

ASSESSING THE EFFECTIVENESS OF CLIMATE ADAPTATION INTERVENTIONS IN EAST AFRICA

Multi-country Policy Dialogue Report
May, 2025



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Abbreviations and Acronyms

ACF:	Advocacy Coalition Framework
ARIN:	Africa Research and Impact Network
CCCAP:	County Climate Change Action Plans
CCCF:	County Climate Change Fund
CRI:	Climate Resilience Index
EARIH:	East Africa Research and Innovation Hub
FCDO:	Foreign, Commonwealth & Development Office
FLLoCA:	Financing Locally Led Climate Action
GESI:	Gender Equality and Social Inclusion
GHG:	Greenhouse Gas
IAD:	Institutional Analysis and Development
IK:	Indigenous Knowledge
MSF:	Multiple Streams Framework
NAPs:	National Adaptation Plans
NbS:	Nature-Based Solutions
NDCs:	Nationally Determined Contributions
NDP III:	National Development Plan III
NGOs:	Non-Governmental Organisations
OPM:	Office of the Prime Minister
PES:	Payment for Ecosystem Services
SAGA:	Semi-Autonomous Government Agency

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This report reflects a shared effort to support more responsive and locally relevant climate adaptation policies in East Africa.

Executive Summary

East Africa remains acutely vulnerable to the impacts of climate change, with marginalised communities facing the highest risks due to limited adaptive capacity, climate-sensitive economies, and insufficient institutional coordination. In response to these challenges, the UK Foreign, Commonwealth and Development Office (FCDO), through its East Africa Research and Innovation Hub (EARIH), commissioned a study to evaluate the effectiveness of climate change interventions across Kenya, Uganda, Tanzania, Djibouti, Somalia, Ethiopia, South Sudan, and Rwanda.

Findings from the study were deliberated during high-level policy dialogues held in Uganda (April 25, 2025), Kenya (April 17, 2025), Tanzania (April 15, 2025), and Rwanda (May 12, 2025). These dialogues brought together policymakers, researchers, civil society actors, private sector leaders, and development partners.

A recurring theme across all dialogues was that, while adaptation frameworks are in place, they often fail to reflect local realities. Key challenges include weak monitoring and evaluation systems, limited multi-sectoral coordination, and insufficient community engagement. Participants stressed the need to integrate community-driven approaches into national and regional adaptation strategies, develop context-specific Nationally Determined Contributions (NDCs), and frame climate action as a compelling business case to attract private sector investment.

A major concern raised was the growing unreliability of international climate finance, despite it being a critical lifeline for most adaptation efforts. Policymakers underscored the urgent need to develop sustainable domestic financing models to complement external support. This includes proposals such as the establishment of the Uganda Climate and Environmental Fund and the restructuring of climate finance flows to County Climate Change Fund (CCCCF) units in Kenya. Kenyan policymakers specifically called for the capacity-building of officers seconded to CCCC units to ensure that adaptation funding is channelled into impactful interventions. These institutional mechanisms are envisioned to pool resources from local penalties, levies, and environmental taxes to drive long-term adaptation investments.

Without addressing the persistent financing gap, the country-level dialogues cautioned, adaptation ambitions may stall, deepening the vulnerability of communities already facing climate shocks.

Cross-cutting impact opportunities identified include: the establishment and operationalisation of public participation frameworks; the development of a publication academy to preserve and elevate indigenous knowledge; the formation of a multi-sectoral steering committee; and the consolidation of climate-related investments into a centralised data system across key sectors.

Pursuing these opportunities will enable East Africa to move beyond fragmented and symbolic interventions towards coherent, inclusive, and transformative adaptation strategies, ultimately strengthening resilience and safeguarding the region's most vulnerable populations.

1. Introduction

East African communities, particularly those grappling with poverty, gender inequality, and other forms of social marginalisation, are at the frontline of the climate crisis. The impacts of climate change are already eroding livelihoods, compromising food security, and threatening the overall well-being of millions across the region. Despite contributing just 4% of global greenhouse gas (GHG) emissions (UN, 2006; IEA, 2022), Africa is experiencing significant climate risks, with projections indicating that these challenges will intensify in the coming years.

East Africa is especially vulnerable compared to other regions of the continent. This heightened exposure is driven by an overreliance on climate-sensitive sectors, limited adaptive capacities, and a lack of institutional, technological, and financial infrastructure to reduce emissions and enhance resilience (Doku et al., 2021a; 2021b; Mekonnen et al., 2021; Phiri & Doku, 2024). According to the African Development Bank (2022), the region also scores relatively low on the Climate Resilience Index (CRI), further underscoring its susceptibility.

Although adaptation efforts are underway, they are significantly constrained by a lack of robust evidence on the effectiveness of current interventions and the potential for scaling impactful investments. As a result, a critical rethinking of existing climate policy instruments is needed. Key questions arise: Are current initiatives truly improving the lives of vulnerable communities? Are they meeting their intended goals, such as promoting equity and delivering value for money? Without clear, evidence-based answers to these questions, valuable resources risk being misallocated, and progress towards a climate-resilient future may be compromised.

To address these gaps, the UK Foreign, Commonwealth & Development Office (FCDO), through its East Africa Research and Innovation Hub (EARIH), commissioned the study *Assessing the Effectiveness of Climate Change Interventions in East Africa*. The objective was to generate empirical evidence to inform future adaptation investments across the region by understanding what works, what does not and why.

Through a combination of field-based research and systematic desk review, the study's Technical Report¹ and accompanying Policy Brief² pursued three key objectives: (i) identifying priority adaptation sectors and interventions; (ii) understanding the drivers influencing the uptake of different interventions, including the specific needs of marginalised

¹ <https://www.arin-africa.org/wp-content/uploads/2025/03/FINAL-FCDO-REPORT-.pdf>

² https://www.arin-africa.org/wp-content/uploads/2025/02/POLICY_BRIEF_ASSESSING_THE_EFFECTIVENESS_OF_CLIMATE-FINAL-DOCUMENT.pdf

groups; and (iii) mapping the landscape of key funders shaping adaptation action across East Africa.

