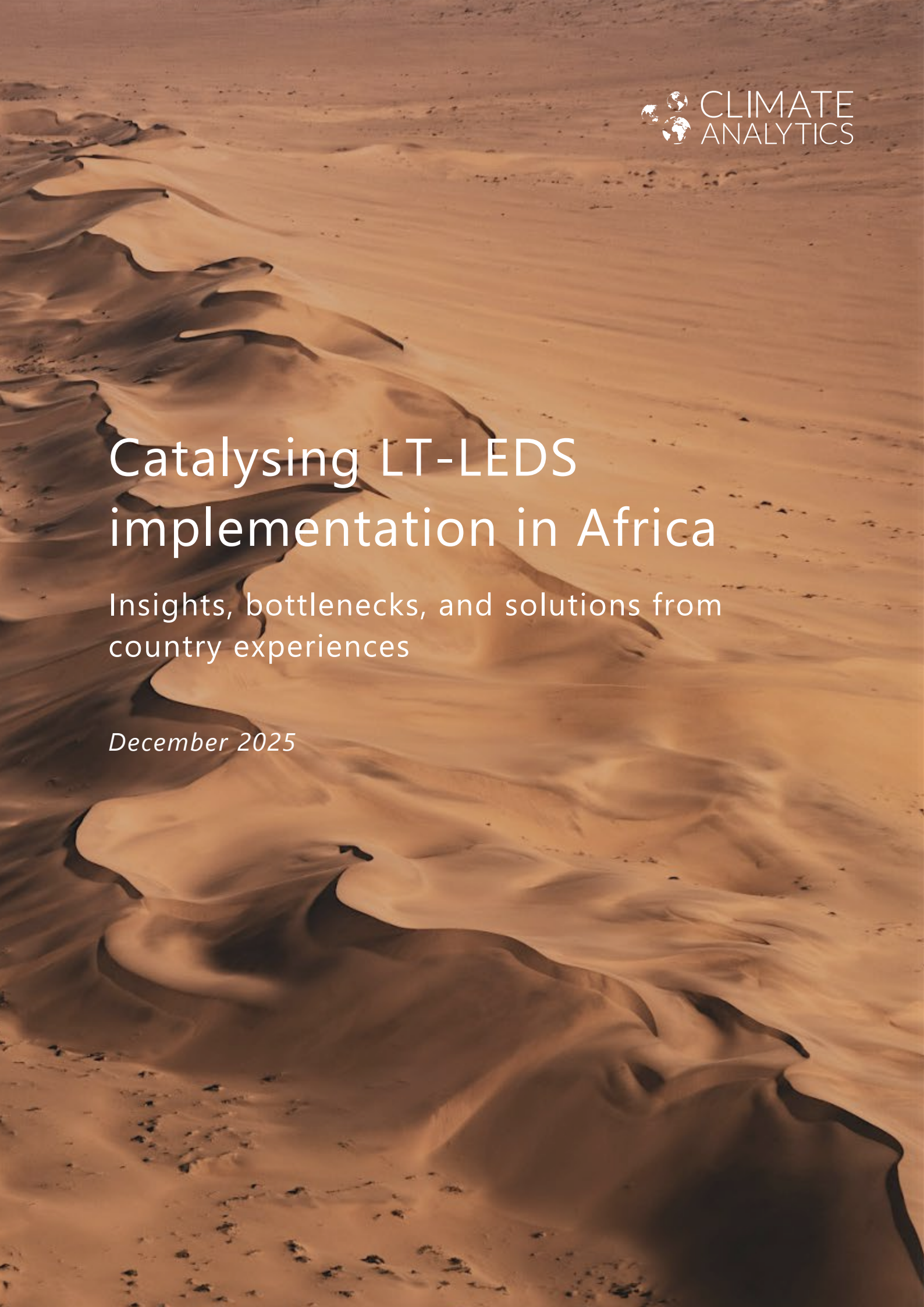

CLIMATE ANALYTICS

# Catalysing LT-LEDS implementation in Africa

## Insights, bottlenecks, and solutions from country experiences

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## About Climate Analytics

Climate Analytics is a global climate science and policy institute. Our mission is to deliver cutting-edge science, analysis and support to accelerate climate action and keep warming below 1.5°C.


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# Summary

The report *Catalysing LT-LEDS Implementation in Africa: Insights, Bottlenecks, and Solutions from Country Experiences* examines how African countries are advancing from the design to the implementation of their Long-Term Low-Emission Development Strategies (LT-LEDS). It draws on case studies from Burkina Faso, Ethiopia, Kenya, Nigeria, Rwanda South Africa, Rwanda, Uganda, Zambia, and Zimbabwe, as well as extensive desk research and comparative analysis, to identify the main enablers and bottlenecks shaping LT-LEDS implementation across the continent.

The analysis focuses on four interlinked dimensions that determine implementation effectiveness:

- **Institutional architecture**, including governance frameworks, mandates, and coordination mechanisms;
- **Technical and human capacity**, including modelling, data, and knowledge systems;
- **Financial readiness**, including financing strategies, budget integration, and private sector engagement; and
- **Coordination and partnerships**, including mechanisms for multi-stakeholder collaboration and external support.

Across these dimensions, the findings reveal that while African countries have made notable progress in developing institutional and policy frameworks for long-term climate action, they continue to face significant barriers in operationalizing them. Several countries identified strong legal anchoring and high-level political support as key contributors to success. However, limited resources, fragmented mandates, and high staff turnover continue to weaken institutional effectiveness across much of the continent.

Technical and human capacity gaps persist as one of the most consistent obstacles. Many countries depend heavily on external consultants for modelling and scenario development, which limits knowledge retention and national ownership. Nonetheless, hybrid and innovative models that combine international expertise with national consultants demonstrate promising avenues for building sustainable capacity. Similarly, data and information management systems remain underdeveloped, hindering effective monitoring and adjustment of LT-LEDS targets.

The financing dimension presents the most pervasive challenge. Despite an increase in global and regional climate finance flows, the scale, accessibility, and composition of available funds remain misaligned with Africa's long-term needs. Few LT-LEDS include costed investment plans or mechanisms for tracking climate-related expenditures. Innovative efforts being conceptualised and rolled out in countries across the continent highlight emerging progress, and offer avenues for bridging the profound financing gap that persists.

External partnerships continue to underpin much of Africa's LT-LEDS landscape, providing vital analytical, financial, and capacity-building support. However, fragmented, time-bound engagements and limited transfer of knowledge often constrain their long-term impact. Strengthening the programmatic coherence of these partnerships, and ensuring alignment with nationally defined priorities, will be critical to sustaining progress.

The lessons emerging from this assessment point to the central importance of political leadership, institutional continuity, capacity retention, and integrated planning. Countries that align their LT-LEDS with NDCs, NAPs, and broader development plans reported greater ease in building ownership and coherence. Similarly, embedding financing and coordination functions within Ministries of Finance or Planning can help link long-term strategies with annual budgets and medium-term development cycles.

