Adapting Together, Thriving Tomorrow

Ghana National Adaptation Plan

Sustainability Strategy

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ACRONYMS/ABBREVIATION

ADB	Agriculture Development Bank
AF	Adaptation Fund
AfDB	African Development Bank
APR	Annual Progress Reporting
APRs	Annual Progress Reports
CAAPs	Community Adaptation Action Plans
CRSPs	Climate Risk Screening Protocols
CSH	Country Support Hub
CSOs	Civil Society Organizations
CSPG	Cross-Sector Policy Group
CVP	Climate Vulnerability Portal
EIA	Environmental Impact Assessment
EPA	Environmental Protection Authority
EU	European Union
FAO	Food and Agriculture Organization
FPIC	Free, Prior, and Informed Consent
GCF	Green Climate Fund
GEF	Global Environment Facility
GIFMIS	Ghana Integrated Financial Management Information System
GIIF	Ghana Infrastructure Investment Fund
GIPC	Ghana Investment Promotion Centre
GMet	Ghana Meteorological Agency
GRF	Ghana Results Framework
GSA	Ghana Standards Authority
IGFs	Internally Generated Funds
IRPA	Institute for Research and Policy Alternatives
KIIs	Key Informant Interviews
KPIs	Key Performance Indicators
M&E	Monitoring and Evaluation

M&R	Monitoring and Reporting
MDAs	Ministries, Departments, and Agencies
MDB	Multilateral Development Bank
MEL	Monitoring, Evaluation, and Learning
MER	Monitoring, Evaluation, and Reporting
MEST	Ministry of Environment, Science and Technology
MMDAs	Metropolitan, Municipal, and District Assemblies
MoF	Ministry of Finance
MRV	Monitoring, Reporting, and Verification
MTDPs	Medium-Term Development Plans
MTNDPF	Medium-Term National Development Policy Framework
NAP	National Adaptation Plan
NAPF	National Adaptation Plan Framework
NAPs	National Adaptation Plans
NCCAS	National Climate Change Adaptation Strategy
NCCP	National Climate Change Policy
NDA	National Designated Authority
NDCs	Nationally Determined Contributions
NDPC	National Development Planning Commission
PIM	Public Investment Management
PLRs	Policies, Laws, and Regulations
SDGS	Sustainable Development Goals
SMEs	Small and Medium-sized Enterprises
SMTDPs	Sector Medium-Term Development Plans
TCFD	Task Force on Climate-related Financial Disclosures
ToRs	Terms of Reference
UK	United Kingdom
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change

WRC	Water Resources Commission

1. INTRODUCTION

1.1 Purpose and Rationale for the NAP Sustainability strategy

The sustainability strategy for Ghana's National Adaptation Plan (NAP) aims to ensure the continued relevance, ownership, financing, and integration of adaptation efforts into Ghana's national development agenda. As Ghana increasingly faces the adverse impacts of climate change such as floods, droughts, and sea-level rise, this strategy serves as a blueprint to embed adaptation actions in a manner that ensures long-term institutional commitment, policy coherence, financing continuity, and resilience building across all levels of government and society.

1.2 Alignment with Ghana's Development Goals, NDCs, and Climate Policy Framework

The NAP Sustainability Strategy is aligned with Ghana's National Medium-Term Development Policy Framework (MTDPF), the Nationally Determined Contributions (NDCs), and the National Climate Change Policy (NCCP). It builds upon Ghana's commitment under the Paris Agreement, especially Article 7, and reflects goals articulated in Agenda 2063, the Sendai Framework, and the SDGs. This strategy reinforces Ghana's pursuit of a climate-resilient, equitable, and low-carbon economy, as outlined in the NCCP and GNAP Vision.

1.3 Overview of the NAP Process and its Importance for Long-term Resilience

The NAP process in Ghana started between April and October 2017 to develop a NAP readiness proposal for support. In October 2018, Ghana developed and published its NAP Framework (NAPF) where it clearly defined its vision and principles for adaptation planning. Further, the Government of Ghana, through the Environmental Protection Authority, under the auspices of the Ministry of Environment, Science and Technology (MEST), and with support from the Green Climate Fund (GCF) has implemented a three-year project to build capacity to advance the NAP process in Ghana. The UN Environment Programme (UNEP) is the Delivery Partner of GCF NAP Readiness Project in Ghana entitled *"Enhancing multi-sector planning and capacity for effective adaptation in Ghana".* The NAP project seeks to support multi-sectoral, medium- to long term adaptation planning and budgeting in Ghana by promoting the integration of climate change adaptation issues into development planning processes and policies.

To ensure the mainstreaming of gender into the entire NAP Process, a gender strategy has been developed by the EPA, with support from the NAP Global Network's Country Support Hub (CSH) to advance key gender issues that must be considered for Ghana's NAP Process. In line with the UNFCCC NAP Technical Guidelines, the NAP process in Ghana is made up of four elements and each element is guided by capacity building, gender and equity, and communication. These four elements lay the groundwork for addressing gaps and are also key to the sustainability of the NAP; preparatory aspects; implementation strategy; and monitoring, reporting, and review.

The Government of Ghana recognizes the critical importance of climate change risks to national development, and has made considerable strides, through strategies, policies, programs, projects, creation of institutions and planning processes, to increase the country's resilience to negative impacts of climate change. These efforts include: National Climate Change Master Plan Action Programs for Implementation (2015–2020), the Nationally Determined Contributions (NDC, 2015; 2021), the National Climate Change Policy (NCCP, 2013), the National Climate Change Adaptation Strategy (NCCAS, 2012) and a National Adaptation Policy Framework (2012) that is a key mechanism in strengthening its focus on adaptation. The NAP process in Ghana also recognizes and aligns with other sectoral adaptation policies, strategies and frameworks from sectors such as agriculture, disaster risks, water, health, infrastructure, energy, ecosystems management, cities, etc. In

addition, the NAP process in Ghana also pays particular attention to human mobility within the context of climate change as an evolving/emerging issue that needs cross sectoral solutions. Locally-led and district level adaptation planning and implementation are also recognized as fundamental to the full mainstreaming of adaptation across the country.

Ghana has already established a strong foundation for advancing its NAP process through a series of technical, institutional and policy milestones. Under the Ghana NAP framework, sectoral vulnerability and risk assessments were conducted across key areas such as agriculture, water, infrastructure, health and disaster risk management. These provide the evidence base for prioritizing adaptation actions. Downscaled climate projects and impact analyses have also been developed to inform sector and district-level planning. Furthermore, sectoral adaptation plans particularly in agriculture, energy and water have been elaborated to align national climate strategies with sector-specific goals. These achievements demonstrate that Ghana's NAP process is not starting from scratch but rather building on an established body of assessments and coordination structures that now require consolidation, scaling and sustained financing for full implementation in the future.

