economic deprivation, gender inequality, educational vulnerability, external dependency, institutional vulnerability, political system vulnerability, civil rights deprivation, ethinic marginalization, gender inequality, uprooted people, population growth and dependent population. The Climate—Conflict—Vulnerability Index (CCVI) presents a combined measure of climate and conflict risk.

exacerbates **resource-based conflicts and forced migration.**[22]

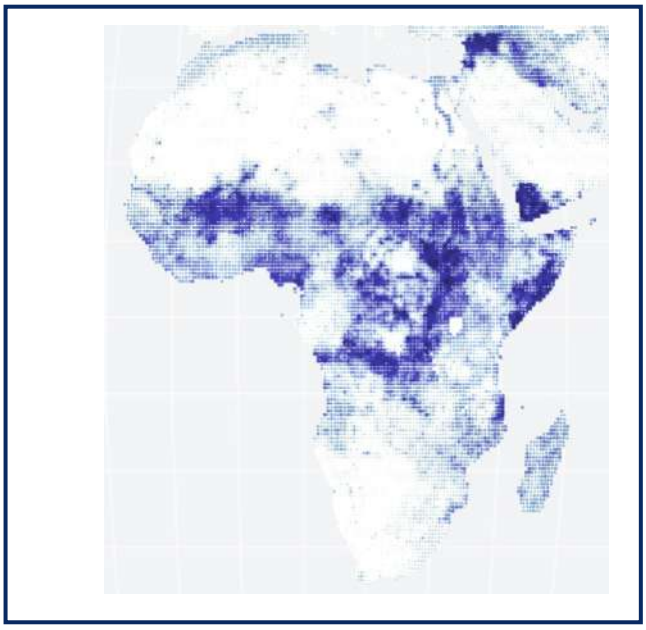


Figure 4: Climate—Conflict—Vulnerability Index (CCVI) across Africa. Darker shades of blue represent higher levels of climate-conflict vulnerability.[23]

Indeed, the International Displacement Monitoring Centre (IDMC) shows that Nigeria is already a major African hotspot for the concentration of conflict and violence displacement events between 2018 and 2023.[24]

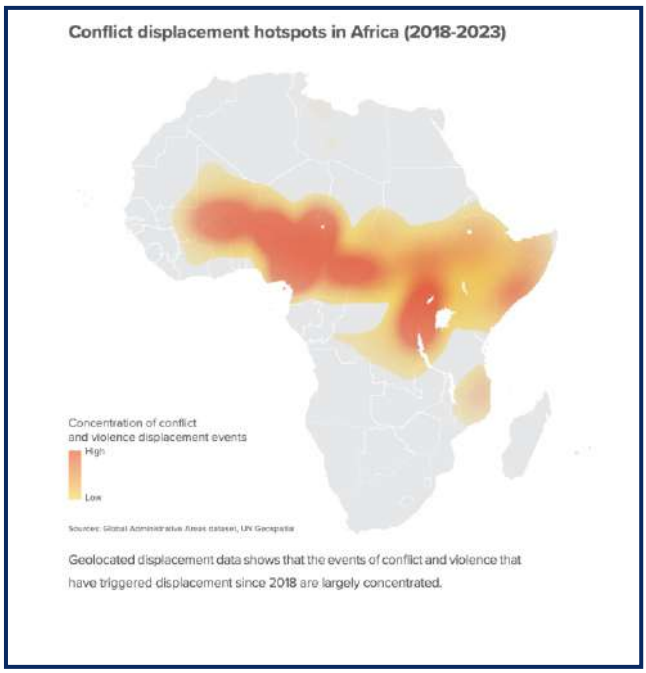


Figure 5: Conflict displacement hotspots in Africa (2018-2023).

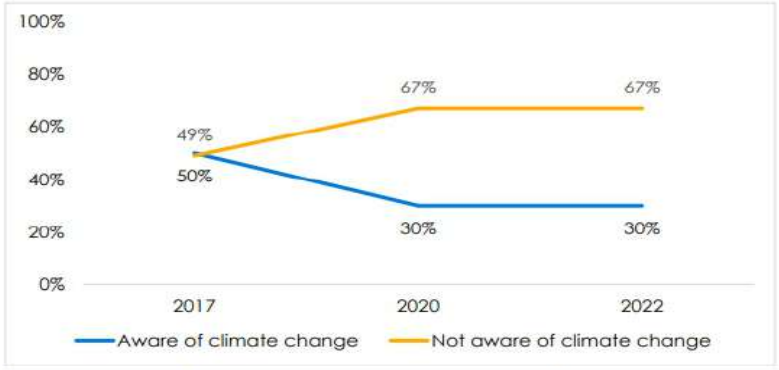
[22] Climate-Conflict-Vulnerability Index (2025). "Hazard Exposure and Vulnerability". https://climate-conflict.org/www/data-pages/CLI_risk.
[23] Climate-Conflict-Vulnerability Index, "Hazard Exposure and Vulnerability".
[24] International Displacement Monitoring Centre, "Internal Displacement in Africa".

