



Climate Action Strategies, Practices and Initiatives: Challenges and Opportunities for Locally- Led Adaptation in Nigeria

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SUMMARY

- Nigeria has developed several adaptation policy frameworks with ambitious plans and strategies for climate adaptation.
- However, Nigeria's NDC lacks critical adaptation focus while other adaptation policy frameworks have not been fully implemented due to lack of financial resources, fragmentation, and technological needs.
- Despite limited external support and lacking awareness of national and international policies and strategies, preliminary results show that, to support their lives and livelihoods, local communities employ innovative and multilayer strategies, practices, and tools informed and supported by indigenous and traditional knowledge systems and practices.
- The Nigerian government has the opportunity to review all existing policy documents and develop a comprehensive, multisectoral adaptation policy framework with action plans and strategies for improved climate change adaptation actions, especially at the local level.

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Introduction

In 2022, Nigeria witnessed the worst flooding since the 2012 floods. The deadly floods claimed over 800 lives, displaced approximately 1.5 million people, injured 2,407 people, and affected 2,504,095 individuals. According to the Ministry of Humanitarian Affairs, Disaster Management and Social Development, about 332,237 hectares of farmlands were destroyed and over 200,000 houses were partially damaged or completely destroyed. The country's high vulnerability to climate change is further evidenced by the destruction of its ecological zones and impacts on lives and livelihoods. To address these challenges, Nigeria has developed ambitious policy frameworks and implementation strategies, including the Nationally Determined Contribution (NDC) and the National Adaptation Plan (NAP) Framework, which provides a robust approach and structure for mainstreaming adaptation across all spheres of governance. According to the National Climate Change Policy: 2021-2030, the main objective of Nigeria's climate policy is to “*promote a low-carbon, climate-resilient and gender-responsive sustainable socio-economic development.*”

However, a number of questions have been raised regarding the extent to which Nigeria's NDC and relevant Adaptation Policy Frameworks (APFs) are aligned with regional and local needs and adaptation actions, as well as with other social and economic development plans and climate actions at the regional and local levels. Moreover, implementing the policy framework remains a key issue given Nigeria's limited capacity and financial resources. Research by the Africa Policy Research Institute (APRI) seeks to assess and evaluate the status of climate change adaptation policies, strategies, initiatives, and practices in Nigeria with the aim of highlighting challenges and opportunities for deepening locally-led adaptation. This article presents an overview and brief analysis of Nigeria's climate policy landscape, implementation strategies, practices, and actions at the local and national levels. It draws on the policy landscape mapping and deep dives into adaptation strategies, initiatives, and practices at the local level. It also delivers insights from engagements with diverse national, regional, and local stakeholders operating in the field of climate change, with a view to drawing lessons on opportunities, entry points, and challenges for deepening adaptation actions, especially at the community level.

Adaptation Component of Nigeria's NDC

Nigeria's NDC provides high-level and strategic vision for climate action in Nigeria. The NDC's focus is on five priority sectors: agriculture, forestry, and land use; food security and health;

energy and transportation; waste management; and water and sanitation. The updated NDC takes a collaborative and inclusive “whole-of-society” approach, involving a wide range of stakeholders such as relevant ministries, departments, and agencies, state and local governments, the private sector, and civil society organisations (CSOs), as well as the United Nations Development Programme . However, while the Nigerian adaptation landscape has several instruments for climate change adaptation, the NDC lacks critical adaptation focus.

National Adaptation Strategies, Initiatives and Actions

In addition to the NDC, Nigeria has developed several APFs for climate change over the last decade. The majority of these APFs highlight Nigeria’s bold and ambitious plans, actions, goals, and strategies for mainstreaming adaptation across all spheres of governance. Some of these policy documents include the updated NAP framework, the National Adaptation Strategy and Plan of Action on Climate Change for Nigeria (NASPA-CCN), the Nigeria Climate Change Policy Response and Strategy (NCCPRS), the Nigeria Climate Change Act (CCA) 2021, the National Climate Change Policy for Nigeria 2021 – 2030 , the National Action Plan on Gender and Climate Change for Nigeria (NAPGCC), and other national policy frameworks that have components of adaptation and economic development plans.

An analysis of these policy frameworks shows that the Nigerian government has made concerted efforts to increase adaptation actions in thirteen priority sectors: agriculture; freshwater resources, coastal water resources and fisheries; forests; biodiversity; health and sanitation; human settlement and housing; energy; transportation and communication; industry and commerce; disaster, migration, and security; livelihoods; vulnerable groups; and education. Nigeria's Adaptation Communication to the UNFCCC (ADCOM), the NASPA-CCN, the NAP framework and the NCCPRS have well-structured adaptation strategies, policies, and action plans that cover those thirteen priority areas. Furthermore, a review of the APFs shows that relevant stakeholders were integrated into the adaptation planning process. Some of those stakeholders include the federal, state and local governments; the private sector; CSOs; households and individuals; and international organisations and donor agencies. The major adaptation strategies employed by the Nigerian government include:

- a) *Training* – The federal government of Nigeria (FGN), through the Ministry of Agriculture and Rural Development, plays a leadership role by setting up and supporting several institutions and agencies that interface with the state and local governments in building capacity and delivering knowledge and relevant skills at the community level.