The report concludes with a set of recommendations disaggregated by stakeholder type, recognising that LT-LEDS implementation requires a concerted effort across multiple actors. National governments are encouraged to strengthen institutional mandates, financing functions, and policy alignment; regional bodies to promote peer learning and shared data systems; and development partners to transition from short-term project support to multi-year, capacity-oriented cooperation. Civil society, academia, and the private sector also play indispensable roles in sustaining local ownership, mobilising investment, and supporting continuous learning.

Overall, the findings highlight that while the implementation of LT-LEDS in Africa remains constrained by systemic institutional, technical, and financial barriers, countries are developing innovative, context-specific solutions that demonstrate the continent's growing leadership in climate action. Sustained political commitment, predictable finance, strengthened technical capacity, and coordinated partnerships will be essential to translating these strategies into transformative, long-term development outcomes.

# Table of Contents

# Introduction and rationale

## Background and global context

The Paris Agreement's Article 4.19 encourages all Parties to formulate and communicate Long-Term Low Emission Development Strategies (LT-LEDS), representing a fundamental shift in global climate governance toward long-term planning and transformational change (United Nations Framework Convention for Climate Change, 2023). These strategies serve as critical instruments for countries to articulate their pathways toward achieving net-zero emissions by mid-century while supporting sustainable development objectives aligned with the 2030 Agenda. The global context for LT-LEDS development has evolved significantly since the adoption of the Paris Agreement, with increasing recognition that achieving the 1.5°C temperature target requires immediate and sustained action across all sectors and governance levels (Calvin et al., 2023).

For African nations, LT-LEDS represent essential blueprints for navigating the complex intersection of climate action, economic development, and poverty reduction (UNECA, 2023). The continent faces unique challenges in balancing climate ambition with development imperatives, given that Africa contributes less than 5% of global greenhouse gas emissions while hosting a significant share of the world's extreme poor (Roux & Cilliers, 2025). This paradox necessitates LT-LEDS that can simultaneously advance climate objectives and support transformational development outcomes.

The African context for LT-LEDS development is characterised by rapid population growth, urbanisation, and economic transformation, with the continent's population projected to reach 2.5 billion by 2050 (Galal, 2025). These demographic and economic trends create both opportunities and challenges for long-term emission reduction strategies. Economic growth projections suggest that African Gross Domestic Product (GDP) could reach $29 trillion by 2050, but this growth must be decoupled from emissions to align with global climate objectives.

## Evolution of LT-LEDS in Africa

The development of LT-LEDS in Africa has evolved through several phases since the Paris Agreement's adoption. Initial efforts focused primarily on strategy formulation, with technical assistance from international partners supporting basic analytical frameworks and stakeholder engagement processes. The first generation of African LT-LEDS, developed between 2016-2021, emphasised sectoral transformation pathways with varying degrees of analytical rigor and stakeholder engagement (Gross & Ivleva, 2024).

By August 2025, ten African countries had submitted LT-LEDS to the United Nations Framework Convention on Climate Change (United Nations Framework Convention for Climate Change, n.d.). These strategies demonstrate increasing sophistication in analytical approaches, with improved integration of economic modelling, sectoral analysis, and stakeholder engagement. However, the transition from strategy development to implementation has proven challenging, with significant gaps in institutional capacity, technical expertise, and financial resources (Climate Analytics, 2022).

The second generation of LT-LEDS, emerging from 2022 onwards, reflects greater emphasis on implementation readiness, with enhanced attention to institutional arrangements, financing strategies, and monitoring frameworks (Tilburg et al., 2024). Countries such as Ethiopia have demonstrated leadership in developing comprehensive implementation frameworks, while others continue to struggle with institutional and technical capacity constraints (Català et al., 2024).

Regional variations in LT-LEDS development reflect diverse political, economic, and institutional contexts across the continent. Resource-rich countries with established energy sectors have focused primarily on energy transition pathways, while least developed countries have emphasised broader development co-benefits and adaptation-mitigation linkages (Climate Analytics, 2022).

## The implementation challenge

African countries face distinctive implementation bottlenecks that differentiate their LT-LEDS experience from developed nations and other developing regions. These challenges manifest across multiple dimensions including institutional capacity, technical expertise, financial resources, and governance structures(Jaber et al., 2020). The implementation deficit is particularly acute in sub-Saharan Africa, where limited state capacity intersects with complex development challenges to create systemic barriers to effective climate action (Ngaruko, 2023).

Institutional capacity constraints represent a fundamental implementation challenge, with many African countries lacking dedicated climate change institutions and mechanisms with sufficient authority and resources for LT-LEDS coordination. Fragmented governance structures, weak inter-ministerial coordination, and limited technical expertise within government institutions compound these challenges. The absence of clear institutional mandates and coordination mechanisms often results in duplicated efforts, conflicting priorities, and inefficient resource allocation across government departments.

Technical capacity gaps permeate all aspects of LT-LEDS implementation, from basic greenhouse gas inventory systems to sophisticated economic modelling and scenario analysis. Most African countries lack the technical infrastructure necessary for robust multi-sectoral monitoring, reporting, and verification (MRV or M&E) systems, limiting their ability to track progress and adjust strategies based on performance data (IRENA, 2023). Human resource constraints are particularly acute, with limited numbers of technical specialists in climate modelling, economic analysis, and project development across the continent. Beyond environmental authorities, technical staff in government ministries and agencies often also lack access to the necessary tools, training, and information to meaningfully incorporate climate change into sectoral policies and interventions.

Financial constraints represent perhaps the most severe implementation bottleneck, with estimated financing needs for LT-LEDS implementation across Africa ranging from USD 2.8 trillion through 2030. Current climate finance flows to Africa total approximately USD 3.7 billion annually, representing only 23% of financing required to meet continental Nationally Determined Contribution (NDC) targets for 2030 (CPI, 2024) . Limited domestic resource mobilisation capacity, constrained access to international climate finance, and weak project development capabilities create a financing gap that undermines implementation effectiveness.

The complexity of these implementation challenges is compounded by the continent's diverse political, economic, and social contexts. Post-conflict countries face additional challenges related to weak governance structures and limited state capacity. Resource-dependent economies must navigate the transition away from fossil fuel dependence while maintaining economic stability and social cohesion. Implementation priorities and pathways also vary by geographical context, with distinct manifestations of climate change and emissions profile for the multiple regions in the continent. Indeed, beyond the continental countries, Small Island Developing States (SIDS) in Africa are confronted by unique vulnerabilities and resource constraints.

## Scope and analytical framework

This report focuses on four critical dimensions of LT-LEDS implementation: institutional architecture, technical capacities, coordination mechanisms, and financial readiness. Each dimension encompasses multiple sub-components that collectively determine implementation effectiveness.

***Institutional Architecture*** encompasses the formal and informal structures, processes, and rules that govern LT-LEDS implementation. This includes lead institutions and their mandates, legal frameworks and regulatory instruments, integration with national development planning systems, and coordination mechanisms across government levels (Tilburg et al., 2024). The analysis examines how institutional arrangements affect implementation capacity and identifies design features that enhance effectiveness.