2. Climate Resilience Action

Climate action towards improving resilience to climate change begins from the point of awareness among citizens and leaders, which then translates into organisation, policymaking and behavioural change.

3.1. Climate Change Awareness

While the climate change vulnerabilities and impacts are well-documented, the average national climate change literacy rate in Africa is 37%, in comparison with Europe and North America, where climate change literacy rates are generally over 80%.[25] In addition, climate change literacy is higher among men than women (mean difference of country means for men and women was 12.8%). When considering regional patterns of this gender gap, it was found that 11 of the 15 countries with the largest gender gap are in West Africa.



Respondents were asked: *Have you heard about climate change, or haven't you had the chance to hear about this yet?*

Figure 5: Awareness of climate change in Africa between 2017 and 2022.[26]

[25] Simpson, Nick, Trisos, Christopher, Krönke, Matthias, & Andrews, Talbot (8 October 2021). "Climate Change Literacy in Africa", *Springer Nature Research Communities*. https://communities.springernature.com/posts/climate-change-literacy-in-africa.

[26] Selormey, Edem E., Dome, Mavis Z., Osse, Lionel, & Logan, Carolyn (2019). Change ahead Experience and awareness of climate change in Africa. Afrobarometer Policy Paper No. 60. https://www.afrobarometer.org/wp-content/uploads/2022/02/ab_r7_policypaperno60_experience_and_awareness_of_climate_change_in_africa.pdf.

Nigeria's national climate change literacy rate stands at **30%**[27], with a gender disparity of 6.46%, as men's literacy is recorded at 33.08%, while women's literacy lags at **26.62%**. Across the country, literacy levels vary significantly, reflecting deep regional inequalities. In the northern region, climate change literacy rates can be as low as **5%** in states like **Kano**, while in the south, states such as **Rivers** record rates as high as **58%**.

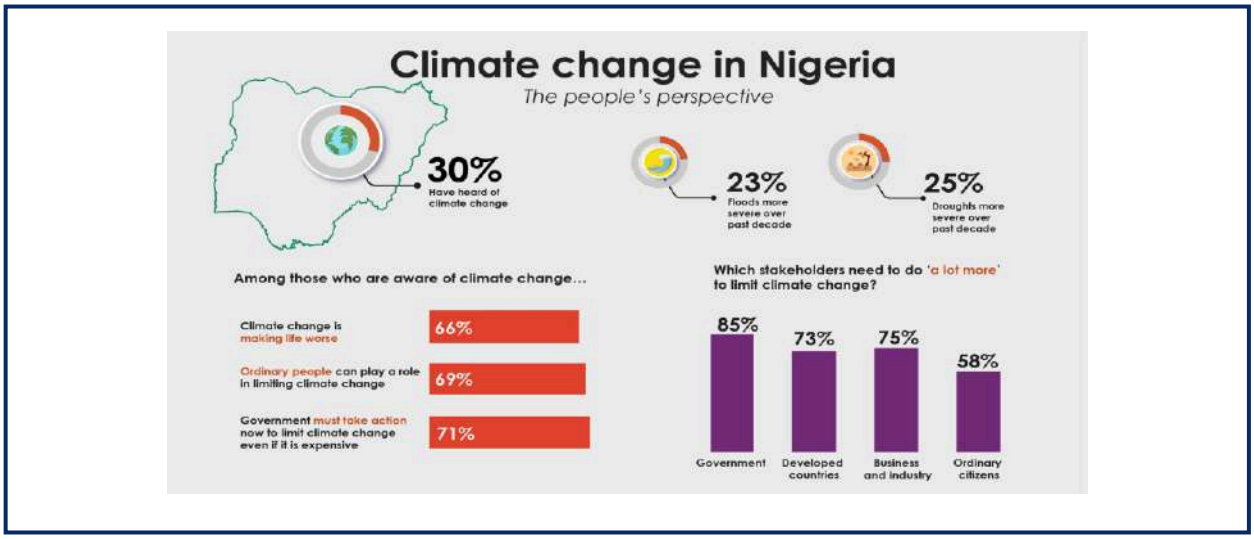


Figure 6: Nigerians' climate awareness and perspectives on climate action.[28]

3.2. Institutional Capacity for Climate Action

For those Africans with an awareness of climate change, an estimated 76% believe that primary responsibility for climate action should lie with the government, while only 1% believe that it should lie with traditional leaders (Figure 7).

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[27]Simpson, Nick, Andrews, Talbot, Trisos, Christopher, Lennard, Christopher, & Ouweneel, Birgitt (11 October 2021). "Climate Change Literacy in Africa (code, shape-files and processed data sets)", *University of Cape Town, ZivaHub*. https://zivahub.uct.ac.za/articles/dataset/Climate_Change_Literacy_in_Africa_code_shape-files_and_processed_data_sets_/15155772.

[28] Afrobarometer (3 November 2022). "Nigeria climate change country card". https://www.afrobarometer.org/publication/nigeria-climate-change-scorecard/.