Ghana's NAP vision is to increase climate resilience and decrease vulnerability at the national and sub-national levels towards enhanced sustainable development (EPA, 2018). Ghana's NAP framework aims to integrate climate adaptation into medium- and long-term development planning. The vision focuses on addressing vulnerabilities in priority sectors including agriculture, water resources, and infrastructure, while promoting sustainable development. The framework emphasizes stakeholder collaboration, aligning policies, and building resilience across all levels of society.

Enhancing climate resilience involves: i) reducing vulnerability to the adverse impacts of climate change by building adaptive capacity and resilience; and ii) facilitating the integration of climate change adaptation into fiscal, regulatory and development policies, programs and activities (UNFCCC, 2012). Overall, the GNAP seeks to support the coordination of climate change adaptation actions at the national level (between and among ministries and between its development partners) and sub-national level (with districts) and to accelerate strategic investments in climate-resilient development for increased savings, greater security and health for society.

To ensure that the gains made through the NAP process are sustained and institutionalized, the Government of Ghana has developed this NAP Sustainability Strategy. This strategy serves as a critical roadmap for ensuring the long-term integration, financing, and coordination of adaptation actions across sectors and levels of government. It aims to transition adaptation planning from short-term, project-based interventions to a whole-of-government, systems-based approach anchored in national development planning, budgeting, and governance processes. The strategy outlines the key principles, strategic objectives, financing pathways, and institutional mechanisms necessary to embed adaptation into the heart of Ghana's development trajectory, thereby enhancing the country's long-term resilience to climate change.

2. GUIDING PRINCIPLES FOR THE NAPSUSTAINALITY STRATEGY

3. STRATEGIC OBJECTIVES

The guiding principes and strategic objectives of the Sustainability Strategy are closely linked and yet distinct in their purpose and function. The guiding principles serve as the foundational values and norms that shape how the strategy is implemented while emphasizing inclusivity, national ownership, gender responsiveness, evidence-based decision making and learning. They define ***how*** the NAP process should be pursued to ensure it remains participatory, equitable and aligned with national priorities. In contrast, the strategic objectives define the ***what;*** the concrete outcomes the sustainability strategy seeks to achieve such as institutional capacity, securing long-term financing, enhancing policy integration and promoting adaptive learning. Together, the principles provide the ethical and operational compass, while the strategic objectives translate these principles into measure able and actionable priorities that sustain the NAP's long-term implementation.

Ensure long-term integration of adaptation into planning and development processes	This objective aims to embed climate adaptation as a permanent feature of Ghana's development planning and governance systems. It calls for the full integration of adaptation priorities into national development plans, sectoral strategies, district-level Medium-Term Development Plans (MTDPs), and public investment frameworks. By mainstreaming adaptation in these processes, Ghana ensures that climate resilience is no longer addressed in isolated projects but is treated as a national development priority. This also requires alignment between policy and budget cycles, harmonization of sectoral targets with adaptation needs, and consistent use of planning tools that include climate risk screening and resource allocation for resilience-building initiatives.
Build institutional and technical capacity across levels	Effective and sustained adaptation requires institutions that are capable, well-resourced, and coordinated. This objective focuses on enhancing the technical, organizational, and human resource capacities of key national entities such as MEST, EPA, NDPC, and MoF, as well as regional and district-level government institutions. It recognizes that capacity building must be continuous and embedded in institutional systems; not treated as one-off training events. This includes supporting MDAs and MMDAs with tools, guidance, and technical assistance to assess climate risks, plan and budget for adaptation, and implement inclusive, gender-responsive interventions. Strengthening coordination mechanisms such as the Cross-Sectoral Policy Groups (CSPGs) will further support the harmonization of efforts across sectors and scales.
Secure diversified and sustainable financing	Adaptation cannot be sustained without reliable, adequate, and diversified sources of finance. This objective emphasizes the need to shift from donor-dependence toward a more balanced approach that includes domestic public finance, international climate funds, and private sector investment. It includes efforts to integrate adaptation into national and district budgets through budget tagging systems, earmarked allocations, and fiscal incentives for climate-resilient spending. It also prioritizes the development of a national Climate Finance Strategy and a project pipeline to guide engagement with the Green Climate Fund (GCF), Adaptation Fund, and other global climate financing mechanisms. At the same time, it calls for enabling frameworks to mobilize innovative financing instruments such as green bonds, blended finance, and weather-indexed insurance, that can unlock private capital for adaptation and resilience.

Promote evidence-based decision-making and knowledge-sharing	Sound adaptation decisions must be grounded in robust data, inclusive learning, and timely feedback. This objective focuses on strengthening Ghana's climate information and data systems, improving access to vulnerability and risk assessments, and ensuring that adaptation actions are informed by both scientific research and local realities. It also calls for the operationalization of a Monitoring, Evaluation, and Learning (MEL) framework aligned with national development tracking systems to support accountability, learning, and adaptive management. Knowledge-sharing platforms including digital tools, learning forums, and community-level feedback mechanisms will help foster a culture of continuous improvement and collaboration among practitioners, policymakers, researchers, private sector, and communities. By promoting transparency, participation, and the systematic use of evidence, this objective aims to enhance the effectiveness and legitimacy of adaptation actions over time.

4. KEY PILLARS AND STRATEGIC ACTIONS

4.1 Institutional Sustainability

To ensure long-term institutional sustainability, the NAP process must move beyond project-based arrangements and embed adaptation responsibilities within existing governance structures.

a. Formalize roles of EPA, MEST, NDPC, and sectoral agencies

The Environmental Protection Authority acting under the Ministry of Environment, Science and Technology is formally mandated as the NAP coordination and technical secretariat by Act 1124 (2025). NAP actions should be embedded into the national planning cycle by the NDPC in addition to enforcing compliance among Ministries, Departments and Agencies. Sectoral ministries, such as Health, Agriculture, Roads, and Local Government, should receive defined mandates with corresponding resource allocations for adaptation delivery.

b. Institutionalize the Cross-Sectoral Policy Groups

CSPGs were instrumental during the NAP development process. These inter-sectoral working groups must be converted into permanent coordination structures with secretarial support, reporting obligations, and integration into the broader climate governance framework. Their role in policy alignment, technical review, and knowledge-sharing must be institutionalized. The EPA, through Act 1124 (2025), must formalize this process for enhanced implementation of adaptation in Ghana.

c. Embed adaptation mandates in MMDAs and MDAs

Section 5 of the EPA Act 1124 (2025) speaks to EPA's mainstreaming of climate change responses and the adaptative capacity to the impacts of climate change at all levels of government. It requires the authority to take measures in climate change implementation, among them; facilitating technical activities of all stakeholders involved in climate change activities to enhance capacity development, foster national dialogues and provide technical support to the MoF to mobilize financial and other resources, among others.