***Technical Capacity*** refers to the human resources, knowledge systems, and technological infrastructure necessary for effective LT-LEDS implementation. This includes technical expertise in climate science, economic, energy system, and greenhouse gas emissions modelling; project development; data management and M&E systems; analytical tools and methodologies; and technology transfer and deployment capabilities. The assessment evaluates current capacity levels and identifies priority areas for strengthening.

***Coordination Mechanisms*** encompass the processes and platforms through which different actors collaborate in LT-LEDS implementation. This includes horizontal coordination across sectors and ministries, vertical coordination between governance levels, and stakeholder engagement with non-state actors (Climate Analytics, 2024). The analysis examines how coordination mechanisms affect implementation effectiveness and identifies approaches that enhance collaborative action.

***Financial Readiness*** refers to the systems, strategies, and capabilities necessary for mobilising and managing financial resources for LT-LEDS implementation. This includes domestic resource mobilisation mechanisms, access to international climate finance, innovative financing instruments, and financial management systems (Gross & Ivleva, 2024). The assessment evaluates current financial readiness levels and identifies opportunities for enhancement.

The analytical framework employs a mixed-methods approach combining quantitative indicators with qualitative assessments based on stakeholder interviews and document analysis. Quantitative indicators are drawn from international databases including the UNFCCC reporting system, World Bank governance indicators, and climate finance tracking systems. Qualitative assessments are based on semi-structured interviews with government stakeholders across ten African countries that are advanced in the LT-LEDS development and implementation processes.

# Analysing the current LT-LEDS implementation landscape

Findings from extensive desk research and stakeholder interviews across ten African countries were synthesised to create the following assessment of LT-LEDS implementation efforts in several countries and contexts across Africa. The insights from national stakeholders involved in the LT-LEDS development and implementation processes were highly varied and often focused on the specific country contexts at hand. To extract more broadly relevant findings and lessons, the analysis mirrors the conceptual framework summarised in the methodological approach found in Annex 1.

The various country experiences have therefore been divided into four broad categories that emerged consistently across interviews:

- **Institutional Arrangements** (i.e., the broader governance frameworks and approaches that guide the formulation and operationalisation of the LT-LEDS):
- **Technical and Human Capacity** (i.e., the knowledge and skills required to effectively design and deliver the LT-LEDS);
- **Financing Strategy** (i.e., the considerations and arrangements in place to adequately resource planned LT-LEDS interventions); and
- **External Partnerships** (i.e., ensuring that external support mechanisms are inclusive and coordinated to maximise LT-LEDS development and implementation efforts)

The insights from national stakeholders and existing literature on LT-LEDS implementation are synthesised and summarised below for each of these broad categories. Collectively, they represent the amalgamation of current experiences, challenges, and innovations surrounding LT-LEDS implementation in Africa.

## Institutional leadership and coordination: country experiences and comparative analysis

The interview data reveals significant variation in institutional approaches to LT-LEDS coordination across African countries, with each nation adapting governance structures to their specific political and administrative contexts. These real-world experiences provide insights into the practical challenges of translating institutional frameworks into effective coordination mechanisms.

## Nigeria's transformational institutional approach

Nigeria's experience demonstrates how institutional transitions can strengthen LT-LEDS coordination when managed strategically. The establishment of a purpose-built entity in the form of the National Council on Climate Change (NCCC) in 2022 represented a deliberate effort to address coordination weaknesses that existed when climate responsibilities were housed solely within the Federal Ministry of Environment. The NCCC would take over all overarching responsibilities surrounding the design, implementation, and monitoring of nationally determined actions and targets, representing a major effort to institutionally reorganise efforts to respond to climate change. The transition strategy employed by Nigeria offers valuable lessons for other countries considering institutional reforms.

The Nigerian approach prioritised continuity during institutional transition by ensuring that over 70% of NCCC staff came from the Ministry of Environment's climate department. This strategy prevented knowledge loss while elevating coordination authority. The new institutional arrangement enabled direct communication between desk officers and the Director General, significantly reducing bureaucratic delays that previously hindered inter-ministerial coordination. This streamlined approach addresses a common challenge identified in the theoretical framework regarding the need for adequate authority and resources for coordination institutions.

Nigeria's multi-tiered coordination structure for designing and now implementing the LT-LEDS included National Steering Committees, Technical Working Groups, and specialised subgroups covering adaptation, mitigation, monitoring and evaluation, and modelling. This structure demonstrates how countries can organise complex stakeholder engagement through systematic institutional arrangements. The establishment of sectoral working groups for agriculture, industry, waste, and other key sectors enabled specialised input while maintaining overall coordination through the NCCC.

The Nigerian experience also highlights the importance of political support in overcoming coordination challenges. Access to presidential and ministerial backing proved crucial for unlocking resources and ensuring participation across government agencies. This finding reinforces the theoretical emphasis on political leadership.

### Uganda's legal framework foundation

Uganda's approach emphasises the importance of legal foundations for institutional arrangements. The country's Climate Change Act and Climate Change Law provides explicit institutional mandates and coordination mechanisms that delineate pathways for formulating and rolling out the LT-LEDS, demonstrating how legislative frameworks can strengthen implementation capacity.

This model works within existing ministerial structures, relying on the legal framework to create coordination authority rather than institutional hierarchy. The National Climate Change Advisory Committee operates as a convening mechanism chaired by the Minister responsible for climate change, meeting quarterly to provide strategic guidance while the Ministry of Water and Environment handles day-to-day coordination. This structure ensures that LT-LEDS coordination is embedded within established government processes rather than requiring new bureaucratic layers, though it depends more heavily on the legal framework's strength to compel inter-ministerial cooperation than on institutional elevation.

Uganda's experience reveals both the strengths and limitations of legally mandated coordination structures. While the legal framework provides clear authority and institutional roles, resource constraints and staff turnover continue to limit coordination effectiveness. The challenge of maintaining technical expertise within government institutions emerges as a persistent constraint, even when legal frameworks are well-designed.

The Ugandan model illustrates how countries can structure coordination around existing technical working groups rather than creating parallel structures specifically for LT-LEDS. The integration of LT-LEDS coordination with broader climate strategy development (including National Development plans, NDCs and adaptation plans) enables consistency across different policy instruments while making the most of limited institutional capacity.

### South Africa's sophisticated multi-stakeholder model

South Africa's coordination approach reflects the country's complex political system and advanced institutional capacity. It also reflects the distinct decarbonisation needs for the country, which is an upper middle-income country with a more robust Industrial Processes and Product Use (IPPU) sector than found in most LDCs and African countries. The Department of Forestry, Fisheries and Environment leads the coordination through specialised directorates. Climate change activities are executed through the Climate Change and Air Quality Branch, which is further subdivided into 2 chief directorates with various specialised focal areas. The International Climate Change Relations & Reporting Chief Directorate is responsible for liaising with the UNFCCC and producing related documents, including the NDC, Biennial Transparency Reports (BTRs), National Communications, and LT-LEDS. The Chief Directorate of Climate Change Mitigation & Specialist Monitoring Services houses four complementary sub-directorates covering greenhouse gas inventories, research and analysis, and sectoral implementation. These two chief directorates harmonise their efforts to collectively produce the information and documentation for the LT-LEDS and other key national climate action commitments.