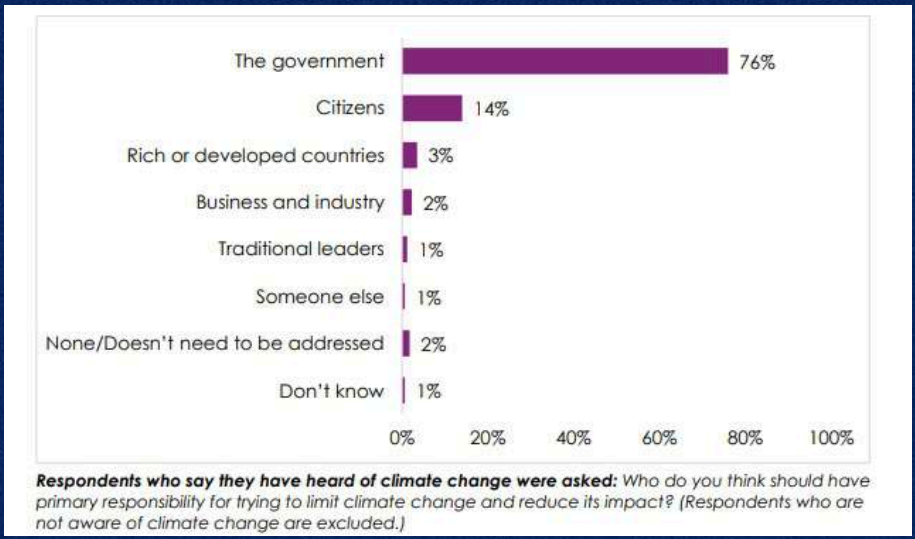

Figure 7: Africans' perceptions of primary responsibility for climate action

The government's responsibility for climate action is disaggregated into several agencies and parastatals, with the National Council on Climate Change (NCCC) at the helm in directing national policy direction and enforcing the Climate Change Act 2021. However, when it comes to the implementation of climate resilience policies, especially those aimed at managing and minimizing climate-induced displacement, a few agencies provide preventive (e.g., the Nigeria Meteorological Agency) and post-disaster (e.g., National Emergency Management Agency) public services.

a. Nigeria Meteorological Agency (NiMet)

NiMet has been working towards enhancing its climate forecasting capabilities. In February 2025, NiMet predicted early rainfall events across most parts of the country, aiming to provide actionable information to weather-sensitive sectors. However, challenges remain in the accuracy of models over Africa, which is often low, leading to high uncertainty in predicting rain-bringing deep convection, particularly over short timescales[29].

[29] Lamptey B, Sahabi Abed S, Gudoshava M, Mutemi J, Bopape MJ, Adefisan EA, Igri MP, Seidou Sanda I, Ndiaye O, Parker DJ, Dougill AJ, Fink AH, Knippertz P, Woolnough S, Kolstad EW. Challenges and ways forward for sustainable weather and climate services in Africa. Nature Communications, 15(1): 2664. https://pmc.ncbi.nlm.nih.gov/articles/PMC10965951/?utm; Lawal Kamoru A. , Olaniyan Eniola , Ishiyaku Ibrahim , Hirons Linda C. , Thompson Elisabeth , Talib Joshua , Boult Victoria L. , Ogungbenro Stephen Bunmi , Gbode Imoleayo Ezekiel , Ajayi Vincent Olanrewaju , Okogbue Emmanuel Chilekwu , Adefisan Elijah A. , Indasi Victor S. , Youds Lorraine , Nkiaka Elias , Stone Dáithí A. , Nzekwu Richard , Folorunso Olusegun , Oyedepo John A. , New Mark G. , Woolnough Steve J. (2021). Progress and Challenges of Demand-Led Co-Produced

Noteworthy, Nigeria's Vice President, Kashim Shettima, has announced the launch of the Anticipatory Action Task Force (AATF) on Floods, a move from reactive disaster relief to proactive preparedness.[30] The initiative aligns with global frameworks like the Sendai Framework for Disaster Risk Reduction, the Sustainable Development Goals, and the Paris Agreement on Climate Change, emphasizing proactive disaster preparedness to mitigate natural disaster impacts and protect vulnerable communities.

In 2024, The Nigerian Meteorological Agency issued and warning alerts for precautionary and mitigation measures and early preparedness through the Seasonal Climate Prediction (SCP[31]), disseminated to relevant Federal and State government agencies i.e. The Federal Ministry of Agriculture and Rural Development, National Emergency Management Agency (NEMA), Nigerian Hydrological Services Agency (NIHSA), and State Emergency Management Agencies (SEMA's). The Seasonal Climate Prediction (SCP) was translated into four Nigerian languages, and a follow up sensitization and training workshops conducted in 26 states including the FCT primarily with Farmers and Agricultural extension workers in collaboration with Ministry of Agriculture and Rural Development, National Emergency Management Authority (NEMA), state governments and non-governmental organizations

b. Emergency Response Agencies (NEMA and State Emergency Management Agencies)

National Emergency Management Agency (NEMA) has frequently been constrained by budgetary[32] limitations, which affect its ability to pre-position relief materials, deploy personnel, and ensure rapid response times. Effective disaster management requires seamless coordination between federal and state agencies[33]. However, there is no clear evidence of synergies between policies, plans, or programmes among these

Sub-Seasonal-to-Seasonal (S2S) Climate Forecasts in Nigeria. *Frontiers in Climate*, 3. https://doi.org/10.3389/fclim.2021.712502.