4.2 Financial Sustainability

a. Mainstream adaptation in national and district budgets

Mainstreaming climate adaptation into national and sub-national budgets is essential to transitioning from donor-reliant interventions to sustained, country-owned financing. The Ministry of Finance (MoF), in collaboration with the National Development Planning Commission and the Ministry of Environment, Science and Technology should lead the development and institutionalization of **budget tagging and classification systems** that can identify, track, and report on adaptation expenditures across MDAs, as well as Metropolitan, Municipal, and District Assemblies (MMDAs). This would involve revising budget preparation guidelines to integrate **climate adaptation codes** and provide training to planning and finance officers on how to identify and allocate adaptation-relevant expenditures. Furthermore, NDPC should incorporate climate adaptation targets and expenditure requirements into the **Medium-Term Development Plan templates** and monitoring frameworks.

A national policy directive should require MDAs and MMDAs to allocate a minimum percentage of their annual capital budgets to climate-resilient infrastructure, ecosystem restoration, and early warning systems. Ghana's GIFMIS (Ghana Integrated Financial Management Information System)

can be updated to integrate adaptation markers, improving tracking and reporting for both domestic accountability and international transparency.

b. Implement the NAP Finance Strategy and Project Pipeline

As part of the Ghana NAP, a comprehensive national Adaptation Finance Strategy has been developed to guide mobilization, coordination and effective use of financial resources for adaption. The strategy consolidates Ghana's adaptation finance needs, identifies priority sectors for investment and sets out mechanisms for coordinated engagement with development partners, financial institutions and the private sector.

The Finance Strategy defines the roles and responsibilities of key MDAs including among others, MoF, MEST, Ministry of Food and Agriculture, Ministry for Transport, the EPA, NDPC etc. it also highlights key financing gaps and recommends instruments such as grants, guarantees, Public-Private Partnerships (PPPs) and results-based financing to attract investment into priority adaptation areas.

Development of an adaptation finance project pipeline would be essential under the both the Finance and Sustainability strategies to support the identification and preparation of bankable adaptation investment. These projects would cut across the identified critical sectors and would be designed through inclusive and participatory processes involving local governments, CSOs, traditional groups and the private sector to ensure alignment with local priorities and strengthen social ownership.

This pipeline should feed directly into existing and future Green Climate Fund, Adaptation Fund (AF), the Loss and Damage Fund, and Multilateral Development Bank (MDB) proposal cycles. A centralized project development facility or technical support unit, hosted at EPA or MoF, can provide support in refining concepts, conducting feasibility assessments, and aligning project documents with funder criteria.

c. Strengthen access to international climate funds

To sustain large-scale adaptation initiatives, Ghana must strengthen its access to international climate finance by building institutional readiness, expanding accredited national entities, and enhancing proposal development capacity especially at MMDA level. The Ministry of Finance , as the National Designated Authority (NDA) to the GCF, working closely with the EPA, should coordinate with sector ministries to identify adaptation priorities and package them into high-quality, bankable projects.

The effective implementation of the sustainability strategy will require strong institutional coordination, capacity enhancement and periodic review. Among the next steps is strengthening the capacity of MDAs and MMDAs to develop and manage adaptation finance proposals and implement the NAP monitoring framework to track finance flows and impacts.

This requires capacity-building for MDAs and MMDAs on international projects proposal writing, fiduciary standards, and environmental and social safeguards. Additionally, Ghana should pursue direct access accreditation for key investment institutions, and collaborate with international implementing entities to co-develop pipeline projects. The strategy should also include targeted efforts to tap into the Adaptation Fund, the Global Environment Facility (GEF), and emerging Loss and Damage finance windows under the UNFCCC. A centralized climate finance helpdesk or technical facility within EPA or MoF could support coordination, matchmaking, and tracking of international climate finance flows into Ghana.

d. Mobilize private sector investment and innovative financing

Engaging the private sector is key to scaling up adaptation finance and reducing dependence on public and donor sources. Ghana NAP process has developed a Private Sector Engagement Strategy on climate change adaptation. This document should serve as a starter point for Ghana to develop **enabling policy and regulatory frameworks** to de-risk private investments and make adaptation a viable and attractive venture for businesses and financial institutions. The policy framework must be intentional to support local and indigenous private sector to actively engage in mobilizing resources.

This includes establishing a **national green finance policy** to support instruments such as;

- Green bonds issued for climate-resilient infrastructure and energy transition.
- Blended finance models, where public or donor finance is used to de-risk private capital investments in climate-smart agriculture, water infrastructure, or coastal resilience.
- Concessional climate credit and guarantee schemes through development banks or commercial lenders to support SMEs and agribusinesses investing in resilience.
- Weather-indexed insurance schemes to reduce financial shocks for smallholder farmers and vulnerable communities.
- Climate risk disclosure guidelines for the financial sector, aligned with the Task Force on Climate-related Financial Disclosures (TCFD), to encourage green lending practices.

Additionally, the operationalization of Article 6.2 cooperative approaches under the Paris Agreement in Ghana should be done with clear benefit-sharing mechanisms, environmental safeguards, and a pipeline of mitigation/adaptation co-benefit projects. This would unlock results-based finance for adaptation interventions linked to verified emissions reductions. Public-private dialogue platforms, impact investment forums, and green investment fairs should be institutionalized to crowd in private capital while showcasing Ghana's climate-resilient investment opportunities.

4.3 Policy and Regulatory Integration

a. Integrate NAP actions into sectoral and local development plans

For adaptation actions to be sustainable and impactful, they must be embedded in the core development cycle including planning and budgeting frameworks at national, sectoral, and district levels. The NDPC should issue a formal policy directive mandating the **mainstreaming of NAP priorities** into Sector Medium-Term Development Plans (SMTDPs), Annual Progress Reports, and Composite Budgets. Integrating climate vulnerability and risk assessments into the problem analysis stages of planning will provide a solid foundation to adaptation planning. In addition, aligning sectoral Key Performance Indicators (KPIs) with adaptation targets is critical in ensuring sustainability of the NAP. Equally important is the requirement for each MMDA to identify specific adaptation outcomes in their development plans, supported by NDPC's planning guidelines and EPA's technical inputs. The NDPC, EPA, and MoF should also **update annual planning and budgeting templates** to incorporate climate risk screening, cost tagging, and prioritization of no-regrets and gender-responsive adaptation actions.

b. Review and revise laws, building codes, and EIAs to reflect climate risk

To align development with climate resilience, existing legal and regulatory instruments must be revised to embed climate risk considerations. This includes:

- Updating the National Building Code to incorporate standards for flood-proofing, heat resistance, and sustainable materials.