The South African model demonstrates how well-planned and multi-tiered stakeholder engagement mechanisms can inform the LT-LEDS and subsequently build ownership for planned interventions. A Project Steering Committee serves as a forum where all stakeholder groups relevant to the LT-LEDS process are represented. The Committee provides an initial source for systematic stakeholder engagement, while specialised consultations with different stakeholder groups are then conducted on an ad-hoc basis to enable targeted input. This approach addresses the coordination complexity inherent in multi-stakeholder processes while maintaining technical rigour. South Africa's LT-LEDS process enjoys dual benefits from this tiered approach. On the one hand, the broad participation of multiple state and non-state actors raises awareness of planned interventions and enables stakeholders to enhance implementation by influencing the strategy and subsequently taking ownership of enshrined targets. On the other hand, the country can leverage the technical expertise and insights of sector-specific stakeholder groups to tailor and fine-tune LT-LEDS targets and implementation. South Africa's model also demonstrates how

South Africa's experience also reveals ongoing challenges even within well-developed institutional systems. Capacity constraints continue to limit monitoring and evaluation implementation, while securing and retaining technical specialists remains difficult. These challenges suggest that institutional sophistication cannot overcome

fundamental capacity and resource constraints. These challenges persist despite the relatively strong institutional capacity of South Africa enabling the country to already develop a sophisticated stakeholder coordination mechanism.

South Africa's institutional architecture also includes collaboration with the Presidential Climate Commission, which provides high-level political oversight and facilitates implementation across governance levels. As the name suggests, the Commission is headed by the president and includes ministers as well as representatives from diverse sectors including traditional leaders, women and youth representatives who are charged with leading the climate agenda in the country. This commission has ad hoc working groups that focus on different issues – one of which is monitoring progress towards the achievement of mitigation goals. This arrangement demonstrates one potential approach for overcoming the mandate and high-level buy-in limitations that are often found in traditional ministerial structures. Depending on the governance structure and political context of a country, establishing independent climate bodies may enable direct engagement with local governments and ensuring that implementation considerations span from national strategy to local action, all while providing a clearer channel for dedicated high-level political support. The Presidential Climate Commission serves as a bridge between technical climate planning and political decision-making, enhancing both the legitimacy and effectiveness of climate action.

### South Africa's Vision 2050 Narrative Approach

South Africa's development of a "good life narrative" for 2050 represents an innovative approach to strategy communication and stakeholder engagement. Rather than focusing solely on technical emissions targets, the country integrated racial equality, poverty reduction, gender equity, and environmental objectives within a coherent vision of a desirable future. This narrative approach enables broader social resonance by connecting climate action with tangible improvements in citizens' lives. The strategy addresses the challenge of making technical climate strategies relevant to social and political priorities, demonstrating how countries can build public support for long-term transformation by articulating climate action as a pathway to broader societal goals.

### Burkina Faso's nationally led development process

Burkina Faso's approach prioritises national ownership through a hybrid model combining international and national consultants with systematic capacity building. The establishment of LT-LEDS focal points across relevant institutions (both state Ministries, Departments and Agencies (MDAs) and non-state actors like NGOs and academia), backed and formalised by ministerial letters, created a structured network for data collection and stakeholder engagement. The Comité Technique de Suivi (CTS) is the central entity in executing the LT-LEDS development and implementation, with the body providing technical reviews to shape and inform key climate change-relevant documents and targets. Once this was done through the aforementioned hybrid approach, the Commission Nationale des Prospectives et des Planifications Stratégiques (CNPPS) organised a national workshop to facilitate the validation of the targets. The CNPPS is a particularly strategic entity to spearhead validation efforts, since it is headed by the Prime Minister of Burkina Faso, and thus ensures high-level political oversight and ownership over the LT-LEDS process.

Burkina Faso's experience demonstrates how countries can balance external technical assistance with national capacity building. To ensure that international consultants can maximise their engagements and assessments, they are paired with national consultants for each LT-LEDS component. Doing so enables seamless knowledge transfer while ensuring contextual relevance. However, language barriers emerged as a significant challenge, with communication difficulties between English-speaking international consultants and French-speaking national teams highlighting the importance of linguistic compatibility in technical assistance arrangements.

### Kenya's coordinated approach

Kenya's approach to developing its LT-LEDS is noteworthy for how various state and non-state stakeholders were involved in the process, as well as the deliberate alignment with key national development plans. The Climate Change Directorate (CCD) within the Ministry of Environment, Climate Change and Forestry is the primary authority tasked with developing and eventually executing the LT-LEDS.

To do so, the CCD coordinates with counterparts across line ministries to ensure that climate action planning is mainstreamed in key sectors (including transport, energy, trade, industry, and agriculture). In addition to these bilateral engagements with state actors, the CCD has also established a Joint Sector Working Group for Environment and Climate Change. The Working Group serves as a platform to bring together national/subnational government, civil society, private sector, and NGO stakeholders for broader climate action initiatives. This approach ensures that there is broad-based

awareness of, and ownership over all national climate change-relevant policies and strategies introduced.

The Ministry determined that Kenya's LT-LEDS will not have separate institutional arrangements and instead would fit into the already existent structures to ensure effectiveness, reduced overlaps and resource efficiency. Beyond this, leveraging existing stakeholder engagement and coordination mechanisms allows for coherence across multiple climate policies and strategies, as well as providing the Ministry with a pool of relevant stakeholders to engage for sector, discipline, or region-specific actions.

Furthermore, Kenya also leverages coordination mechanisms with high-level participation to ensure executive ownership over climate actions. The Development Partners Forum (DPF) is convened by the Deputy President and allows for enhanced engagement and coordination between the national government and development partners. The DPF is therefore also used to discuss strategic approaches to climate action and enhance alignment towards achieving national targets.

Lastly, the Ministry emphasised this focused on alignment as a crucial foundation for the LT-LEDS process. The LT-LEDS was proactively aligned with other climate change policies like the NDC, National Adaptation Plan (NAP), and National Climate Change Action Plan (NCCAP) to ensure coherence across relevant strategies. In addition to this, however, Kenya also ensured that the LT-LEDS was complementary to key national development plans, including the Vision 2030 strategy, with the aim of mainstreaming climate action into future considerations for national development. It should be noted, however, that most of Kenya's national development planning documents included are centred around Vision 2030. With the LT-LEDS having a mid-century horizon, a strategic gap for planning emerges beyond that timeframe, and limits the interlinkage of the strategy with broader national policies. To at least partially overcome this, Kenya is considering integrating its LT-LEDS process into the Kenya@100 initiative, which is a capacity building training program focused on building a long-term vision for security and development.