To contextualise the study's findings and distil their policy implications, a series of multi-country dialogues was convened in Kenya, Uganda, Tanzania, and Rwanda. These high-level forums brought together a wide range of stakeholders, including government representatives, researchers, civil society, private sector actors, and development partners. The dialogues aimed to (i) examine gaps in policy implementation and adaptation investment, (ii) explore alternative and sustainable financing instruments for climate action in East Africa, (iii) unpack the drivers behind the uneven distribution of adaptation interventions, particularly in fragile and conflict-affected states, and (iv) promote South-South cooperation and the exchange of best practices across countries. Ultimately, these discussions served as a springboard for generating practical, actionable recommendations to guide the future of climate adaptation policy and investment across the region.

2. Methodology

2.1 Geographical scope

The policy dialogue was conducted across four East African countries: Kenya, Uganda, Tanzania, and Rwanda.

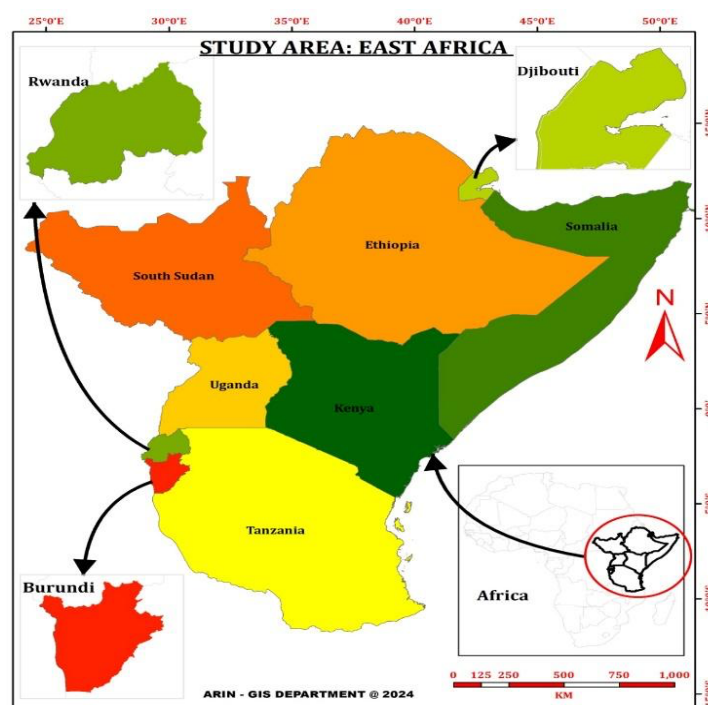


Figure 1: East African countries targeted by the study

2.2 Analytical framework

The multi-country policy dialogues were guided by a hybrid theoretical framework, drawing on three complementary models: the Institutional Analysis and Development (IAD) Framework (Polski & Ostrom, 2011), the Advocacy Coalition Framework (ACF) (Pierce & Hicks, 2017), and Kingdon's Multiple Streams Framework (MSF) as expanded by Hoefer (2022).

The IAD Framework was instrumental in mapping the interdisciplinary stakeholders involved, particularly those positioned to interpret the policy implications of the Technical Report³ within their respective jurisdictions and influence policy reform and implementation. The ACF supported the dialogues by unpacking the complexity of policy processes that emerge from the interaction of diverse belief systems across stakeholder groups. Finally, the MSF, as elaborated by Hoefer (2022), added nuance to the analysis by emphasising that multiple solutions often exist for any given policy problem. This framework underscores the

³ <https://www.arin-africa.org/wp-content/uploads/2025/03/FINAL-FCDO-REPORT-.pdf>

importance of understanding the interplay between the identified problem, available policy instruments, and the prevailing political context in order to recommend appropriate interventions

Figure 2 illustrates how these three frameworks converge to inform the analytical approach used in this study.

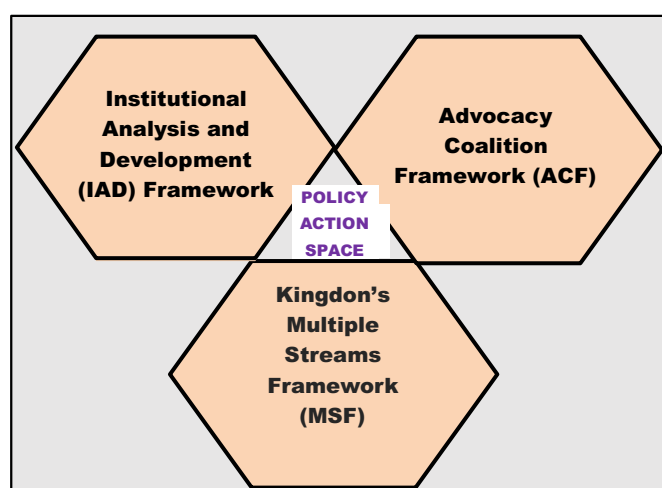


Figure 2: Hybrid theoretical framework

2.3 Data collection and analysis

Figure 3 presents a four-step data collection framework that underpinned the successful execution of the multi-country policy dialogues.

The conceptualisation phase involved a consultative and iterative process between ARIN (Kenya) and its regional partners in Uganda, Rwanda and Tanzania. This collaboration aimed to define the dialogue structure, clarify objectives, and establish expected outcomes. As part of this phase, a tailored question guide was developed to steer the discussions.

In preparation for the dialogues, a stakeholder mapping exercise was undertaken in each country. This exercise identified key actors based on their roles and influence within the adaptation policy landscape. Stakeholder groups engaged included relevant government ministries and agencies, civil society organisations, private sector actors, and academic institutions.