- Amending Environmental Impact Assessment (EIA) guidelines to require climate vulnerability and resilience assessments for all medium and large-scale infrastructure and natural resource projects.
- Developing Climate Risk Screening Protocols (CRSPs) as annexes to EIA manuals and planning acts.

The EPA, Ghana Standards Authority (GSA), and relevant sector MDAs should collaborate to develop climate-resilient construction guidelines, compliance tools, and training materials for regulatory enforcement at national and sub-national levels.

c. Institutionalize climate adaptation screening in public investment processes

To reduce climate-induced losses and improve fiscal efficiency, Ghana should integrate mandatory climate risk screening into all stages of its Public Investment Management (PIM) framework. This would ensure that all new public investments, particularly in water, roads, housing, energy, and agriculture, are evaluated for their exposure and responsiveness to climate risks. To achieve this, the MoF can undertake the following;

- Embed climate screening checklists into project concept notes and feasibility studies.
- Update the Ghana Integrated Financial Management Information System to include climate adaptation markers and performance criteria.
- Require sector ministries, departments and agencies to include climate adaptation co-benefits in their submissions for development financing and budget support.

This will position Ghana to attract more climate-smart investments and reduce long-term public expenditure related to climate-induced infrastructure damage.

4.4 Capacity Strengthening

a. Provide continuous training and technical support to MDAs and MMDAs

Human and institutional capacity is central to effective adaptation implementation. EPA, NDPC, and the Local Government Service should jointly lead the design of a National Adaptation Capacity Development Programme, targeting planning officers, engineers, health officials, agricultural extension agents, and environment officers at MDAs and MMDAs.

This programme recognizes capacity building efforts by the NAP process that included training of key stakeholders on climate vulnerability and planning. Towards sustainability, core modules such as project design and proposal writing to key financial mechanisms will be necessary. These modules can be delivered through a blended model i.e. in-person workshops, e-learning platforms, and peer learning forums. The programme should also link with performance-based incentives (e.g., through NDPC performance contracts) to ensure uptake and retention.

b. Support development of adaptation curricula in tertiary institutions

Universities and training institutes should partner with EPA to develop accredited courses and modules on climate adaptation planning, finance, and monitoring. Partnerships with TVET institutions should ensure local artisans and technicians have knowledge on climate-smart infrastructure and agriculture.

c. Foster partnerships with academia, CSOs, and professional bodies

Ghana's research institutions, think tanks, and professional societies (e.g., engineers, planners, environmental scientists) play a critical role in innovation, accountability, and technical backstopping, and should be formally engaged in the NAP implementation cycle for data generation, third-party review, and technical backstopping.

The EPA in collaboration with MEST should:

- Formalize collaboration with professional bodies (e.g., Ghana Institute of Engineers, Planners, Architects) to develop technical standards and codes of practice for adaptation.
- Involve CSOs in participatory monitoring, policy advocacy, and social audits to promote transparency and inclusion.

4.5 Data, Knowledge, Monitoring, and Learning Systems

a. Operationalize the NAP Monitoring, Evaluation, and Learning Framework

A robust Monitoring, Evaluation, Reporting and Learning system is the backbone of adaptive management. The NAP process has also developed a Monitoring and Evaluation framework with clearly defined indicators, reporting cycles, and verification procedures. Critically, it anchors learning as a pillar to sustainable climate adaptation in Ghana. It is aligned with NDPC's Results Framework and linked to the national Climate MRV system. Importantly, annual learning and reflection events to assess performance, share best practices, identify barriers to implementation and update priorities could also be held to review progress, identify barriers, and recommend course corrections. This continuous feedback loop will ensure that the NAP remains a living document.

b. Strengthen Ghana's climate information systems

Timely, localized, and accurate climate information is essential for informed decision-making. Ghana Meteorological Agency (GMet), WRC, and the Hydrological Services Department should be resourced to provide localized, real-time climate data and early warning. The EPA, within the framework of enhanced climate information and data, should collaborate effectively with the institutions mentioned under this section to populate the climate vulnerability portal for enhanced decision making in adaptation in Ghana. The Climate Vulnerability Portal (CVP), accessed on https://ghclimatevulnerabiltyhub.com/ must also be updated regularly and connected to district-level planning systems.

c. Establish an integrated national database for vulnerability, risk, and adaptation actions

As a measure of centralizing and sustaining climate information and data, Ghana's NAP has developed a Climate Vulnerability Information Portal. The Climate Vulnerability Portal should house vulnerability maps, project implementation data, and resilience indicators. This platform should be interoperable with sectoral systems (e.g., agriculture MIS, health surveillance), and accessible to MDAs, researchers, CSOs, private sector, and development partners to support coordination and investment targeting. This will improve coordination, avoid duplication, and enable evidence-based decision-making.

4.6 Stakeholder Engagement and Inclusivity

a. Institutionalize stakeholder engagement platforms for youth, women, persons with disabilities, and civil society

An inclusive NAP process requires structured and recurring engagement with marginalized groups. A national stakeholder engagement framework should be adopted, establishing periodic forums for

dialogue with youth networks, gender platforms, traditional leaders, persons with disabilities and civil society. These forums should inform national reporting and policy reviews.

b. Strengthen community-based adaptation mechanisms

The NAP process lay a strong foundation for community-based adaptation through the development of district-level vulnerability assessments and plans that identify local climate risks, priorities and capacities. The vulnerability assessments conducted across districts provided valuable data on sectoral sensitivities and mapped community coping mechanisms and resource needs. These initiatives have enhanced local ownership and informed decision-making. Going forward, these district models can be replicated and scaled to other districts and communities, guiding the development of participatory, gender-sensitive adaptation strategies that align with national priorities while reflecting local realities. Ideally

c. Implement national communication and public awareness strategies

Behavioural change and political buy-in for adaptation depend on sustained public engagement. During development of the NAP, a youth group successfully employed theatre as a medium for communicating climate change adaptation to various audiences. The Global Arts and Development Centre (GADEC)[1] was instrumental in creating awareness on climate change, projections, risks and vulnerabilities and the need for climate adaptation. MEST, EPA, National Commission for Civic Education, the Ministry of Education, and the Information Services Department can build on this and co-lead a communication strategy to build public understanding of adaptation, promote behavioural change, and foster political support. This will include media campaigns, radio programs, mobile outreach, and school-based learning.

