Adapting Together, Thriving Tomorrow

Policy Brief

Ghana National Adaptation Plan

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Ghana National Adaptation Plan 2025: Redefining Development for Climate Resilience

Overview

CLIMATE RISKS THREATEN SOCIO-ECOMIC DEVELOPMENT IN GHANA.

SECTORS AFFECTED

AGRICULTURE

WATER

HEALTH

EDUCATION

INFRASTRUCTURE

CLIMATE CRISIS

RISING TEMPERATURES

ERRATIC RAINFALLS

FLOODS

DROUGHT

LOCAL COMMUNITIES CRISIS

FOOD INSECURITY

DIMINISHED LIVELIHOODS

CLIMATE INDUCED HUMAN MOBILITY

ADDRESSING THE CLIMATE CHALLENGE: GHANA'S 2025 NATIONAL ADAPTATION PLAN

OUTLINING GHANA'S ADAPTATION NEEDS

NAP ADDRESSES THE COUNTRY'S MEDIUM AND LONG-TERM CLIMATE ADAPTATION NEEDS

INTEGRATING THEM INTO NATIONAL AND LOCAL DEVELOPMENT PLANS

COMMITTING TO SUSTAINABLE, INCLUSIVE, AND CLIMATE-RESILIENT DEVELOPMENT.

GUIDED BY SCIENCE, LOCAL KNOWLEDGE AND PARTICIPATORY GOVERNANCE

GHANA'S NAP

CALLS FOR AN INTEGRATED, INCLUSIVE, AND WELL-RESOURCED APPROACH THAT WILL PRIORITIZE LOCALLY LED ADAPTATION

IMPLEMENTATION FRAMEWORK

1. INTRODUCTION

Ghana, like many sub-Saharan African countries, faces profound and growing challenges from climate change, which is already disrupting its environment, economy, and communities.[1] Rising temperatures, increasingly erratic rainfall, sea-level rise, and extreme weather events are affecting critical sectors such as agriculture, health, water, and infrastructure.[2] These impacts are particularly severe in the northern and coastal regions, where communities are vulnerable to bush fires, droughts, floods, and erosion.[3] Agriculture, the backbone of Ghana's economy and livelihood for nearly half of its population is especially at risk, with climate variability threatening food security and rural livelihoods. As these risks intensify, climate change is expected to deepen existing socio-economic vulnerabilities and impede the development gains the country has made over the years.[4]

Economic losses associated with extreme weather events, such as droughts and floods, have caused significant economic losses. For instance, in 2020, droughts alone resulted in an estimated $95 million in direct economic losses, and this figure is expected to rise as climate conditions worsen.[5] In addition, climate-related stresses are increasingly driving internal migration and displacement.[6] Studies highlight that by 2050, under current climate trends, approximately 2.6 million people may migrate from northern Ghana southwards if temperature increases, rainfall erraticism, and other climatic stresses continue.[7]

As climate induced extreme weather events become more frequent and more harmful, threatening economic growth and development and exacerbating poverty, Ghana recognizes the urgent need to build climate resilience and ensure adaptation while also promoting low carbon growth.[8] This aligns with global commitments such as the Paris Agreement, which established the global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal.[9] Countries develop National Adaptation Plans (NAPs) to identify medium- and long-term climate adaptation needs and to integrate adaptation measures into national development planning. In line with the UNFCCC guidelines and the obligations under the Paris Agreement, Ghana has developed its NAP to enhance resilience, reduce vulnerability to climate change, and mainstream adaptation into sectoral and local planning frameworks.[10]

2. THE NAP-MAKING PROCESS

Ghana's NAP -making process begun in earnest with the development of a NAP Readiness project proposal which was submitted to the Green Climate Fund (GCF) in the first quarter of 2017 and was approved in May 2019. Key implementing partners including the Government of Ghana, the GCF, UNDP Ghana, and the UN Environment held several discussions between May and December 2019 to ensure smooth take off of the project, and in October 2018, Ghana developed and published its NAP framework defining the country's vision and principles of adaptation planning and officially launched the NAP process in July 2020.[11] Following robust multi-stakeholder engagement processes over the years, the process culminated in a draft NAP that underwent national validation in June 2025, with representatives from government, CSOs, vulnerable group organizations, development partners, and academia sharing final input on its content, leading to the final NAP's adoption.