The dialogues themselves incorporated break-out group discussions to foster structured and focused engagement. This approach proved highly effective in generating clear, context-specific insights. The outputs from these discussions were subjected to thematic content analysis (Guest et al., 2012), enabling the identification of recurring themes, interpretation of policy contexts, and extraction of actionable recommendations.

Policy dialogue workshops were held in Tanzania (April 15, 2025), Kenya (April 17, 2025), and Uganda (April 25 2025), with Rwanda's session following on May 12, 2025.

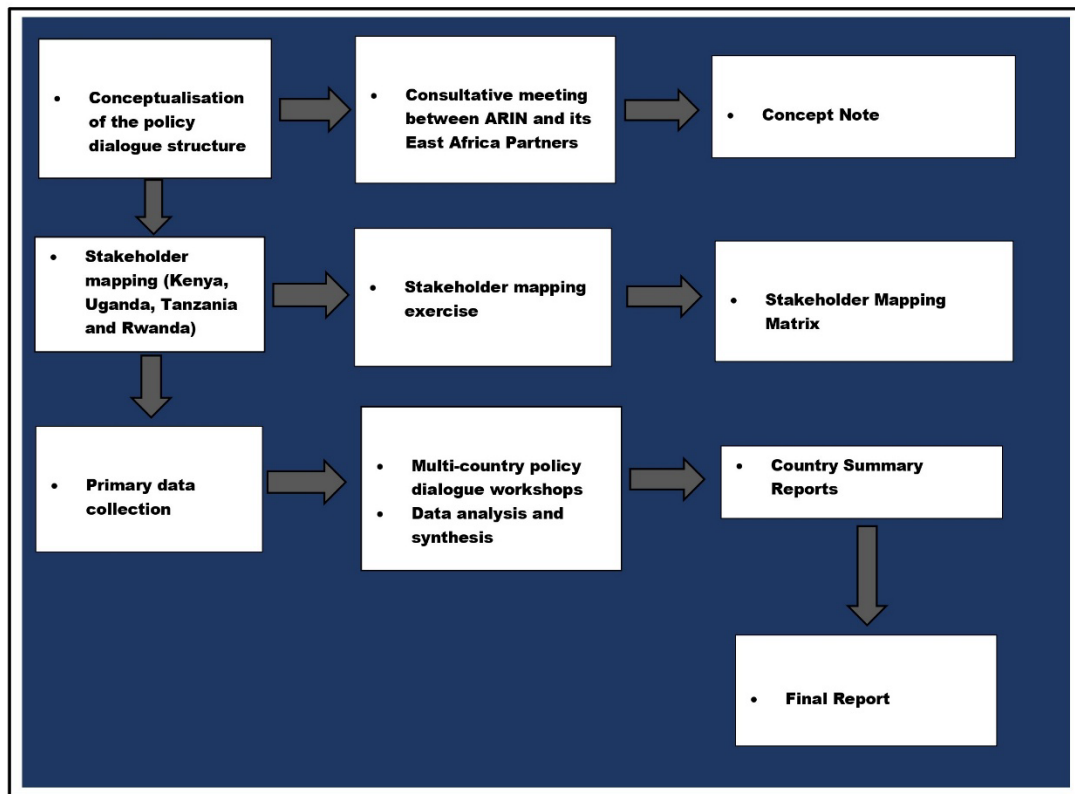


Figure 3: Data collection framework

3. Key findings

This section presents key insights emerging from the policy dialogues conducted in Kenya, Uganda, Tanzania, and Rwanda. The discussions were guided by a structured question guide (Annex 1), which focused on three overarching thematic areas: bridging local realities with policy frameworks; transforming Nationally Determined Contributions (NDCs) to deliver meaningful impact; and strengthening policy coherence and accountability through multi-sectoral integration.

3.1 Bridging local realities and policy frameworks

This thematic area explores how local knowledge and community-driven approaches can be effectively integrated into local, national, and regional adaptation policies to build resilience and promote sustainability, particularly among vulnerable populations. The section also presents insights from the policy dialogues on lessons learned from successful adaptation initiatives in the respective countries. These examples offer valuable opportunities for replication across the East African region, thereby strengthening South-South collaboration and knowledge exchange.

3.1.1 Integrating local knowledge and community-driven approaches into policy

During the Kenya policy dialogues, policymakers underscored the importance of adopting participatory approaches in the design and implementation of adaptation interventions. While the Constitution provides for public participation in environmental management, it was observed that community members are still insufficiently engaged in climate policy-making processes. For example, although many County Climate Change Action Plans (CCCAPPs) highlight the need to develop public participation strategies, clear timelines for their conceptualisation and operationalisation are often lacking, rendering these provisions aspirational rather than actionable. Furthermore, public participation is frequently omitted from the monitoring and evaluation components of CCCAPPs, undermining the assessment of climate interventions.

Participants also raised concerns about limited awareness campaigns targeting local communities on emerging technologies such as early warning systems. While these technologies are proven effective in forecasting climate events like droughts and floods, communities, particularly those in remote areas, tend to mistrust innovations introduced without prior engagement. Policymakers therefore recommended utilising familiar dissemination platforms such as local radio stations, social media, and messaging applications (e.g., WhatsApp) to foster greater trust and meaningful interaction with vulnerable populations.

The dialogue also revealed that indigenous knowledge (IK) remains underutilised in climate policy, despite its value. For instance, traditional drought coping mechanisms among pastoralist communities are rarely recognised in formal strategies. A consensus emerged on the need to integrate IK with scientific knowledge to design more context-specific and effective adaptation responses.