## Zimbabwe's sectoral strategy

Similar to the other countries interviewed, the LT-LEDS process in Zimbabwe is led by the Ministry of Environment, Climate and Wildlife. The Ministry coordinates the development, implementation, and monitoring of the LT-LEDS in alignment with national development priorities. Zimbabwe has favoured a sector-based approach, where key national ministries and agencies have clearly delineated responsibilities towards supporting the development and execution of the LT-LEDS.

The Environmental Management Agency (EMA) acts as the implementing agency for environmental policies and provides technical support, data collection, and monitoring mechanisms. It also facilitates stakeholder engagement and environmental impact assessments relevant to low-emission pathways.

To coordinate across different sectors and ministries, Zimbabwe is leveraging two already-existing working groups to integrate LT-LEDS considerations at the ministerial and technical levels. Inter-Ministerial Steering Committees have been established to facilitate communication among ministries, align policies, and ensure integrated planning. These committees meet periodically to review progress, share information, and resolve overlaps or conflicts. National Working Groups, by contrast, focus on specific sectors or thematic areas (e.g., renewable energy, forestry) and support in the development of sectoral action plans aligned with the LT-LEDS objectives. In addition, the Government has also recently finalised an investment framework for the LT-LEDS, with an emphasis on leveraging domestic financing through private sector participation in key sectors.

From here onwards, key ministries like the Ministry of Energy and Power Development, Ministry of Industry and Commerce, and other sectoral ministries are tasked with ensuring the integration of LT-LEDS targets and initiatives across the sectors most relevant low-emissions development pathways.

Beyond this, like the other countries interviewed, Zimbabwe is also making efforts to integrate the LT-LEDS into national development frameworks, with intentions to align the strategy with Zimbabwe's Medium-Term Plans and the National Development Strategy (NDS). This fosters coherence across economic, social, and environmental policies. Simultaneously, the absence of a comprehensive climate law or enforceable regulations was identified as an impediment to consistent implementation, which further underscores the importance of legislative institutional arrangements for LT-LEDS action.

### Togo's integrated tri-partite institutional approach

Togo's LT-LEDS implementation framework reflects a deliberately integrated and cross-ministerial governance model designed to ensure coherence between long-term climate ambition, national development priorities, and sectoral planning. Togo has already completed and submitted its LT-LEDS, which also includes an implementation plan, an investment plan, and a private-sector engagement plan. This submission demonstrates one of the most comprehensive institutional readiness structures among African peers.

A key feature of Togo's model is its tri-partite institutional structure, anchored respectively by the Ministry of Environment, the Ministry of Finance and Development, and the Ministry of Planning. While the Ministry of Environment leads and coordinates the LT-LEDS process, the Ministry of Finance is formally charged with resource mobilisation and plays a central role in validating the national investment plan, thus ensuring that financing arrangements, budget integration, and sectoral allocations are institutionally grounded. The Ministry of Planning, in turn, validates sectoral plans and ensures coherence with national development strategies. This approach reflects Togo's effort to embed the LT-LEDS within the existing architecture of national planning and public financial management rather than developing parallel structures.

Officials emphasised that this tri-partite model was not externally imposed but emerged organically from pre-existing government validation and coordination procedures, where each ministry already holds clear authority over different parts of the national planning and budgeting cycle. By aligning LT-LEDS implementation with these established mandates instead of creating new institutions, Togo is able to leverage domestic governance processes to strengthen ownership, streamline coordination, and ensure long-term institutional stability.

Togo's experience also illustrates the benefits of early alignment between the LT-LEDS, national development plans, and the NDC, which together informed the elaboration of a shared national vision for 2050. This alignment helps to reduce duplication, maintain coherence across planning horizons, and ensure that investment priorities are directly linked to broader social and economic goals. The presence of a dedicated private-sector engagement plan further signals an intention to diversify financing sources and more systematically crowd in national investors to support long-term climate objectives.

## Technical and human capacity: implementation realities and constraints

The interview responses reveal that technical capacity constraints represent the most pervasive implementation challenge across African countries, affecting all aspects of LT-LEDS development and implementation. These constraints manifest differently across countries but share common characteristics that limit implementation effectiveness.

### Modelling and analytical capacity challenges

The development of sophisticated models with several variables and inputs is crucial for the formulation of representative and actionable projections for a long-term decarbonisation vision. However, due to capacity constraints surrounding models, modelling and computing capabilities, data gaps and unavailability, and a range of other challenges, many African countries often struggle with this foundational step. This can run the risk of producing insufficiently- or ill-informed models and relying on external partners to fill the gaps in technical capacity. Ensuring that the building of scenarios is navigated proactively and thoughtfully is important for an LT-LEDS that can be reasonably tracked and implemented over a multi-decadal horizon.

In this regard, **Nigeria's** experience with scenario development illustrates both the potential and limitations of analytical capacity building. The country developed four scenarios (business-as-usual, current policy, natural gas, and renewable energy) through support from the Agence Française de Développement's decarbonisation program. This external support enabled sophisticated analysis but also highlighted the dependence on international technical assistance for advanced modelling work.

Across interviews, the reliance on international technical support was largely seen as being helpful but accompanied by several limitations. Models developed by international consultants are often the output of a single time-bound project, rendering it difficult to adjust and update scenarios in the future. Additionally, international partners tend to lack the national perspectives and contexts to ensure that scenario assumptions are modelled to the unique realities of the country at hand. These challenges intersect with the persistent data gaps that exist across Africa, which further limit the quality and comprehensiveness of scenarios developed.

**Uganda's** experience also reveals persistent challenges with modelling procedures and data quality. The country lacks in-house capacities to develop national emissions models and therefore works with external consultants to develop scenarios. However, the reliance by these partners on default Intergovernmental Panel on Climate Change IPCC emission factors (due to a lack of high-quality national data in various sectors)

rather than nationally-specific parameters limit analytical precision, while extrapolative modelling approaches constrain long-term scenario credibility. These challenges, which are also reflected by **Zimbabwe**, further underscore the importance of robust data collection and M&E infrastructure as a foundation for successful LT-LEDS development and implementation. **Zimbabwe** also utilised different modelling procedures to inform various climate documents (National Communications, NDCs). The varied assumptions, inputs, and scopes of these approaches create consistency challenges across targets that should theoretically be aligned, thus requiring ongoing attention to methodological alignment.

**South Africa's** approach demonstrates how countries with stronger technical capacity can develop in-house modelling capabilities. The development of the Department of Forestry, Fisheries and Environment (DFFE) Integrated Emissions Model significantly widens the scope of variables and inputs that can be leveraged to understand South Africa's emissions trajectories in different scenarios. The model is tailored to South Africa's context, and allows for external variables surrounding employment, economic implications, and just transition factors to be accounted for within emissions models. This integrated approach addresses multiple policy objectives simultaneously while building domestic analytical capacity. However, even South Africa faces challenges in transferring technical skills from consultants to government personnel within limited timeframes.