1 Global Arts and Development Centre - available at www.gadecafrica.org

5. IMPLEMENTATION AND COORDINATION FRAMEWORK

The successful implementation of Ghana's NAP Sustainability Strategy hinges on robust institutional arrangements, clearly defined mandates, multi-level coordination, and full alignment with national development planning and budgeting systems. This framework outlines how the strategy will be anchored within Ghana's governance structures and operationalized across sectors and administrative levels.

5.1 Roles and Responsibilities of Core Institutions

A coordinated, whole-of-government approach is required to implement adaptation actions across scales and sectors. The key institutions and their respective roles include:

i. **Ministry of Environment, Science and Technology:** Provides overall policy leadership and oversight of climate adaptation efforts. MEST will chair the NAP Steering Committee and ensure political ownership of the sustainability agenda. It will also liaise with Cabinet and Parliament to ensure that adaptation priorities are embedded in national legislative and executive processes.

ii. **Environmental Protection Authority:** Serves as the technical lead and coordinating entity for the implementation of the NAP Sustainability Strategy. It will provide strategic guidance, develop technical tools, oversee the Monitoring, Evaluation, and Learning (MEL) system, and support proposal development for climate finance. EPA will also lead the development of knowledge platforms and vulnerability data systems.

iii. **National Development Planning Commission:** Ensures that adaptation is integrated into the national and subnational planning architecture, including Medium-Term Development Plans (MTDPs), Sector Strategic Plans, and Performance Monitoring Frameworks. NDPC will also track implementation through annual performance assessments of MDAs and MMDAs.

iv. **Ministry of Finance:** Plays a critical role in ensuring financial sustainability through budget integration, fiscal policy reforms, climate finance strategy development, and coordination with international development partners. MoF will also lead the operationalization of budget tagging systems and link adaptation investment with Ghana's Public Investment Management (PIM) framework.

v. **Sector Ministries, Departments, and Agencies:** Responsible for mainstreaming adaptation into sector-specific plans, projects, and programs. They will implement adaptation actions aligned with sector vulnerabilities and report progress using NDPC's tools and EPA's technical guidelines.

vi. **Metropolitan, Municipal, and District Assemblies:** Serve as the frontlines of adaptation implementation. They will localize NAP priorities through Community Adaptation Action Plans (CAAPs), integrate them into Composite Budgets, and ensure inclusive, participatory planning with local stakeholders. District Planning Units will coordinate data collection, community engagement, and implementation tracking.

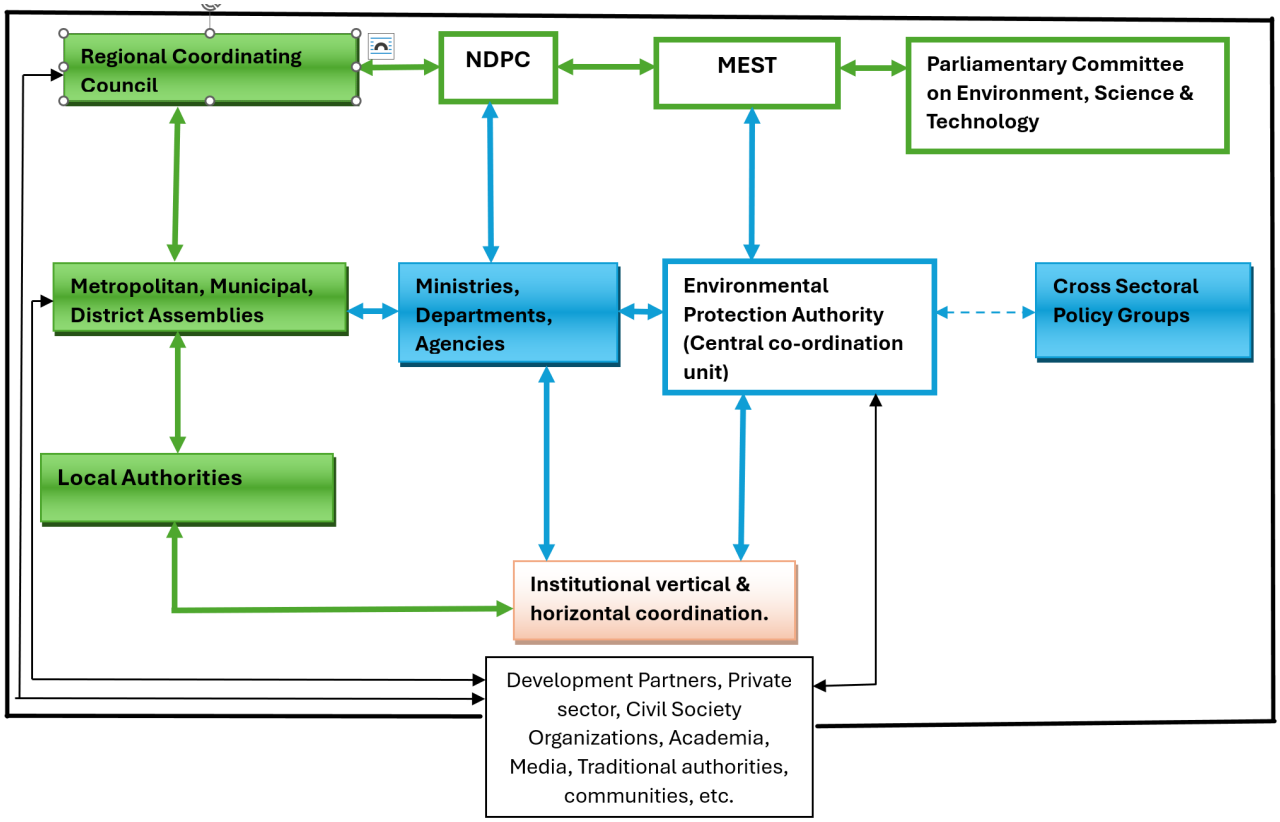
vii. **Development Partners:** provide critical technical assistance, financial resources and capacity support to strengthen national and sub-national implementation. They are instrumental in facilitating knowledge exchange, supporting innovative financing mechanisms and aligning international support with Ghana's national priorities. Development partners can also strengthen data systems for monitoring and reporting under the MERL framework.

viii. **Civil Society Organizations:** They serve as vital links between communities, government and policy processes. They will play a central role in promoting awareness and facilitating community-level adaptation initiatives. Further, they will ensure that the NAP remains inclusive and gender-responsive. Through advocacy and participatory monitoring, CSOs help ensure transparency and that adaptation interventions reach the most vulnerable groups. Their ongoing involvement in documentation of local adaptation practices and citizen engagement provides valuable feedback for adapative management within the NAP framework.

ix. **The Private Sector:** They will play a strategic role in scaling up adaptation investments and fostering climate-resilient economic growth and sun-national implementation. Through PPPs, innovative financing instruments and corporate sustainability programs, the private sector will help reduce the financing gap and drive market-based solutions. Private enterprises also provide innovation, technology transfer and employment opportunities especially to young people, that enhance resilience.