[30] NiMet (18 march 2025). NiMet DG/CEO Anosike Participates In Anticipatory Action Task Force On Floods (AATF) Meeting Hosted By VP Shettima. https://nimet.gov.ng/news?id=110. https://radionigeria.gov.ng/2025/03/18/nigeria-launches-anticipatory-action-task-force-for-flood-response/; Mbiwe, Olaedo (18 March 2025). "Nigeria launches Anticipatory Action Task Force for flood response", *Radio Nigeria*. https://radionigeria.gov.ng/2025/03/18/nigeria-launches-anticipatory-action-task-force-for-flood-response/.

[31] NiMet (2025). *2025 Seasonal Climate Prediction (SCP)*. Abuja: Nigerian Meterological Agency (NiMet). https://nimet.gov.ng/publication_detail?id=42.

[32] Aliyu, Abdulhamid A. (14 October 2024). "Letters NEMA and tackling natural disasters in Nigeria", *Blueprint Newspapers*. https://blueprint.ng/nema-and-tackling-natural-disasters-in-nigeria/?utm.

[33] Danhassan SS, Abubakar A, Zangina AS, Ahmad MH, Hazaea SA, Ishak MY, Zhang J. Flood Policy and Governance: A Pathway for Policy Coherence in Nigeria. *Sustainability*, 15(3): 2392. https://doi.org/10.3390/su15032392.

entities in dealing with flood disasters. Engaging local communities in disaster preparedness and response is crucial. NEMA has acknowledged the importance of grassroots involvement but continues to face challenges in implementing community-based disaster risk reduction strategies[34].

The National disaster Risk Management Policy, a comprehensive policy document by The National Emergency Management Agency with strategic priorities to Expand awareness and understanding of disaster risk, Strengthen multi-stakeholder governance systems for Disaster Risk Management (DRM) Enhance preparedness capacity to reduce exposure, vulnerability and impacts of hazard events or conditions, Increase social, economic and environmental investments to strengthen resilience to disasters through hazard risk reduction. This Policy, in its Second priority, seeks to strengthen multi-stakeholder governance systems for DRM, under section 6.2.2.3 remedies that by establishing the Local Emergency Management Authority (LEMA) to act as the local planning, coordinating and implementing body for disaster management.[35] LEMA will perform functions for disaster management in the Local Government Area (LGA).

Section 6.2.2. of the National Disaster Risk Management Policy recognised that existing structures already exist at the community level that play various roles, including ward heads, neighbourhood associations, schools, cultural groups, mutual-assistance associations, community-based organizations (CBOs), faith-based organizations (FBOs), non-governmental organizations (NGOs) and Grassroots Emergency Volunteers. The Policy will promote participatory approaches to enhance sensitization, empowerment and mobilization of these groups to strengthen risk reduction at the community level through their increased participation in disaster management activities by LEMA and other local DM service providers, with support from SEMA and NEMA.

Also noteworthy, the Nigerian government has launched a 2024 Hazard Risk Countrywide Analysis to enhance disaster preparedness and mitigation efforts.[36] The report, developed with

[34] IkonAllah, Abdulkadir K.I. (1 October 2023). "NEMA raises the bar on Disaster Preparedness and Mitigation", *NEMA*. https://nema.gov.ng/nema-raises-the-bar-on-disaster-preparedness-and-mitigation/?utm.

[35] City of Rockingham (2019). "Local Emergency Management Arrangement (LEMA)". https://rockingham.wa.gov.au/your-services/fire-and-emergencies/local-emergency-management-arrangement-lema#:~:text=Local%20Emergency%20Management%20Arrangements%20(LEMAs,impacted%20the%20local%20government%20area.

[36] Martins, Baba (6 December 2024). "FG launches hazard risk analysis for disaster mitigation", Daily Trust. https://dailytrust.com/fg-launches-hazard-risk-analysis-for-disaster-mitigation/#google_vignette; NEMA (2024). *Nigeria Hazard Risk Countrywide Analysis 2024*. Abuja: National Emergency Management Agency (NEMA).

UNICEF and National Emergency Management Agency (NEMA), provides critical data for policymakers, emergency responders, and community leaders to improve early warning systems and risk mitigation strategies.