### Nigeria's technology gap assessment

Nigeria's rapid assessment of technology needs adopts a systematic approach to identifying investment opportunities. Through collaboration between the National Council on Climate Change and the Federal Ministry of Science and Technology, the country conducted comprehensive gap analyses to enhance investment attractiveness. This systematic approach helps identify specific capacity needs and creates clear pathways for technology deployment. However, the ongoing challenge of de-risking climate investments to attract private sector financing remains unresolved, highlighting the need for innovative financial instruments and policy frameworks to bridge the investment gap.

**Burkina Faso's** capacity building strategy focused on pairing international technical expertise with national consultants and focal points. The collaborative use of tools including the Green Economic Model, Ex-Ante Carbon-balance Tool (EX-ACT), and Greenhouse Gas Abatement Cost Model (GACMO) enabled knowledge transfer while building domestic capacity. However, language barriers complicated knowledge transfer processes, highlighting the importance of linguistic compatibility in technical assistance programs.

Similarly, **Kenya** is leveraging targeted trainings and collaborations with academic institutions to build domestic capacity for the modelling of climate-inclusive pathways. Like all the other countries interviewed, Kenya relied on international support for the development of adaptation pathways, and national government staff currently lack the technical skills to independently update or run these models.

### Data systems and information management

As briefly mentioned earlier, data constraints represent one of the most persistent challenges facing African countries that are attempting to develop (and subsequently implement) a robust LT-LEDS. The interview responses reveal systematic data challenges across all countries, with implications for both strategy development and implementation monitoring.

For example, **Nigeria** collaborates with the National Bureau of Statistics to develop data collection templates that provide uniformity to the data collected across key ministries and sectors, while institutionalising the process of monitoring climate-relevant indicators. The collaboration demonstrates how countries can strengthen data systems through inter-institutional partnerships. The integration of monitoring and evaluation capacities from the development stage also represents a proactive approach to addressing data challenges.

**Uganda's** experience highlights the persistent challenge of data gaps in climate analysis. Officials noted how limited stakeholder engagement in assumption development can result in unrealistic modelling parameters, while sector expert involvement helps ensuring analytical relevance. The country's emphasis and intent on training government staff in modelling tools and procedures addresses the knowledge transfer challenge but requires sustained investment, which can be difficult for LDCs and other resource-constrained countries.

**Kenya** and **Zimbabwe** also continue to grapple with data constraints, and highlighted adaptation-relevant information as particularly lacking in key sectors. This limits the robustness of evidence-based planning and scenario development, making it a crucial hurdle to overcome to enhance the viability of the LT-LEDS. One of the subsequent

interventions being pursued by the Kenya is the development of a centralised data management system that can synthesise key M&E indicators from various sectors and stakeholders in a consistent and actionable manner. Zimbabwe also intends to enhance its data consolidation and management capacities in the future.

Lastly, **South Africa's** data challenges arise particularly in sectors like Agriculture, Forestry and Other Land Use (AFOLU), where data availability and quality remain constraints. Accurately capturing climate-relevant data from these sectors could greatly enhance the understanding and ambition of climate action in documents like the LT-LEDS but remain elusive for many countries globally. Evidently, even relatively advanced data systems face sectoral limitations that affect analytical comprehensiveness, offering avenues for future improvements in the information underpinning the LT-LEDS and other climate action commitments.

### Institutional knowledge and capacity

Aside from modelling and data-related challenges, staff turnover emerges as a persistent challenge across all interviewed countries, threatening institutional knowledge retention and continuity. The long-term nature of an LT-LEDS initiative necessarily requires a strong understanding of relevant governance systems, stakeholder engagement networks, and technical demands. Countries interviewed expressed difficulties in acquiring or retaining such staff, which greatly hinders the institutional memory and continuity behind key interconnected documents like the LT-LEDS and the NDCs.

**Uganda's** and **Zimbabwe's** experiences with staff turnover leading to knowledge and expertise gaps illustrates how human resource instability can undermine institutional development efforts. **Burkina Faso** faces similar challenges with team stability and leadership retention affecting coordination capacity, while **Kenya** expressed shortcomings in national staff capacities for running and updating LT-LEDS models.

**Nigeria's** approach to addressing continuity challenges included strategic recruitment from existing climate expertise within government, ensuring knowledge retention during institutional transitions. However, the ongoing challenge of retaining technical specialists within government institutions affects all countries, suggesting the need for systematic approaches to career development and compensation within national MDAs focused on climate action.

## Financing the LT-LEDS: key considerations, constraints, and dynamics

Inadequate access to finance continues to be identified as a core hurdle to the realisation of ambitious climate action across Africa. However, financing LT-LEDS goes well beyond securing funds for specific projects. In practice, implementable strategies pair long-term pathways with a costed portfolio of priority measures, a resource-mobilisation plan spanning domestic budgets, international public finance and private capital, and basic systems to track financial flows and performance. These key building blocks – costing, investment prioritisation, budget alignment, private sector engagement, and robust finance monitoring and reporting – can provide the foundation for moving LT-LEDS from vision to bankable action.

Globally, climate finance volumes have grown, with Africa seeing a 48% increase in climate finance flows from USD 29.5 billion in 2019/20 to USD 43.7 billion in 2021/22 (CPI, 2024). However, the composition and accessibility remain misaligned with LT-LEDS needs. Only 57% of Africa's Nationally Determined Contributions (NDCs) have been costed, amounting to USD 1.6-1.9 trillion, usually estimated with a time frame of five to ten years (Mo Ibrahim Foundation, 2025). Mitigation continues to dominate while adaptation remains structurally under-resourced; private finance concentrates in a handful of markets; and transaction costs across a fragmented architecture slow disbursement. In Africa, these patterns are compounded by elevated financing costs, debt pressures, and shallow domestic capital markets, which further raise the costs and perceived risks of investment (Mo Ibrahim Foundation, 2025). The net effect is that many long-term strategies do not yet translate into investable pipelines that can secure affordable, sustained flows at the scale required. Indeed, only 18% of annual mitigation investment needs and 20% of adaptation needs in Africa were met 2021/22 (CPI, 2024). These represent substantial roadblocks to the achievement of the LT-LEDS targets adopted across Africa.

Both the interviews and existing literature on LT-LEDS converge on several recurring bottlenecks. First, strategies are often not paired with a costed, prioritised investment plan that clearly connects strategic actions to financial sources and instruments. Second, financial tracking systems (such as climate-budget tagging and M&E of financial flows) are either nascent or absent, weakening accountability, investor confidence, and the ability to strategically manage the disbursement of resources. Third, institutional readiness is uneven, manifesting in the form of limited financial readiness and coordination across ministries, diffuse mandates. Addressing these gaps by defining resource needs, mapping finance options, and establishing finance M&E is core to moving LT-LEDS from paper to practice.