In Uganda, policymakers cited community-driven interventions, such as solar-powered boreholes managed by village committees in Gomba, Sembabule, and Kotido, as evidence that locally managed nature-based solutions (NbS) often outperform externally imposed projects. However, similar to Kenya, many initiatives fail due to a lack of genuine community participation, resulting in poor ownership, project abandonment, and even vandalism. It was strongly emphasised that adaptive policies must be grounded in vulnerability assessments conducted at the parish or village level, not merely at the district level, which tends to mask local disparities. Effective engagement requires moving beyond token consultation by institutionalising community representation in the planning, implementation, and monitoring of climate action. This includes establishing mechanisms to involve local champions, community-based organisations, private innovators, and especially women in formal adaptation processes

In Tanzania, civil society representatives highlighted the urgent need to prevent the dispossession of indigenous communities from their natural resources, particularly land. This concern was especially relevant to the Maasai community, for whom nomadic pastoralism remains a central adaptation strategy. In addition to advocating for inclusive adaptation processes, government representatives appealed to academia to support the documentation and preservation of indigenous knowledge through locally produced publications. Participants noted that most international climate reports rarely capture IK from Tanzania, and that publishing such knowledge is key to its recognition and integration into both local and national policy frameworks.

Echoing this, Rwanda's policy dialogue highlighted the importance of establishing structured community engagement frameworks involving state actors. These forums could serve as platforms for sensitising communities on a range of environmental policies, including National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs). It was noted that empowering local communities to meaningfully participate in policy formulation, beyond symbolic consultation, is critical to fostering genuine community ownership. This empowerment should also extend to the conceptualisation and implementation of adaptation initiatives. Moreover, participants stressed the need to monitor and evaluate engagement processes in order to identify gaps and inform future capacity-building efforts.

Text box 1: Key insights

- ❖ **Research must extend beyond academic outputs** to include practical, community-driven investment plans, supported by simplified and actionable guidelines for local governments and relevant ministries.
- ❖ Building truly resilient systems requires the **co-creation of policies with communities**, rather than top-down impositions, in alignment with emerging global standards on Locally Led Adaptation (LLA) principles.

3.1.2. Lessons from successful adaptation initiatives and opportunities for scaling

The multi-country dialogues showcased several home-grown adaptation successes that hold promise for wider replication and South–South collaboration.

In Uganda, community-managed solar-powered boreholes in Kotido and Karenga, operated by village water committees, have delivered reliable water access with minimal government oversight. Their success stems from thorough community training, equitable cost-sharing mechanisms and ownership frameworks established from the outset. Likewise, the VI Agroforestry model in Kabale built on traditional mixed-farming systems (such as coffee and matoke intercropping), marrying indigenous practices with modern agroforestry to yield high acceptance and long-term sustainability. Local innovators further demonstrated how framing climate action as a business proposition, complete with clear cost–benefit analyses (for example, climate-smart maize drying to lower operating costs), can catalyse private investment. Finally, targeted beneficiary identification helped shield seed-distribution schemes from political capture, ensuring that support reached those most in need.

In Kenya, the Financing Locally Led Climate Action (FLLoCA) programme has underpinned a range of community-driven interventions. The Gatongu solar-powered borehole and its 5.6 km pipeline have dramatically improved water security, while climate-smart agriculture initiatives have boosted food security and incomes by promoting drought-tolerant crops, farmer training in best practices, and market linkages. Crucially, FLLoCA has also helped establish county-level climate-change units staffed by trained officers who engage communities in designing bespoke adaptation projects. Participants noted, however, that many donor-funded schemes falter for lack of exit strategies, leaving water points and other assets to fall into disrepair once external support ends. To address this, they recommended domestic resource mobilisation and blended-finance models, including tailored insurance products.

In Tanzania, Payment for Ecosystem Services (PES) in Bagamoyo has delivered dual benefits: rehabilitating degraded mangrove coastlines and providing community members

with regular income via PES payouts. Meanwhile, the Index-Based Livestock Insurance scheme in northern Tanzania automatically compensates pastoralists via mobile money when drought indices trigger pay-outs, dramatically reducing distress sales of livestock.

In Rwanda, the 2022 Rugezi Marsh restoration employed indigenous tree species such as *Mutuba*, *Umuwumu* and *Umusave* to stabilise peat soils, enhance water quality and bolster biodiversity. These native species require minimal maintenance and possess robust root systems that protect wetlands against erosion. Rwandan policymakers also emphasised that strong government backing and the integration of climate action into national development plans have unlocked sustained resource mobilisation. A further innovation has been the proactive mainstreaming of gender equality and social inclusion (GESI) across all adaptation and mitigation efforts.

Cross-cutting opportunities for scaling these successes include:

1. Community ownership at every stage, from design through operation to ensure long-term buy-in.
2. Integrating adaptation into economic opportunities, reframing resilience measures (e.g., PES, insurance) as viable business cases for local actors.
3. Cultural tailoring, respecting social norms, traditional leadership structures and indigenous knowledge when designing interventions.
4. Developing sustainable local financing models, such as the proposed Uganda Climate and Environmental Fund, which leverages penalties from environmental violations and other domestic sources rather than relying solely on external donors.
5. Capacity-building for seed and seedling multiplication, combined with the creation of reliable market linkages to bolster food security.
6. Leveraging FLLoCA's infrastructure to train communities and local institutions in grant writing and the development of bankable project proposals.

Text Box 2: Key Insights

- ❖ Solar-powered boreholes should be complemented by investments in climate-resilient water distribution infrastructure to significantly enhance accessibility, as demonstrated by the Gatongu solar-powered borehole project.
- ❖ The use of indigenous tree species in the restoration of degraded and riparian lands should be mainstreamed into climate policies to support scalability.
- ❖ Political will is essential for advancing climate action in the East Africa region, as it fosters policy coherence across priority sectors, particularly in de-risking climate investments.

3.2 Transforming NDCs for greater adaptation impact

This thematic section explores the gaps in Africa's current Nationally Determined Contributions (NDCs) that can be addressed during the formulation of NDC 3.0. It also examines potential pathways for integrating innovative financing mechanisms and robust policy frameworks to enhance the effectiveness of adaptation interventions across priority sectors.

3.2.1 Gaps in current NDCs to address in NDC 3.0

Findings from Uganda's policy dialogues reveal that its current NDC largely reflects national- and district-level commitments, with insufficient consideration of local realities and community-specific vulnerabilities. One speaker emphasised the concern, stating: *"We need a risk assessment at the village level, not only at the district level where people's realities are completely different."* Without this level of granularity, adaptation measures risk being poorly targeted and ultimately ineffective.