The National Humanitarian Peace Framework 2021-2025 is a robust document with eight clear goals.[37] The goals are targeted to ensure peace and stability in Nigeria by promoting innovative and home-grown clear objectives and strategic action approaches to building capacity and strengthening government and other non-governmental institutions operating within the humanitarian and development sectors from community, state, to federal levels to proactively address critical humanitarian and development challenges. A Major shortfall is that a mention of Traditional and religious institutions and actors was only made in goal 5 of "Securing, Stabilizing and Recovery of Communities" and objective 4 of establishment of a local stabilization council at LGA level.

c. State and Federal Policy Misalignment

State governments are not uniform in their climate action. Only 12 states and the FCT have climate change action plans, with many of these plans not being comprehensive.[38] Moreover, while the Federal Government has enacted the Climate Change Act 2021, only two states have climate change laws.[39] In addition, 77% of states do not make a particular appropriation specified for climate change and there is little evidence of climate mainstreaming, although many states have Climate Desks in their Ministry of Environment.[40]

https://nema-risk-analysis-report-2024-unicef.hub.arcgis.com.

[37] Federal Ministry of Humanitarian Affairs, Disaster Managenent and Social Development (2021). *National Humanitarian Development Peace Framework 2021-2025.* Abuja: Federal Ministry of Humanitarian Affairs, Disaster Managenent and Social Development. https://nema.gov.ng/documentations/National%20Humanitarian%20Development%20Peace%20Framework%20(2021-2025).pdf.

[38] Society for Planet and Prosperity (2023). *Climate Impacts, Policies, and Actions at the Subnational Level in Nigeria*. Abuja: The Society for Planet and Prosperity (SPP). https://cccd.funai.edu.ng/download/climate-impacts-policies-and-actions-at-the-sub-national-level-in-nigeria/.

[39] *Ibid.*

[40] *Ibid.*

Figure 8: Pillars of the National Humanitarian Peace Framework 2021- 2025

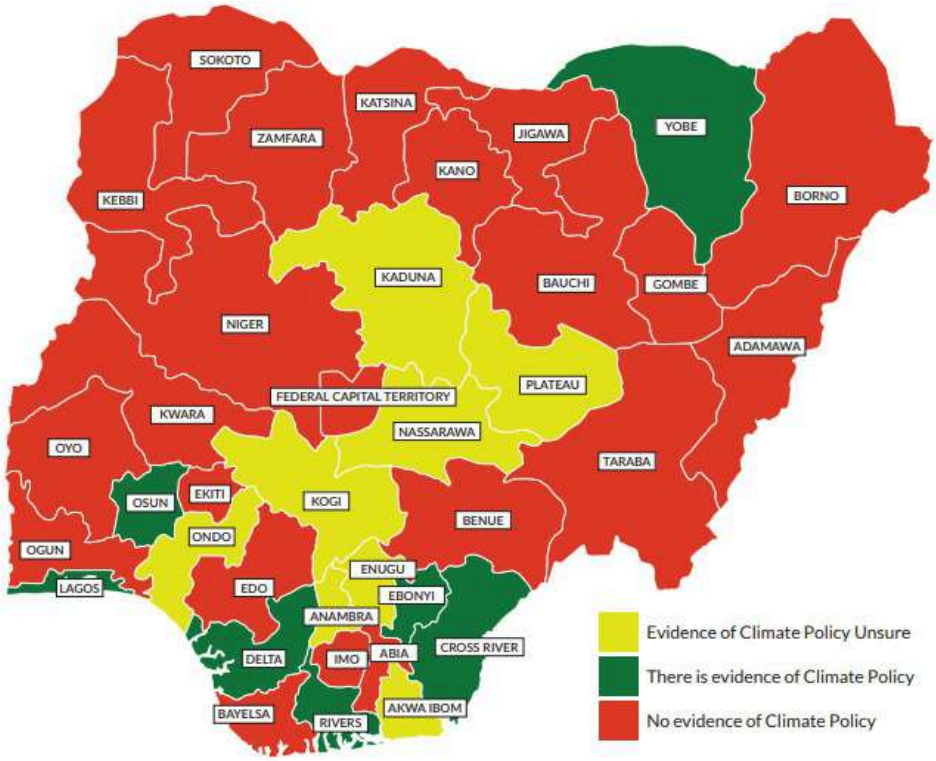

Figure 9: States with climate policy in Nigeria.[41]

[41] *Ibid.*

The climate action gaps are wider at the local government level. The core functions of local governments are defined in the fourth schedule of the constitution.[42] They include pre-school, primary and adult education; public health (including primary care and health protection); town and regional planning; roads and transport; refuse collection and disposal; cemeteries and crematoria; environmental protection; sports; leisure and open spaces; and religious facilities.

Despite the development of laudable approaches and strategic frameworks for disaster risk mitigation and resilience-building in Nigeria, the effectiveness of their implementation is severely hindered by the institutional weaknesses of key government bodies, particularly at the local government level. As the closest tier of government to the people[43]. Local governments are expected to serve as the primary drivers of community resilience, social mobilization, and disaster response coordination. However, these institutions remain too weak to sustain and operationalize resilience-building efforts or to convene critical stakeholders for harmonized disaster risk mitigation and planning.