5.2 Proposed Implementation Arrangement

Figure 1: Proposed Implementation Arrangement



Source: NAP National Validation Consultations.

5.3 Mechanisms for Inter-Institutional Coordination and Reporting

To ensure vertical and horizontal coherence, the following coordination mechanisms will be institutionalized:

i. **NAP Steering Committee:** A high-level, multi-stakeholder body chaired by MEST and co-chaired by MoF. It will include representatives from NDPC, EPA, key sector MDAs, MMDAs, development partners, civil society, academia, and the private sector.

The committee, facilitated by the EPA will meet biannually to:

- Review progress and implementation challenges.
- Approve updates to the sustainability strategy and financing plans.
- Align adaptation actions with national priorities and international commitments.

ii. **Cross-Sectoral Planning Groups (CSPGs):** These thematic working groups already exists and bring together technical staff from relevant MDAs, sector experts, and partners to coordinate planning, technical review, and harmonization of adaptation approaches across sectors such as agriculture, water, health, infrastructure, and energy.

CSPGs will continue to support:

- Joint programme design and proposal development.
- Data harmonization and knowledge exchange.
- Peer review of MEL findings and sector adaptation reports.

iii. **Regional and District Climate Committees:** To strengthen subnational coordination, each region and district will establish a multi-agency adaptation coordination unit. These committees will link district planning to national frameworks, support data flow from local to national levels, and ensure community-based priorities inform policy and resource allocation.

iv. **Annual Technical Dialogue and Knowledge Forum:** A national forum, led by EPA and NDPC, will be held to promote peer learning, policy dialogue, and knowledge dissemination. It will also serve as a space to share good practices and research findings across government and stakeholder groups.

5.4 Linkages with Existing Development Coordination Systems

Rather than operating in isolation, the NAP Sustainability Strategy will be fully embedded in Ghana's existing development architecture to ensure institutional coherence, cost-effectiveness, and strategic alignment. This will include:

i. **Annual Budget Hearings (MoF and NDPC):** Adaptation priorities and funding needs will be reviewed as part of the annual budget process, ensuring that climate-responsive actions are reflected in fiscal allocations and expenditure frameworks.

ii. **Medium-Term Development Planning Guidelines:** NDPC will integrate climate adaptation checklists and tools into the MTDP templates for MDAs and MMDAs, ensuring that planning officers systematically assess and address climate risks and opportunities.

iii. **Performance Monitoring Tools:** NDPC's Performance Contract System and Annual Progress Reporting (APR) formats will include indicators linked to adaptation outcomes. This will facilitate mainstreamed monitoring and reporting across the public sector.

iv. **National Development Results Framework (NDRF):** The NAP's MEL framework will be aligned with the NDRF to avoid duplication, support data integration, and enable adaptation progress to be tracked as part of broader national development goals.

v. **Environmental Assessments Frameworks (EAFs):** Climate change adaption priorities especially climate risks and vulnerabilities must be anchored within the

environmental assessments frameworks such as the strategic environmental assessment (SEA) and the environmental impact assessment (EIA) mechanisms.

vi. **GIFMIS and Public Investment Management Systems:** Adaptation budget tagging and climate-sensitive project appraisal tools will be embedded into Ghana's PIM process to ensure that all capital investments consider resilience factors.

Through these mechanisms, the implementation of adaptation will be treated not as a standalone exercise, but as an integral part of Ghana's core development agenda, supported by policy coherence, institutional accountability, and multi-stakeholder engagement.

6. RISK MANAGEMENT AND SUSTAINABILITY CHALLENGES

Implementing and sustaining Ghana's National Adaptation Plan entails navigating a complex landscape of risks ranging from institutional fragilities and financing gaps to data limitations, capacity constraints and social inequities. These challenges, if not proactively addressed, can undermine the effectiveness, legitimacy, and longevity of adaptation efforts.

A robust risk management framework is therefore critical to ensure that the NAP Sustainability Strategy remains adaptive, inclusive, and responsive to changing political, economic, and environmental conditions.

6.1 Key Risks

6.1.1 Institutional Risks

Adaptation planning and implementation in Ghana rely on multi-level coordination across MDAs, MMDAs, and other stakeholders. However, several institutional risks threaten continuity and cohesion:

i. **Mandate Overlaps and Weak Inter-agency Coordination:** Multiple agencies with overlapping responsibilities (e.g., EPA, NDPC, sector ministries) often operate in silos, which leads to duplication, inefficiency, and gaps in implementation.

ii. **Staff Turnover and Limited Capacity:** Frequent reshuffles, transfers, and lack of institutional memory, especially at the district level, result in knowledge loss and disruption of adaptation initiatives.

iii. **Dependence on Individuals:** Where adaptation leadership is driven by a few champions rather than institutional frameworks, there is a high risk of inertia when these individuals exit the system.

6.1.2 Financial Risks

Long-term financing is foundational to sustainability, yet several financial barriers exist:

i. **Donor Dependence and Unpredictability:** Many adaptation efforts are heavily reliant on external financing, which is often tied to short project cycles, stringent conditionalities, and shifting donor priorities.

ii. **Limited Domestic Budget Allocations:** National and district-level budgets often lack earmarked allocations for adaptation, making integration ad hoc and reactive.

iii. **Disbursement Delays and Absorptive Constraints:** Even when funds are available, procedural bottlenecks in procurement, financial management, and reporting impede timely utilization and delivery of results.

6.1.3 Operational Risks

Operationalizing adaptation plans across sectors and geographies presents several risks:

i. **Data Gaps and Accessibility:** Lack of consistent, disaggregated, and real-time climate data, especially at the local level, hampers vulnerability assessment, planning, and monitoring.

ii. **Infrastructure Deficits:** Inadequate roads, drainage, and communication infrastructure in vulnerable regions constrain the delivery and effectiveness of adaptation projects.

iii. **Weak Monitoring and Knowledge Management Systems:** The absence of institutionalized MEL frameworks undermines adaptive learning, accountability, and evidence-based planning.

6.1.4 Social and Political Risks

Social equity and political will are critical enablers for sustained adaptation, but key risks include:

i. **Low Public Awareness:** Climate change is still not widely understood as an immediate threat, especially in rural areas, limiting public support for adaptation investments.

ii. **Marginalization of Vulnerable Groups:** Women, youth, Indigenous Peoples, and persons with disabilities often face barriers to participation in adaptation processes, leading to inequitable outcomes. To mitigate against these barriers, the NAP process mainstreamed gender and social inclusion across all sectors and interventions. Some of the measures include; participatory adaptation processes, targeted adaptation actions such as improving women and youth access to extension services, capacity building and empowerment programs and gender-responsive budgeting and monitoring where data collection uses sex and age disaggregated indicators to track equity outcomes.

iii. **Escalating Climate Disasters:** Ghana faces increasing frequency and intensity of climate-related disasters (e.g., floods, droughts, coastal erosion) which may exceed planned response capacities and stress institutional systems.