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[1] Government of Ghana, *National Climate Change Adaptation Strategy, 2012*, (Government of Ghana, 2012); See also: Government of Ghana, *National Climate Change Policy, 2013*, (Government of Ghana, 2013).
[2] Government of Ghana, *Draft Ghana National Adaptation Plan 2025,* (Government of Ghana, 2025).
[3] Government of Ghana, *National Climate Change Adaptation Strategy, 2012,* (Government of Ghana, 2012).
[4] Environmental Protection Agency, *Ghana's National Adaptation Plan Framework,* (Government of Ghana, 2018).
[5] *Ibid.*
[6] Ministry of Interior, *National Migration Policy for Ghana*, (Government of Ghana, 2016).
[7] *Ibid.*
[8] Government of Ghana, *National Climate Change Policy, 2013,* (Government of Ghana, 2013).
[9] Paris Agreement (adopted 12 December 2015, entered into force 4 November 2016) UNTS No. I-54113 Article 7.
[10] Government of Ghana, *Draft Ghana National Adaptation Plan 2025,* (Government of Ghana, 2025).
[11] Government of Ghana, Report on the National Launch of Ghana's National Adaptation Plan (NAP) Project, NAP PMU 7 July 2020.

Figure 1: Key milestones in Ghana's NAP-making process

Ghana's NAP has been developed through a country-driven, transparent, and participatory process, drawing on scientific data, risk assessments, socio-economic scenarios, and local and traditional knowledge. It prioritizes vulnerable groups, communities, and ecosystems, and is grounded on existing strategies, policies, plans, laws and regulations aimed at enhancing sustainable development and the country's resilience to negative impacts of climate change. Key guiding documents include the Constitution of Ghana, 1992, Medium-Term National Development Policy Framework (MTDPF) 2018-2021; Low Carbon Development Strategy (2016), National Climate Change Master Plan Action Programmes for Implementation, 2015–2020, the Nationally Determined Contribution (NDC), 2015 and 2021, the National Climate Change Policy, 2013, the National Climate Change Adaptation Strategy, 2012 and the National Adaptation Policy Framework, 2012, as well as sectoral climate resilient strategies and regional and district /metropolitan plans.

The NAP process has also been informed by sectoral vulnerability and adaptation assessments conducted by national experts and a broad network of stakeholders across national, sectoral, and district levels. Focused on Ghana' agriculture, water, health, infrastructure and energy sectors and hinged on Ghana's Decentralization Policy Framework and Second National Decentralization Plan which support the devolution of climate change adaptation to the district level, the plan also

incorporated sub-national data on municipal and twenty-six district vulnerabilities. The municipalities, each represent one of the six agroecological zones of Ghana namely: Bekwai, (semi-deciduous), Bibiani (Rain Forest), Assena-Nankana (Sudanna-Savannah), Kintambo (Transition Zone), Cape Coast (Coastal Savannah) and New Juabeng South (Semi-Deciduous Forest). To ensure gender is fully integrated into the NAP process, the Environmental Protection Authority (EPA), with support from the NAP Global Network's Country Support Hub, developed a gender strategy to address key gender considerations throughout the plan. The NAP document also has a well-articulated Youth Strategy developed by the Strategic Youth Network for Development.

3. KEY FEATURES OF GHANA'S NAP

The vision of Ghana's NAP is to increase climate resilience and decrease vulnerability at the national and sub-national levels for enhanced sustainable development.. The vision focuses on addressing vulnerabilities in key sectors of the economy and emphasizes stakeholder collaboration, aligning policies, and building resilience across all levels of society.The goal of the NAP is to reduce the country's vulnerability to the adverse impacts of climate change by building adaptive capacity and resilience. It also facilitates the integration of climate change adaptation into Ghana's medium term and long-term development pathway supported by well-coordinated and effective institutions and governance structures, robust monitoring and evaluation, finance for implementation, capacity development, and coherent policies and legislation at national, regional and district levels within different sectors and ecosystems. Figure two (2) below sets out the NAP's proposed adaptation response measures for the key sectors affected by climate change.

District risk assesments and adaptation plans

Climate adaptation planning and vulnerability assessments have been conducted in 26 Metropolitan, Municipal, and District Assemblies (MMDAs), including coastal, drought-prone, and forested areas. Of these, the Green Climate Fund carried out ten rapid vulnerability risk assessments in selected districts based on local needs, gender inclusivity, existing resources, and national priorities. Risks and hazards were generally similar, but some differed due to local vulnerabilities—coastal locations like Sekondi-Takoradi and Keta are threatened by sea level rise and erosion, while northern districts such as Tamale face drought and water shortages. Climate change impacts across municipalities often affect agriculture, health, and water sectors, leading to decreased crop yields, increased food insecurity, water scarcity, changes in livelihoods, migration, and altered rainfall patterns, especially in rural areas.

Adaptation priorities were identified through consultative processes some of which include: crop diversification systems through intercropping and agroforestry practices; development of alternative livelihood programs such as aquaculture small-scale agriculture, or eco-tourism; integration of climate change education in school curricula; mangrove reforestation plans; community sensitization programs; and building the capacity of personnel to address climate risks.