Services	Delivering authority				Remarks
	Central government	States	Local governments	Local area councils	
ENVIRONMENT AND PUBLIC SANITATION					
Water and sanitation		■	■		
Refuse collection and disposal			■		
Cemeteries and crematoria			■		
Slaughterhouses			■		
Environmental protection		■	■		
Consumer protection	■	■			

Figure 10: Summary of environment and public sanitation service provision in different spheres of government in Nigeria.[44]

Structural deficiencies—including inadequate financial resources, lack of skilled personnel, weak institutional autonomy, and systemic mismanagement—have significantly limited the ability of local governments to function as effective disaster management entities. Furthermore, issues such as fund embezzlement, poor motivation among officials, and bureaucratic inefficiencies further cripple their capacity to act as focal points for resilience-building initiatives. Without strengthening these foundational governance structures, even the most well-designed climate adaptation strategies risk remaining

[42] Commonwealth Local Government Forum (2019). Country Profile 2019. https://www.clgf.org.uk/default/assets/File/Country_profiles/Nigeria.pdf.
[43] Omodunbi, Olumide O., Omotoye, Oluwatobi O., & Adeoye, Moradeyo O. (2020). Local Government Administration and Community Development: A Survey of Ayedaade Local Government Area, Osun State, Nigeria. *International Journal of Current Research in the Humanities*, 24, 153-174. https://www.ajol.info/index.php/ijcrh/article/view/259721.
[44] Commonwealth Local Government Forum, Country Profile 2019.

fragmented, underfunded, and ineffective in addressing Nigeria's growing climate-induced fragility.

d. Harnessing Traditional and Religious Institutions for Climate Resilience

While the National Climate Change Policy (NCCP) outlines adaptation and mitigation measures, its effectiveness is undermined by weak institutional coordination, gaps in disaster preparedness, and inadequate integration of traditional and religious structures in resilience-building.[45]

Faith and religion are central to Nigerian life.[46] Roughly 53.5% of the population identifies as Muslim, while 45.9% are Christian, with a small percentage adhering to traditional religions or other faiths.[47] The Climate, Conflict, and Fragility Summit 2024, organised by Clean Technology Hub and held in Abuja, identified a critical need for regionally tailored, community-driven solutions that bridge policy gaps and empower traditional and religious leaders to serve as frontline actors in climate adaptation and conflict mediation.[48]

Citizens often rely on religious leaders, rather than secular authorities, to address issues by serving as peace ambassadors and mediators,[49] leading large congregations in mosques and churches, shaping attitudes, opinions, and behaviours of millions of Nigerians.

Traditional governance and indigenous knowledge systems play pivotal roles in sustainable land management and conflict resolution, particularly within pastoralist and farming communities, employing customary land-use management and water conservation. These indigenous practices offer low-cost and sustainable adaptation models that are environmentally friendly and culturally appropriate[50].

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[45] Federal Ministry of Environment (2021). National Climate Change Policy for Nigeria 2021-2030. Abuja: Federal Ministry of Environment. https://faolex.fao.org/docs/pdf/NIG209876.pdf.
[46] Campbell, John (3 February 2021). "The Pervasive Influence of Nigeria's Religious Leaders", Council for Foreign Relations. https://www.cfr.org/blog/pervasive-influence-nigerias-religious-leaders.
[47] Sasu, Doris D. (3 August 2023). "Distribution of religions in Nigeria in 2018", Statista. https://www.statista.com/statistics/1203455/distribution-of-religions-in-nigeria/.
[48] Abe, Bankole (1 August 2024). "Kukah, others blame poor governance for climate change crises in Nigeria", *International Centre for Investigative Reporting*. https://www.icirnigeria.org/kukah-others-blame-poor-governance-for-climate-change-crises-in-nigeria/.
[49] Bercovitch, Jacob, & Kadayifci, Ayse (2009). Religion and Mediation: The Role of Faith-Based Actors in International Conflict Resolution. *International Negotiation*, 14(1): 175-204. https://doi.org/10.1163/157180609X406562.
[50] Eligard, Elisamia, & Mokaya, Samuel O. (2019). Role of Traditional Leaders in Conflict Management between Pastoralist Communities and Commercial Agricultural Farmers in Siha District, Kilimanjaro Region, Tanzania. *Journal of Basic and Applied Research International*, 25(3): 119-126. https://ikprress.org/index.php/JOBARI/article/view/4564.

Indigenous governance and traditional knowledge systems are crucial for climate adaptation and mitigation in Nigeria. However, their inclusion in national climate policy frameworks remains limited. The National Climate Change Policy framework for Nigeria emphasizes sustainable development but lacks explicit provisions for incorporating indigenous knowledge or traditional governance bodies. These entities play a critical role in community-based adaptation strategies.[51]

Integrating these traditional governance structures and indigenous practices into formal policies can enhance community resilience, promote sustainable land use, and strengthen social cohesion in pastoralist-farming communities.

As Figure 7 indicates, only 1% of Nigerians believe that it should lie with traditional leaders. This lack of attribution of responsibility to traditional leaders is not the result of an absence of trust. 60% of Nigerians say they trust religious leaders "somewhat" or "a lot," followed by traditional rulers (50%), compared to 27% who say the same about their president and 19% who trust Parliament. The rate is higher among citizens without formal education (82%) and rural residents (67%).