6.2 Risk Mitigation and Contingency Planning

The NAP Sustainability Strategy proposes a multi-pronged approach to risk management, grounded in prevention, preparedness, and adaptive learning.

a. Institutional Capacity Building

i. Roll out structured capacity-building programs for MDAs and MMDAs, supported by EPA and NDPC, with a focus on climate budgeting, project design, and MEL.

ii. Establish institutional memory systems such as knowledge repositories, process manuals, and succession plans to ensure continuity beyond individual staff.

iii. Strengthen inter-ministerial agreements and define clear mandates through updated adaptation coordination frameworks and Terms of Reference (ToRs).

b. Diversified Financing Strategy

i. Promote domestic resource mobilization through targeted environmental levies (e.g., carbon levies, plastic taxes), reallocation of fuel subsidies, and climate-responsive taxes.

ii. Explore innovative finance mechanisms such as green bonds, climate insurance schemes, and results-based finance to supplement traditional donor funding.

iii. Expand access to concessional loans and guarantees for adaptation investments via partnerships with development finance institutions and private sector actors.

c. Policy Coherence and Legal Mandates

i. Accelerate the review and harmonization of climate-related laws, policies, and strategies to eliminate redundancies and establish a coherent enabling environment.

ii. Enforce climate screening in public investment and planning systems via legal mandates embedded in EIA regulations, national planning guidelines, and sector policies.

iii. Institutionalize climate adaptation as a standing agenda item in Cabinet, inter-ministerial platforms, and NDPC planning cycles.

d. Adaptive Planning and MEL

i. Institutionalize scenario-based planning across sectors to account for uncertainty and enable flexible responses to emerging risks (e.g., El Niño years, sea level rise).

ii. Establish contingency financing mechanisms, such as emergency climate resilience reserves or disaster adaptation buffers, at national and local levels.

iii. Regularly update vulnerability and risk assessments using real-time data and community feedback to refine adaptation priorities and investment decisions.

e. Social Safeguards and Inclusion Mechanisms

i. Operationalize gender and social inclusion action plans to ensure vulnerable groups are represented in planning, decision-making, and benefit-sharing.

ii. Develop stakeholder engagement protocols with clear guidelines on Free, Prior, and Informed Consent (FPIC), especially in Indigenous and marginalized communities.

iii. Establish grievance redress mechanisms to address disputes and ensure accountability in the implementation of adaptation projects.

7. RESOURCE MOBILIZATION PLAN

The sustainability of Ghana's NAP depends on consistent, predictable, and diversified financing streams. This Resource Mobilization Plan lays out how the country can leverage domestic and international finance, engage private sector actors, and align investments with adaptation priorities.

7.1 Costing of Sustainability Actions

A preliminary costing of the NAP's strategic actions reveals multi-sectoral investment needs across infrastructure, ecosystem resilience, health systems, agriculture, and data systems. The costing exercise, captured in the finance strategy includes:

i. Costing of priority adaptation measures at national and district levels.

ii. Incorporation into sectoral budgets, using activity-based costing methods aligned with NDPC's program-based budgeting format.

iii. Cost-benefit analysis to support prioritization and make the case for long-term investments in resilience.

iv. Costing for administrative and operational activities of adaptation programs.

The costing framework will be reviewed annually to reflect updated climate risk projections, inflationary trends, and evolving vulnerabilities. For purposes of this sustainability strategy, cost estimates for the administrative and operational aspects are summarized below.

Category	Activity	Actor	Estimated Cost (USD)	Timeframe	Annual Allocation (USD)
Institutional Sustainability	Operationalize NAP Steering Committee CSPGs - Biennial NAP Steering Committee Meetings - Annual Technical Dialogue & Knowledge Forums - Operational costs (communication, secretarial)	NDPC EPA	150,000	Short-term (0-2 years)	75,000

Financial Sustainability	Develop & Operationalize Climate Adaptation Finance Strategy and Project Pipeline	MoF MEST	100,000	Short-term (0-2 years)	50,000
Financial Sustainability	Scale training of MMDAs on adaptation planning, finance and MERL	MEST MoF EPA	200,000	Short-term (0-2 years)	100,000
Capacity Strengthening	Develop & roll out NAP capacity development - Training of Technocrats on Adaptation project design and proposal writing - Establish adaptation curricula in tertiary institutions	NAP Steering Committee	400,000	Medium-term (3-5 years)	80,000
Data Knowledge & MERL	Operationalize MERL framework Conduct annual reviews, learning events and reports	All MDAs	375,000	Medium-term (3-5 years)	75,000
Stakeholder Engagement	NAP national communication and climate literacy campaigns	EPA	150,000	Medium-term (3-5 years)	50,000
Private Sector & Financing	Host Green Investment forums and PPP dialogues	MoF	150,000	Medium-term (3-5 years)	50,000
Total			**1,525,000**		**480,000.**

7.2 Mapping of Potential Funding Sources (Domestic and International)

A funding landscape analysis conducted under the NAP process identified the following sources:

i. Domestic Sources

Financing for the operational, administrative and implementation of Ghana's NAP Sustainability Strategy will primarily come from existing government budget allocations. These funds will support coordination meetings, stakeholder consultations, monitoring and learning and capacity building

workshops. Additional support can be drawn from District Assembly funds to cover district level coordination and data collection activities. Where feasible, cost sharing arrangement among MDAs and integration of NAP operations into annual work plans and administrative budgets will ensure sustained funding for core functions such as secretariat operations, documentation and communication. These sources may include:

- Annual government budget allocations through MoF.
- Internally Generated Funds (IGFs) by MMDAs and MDAs.
- Environmental taxes and levies (e.g., plastic pollution levy, fuel levy).
- Earmarked allocations through sectoral programs (e.g., agricultural subsidy reform).
- Public-Private Partnerships

ii. International Sources

- Green Climate Fund especially for large-scale, cross-sectoral programs.
- Adaptation Fund for targeted community-based interventions.
- Global Environment Facility for enabling activities such as MEL, data, and planning tools.
- Bilateral donors (EU, UK, Germany, USAID, etc.) for sector-specific technical assistance.
- Multilateral Development Banks (AfDB, World Bank) for infrastructure financing.