Policymakers also raised concerns about the limited mechanisms for tracking the effectiveness of adaptation actions. Uganda's current NDC lacks clear adaptation indicators, baseline data, or vulnerability indices that could guide the measurement of progress. A Ministry of Water and Environment official candidly asked: *"You implement, but then how do you measure that your intervention has moved someone to another level of adaptive capacity?"* The absence of structured measurement frameworks leaves adaptation efforts vulnerable to subjective evaluation, thereby hindering the scaling of successful initiatives

Coordination challenges across ministries, the private sector, and academia also emerged as a persistent theme. Although Uganda adopted a programmatic approach under its National Development Plan III (NDP III) to foster inter-ministerial collaboration, implementation on the ground remains fragmented. Ministries continue to operate in silos, and research findings often remain disconnected from policy and implementation processes.

Uganda's experience mirrors that of Tanzania. Tanzanian policymakers noted that while the country's NDC aligns with its National Climate Change Response Strategy⁴, government agencies still operate in silos. This has resulted in inefficiencies in fiscal budget planning due to overlapping mandates. For instance, both the Ministry of Agriculture and Food Security and the Ministry of Water were allocated funds to construct water points, resulting in project duplication in some areas while others remain underserved. In Mlali Ward, Kongwa District, two boreholes were constructed within a 2-kilometre radius, both tapping into the same

⁴ https://www.taees.org/wp-content/uploads/2021/09/NCCRS-2021-2026_Final_PK.pdf

aquifer, ultimately compromising the region's water table. Policymakers thus called for the harmonisation of national fiscal budgets.

Across the policy dialogues, it was acknowledged that the realisation of NDCs is heavily reliant on external funding. Ugandan policymakers observed that continued dependence on international climate finance is unsustainable, particularly given global trends indicating a decline in available funding. Similarly, Tanzanian stakeholders noted a lack of bankable projects that could diversify financing sources for the NDC. In Kenya, the dialogues revealed a lack of strategy for mobilising private sector finance. Most adaptation interventions outlined in Kenya's NDC implementation plan lack viable business models, limiting their appeal to private investors. It was noted that climate action is still perceived as the domain of governments and NGOs, with little effort made to present climate-smart investments as viable commercial ventures. As one private sector representative remarked: *"If climate action doesn't make business sense, you will never see us."* Consequently, the dialogues underscored the urgent need to develop and strengthen domestic resource mobilisation and private sector engagement strategies to finance both adaptation and mitigation priorities.

In Kenya, policymakers noted that budgetary estimates for mitigation and adaptation in the current NDC are not well informed by granular data. This shortcoming stems from weak national data systems, particularly within priority sectors. As a result, efforts to mobilise resources are often undermined by misallocation of funds. Moreover, data gaps deter private sector investment, as reliable data is critical for projecting returns on investment. Proposed solutions included centralising climate data systems and better aligning NDCs with local priorities, mirroring Ethiopia's inclusion of electric mobility in its national climate planning

It was further noted that Kenya's NDC conceptualisation, implementation, reporting, and tracking processes are carried out entirely at the national level, with no clear evidence of community participation. This raised important questions about the extent to which national policy instruments reflect local realities. Incorporating these local perspectives is vital for ensuring community ownership of adaptation interventions. Moreover, county governments lack clear mandates and devolved frameworks for budgeting, implementation, and monitoring and evaluation of NDC activities.

The absence of an operational action plan for the monitoring and evaluation of Kenya's NDC makes it difficult to assess the effectiveness of implemented interventions, leaving room for misreporting. Similar concerns were raised in Tanzania, where inconsistencies in emission stocktake reporting and costing were attributed to a lack of baseline data, sector-specific indicators, and a standardised methodology for analysis. The development of measurable metrics is, therefore, crucial for bridging the gap between national ambitions and local realities, including the integration of gender equity considerations.

In Rwanda, policy dialogues indicated that the current NDC focuses primarily on monitoring and evaluation, with limited attention given to learning from outcomes. As a result, there has been insufficient documentation of what works and what does not in the execution of the country's NDC. This has created an evidence gap that weakens opportunities to refine NDC 3.0 and other climate policy instruments. Such gaps also hinder meaningful peer learning across African countries.

Text box 3: Key insights

- ❖ Diversifying NDC financing sources is essential to ensure the long-term sustainability of adaptation efforts.
- ❖ Harmonising national fiscal budgets is crucial to avoid duplication of adaptation projects and to foster collaboration among government agencies.
- ❖ Investing in and building capacity for robust data systems is vital to inform and support the ambitions outlined in NDCs.

3.2.2 Structuring NDC 3.0 for innovative financing and robust adaptation policies

In Uganda policy dialogues, participants recommended that NDC 3.0 must be fundamentally different in structure, ambition, and implementation. First, NDC 3.0 should be grounded in localised adaptation planning, starting with comprehensive vulnerability assessments at the community level. Parish or village-specific climate risks and resilience needs must be mapped and reflected in national targets. This approach would allow adaptation interventions to be more responsive and context-specific.

Further, Uganda policymakers emphasised embedding innovative financing models directly into the architecture of NDC 3.0. Rather than relying solely on shrinking pools of international funding, the dialogue strongly called for the creation of a Uganda Climate and Environmental Fund. This fund would pool resources generated from environmental fines, import duties (especially on used vehicles), and other climate-damaging activities. Access to the fund should be structured through a competitive and transparent process involving ministries, civil society, private sector actors, and academia. Besides this, Uganda policy dialogues delved into private sector engagements and the importance of institutionalising them within the NDC framework. Participants emphasised the urgent need for a Private Sector Climate Action Platform or technical working group to align private investment incentives with national adaptation goals. Business cases for climate-smart technologies, such as efficient maize dryers or solar-powered irrigation systems, should be developed to demonstrate tangible returns to investors. Translating climate action into profitability would be critical to unlocking private capital for adaptation.