The FGN and many local and international CSOs employ 'Training the Trainers' via extension workers.

- b) *Early warning systems* – The FGN has strengthened its adaptive capacity to climate change through the World Bank-supported Nigeria Erosion and Watershed Management Project), which has completed the installation of automated flood early warning systems and other hydro-meteorological monitoring devices in efforts to minimise flood-related disasters in over ten states.
- c) *Climate Smart Agriculture* – Nigeria's Climate Smart Agriculture approach is an integrated path that leads to a sustainable increase in productivity and resilience (adaptation). The approach typically targets seed improvement and hybridisation.
- d) *Finance* – Nigeria acknowledges the importance of equitable finance for climate change adaptation and mitigation as it is already losing about 5% of its GDP per capita to climate impacts, a figure that could increase to 30% by 2050. According to Nigeria's NDC, the Federal Ministry of Environment reported that Nigeria would require about USD 142 billion (EUR 133 billion) in the next decade to be able to implement its NDC. Consequently, the Nigerian government has begun issuing Green Bonds as an innovative means and alternative way of raising climate finance.
- e) *Gender Responsiveness* – In its efforts to mainstream gender, the Nigerian government became a signatory to several United Nations treaties and conventions including the Convention on the Elimination of All Forms of Discrimination Against Women. It also developed the NAPGCC and established the National Gender Policy to address issues of imbalance in the opportunities available to women.

Adaptation Practices, Strategies and Initiatives at the Local Level

While national adaptation strategies feature high-level planning and policymaking, adaptation at the local level is usually fast paced and iterative. Communities use several traditional methods specific to their environment to increase their adaptive capacities and build resilience against climate change. These adaptation practices have been continuing for decades, albeit at a small scale. However, there has been a surge in the number and frequency of adaptation practices and initiatives in some agro-ecological zones due to the increasing impacts of climate change.

Findings from this study show that, despite limited knowledge of national and regional policies, local communities approach adaptation in an organised manner. The results also show that such

actions can be linked to objectives in key policy frameworks. Adaptation practices and initiatives of these communities are primarily controlled by different agro-ecological zones, indigenous/traditional knowledge systems, and socio-cultural values. Preliminary findings of the deep dives undertaken as part of this project show that local communities are motivated by a mix of economic, social, and behavioural factors. These findings are based on three case studies summarised below.

Case I: Biogas Production for Forest Conservation in Nigeria: Narratives and Voices from Owode Smallholder Farming Community

Forests in Nigeria provide multidimensional ecosystem services that support the lives and livelihoods of local communities and serve as an important source of carbon sinks. To adapt to climate change impacts, Nigerian communities are integrating Nature-based Solutions (NbSs) in their adaptation strategies to reduce deforestation from biomass over-consumption. A cassava processing centre and several farm settlements in Owode, Ogun State, Nigeria, which are currently facing massive deforestation and energy poverty, have implemented a few of these initiatives, designed to improve access to sustainable energy. These farmers, mostly women, achieve their goals by converting organic wastes from agricultural residues to a renewable energy source (biogas) in a bid to reduce dependence on fuelwood energy. The community is currently in the pilot phase of deploying a biogas production facility. Wastes from cassava processing and livestock and poultry farming are expected to feed into the facility, and the by-products of biogas production will be used to improve soil health and fertility. This facility is expected to reduce the community's overdependence on energy from forest biomass and help conserve the forest in line with Nigeria's REDD+ framework.

Case II: Climate Change Adaptation Strategies in the Fish Farming and Aquaculture Sector of Nigeria

The demand for fishery and aquaculture products is increasing in Nigeria. Annual consumption is currently pegged at about 3.6 million metric tonnes, while total production per annum is about 1.123 million metric tonnes. Nevertheless, the number of local fish farmers has been decreasing due to the combined effects of climate change and unsustainable fiscal policies. Nigerian fish farmers face a number of challenges, including lack of insurance and financial incentives, increasing groundwater acidity, flood inundations, high cost of feeds, shortage of trained people, lack of disease-resistant stocks and genetically modified seeds. A deep dive was carried out in the fish farming communities of Abesan and Shagari Estates, in Alimosho Local Government

Area of Lagos State to determine the motivation behind establishing a community fish farm and accompanied adaptation strategies and practices. Their adaptation actions include the drilling of deeper boreholes to access groundwater, the storing of groundwater in temporary tanks to improve aeration, the treatment of groundwater with locally sourced chemical bases to reduce acidity, the use of bitter leaf (*Vernonia amygdalina*) juice as a natural antibiotic to reduce fish mortality, etc. These adaptation actions and strategies are in line with Nigeria's National Aquaculture Strategy and have helped the fish farmers build resilience against climate impacts on their livelihoods.