Religious institutions in Nigeria possess extensive grassroots networks that can be instrumental in climate education, community mobilization, and humanitarian assistance. Faith leaders and actors can initiate climate conversations and inspire actions that resonate across communities and generations. Churches and mosques can serve as platforms for environmental education, fostering a sense of responsibility towards the environment among their congregations, empowered to advocate for climate justice, contributing to policy discussions and influencing environmental sustainability efforts.[52] Both Islamic and Christian teachings emphasize the principles of stewardship and care for creation, aligning with sustainability goals and encouraging conservation efforts. While many religious leaders acknowledge the importance of addressing climate change, there is often a disconnect between their positive attitudes and tangible climate actions within their

[51] Okeke, Chukwueloka U. (2024). "Community Resilience: Integrating Local Approaches into Nigeria's Climate Change Adaptation Agenda", *Africa Policy Research Institute*. https://afripoli.org/community-resilienceintegrating-local-approaches-into-nigerias-climate-change-adaptation-agenda?utm.

[52] Nche, George C. (2023). The Influence of Religious Affiliation and Church Attendance on Climate Change Awareness, Perception, and Action: The Role of Churches through Environmental Education in Nigeria. *Didaktika Jurnal Kependidikan*, 12(4): 1087-1102. https://doi.org/10.58230/27454312.453; Mojeed, Abdulkareem (7 March 2025). "Faith-based advocacy critical to achieve climate action in Nigeria— Experts", Premium Times. https://www.premiumtimesng.com/news/more-news/779055-faith-based-advocacy-critical-to-achieve-climate-action-in-nigeria-experts.html?utm;

communities.[53] Tailored environmental education programs can help bridge the awareness and action gaps within specific religious communities, fostering a more unified effort toward addressing climate change.[54]

Mosques and churches, as deeply embedded institutions within communities, have immense potential to serve as critical disaster response hubs.[55] In times of crisis, these religious centers can provide immediate relief by offering shelter, medical assistance, and essential services such as food, sanitation, and psychological support. Their proximity to local populations and their trusted social influence make them ideal for coordinating emergency response efforts.[56]

Mosques, particularly in urban and suburban areas, should be equipped to receive the injured during accidents and disasters. Facilities such as toilets, ablution spaces, kitchens, and classrooms can be repurposed to accommodate displaced individuals during prolonged crises. Similarly, churches, which serve as gathering places and often community support centers, can be integrated into disaster management frameworks.

For effective implementation, religious leaders and actors should collaborate with government agencies, disaster management bodies, and humanitarian organizations to ensure these spaces are equipped for emergency use. By formally integrating mosques and churches into national disaster preparedness plans, governments can enhance community resilience, reduce evacuation costs, and ensure faster, more efficient responses to emergencies.

Faith leaders and traditional leaders such as Imams and pastors, and religious scholars play an indispensable role in shaping the response and recovery landscape.[57] Their moral authority, cultural relevance, and extensive grassroots networks make them uniquely effective in mobilizing resources, coordinating efforts, and building resilient communities. Faith leaders occupy a trusted position in communities, often surpassing traditional humanitarian organizations in their ability

[53] Dakur, Dickson S., Istifanus, Kim D. (2025). Climate Change Awareness and Adaptation: The Role and Attitude of Religious Leaders in Jos Metropolis, Plateau State, Nigeria. *International Journal of Research and Scientific Innovation (IJRSI)*, 12(2): 541-552. https://doi.org/10.51244/IJRSI.2025.12020046.

[54] Nche, George C., The Influence of Religious Affiliation.

[55] Moslehi S, Dehghani A, Masoumi G, Sheikhi R A, Barghi Shirazi F. (2023). The Role of the Mosque as an Emergency Shelter in Disasters: A Systematic Review. *Health in Emergencies and Disasters Quarterly*, 8: 223-232. URL: http://hdq.uswr.ac.ir/article-1-402-en.html.

[56] Rehman, Ateeq U. (February 2025). "Religious Leader's Engagement in Disaster Management", *Joint Learning Initiative on Faith & Local Communities*. https://jliflc.com/2025/02/religious-leaders-engagement-in-disaster-management/.

[57] *Ibid.*

to inspire collective action. Their involvement during disasters has proven to be a game-changer in mobilizing resources and reaching underserved populations possessing intimate knowledge of local dynamics, enabling them to tailor responses that align with cultural and religious values. This approach fosters greater trust and participation among community members. From addressing immediate humanitarian needs to guiding long-term recovery, their engagement ensures that no one is left behind. For example, there are numerous examples of mosques becoming critical hubs, providing shelter and serving as distribution centers for essential supplies, including food, water, and medical assistance.

e. International Support and Regional Coordination

Global climate finance flows remain misaligned with Nigeria's human security priorities, with less than 20% of climate adaptation funds directed toward community-led resilience projects. In 2021/22, Nigeria's adaptation finance amounted to USD 0.74 billion, covering only 6% of the country's estimated adaptation finance needs.[58] Notably, minimal-to-no adaptation finance was tracked for climate-resilient infrastructure in key sectors such as energy systems, buildings, transport, and industry. This indicates a significant gap in funding for community-led resilience projects.