The financing experiences of interviewed countries reveal the complex challenges of mobilising resources for LT-LEDS implementation while highlighting innovative approaches to addressing funding constraints. These experiences provide practical insights into the theoretical framework's emphasis on financial readiness as a critical implementation dimension. The interviews conducted offer valuable insights into how African countries encountered and navigated these finance-specific challenges during their LT-LEDS development and implementation journeys. As the following discussion of lessons learnt from the interviews highlights, LT-LEDS financing hinges on integration with national planning and public-financial-management systems, coupled with a pragmatic approach to mobilising and coordinating external support.

**Closing the financing gap for LT-LEDS: programming and pipeline creation**

Governments across Africa have consistently identified financing as one of the most significant hurdles between vision and delivery. Respondents described thin domestic budget space during strategy development and an even sharper squeeze at implementation, with processes often underwritten by development partners. Several noted the disconnect between the development of climate targets and the availability of funds, with many countries often having to chase fragmented sources of funding that can contribute to climate ambitions.

A common refrain was that strategies lack sufficiently costed, prioritised pipelines with a long-term outlook, which slows investor engagement and keeps plans dependent on short project grants rather than sustained investment flows. Providing clear estimates of costing and coordinated project pipelines is central to unlocking the financing, expertise, and partnerships that are aligned to the LT-LEDS needs and operating context of the country.

Some governments are moving to close this gap by creating various forms of investment plans and strategies that can estimate climate finance needs over a longer time horizon. **Nigeria**, for example, is preparing a Net-Zero Investment Plan that provides a detailed costing assessment and pipeline for achieving national climate targets. Crucially, the Net-Zero Investment Plan covers both the NDCs and LT-LEDS, allowing for greater interaction and harmony between shorter-term and longer-term ambitions. Nigeria is effectively leveraging the NDCs as five-year implementation frameworks for the LT-LEDS and has sought to align its forthcoming Third NDC towards meeting the net-zero goals of the LT-LEDS.

Similarly, **South African** officials acknowledged that the expression of a long-term target has not reliably translated into investments in the past, with finance access, capacity constraints, and political transitions as recurring headwinds. To respond, they have developed sectoral investment plans that identify clearer pipelines for ambitious

action in areas with high mitigation potentials. These investment plans also seek to enhance the alignment and interconnectedness between NDCs and the LT-LEDS.

The view of aligning NDCs and LT-LEDS to create long-term investment pipelines is also held by **Uganda**. While the country is still finalising its long-term strategy, officials echoed the benefits of treating the NDCs as the action plans for the LT-LEDS. Identifying funding needs – and if possible, sources – upfront is crucial to enabling this harmony between shorter, and longer-term climate targets and is a foundational requirement for African countries seeking to overcome finance-related bottlenecks.

**Zimbabwe** is exploring the establishment of a domestic climate fund to pool resources and coordinate climate investments. This is in response to the noted constraints in public budgets, and the challenges in navigating complex international funding systems and procedures. In this regard, the country has finalised an investment framework that explores a range of funding instruments and sources, including carbon market engagement through Article 6 of the Paris Agreement, as well as private sector engagement to enhance the domestic resource pool. Interviewees also noted the potential to increase funding from resource-based revenues through legislation like environmental levies. However, these are often insufficient, politically contentious, or not specifically earmarked for climate strategy implementation, underscoring the importance of giving innovative financial instruments due consideration prior to utilisation.

### Closing the financing gap for LT-LEDS: applying innovative instruments

Beyond investment programming and pipeline creation, the use of blended and innovative instruments of finance for LT-LEDS activities has also been identified as a strategy for overcoming gaps in access to finance. Through different approaches, many countries in Africa have sought to blend the sources and instruments for climate finance access in service of the LT-LEDS goals. In **South Africa**, officials have opened a dialogue with the Banking Association of South Africa to mobilise domestic finance around LT-LEDS and NDC targets, with the aim of encouraging enhanced private sector contributions towards longer-term climate action. **Nigeria** has also leveraged emerging innovative instruments for mobilising climate finance, including already issuing two sovereign green bonds that were explicitly aligned with the LT-LEDS targets. A third green bond is currently under preparation as well, highlighting the success of, and demand for new initiatives to attract climate finance. However, these countries also conceded that buy-in from the private sector remains insufficient and represents a major potential source of additional financing. Approaches for de-risking to crowd-in private capital for the LT-LEDS remain elusive across Africa. **Zimbabwe** is also exploring

Article 6 participation and enhanced private sector engagement through its recently finalised investment framework for the LT-LEDS.

**Rwanda** leveraged its existing institutional arrangements for innovative finance mobilisation to drive the financing of the LT-LEDS. In particular, the country leveraged the Rwanda Green Fund – a climate investment fund dedicated to mobilising, consolidating, managing, and investing financing from various sources, to lead costing and funding efforts for the LT-LEDS. The Green Fund has particularly been focused on attracting financing from the private sector by creating the enabling environment necessary for their engagement. This includes the development of a green taxonomy to better guide private sector investments, as well as efforts to coordinate and align stakeholder priorities with the climate needs and actions identified in the LT-LEDS, which is also known as the Rwanda Green Growth and Climate Resilience Strategy (GGCRS).

Similarly, **Ethiopia** has sought to prioritise domestic resource mobilisation and private sector engagement in the financing and implementation of its Climate-Resilient Green Economy (CRGE) Strategy. The comprehensive CRGE also outlines clear coordination approaches and linkages for planning, implementation, and financing across various sectors, with the CRGE mandating line ministries to allocate at least 0.5% of their annual budget to CRGE-relevant programmes. Both Rwanda and Ethiopia underscore the importance of leveraging existing institutional arrangements to tackle the financing dynamics of LT-LEDS implementation, as well as the use of regulatory frameworks to guarantee some level of consistent, long-term domestic public financing for climate action.

Counterparts in West Africa have also underscored the value – and limits – of blended support. Even prior to implementing the LT-LEDS, many countries require some level of financial support in developing the strategies. Countries like **Burkina Faso** sought to finance a robust LT-LEDS development process by pooling together various forms of financial support and maximise the use of constrained national resources. Domestic funds were utilised to cover coordination committees and the work of various focal-points, all of which is crucial for informing the LT-LEDS and is well-positioned to be directly supported by the national government. The broader LT-LEDS process was then financed by the Agence Française de Développement (AFD) and implemented with the Global Green Growth Initiative (GGGI), with United Nations Development Programme (UNDP)/Climate Promise resources later supplementing the effort. This mix helped sustain the drafting process and reduce any compromises to the quality of the LT-LEDS and highlights the value of blended approaches in financing the preliminary work that goes into a longer-term strategy. However, interviewees cautioned that implementation

finance remains a separate, harder lift without a costed package and a clear route to budget integration.