Figure 2: Proposed adaptation response measures for key sectors affected by climate change in Ghana's NAP, 2025

Agriculture

Adaptation response measures in the agriculture sector:

- Ensure women's legal rights to landownership for climate-resilient farming.
- Train female extension officers to provide climate-smart farming advice.
- Promote women's leadership roles in agricultural decision-making bodies.
- Training and capacity building
- Develop heat-tolerant livestock breeds that can withstand increasing temperatures in tropical regions.
- Create drought-resistant pasture and fodder crop varieties to ensure consistent animal feed.
- Establish community-based fish breeding and restocking programs.
- Implement advanced coastal zone management techniques to protect marine habitats.

Infrastructure

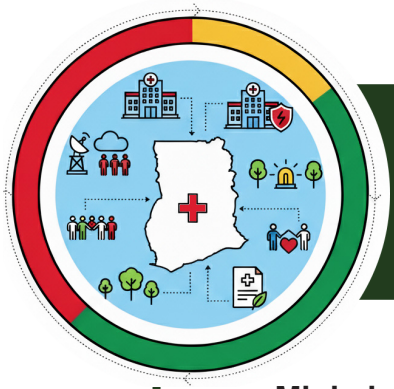
Adaptation response measures in the infrastructure sector:

- Coastal flood defense of thermal power plants in the Western region
- Coastal flood protection of the Sunon-Asogli power plant
- Safeguard vulnerable substations against floods and landslides
- Natural flood adaptation of the Weija Dam through greening and vegetation along the Densu River
- Flood resilience improvements to the Weija dam through release scheduling and spillway improvements
- Urban drainage measures in Accra
- Green recreative areas and riparian vegetation to protect exposed road and rail between urban centres
- Upstream afforestation of the Volta River reservoir to build resilience to flood and drought
- Sponge City measures to provide ecosystem-based urban adaptation to climate change.

Water

Adaptation response measures in the water sector:

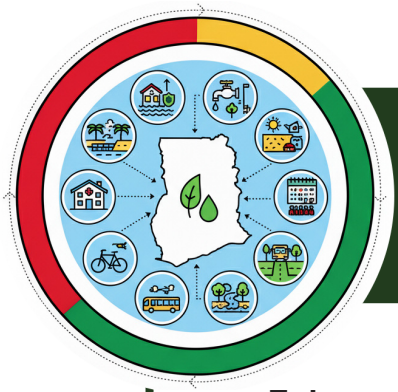
- Restore and conserve of wetlands and watersheds
- Restore buffer zones
- Watershed management
- Strengthen research on water resource management including groundwater resources
- Management plans for river basins
- Real-time monitoring and forecasting of the flows
- Climate-smart River Management System
- Provide climate-resilient infrastructure in critical areas of disaster risk reduction
- Promotion of indigenous knowledge and practices in water conservation
- Promote wastewater reuse programs, including efficient use of grey water in educational and commercial institutions in Ghana.



Health

Adaptation response measures in the health sector:

- Minimize climate change impacts on human health through improved access to healthcare.
- Strengthen health infrastructure and emergency preparedness.
- Develop and implement early warning systems for disease outbreaks.
- Enhance community health and engagement.
- Promote environmental health and sustainability.
- Integrate climate change into health policies and programs.
- Adopt nature-based solutions to help with ‘cooling’ of the city.



Cities and DRR

Adaptation response measures for cities and DRR:

- **Enhance urban and rural flood risk management and resilience.**
- **Improve water supply and sanitation systems.**
- **Utilize drought-resistant agricultural practices and urban food security.**
- **Strengthen disaster preparedness and emergency response.**
- **Develop climate-resilient Housing and infrastructure.**
- **Create sustainable urban and rural transport systems.**
- **Prioritize ecosystem-based adaptation (EbA) for urban and rural areas and coastal resilience against sea-level rise and erosion.**
- **Undertake hazard and risk profiles for all districts**

4. POLICY OPTIONS FOR TURNING GHANA'S NAP GOALS TO ACTION

To successfully implement the NAP to realize the benefits and opportunities it offers for a climate resilient development pathway in Ghana, the following policy recommendations are made, informed by the key proposals in the NAP and best practices globally:

i. **Localize adaptation by devolving national priorities into effective action at the local level** – Ghana's municipalities are situated across diverse agroecological zones and experience climate change impacts differently, with each municipality's exposure shaped by its specific geographic location, ecological characteristics, and socio-economic context. There is therefore need to tailor adaptation strategies to local conditions ensuring that developed responses are context-specific and responsive to the unique vulnerabilities and capacities of each area and ensuring that the sub-national programmes and projects being implemented are in line with the national government policies, strategies and action plans. Ghana also needs to a decentralize climate finance by establishing dedicated adaptation financing windows for local authorities and simplifying procedures to enable timely and equitable access to funds.