There was a consensus among the policymakers in Kenya towards conceptualising a robust tracking platform to operationalise monitoring and evaluation principles highlighted in the NDC 2020. Operationalising monitoring and evaluation principles will foster investor confidence, especially from the private sector, thus diversifying the country's NDC financing sources. In addition, both Kenya and Tanzania policy dialogues suggested the need to explore sovereign green bonds as an innovative NDC financing option. For instance, the governments can explore legal means to utilise domestic pension and insurance capital to invest in green energy and climate-resilient infrastructure. This is part of exploring sustainable domestic financing sources that can be scaled across respective jurisdictions in Africa.

Kenya's policy dialogue further noted that NDC 3.0 could leverage the county climate change fund (CCCCF) units within county governments to channel NDC financing directly to local communities. To achieve greater adaptation impact through the CCCCf, it was recommended that the funds should be channelled into tailored interventions for specific adaptation needs of respective local communities. However, operational teething challenges were raised during the discussions. For instance, it was stated that CCCCf units have weak linkages to the national treasury. This has led to an unsustainable delay of funds that has stifled the effectiveness of initiatives being funded by the CCCCf. Capacity building for county officers stationed at CCCCf units should be prioritised to foster the necessary technical skills in resource mobilisation, grant management, and the whole operational spectrum of ensuring local communities' resilience against climate shocks is enhanced.

Uganda and Kenya policy dialogues highlighted the urgent need for a renewed focus on multi-sectoral coordination as one of the pillars of NDC 3.0. For instance, in Uganda, participants voiced the need for government ministries, academia, private sector actors, and civil society to be systematically engaged from the concept development stage through implementation and reporting. Specific coordination mandates, clear accountability frameworks, and regular multi-stakeholder reviews were highlighted as critical packages that should be built into the NDC 3.0 process. In Kenya's policy dialogues, it was suggested that a collaborative working framework linking CCCCf units with the Ministry of Finance, the Ministry of Environment and Forestry, the Ministry of Energy, the Ministry of Agriculture and the Ministry of Water, Sanitation and Irrigation should be established. This is to ensure non-duplication of adaptation efforts at the local levels.

In Rwanda's policy dialogues, it was voiced that it is essential to align its NDC 3.0 aspirations with the Global Goal on Adaptation priority sectors to strategically position itself for resource mobilisation. It is to this end that Rwanda's NDC 3.0 draft has significantly focused on the intersection of climate change and health. The draft document seeks to enhance the resilience of the nation's health systems against climate risks. Besides that, Rwanda is in discussions with relevant stakeholders on how best to incorporate NDC into the education curriculum. This is part of its efforts to capacity build children and the youth

in understanding various climate policy instruments. Besides the essential ambitions for climate change and health, Rwanda's NDC 3.0 draft has a stand-alone section on loss and damage. The loss and damage section is timely as developing countries seek ways to comprehensively quantify the impacts of climate shocks on their socio-economic well-being. It is envisioned that Rwanda's aspirations under loss and damage will enhance South-South collaborations with its peers as it promotes tacit contextual knowledge exchange that is often not documented but essential in fortifying climate resilience among local communities. All these new additions, has inflated the country's NDC cost estimates.

A noticeable cut crossing ambition among the stakeholders for the NDC 3.0 was the need for practical, measurable adaptation indicators across priority sectors such as agriculture, NbS, water security, and disaster risk reduction. This would allow progress to be objectively tracked and best practices documented for scaling.

In conclusion, the policy dialogues emphasised that Africa's future NDCs must move beyond aspirations and towards concrete, inclusive, and sustainable impact. By rooting NDC 3.0 in local realities, innovative financing, and broadening stakeholder ownership, the East Africa region can translate climate adaptation ambitions into transformative results.

Text Box 4: Key insights

- ❖ Exploring sovereign green bonds as an innovative NDC financing option could represent a ground-breaking shift towards sustainable domestic financing among African Nations.
- ❖ Integrating robust climate change finance units into local government administrations can amplify the accessibility of climate finance for local communities vulnerable to climate shocks.
- ❖ African states should consider incorporating a standalone section on loss and damage in their respective NDC 3.0 to comprehensively quantify irreversible and inevitable socio-economic impacts of climate risks.

3.3 Policy coherence and accountability in multi-sectoral integration

This thematic section examines key priority indicators that can be used to assess the effectiveness of adaptation interventions in agriculture and food security, nature-based solutions (NbS), water security and management, and disaster risk reduction. It also explores pathways for harmonising policy frameworks across sectors to ensure cohesive and coordinated adaptation strategies at both national and subnational levels.

3.3.1 Priority indicators for measuring adaptation effectiveness

Policy dialogues across the four countries affirmed that adaptation effectiveness cannot be gauged solely by counting the number of projects or activities implemented. Instead, it must be measured through tangible improvements in resilience outcomes, enhanced adaptive capacity, and reduced vulnerability. As one speaker noted: *“You implement, but how do you measure that your intervention has actually moved someone to another level of adaptive capacity?”*

In Uganda, dialogues within the food and agriculture sector proposed indicators such as the stabilisation or growth of yields despite climate variability, diversification of farming income sources, and reductions in post-harvest losses. Kenyan policymakers emphasised the need to build capacity among smallholder farmers to record yield per acre, enabling the assessment of intervention impact. Other proposed indicators included the percentage increase in household incomes and improvements in household food stock levels. Market linkages were also highlighted as key indicators for the sustainability of adaptation initiatives.

In Tanzania, discussions focused on the adoption of good agricultural practices among small-scale farmers. It was noted that increased adoption of climate-smart farming practices in respective ecological zones reduces the likelihood of food shortages during drought seasons. Rwandan policymakers cited the development and uptake of drought-resilient crop varieties, improvements in crop yield quality and quantity, and increased adoption of agroforestry as significant indicators. Gender Equality and Social Inclusion (GESI) was also put forward as an important cross-cutting indicator for evaluating adaptation effectiveness.