7.3 Engagement Strategy for Donors and Private Sector Partners

i. **Donor Engagement:** EPA and MoF will develop a donor coordination framework that includes periodic climate finance roundtables. These will align funding with national priorities, avoid duplication, and support co-financing mechanisms.

ii. **Private Sector Engagement:** One of the key outputs of the NAP process was a Private Sector Engagement Strategy, that would be instrumental in ensuring sustainability of the NAP. A blended finance approach will be pursued. MEST and the Ghana Investment Promotion Centre (GIPC) will co-lead the development of investment guides and policy incentives for climate-resilient businesses (e.g., tax rebates, green bonds, PPPs). Engagement with industries in agriculture, insurance, energy, and banking will be prioritized.

iii. **Carbon Markets:** Ghana will operationalize Article 6.2 readiness to attract adaptation-linked results-based finance via bilateral cooperation agreements. Monitoring, reporting, and benefit-sharing mechanisms will be established.

8. MONITORING, EVALUATION AND LEARNING (MEL)

A robust MEL system is essential for tracking progress, learning from implementation, and making evidence-based decisions that strengthen adaptation over time.

a. Indicators and Tools to Track Sustainability Outcomes

Ghana's MEL framework includes a suite of core indicators that span inputs, outputs, outcomes, and impact levels, reflecting both quantitative and qualitative dimensions of adaptation performance.

These indicators will measure, for instance, the sustainability actions set out in each priority sector, the number of beneficiaries reached through adaptation interventions, the proportion of national and district actions tagged as climate-relevant, and shifts in key vulnerability indices over time.

To complement traditional data sources, geospatial tools such as vulnerability mapping, alongside participatory mechanisms like scorecards and citizen report cards, will be used to capture community-level feedback, identify implementation bottlenecks, and provide localized evidence for decision-making.

b. Integration with National Development Monitoring Systems

The MEL framework will be fully aligned with Ghana's national development monitoring systems to ensure coherence, efficiency, and strategic relevance. In particular, it will be embedded within the Ghana Results Framework (GRF) and linked to NDPC's monitoring and reporting protocols, including the Annual Progress Reports (APRs) submitted by MDAs and MMDAs. Adaptation-specific sections will be included in these reports, allowing EPA, NDPC, and the Ministry of Finance to jointly assess progress and recommend adjustments. Additionally, Ghana's climate Monitoring, Reporting, and Verification (MRV) system, including the Climate Vulnerability Portal (CVP), will be expanded to accommodate adaptation data. This will support tracking of resources, activities, and outcomes, while ensuring Ghana's compliance with international reporting obligations under the UNFCCC.

c. Review and Update Mechanisms

To ensure that adaptation actions remain responsive to emerging challenges and learning, the MEL system will incorporate structured review and feedback mechanisms. Bi-annual learning reviews will be convened, bringing together stakeholders from MDAs, MMDAs, civil society organizations, academia, and the private sector to reflect on progress, identify lessons, and update priorities. The outcomes of these reviews will feed into revisions of the NAP Sustainability Strategy, inform annual and medium-term budget programming, and support knowledge-sharing across sectors and regions. Feedback loops will also be institutionalized through the use of digital platforms, mobile surveys, community radio engagement, and participatory planning sessions, ensuring that insights from local contexts are captured and used to shape national adaptation responses.

9. TIMELINE AND ROADMAP

A phased roadmap is essential to guide the implementation of the NAP Sustainability Strategy in a coherent and measurable manner. This section outlines short-, medium-, and long-term milestones aligned with Ghana's development planning cycles. The classification of milestones into **short-term (0–2 years)**, **medium-term (3–5 years**), and **long-term (6–10 years)** is based on criteria such as institutional readiness, complexity, scale of investment, urgency, and alignment with national planning cycles.

Phase	Timeframe	Key Milestones
Short-Term	**0–2 years**	- Formalize mandates for MEST, EPA, NDPC, MDAs, and MMDAs through policy directives or legal frameworks - Operationalize the NAP Steering Committee and CSPGs - Finalize and adopt the Climate Finance Strategy and Project Pipeline - Initiate nationwide training on adaptation planning, finance, and MEL - Mainstream adaptation into the next MTDPF and sectoral plans - Develop the adaptation budget tagging system in collaboration with MoF - Begin piloting MERL tools and vulnerability database in priority districts
Medium-Term	**3–5 years**	- Full roll-out of NAP MERL framework and integration with NDPC reporting - Implement adaptation priorities in at least 70% of MMDAs - Operationalize Article 6.2 pilot projects and scale blended finance mechanisms - Review and update EIA and planning codes for climate screening - Establish adaptation curricula in at least 5 tertiary institutions - Launch national communication campaign and public climate literacy program - Secure multi-year financing agreements with donors and private sector partners

Long-Term	**6–10 years**	- Institutionalize the NAP as a recurring feature of national planning and budgeting cycles - Conduct a full mid-term review of the NAP strategy and revise based on MERL findings - Strengthen inter-generational equity through youth and school engagement programs - Achieve self-financing capability of at least 40% of adaptation interventions via Domestic sources - Fully digitalized, publicly accessible national database for adaptation progress, risks, and knowledge products.

Annual Review Calendar

The roadmap will be supported by an annual cycle of planning, reporting, and review to ensure accountability and continuous alignment with development planning:

Period	Activity
Jan–Mar	Sector planning and budget preparation aligned with adaptation priorities
Apr–Jun	Stakeholder review forums and data submission to EPA/NDPC
Jul–Aug	National-level consolidation and report drafting
Sep–Oct	Joint review and budget alignment sessions with MoF
Nov–Dec	Finalization of implementation plans for the following year

10. CONCLUSION

The NAP Sustainability Strategy is a vision for sustained climate adaptation. It reaffirms Ghana's commitment to building a resilient, inclusive, and climate-ready society**.** It is a call to institutionalize climate adaptation as a permanent, well-resourced function of national and local governance—not just a project or policy window. The strategy provides the platform to ensure that adaptation actions endure political transitions, secure consistent financing, and empower institutions, communities, and individuals to take ownership of their future in a changing climate.

Stakeholders are called to action:

i. **Government institutions** lead by integrating adaptation as a core development mandate, backed by finance and accountability;

ii. **Development partners** are invited to align their programming with Ghana's nationally defined adaptation priorities and support long-term systems-building;

iii. **The private sector** should seize emerging opportunities in climate-resilient investments, insurance, agriculture, and infrastructure;

iv. **Civil society, youth, traditional authorities and community organizations** must continue to advocate, innovate, and participate in shaping resilient futures; and

v. **Academia and research bodies** should generate context-specific knowledge and capacity for data-driven adaptation.

The future of Ghana's resilience is not a distant vision. It begins now, with collective ownership, decisive leadership, and sustained investment in adaptation.