ii. **Apply a special focus on vulnerable communities to ensure adaptation efforts are inclusive and responsive to those most at risk -** Climate change impacts in Ghana disproportionately affect vulnerable groups including the elderly, children, women, persons with disabilities, internally displaced, migrants, and low-income communities. As such special attention must be given to these vulnerable groups by integrating gender-responsive and inclusive approaches into both national and local strategies to ensure that no one is left behind. Strengthening local communities and minorities through capacity building activities, preparing detailed climate-informed action plans, improving land and tenure rights, and enhancing the local communities' adaptive capacity are also essential steps for building resilience and ensuring sustainable, equitable development across all regions.

iii. **Strengthen institutional coordination and governance for effective climate adaptation -** Ghana's institutional framework for climate adaptation comprises a range of national, sub-national, and non-state actors working collaboratively to advance the objectives of the NAP. However, the country lacks a dedicated institutional structure for adaptation planning, leading to overlaps and unclear mandates. To address the gaps in coordination and role clarity, Ghana

should adopt the institutional structure outlined in the NAP, which provides a clear delineation of responsibilities across national, regional, and district levels. Key national institutions such as the National Development Planning Commission, sectoral ministries, and the Environmental Protection Authority should also receive adequate resources to lead climate adaptation efforts. At the same time, district-level authorities, technical committees, and cross-sectoral groups must be equipped to implement adaptation actions tailored to local contexts. Strengthening vertical coordination between national and sub-national actors, alongside deeper collaboration with civil society, the private sector, academia, and communities, will be critical to delivering inclusive, context-specific, and sustainable adaptation outcomes.

iv. **Integrate climate finance into the national planning and budgeting framework -** Climate finance plays an important role in the realization of Ghana's commitment to tackling climate change through adaptation and mitigation. However, the country is having a challenge in tracking its climate finance. Ghana may enhance the tracking and reporting of climate finance by improving data quality and disaggregation on climate-related needs and financial flows. Strengthening public sector tracking tools and encouraging transparency from private sector actors will also be key to creating a comprehensive picture of climate finance investment in adaptation. The government should also adopt budget tagging mechanisms and standardized frameworks for private climate investment reporting to better align domestic spending with international climate finance standards. Establishing a national climate finance baseline will help identify and close existing investment gaps. Deploying innovative instruments such as green bonds and blended finance can incentivize private sector participation. Building a strong pipeline of investable enterprises and developing a national climate finance taxonomy will further align investments with national priorities.

v. **Embed sustainability planning across sectors and at all levels -** To effectively embed sustainability planning across sectors and governance levels, Ghana should prioritize the integration of climate change adaptation into its existing national and sub-national policies including the long-term development agenda and the sustainable development goals. Ghana must also ensure alignment between its NAP and NDC to ensure cohesive climate action and prevent redundancy since NDCs often include adaptation measures. To further ensure sustainability planning, there is also need for both sector-specific and cross-sectoral planning that addresses the unique vulnerabilities of key sectors such as agriculture, forestry, water, energy, and infrastructure while promoting broader sustainability objectives. Adaptation should also be mainstreamed into national and local planning and budgeting processes, ensuring it becomes a foundational component of policy development and implementation. Efforts should also be made to foster inclusive implementation through stronger public-private partnerships, community participation, and gender-responsive approaches.

vi. **Develop a monitoring, evaluation and reporting framework to track the NAP implementation process -** Ghana needs to establish a robust monitoring, evaluation, reporting, and learning framework to track the implementation and effectiveness of its NAP. This includes defining clear key performance indicators for adaptation outcomes and financial flows, supported by consistent data collection from national and sub-national levels. Regular reporting cycles, combined with structured stakeholder feedback mechanisms, should be used to assess progress, identify implementation gaps, and inform adaptive management strategies. Creating feedback loops between implementers and decision-makers will help refine actions over time, enhance transparency, and build trust among development partners and affected communities.

Figure 3: Summary of policy recommendations

- Localize adaptation by devolving national priorities into effective action at the local level
- Apply a special focus on vulnerable communities to ensure adaptation efforts are inclusive and responsive to those most at risk
- Strengthen institutional coordination and governance for effective climate adaptation
- Integrate climate finance into the national planning and budgeting framework
- Embed sustainability planning across sectors and at all levels
- Develop a monitoring, evaluation and reporting framework to track the NAP implementation process

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