For nature-based solutions (NbS), Ugandan dialogues identified key indicators such as the sustainability of ecosystem restoration efforts, levels of community ownership of restored ecosystems, and improvements in ecosystem services, including water retention, soil fertility, and biodiversity conservation. In Kenya, policymakers proposed tracking the area under restoration (in hectares), as outlined in the Kenya Forest and Landscape Restoration Monitoring Framework. Additional indicators included the number of restored water pans and wetlands, and water storage per capita, particularly in arid and semi-arid regions. Other useful metrics included the percentage reduction in drought-related losses and income generated from agroforestry, especially from fruit-bearing trees. Tanzanian policymakers pointed to the area of mangrove restoration (in hectares) as a key NbS indicator, particularly in addressing sea-level rise in coastal areas and islands. In Rwanda, the inclusion of an air quality index was proposed as an NbS indicator, reflecting the extent of biodiversity cover within ecological zones.

In the water security and management sector, Uganda’s policy dialogues highlighted several indicators: the functionality rates of solar-powered borehole systems; the reduction

in time and distance households spend accessing clean water; and the presence of active, community-led water committees maintaining local infrastructure. One participant cited the success of water committees in Kotido and Karenga districts, where solar-powered boreholes are effectively managed by communities, ensuring service continuity and fostering local ownership. Similar water-related indicators were discussed in Kenya and Tanzania. Kenyan policymakers stressed the value of the seasonal water storage index as a measure of buffer capacity between rainy seasons, especially in arid and semi-arid areas. In Rwanda, the number of climate-resilient water storage facilities constructed across such regions was highlighted as a priority indicator, underscoring the need for both domestic budget allocations and external financing.

In the disaster risk reduction (DRR) sector, the following indicators were prioritised across the four countries: the effectiveness of early warning systems; the existence and regular updating of local disaster preparedness plans; the speed and inclusiveness of disaster response mechanisms; and the extent of household-level disaster preparedness. A shared consensus emerged that indicators should shift focus away from outputs and instead measure real resilience gains at the household and community levels, calling for more localised and participatory monitoring systems. As one participant aptly summarised: *“Without tracking resilience outcomes on the ground, adaptation interventions risk remaining symbolic rather than transformational”*

In addition, Kenyan policymakers recommended tracking the percentage of national fiscal budgets allocated to adaptation, as well as measuring GDP shrinkage attributable to climate shocks. Rwandan participants proposed incorporating the economics of disaster as an indicator, quantifying the effectiveness of prevention and preparedness measures by comparing them with the potential costs of climate risks had such measures not been in place.

3.3.2 Harmonising policy frameworks across sectors for coordinated adaptation strategies

Atela et al. (2025) underscore that integrated nexus approaches, such as the Water, Energy, Food and Ecosystems (WEFE) nexus, are proving effective due to their cross-sectoral co-benefits. However, their implementation tends to be hindered by government ministries and development partners operating in silos. As such, during the policy dialogues held across the four countries, policymakers explored pathways to conceptualise policy frameworks that would enable cohesive and coordinated adaptation strategies at both national and sub-national levels.

A key insight from all four countries was the shared understanding that establishing a centralised, coordinating semi-autonomous government agency (SAGA) would be critical for harmonising fiscal investments in climate action. In Kenya, however, stakeholders

cautioned against the unsustainable expansion of the public wage bill and highlighted the necessity for strong political will. As a result, it was proposed that such a coordinating entity be situated within either the Ministry of Environment or the Ministry of Finance to ensure it operates within the existing public sector framework. Additionally, this body should be responsible for developing an inclusive monitoring and evaluation (M&E) system to track climate-related budget allocations and assess the effectiveness of funded adaptation initiatives.

Uganda's policy dialogue aligned closely with Kenya's, particularly on the need for cross-sectoral coordination. Participants expressed deep concern about the persistent lack of institutional and sectoral integration, despite the existence of a programmatic approach under the National Development Plan III (NDP III). They noted that while Uganda has developed commendable policies and strategies, implementation is often undermined by weak inter-sectoral collaboration, entrenched institutional silos, and insufficient political will. One participant remarked, *"Uganda is good at creating good strategies but not properly implementing them"*, a statement that encapsulated the core issue of frameworks remaining theoretical in the absence of operational mechanisms.

To address this, several strategic actions were proposed. First, strengthening the coordination mandate of the Office of the Prime Minister (OPM) was seen as essential to ensure that cross-sectoral linkages are institutionalised and not treated as optional. Second, participants stressed the importance of ensuring that coordination is not limited to national-level institutions but also meaningfully engages district and community-level structures. As one speaker aptly put it, *"Coordination should not end in boardrooms; it must reach the community level where resilience is either built or lost."*

Ugandan policymakers further recommended mainstreaming climate change adaptation and resilience objectives into the mandates of all sectoral ministries, not just the Ministry of Water and Environment. For example, the Ministries of Trade, Works, and Agriculture should each have explicit adaptation responsibilities, aligned within a coherent national resilience framework. As one participant noted, *"We need to move from merely reporting climate action for compliance to designing joint programmes from conception,"* emphasising the value of co-creating adaptation initiatives across sectors. In Tanzania, policymakers reinforced the need for a shared understanding of the national climate risk assessment framework and the corresponding interventions. As adaptation stakeholders move towards streamlining operational protocols, it is crucial that all parties align on risk definitions and appropriate responses

Across the four countries, there was a common vision for enhancing coordination: the urgent need for shared adaptation indicators, interoperable data-sharing platforms, and joint monitoring, reporting and verification (MRV) systems. These would ensure that sectors are working towards common resilience outcomes, rather than duplicating efforts or working at

cross-purposes. Kenyan policymakers particularly emphasised the importance of this approach for coordinated climate finance tracking, joint planning of adaptation initiatives, and collective evaluation of their impact and sustainability.