European Union and multilateral engagement in Nigeria's climate-security nexus is fragmented, with limited focus on conflict-sensitive adaptation strategies.[59] In 2021/22, Nigeria's adaptation finance amounted to USD 0.74 billion, covering only 6% of the country's estimated adaptation finance needs. Notably, minimal-to-no adaptation finance was tracked for climate-resilient infrastructure in key sectors such as energy systems, buildings, transport, and industry. This indicates a significant gap in funding for community-led resilience projects.

Lack of regional climate coordination among the Economic Community of West African States ECOWAS nations weakens collective responses to shared climate challenges. Comprehensive regional climate coordination mechanisms remain underdeveloped, weakening the collective capacity to address climate-induced security risks effectively. Addressing these gaps requires a concerted effort to realign international climate finance with Nigeria's community-led resilience priorities, enhance the coherence of EU

[58] Climate Policy Initiative (2024). *Landscape of Climate Finance in Nigeria 2024*. Cape Town: Climate Policy Initiative. https://www.climatepolicyinitiative.org/wp-content/uploads/2024/10/Landscape-of-Climate-Finance-in-Nigeria-2024.pdf?utm.

[59] Federal Republic of Nigeria and European Union (n.d.). Multi-Annual Indicative Programme 2021-2027. https://international-partnerships.ec.europa.eu/document/download/e88b466f-6244-41b2-9622-3fca80667a17_en.

and multilateral engagements with a focus on conflict-sensitive adaptation, and strengthen regional coordination mechanisms within ECOWAS to tackle shared climate challenges effectively.

Conclusion and Strategic Recommendations

Nigeria stands at a pivotal moment in defining its climate resilience trajectory. Addressing the climate-human security nexus requires a shift from top-down policymaking to inclusive, community-driven strategies. Traditional and religious institutions possess untapped potential as catalysts for grassroots adaptation, conflict prevention, and social cohesion. Strengthening their role within Nigeria's climate governance architecture will be instrumental in building a resilient, climate-secure future for vulnerable communities. In light of the climate vulnerabilities identified and the actors required to take action towards achieving climate resilience, the following recommendations are made:

I. Strengthening Institutional and Policy Integration

- Establish a **National Climate-Human Security Taskforce** integrating NiMet, emergency agencies, traditional councils, and faith-based organizations. These institutions should **not only serve as channels for disseminating information** but also be **actively involved in planning and decision-making** at both national and community levels. *(Expanded to include faith and traditional leaders in planning, not just as recipients of information.)*
- Develop **climate adaptation toolkits** tailored for traditional and religious leaders, enhancing community-level early warning and response mechanisms.
- Expand **climate-sensitive land-use regulations**, ensuring alignment with **local governance structures**.

II. Enhancing Regional and International Collaboration

- Advocate for a **West African Climate Resilience Compact**, fostering **cross-border climate risk management**.
- Align **international climate finance with grassroots-driven adaptation strategies**, prioritizing **local resilience projects** over top-down infrastructure investments.
- Strengthen **EU-Nigeria partnerships on climate security**, emphasizing **conflict-sensitive climate adaptation**.

III. Embedding Traditional and Religious Leadership in Climate Policy Implementation

- Institutionalize **community climate councils** composed of traditional rulers, faith leaders, and civil society actors to advise **state and federal climate agencies**.
- Train religious leaders in **climate action advocacy**, equipping them with tools to **mobilize faith-driven sustainability initiatives**.
- Support **indigenous climate knowledge centers**, documenting and integrating **local adaptation techniques into national policy frameworks**.
- **Rather than having faith and traditional leaders solely at the grassroots, they should be foundational members of the Anticipatory Action Task Force (AATF)** to strengthen their influence in high-level climate adaptation efforts. *(Highlighting their role in regional and continental policymaking.)*
- **Policy Recommendations:** Integrating faith leaders into climate adaptation programs through structured training and engagement can enhance their capacity to mobilize communities effectively.

IV. Integrating Places of Worship into Disaster Management Infrastructure

- Allocate targeted funding for mosques, churches, and other worship centers to be fully incorporated as emergency shelters in disaster response frameworks.
- Support upgrades to religious centers (mosques, churches) by funding toilets, bathrooms, kitchens, and classrooms, ensuring they are adequately equipped for long-term stays during disasters.
- Establish a formal funding mechanism to integrate places of worship into the national disaster risk management system, recognizing their role in crisis response and community support.

V. Leveraging Digital Media and Influencers for Early Warning Systems

- In the age of digital media, agencies responsible for early warning systems should collaborate with online influencers, bloggers, and digital advocacy platforms to translate technical climate data into accessible, relatable content.
- Utilizing influencers and digital platforms will enhance public awareness and engagement, ensuring that climate risk messaging resonates with diverse communities.

Addressing these gaps by providing technical training and structured engagement opportunities for faith leaders can significantly enhance the role of religious institutions in climate adaptation and mitigation efforts in Nigeria.

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