Case III: Adaptive Practices of Rural Communities to Land Degradation in South-Eastern Nigeria: Lessons Learned and Opportunities for Scale-Up

Land degradation causes serious environmental challenges across all agro-ecological zones in Nigeria. The phenomenon is exacerbated by an increase in extreme weather events coupled with several human activities such as rapid urbanisation, mining, quarrying, and agricultural intensification. In south-eastern Nigeria, gully erosion and landslides have led to loss of lives, livelihoods, and property. In addition, there has been a surge in internal displacements and destruction of transportation and communication systems. A deep dive was carried out in Abatete Town, in Anambra State, to understand how the smallholder farmers community is coping with these climate change induced impacts. Local farmers in Abatete Town have been experiencing incessant flooding, which affects a large section of the community and, in its wake, creates deep gullies. These gullies destroy farm roads, erode farmlands, and disrupt livelihoods. However, the farmers have increased their adaptive capacity by incorporating NbSs and Ecosystem-based Adaptation (EbA) methods in their adaptation programmes. Some of their adaptation actions include planting erosion-resistant trees on sloping terraces and active gully sites, placing sandbags to minimise soil/gully erosion, constructing high ridges and mounds around their farms to control flood inundations, using periwinkle and palm kernel shells for erosion control, and planting carpet grass (*Axonopus compressus*). These adaptation actions align well with the Nigerian government's plan to achieve Land Degradation Neutrality by 2030.

The preliminary results show that, despite limited external support or awareness of national and international policies and strategies, local strategies, practices, and tools are consistent with national and international climate action policies and strategies. The innovative and multi-layered nature of these strategies and practices show that locals are motivated to support their lives and livelihoods, informed, and supported by indigenous and traditional knowledge

systems. This drive and awareness can serve as an entry point to push widespread locally-led adaptation action throughout Nigeria.

Gaps, Challenges, Opportunities, and Implications

Nigeria has made some efforts to mainstream climate change adaptation into its development plans at the national and subnational levels. However, the country is still facing a number of challenges hindering it from reaching its climate adaptation goals. The four most important gaps the Nigerian government needs to close are capacity building, financial resources, technology development and use, and alignment of policy with regional adaptation needs, practices, and strategies. These challenges limit Nigeria's adaptive capacity and its ability to build resilience.

Moreover, the apparent exclusion of relevant stakeholders, such as women, persons with disabilities, CSOs, indigenous people, and local and state governments, in the decision-making process is a major barrier to effectively implementing these APFs. Other limitations of the APFs include lack of an implementation timeline and target, lack of synergy and collaboration among stakeholders, the existence of numerous overlapping responsibilities, insufficient capacity to implement the NAP framework, and limited capacity to monitor, evaluate, and document adaptation planning across the various spheres of governance.

Notwithstanding these gaps and limitations, Nigeria has numerous opportunities to mainstream climate change adaptation, reduce vulnerability, and meet its Medium Term National Development Plan – 2021-2025 and 2050 Long-Term Vision. It has the opportunity to develop its economy and meet its emission targets by developing robust APFs with a focus on agriculture, forestry, and fishery. These sectors have the potential to generate 12 million job opportunities by 2035. The Nigerian government can also build capacity by training its youth population, which account for 70% of the country's population, to see opportunities in climatepreneurship by turning locally available resources into business opportunities. The implications of not addressing these climate change adaptation issues will exacerbate the climate crisis, which may lead to humanitarian disasters. Nigeria is already losing about 5% of its GDP to climate impacts, and this figure could rise to 30% by 2050 if urgent steps are not taken to address these issues.

Conclusions

Nigeria is paying heavily as a result of climate change impacts and needs to act fast to increase its adaptive capacity. To tackle these challenges, it has developed several APFs with ambitious plans and strategies for climate change adaptation. However, the implementation of these policies is poor due to lack of finance and technological solutions, in addition to a limited capacity to implement the NAP framework. Furthermore, the Nigerian government's "top-down approach" to mainstream climate change excludes relevant stakeholders, holders of effective and sustainable climate adaptation solutions including indigenous and local communities, the youth, state and local governments, and women, in the decision-making process, thereby hindering the effective implementation of the NAP framework. This research has shown the motivation of those stakeholders. The government can seize this often-untapped opportunity to work closely with local communities involved in locally-led adaptation to identify viable projects that can be scaled up and integrated into the NAP framework.

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