Ultimately, harmonisation of policy frameworks must go beyond written commitments. It requires the institutionalisation of practical, enforceable collaboration mechanisms, rooted in both national and local governance structures, with clear lines of accountability.

Text Box 5: Key insight

- ❖ Establishing a multi-sectoral steering committee to streamline operational protocols is a critical first step towards harmonising fiscal budgets across government ministries for effective adaptation investments.

4.0 Impact opportunities from the multi-country policy dialogues

4.1 Respective impact opportunities across Kenya, Uganda, Rwanda and Tanzania

The table below provides a summary of the respective impact opportunities identified from the policy dialogues across the four countries.

Table 1: Respective impact opportunities across Kenya, Uganda, Rwanda and Tanzania

Country	Impact Opportunities
Kenya	<p>Advocate for a multi-sectoral approach among government agencies in adaptation investments by harmonising fiscal budgets for climate finance to minimise duplication of efforts.</p> <p>Ensure the Financing Locally Led Climate Action (FLLoCA) programme invests only in proven, high-impact adaptation interventions to enhance cost-effectiveness.</p> <p>Develop capacity-building training modules for local government officers seconded to County Climate Change Fund units, focusing on climate finance and the conceptualisation of bankable, sustainable adaptation initiatives.</p>
Rwanda	<p>Scale up the use of indigenous tree species for wetland restoration and reforestation, as they are genetically resilient to specific ecological and climatic stressors.</p> <p>Facilitate South–South peer learning on integrating stand-alone sections on loss and damage and climate and health into NDC 3.0. Additionally, explore opportunities to incorporate elements of the national NDC into the school curriculum.</p>
Tanzania	<p>Leverage payment for ecosystem services (PES) as a catalyst for wetland restoration and shoreline stabilisation in coastal towns, drawing lessons from the Bagamoyo Mangrove Restoration Initiative</p> <p>Expand the index-based livestock insurance initiative in Northern Tanzania as a mechanism to reduce distress livestock sales during drought periods and to sustainably protect pastoralist livelihoods.</p>
Uganda	<p>Promote adoption of the VI Agroforestry model, which utilises traditional mixed farming knowledge, such as coffee and matoke intercropping in Kabale, as a blueprint for mainstreaming indigenous practices into climate adaptation efforts.</p>

4.2 Cross-cutting impact opportunities

- Establishing and operationalising public participation frameworks:** Robust public participation frameworks are essential for eliminating tokenism in engagement processes. This can be achieved through tailored capacity-building initiatives that empower local communities to articulate their adaptation needs clearly and objectively, particularly in national policy formulation. To ensure accountability and integrity, feedback loops should be embedded within these frameworks, enabling responsive and transparent decision-making.
- Conceptualisation of a publication academy for indigenous knowledge:** To preserve and scale Indigenous Knowledge across Africa, it is necessary to

empower a cadre of scholars representing diverse African contexts. A dedicated publication academy would provide a structured platform for training, documenting, and disseminating IK, ensuring its integration into formal adaptation processes and its transmission across generations.

- c. **Establishing a Multi-Sectoral Steering Committee:** A multi-sectoral steering committee is essential for streamlining operational protocols related to adaptation investments. It would harmonise ministerial mandates and fiscal budgets, thereby ensuring prudent utilisation of funds and avoiding duplication of interventions. This insight, emerging prominently from discussions on nexus approaches, directly supports recommendations under Decision 4/CMA.1⁵ of the UNFCCC regarding institutional arrangements and overlapping mandates.
- d. **Advancing the Loss and Damage Agenda:** African states should include a standalone section on loss and damage within their national climate frameworks to strengthen resource mobilisation, promote technology transfer, support a just transition, and enhance South–South peer learning. Conceptualising and designing bankable loss and damage initiatives will be crucial for enhancing the climate resilience of vulnerable communities.
- e. **Integrating Business Investment Models into Adaptation Initiatives:** There is a pressing need to establish a dedicated platform or technical working group to engage the private sector in climate action as a viable business opportunity. Embedding business models in adaptation, especially at the last mile, can unlock innovation and sustainability. Climate-smart technologies such as grain dryers, eco-processing facilities, solar-powered irrigation, and other green energy solutions should be promoted as part of a broader effort to attract private investment in climate adaptation.
- f. **Establishing a centralised data system across priority sectors:** A centralised data system, including digital dashboards, is essential for informing climate-related decision-making. Such a system would aid in resource mobilisation, fiscal tracking, and policy planning, while ensuring alignment with national climate goals. Investments in capacity building and the development of granular, sector-specific datasets are vital to support the implementation of Nationally Determined Contributions (NDCs) and broader resilience planning.

⁵ https://unfccc.int/sites/default/files/resource/4-CMA.1_English.pdf

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6.0 Annex

i. Question guide



BREAK-OUT GUIDE

A. Bridging Local Realities and Policy Frameworks

1. How can local knowledge and community-driven approaches be effectively integrated into local, national, and regional adaptation policies to enhance resilience and promote sustainability?
2. What lessons can be drawn from successful adaptation initiatives in Kenya/Uganda/Rwanda/Tanzania, and how can these be replicated or scaled across the East Africa region?

B. Transforming NDCs for Impact

1. What are some of the existing gaps in Africa's current NDCs that can be improved during the formulation of NDCs 3.0?
2. How can NDC 3.0 be structured to integrate innovative financing and robust policy frameworks that optimize the effectiveness of adaptation interventions across priority sectors?

C. Strengthening Policy Coherence and Accountability in Multi-sectoral Integration

1. What are some of the priority indicators that are most appropriate in measuring the effectiveness of adaptation actions in the respective priority sectors, such as food and agriculture, nature-based solutions, Water security, and disaster risk reduction?
2. How can policy frameworks be harmonized across sectors to ensure cohesive and coordinated adaptation strategies at national and sub-national levels?



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