### Closing the financing gap for LT-LEDS: mainstreaming finance into governance institutions

At the institutional level, countries are recognising the importance of mainstreaming climate change considerations into policy, legislative, and budgetary processes across the government. This includes experimenting with dedicated financing functions to stitch together upstream planning and downstream delivery. Experience from climate finance units (CFUs) shows why this matters (Center for Access to Climate Finance, 2025). As countries like Uganda have demonstrated, locating a CFU in (or tightly linked to) Ministries of Finance can mainstream climate priorities into budget processes, coordinate partners, and shape financing strategies (including blended finance structures, capital-market instruments, green fiscal tools) that match priority measures.

More broadly, literature and insights on LT-LEDS processes underscore the importance of involving key national development-related MDAs in the LT-LEDS process from the inception phase. With entities like Ministries of Finance and Planning/Development having a strong whole-of-economy mandate and understanding, their participation is crucial for embedding climate ambitions (and, by extension, LT-LEDS targets) into long-term planning and strategising across sectors.

The importance of mainstreaming climate action considerations into budgetary and legislative processes was also underscored in interviews. **Nigeria**, despite not having created a dedicated CFU or analogous finance-specific mechanism, has recently launched an initiative to green the national budget by integrating climate plans and policies into existing planning and budgeting processes. In particular, the country aims to introduce tagging and other procedures that require projects approved by Parliament to include climate rationales and considerations. The authorities are also working with the National Bureau of Statistics on a template for collecting and tracking finance-relevant data to this end.

### Closing the financing gap for LT-LEDS: reforms in the global financial architecture

However, even with these measures and innovations, certain finance-related constraints are beyond the control of individual African countries. The limitations of the global climate finance landscape and architecture, ranging from delayed mobilisation by developed countries to complex and fragmented transfer mechanisms for funding mobilised, are a fundamental and systemic constraint to the full realisation of LT-LEDS targets. While these cannot be changed by domestic policies or mechanisms,

interviewees were explicit about what the international finance ecosystem can do differently.

Current funding is fragmented and highly time-bound, which discourages the robust collection and harmonisation of data, policies, and long-term budgeting. Officials from African countries therefore call for the provision of predictable, multi-year grant resources for costing, pipeline preparation, and institutional readiness. The creation of simpler, programmatic access to finance aligned with LT-LEDS would also encourage countries to fund portfolios rather than atomised projects, with the former being better suited to the mid-century planning and coordination inherent to long-term strategies.

Interviewees also stressed the need for embedded capacity transfer into finance and planning ministries and national statistics offices, with the aim of making budget tagging and finance M&E more country owned. This includes enhancing climate finance knowledge within key MDAs to enhance their participation in climate action, as well as ensuring that climate finance tracking systems and investment plans, which are often developed by external partners, can be refined and expanded based on national dynamics. These asks are paired with already-common requests, including the need for more concessional and guarantee-type instruments to lower the cost of capital and mitigate perceived risks that deter private investment. Domestic interventions alone are therefore not sufficient to realise the full ambition of LT-LEDS in Africa; systemic changes to the global climate finance systems and external support provision are also vital enablers that should be afforded attention and championed by the continent on the global stage.

### Private Sector Engagement in South Africa

South Africa's approach to domestic resource mobilisation includes engagement with the Banking Association of South Africa to define private sector roles in climate action. The private sector is also engaged in the Presidential Climate Commission. The development of sectoral investment plans aims to attract diverse funding sources while providing clear investment targets. However, the country continues to face challenges in translating plans into actual investment, highlighting the persistent gap between strategy development and resource mobilisation.

## External partnerships: maximising the efficiency and utility of collaborative LT-LEDS action

External partnerships are now embedded in the LT-LEDS landscape across Africa. Support from external partners, including international funds, multilateral development agencies, and think tanks, provides valuable services that feed into the LT-LEDS development and implementation processes. Among others, these include:

- Accelerating analytics (providing analyses like scenario modelling, socio-economic assessment, sector studies),
- Supporting countries in meeting UNFCCC expectations on content and format, and
- Opening doors to finance, technology cooperation, and capacity support.

In practice, the role and contributions of external partners are highly fragmented and variable. They span across teams, formats, timeframes, and outputs, and are most often involved in processes that the national government lacks capacities for (such as emissions modelling). In most cases, interviewees noted that external support was provided in the form of consultants that contributed to the development of specific, time-bound deliverables and projects.

### Key gaps in external partnerships for LT-LEDS implementation

Yet, discussions with officials contributing to LT-LEDS processes in their countries surfaced recurring frictions. Officials described context gaps, including language barriers and a lack of local knowledge, that slow data collection and dilute ownership. Given their central role in supporting African countries with LT-LEDS development and implementation, it is crucial to better understand the bottlenecks that may hinder effective collaboration between government MDAs and external partners.

**Burkina Faso**, for example, responded to context limitations by pairing national focal points with international advisers, running a technical committee to review every deliverable, and ensuring that final validation activities were conducted through established country structures. These activities enabled external consultants to gain timely and comprehensive access to relevant stakeholder groups, while also leveraging engagement and review mechanisms that retain country ownership and insights from national stakeholders.

Other countries, including **Zimbabwe**, warned of misaligned incentives, whereby consultants have often been found to be under pressure to deliver products to donor

deadlines and Terms of Reference (ToRs). Officials have noted that this has previously resulted in a prioritisation of report completion over handover and skills transfer. It also runs the risk of importing targets and contextual narratives better suited to the contexts found in Annex I countries, rather than the unique historical and contemporary emissions profiles of African countries.

**South Africa** also added the longer-term hazard of consultant dependence when core models and data systems are not transitioned to government. Such systems and analyses are often produced as deliverables for short-term projects and lack the transfer of knowledge to national counterparts as an explicit outcome. Over the multi-decadal horizon of LT-LEDS, these models and assessments can therefore quickly be rendered unadaptable or outdated. Even where external analytics are strong, interviewees cautioned that knowledge often leaves with the consultants, and critical functions remain consultant dependent. In a similar vein, **Kenya** noted that the adaptation pathway scenarios for its LT-LEDS were developed by external consultants, with minimal built-in provisions for transfer of knowledge or capacity building for national staff.

The difficulties surrounding the ownership and malleability of models emerge consistently throughout all countries interviewed and can significantly hinder the in-house capacity building and knowledge retention that have been expressed as key bottlenecks for the implementation of an LT-LEDS. In this regard, development partners offering services in support of LT-LEDS processes should proactively consider the inclusion of knowledge exchange outputs that are complementary to the long-term and constantly evolving nature of such a strategy.

### Country approaches to external partnerships for LT-LEDS implementation

Country experiences illustrate both the benefits and pitfalls surrounding external partnerships. **Burkina Faso** deliberately blended national and international expertise by forming focal-point networks across ministries, pairing national modellers with GGGI, and using AFD and UNDP resources to underwrite process quality, all while keeping validation in national committees. The use of focal points also mitigated communication barriers between external partners and local stakeholders. Similarly, **Zambia** has also introduced mandated focal points in key line ministries to coordinate the development of appropriate legislation and action plans in alignment with the LT-LEDS.

**South Africa** highlighted the usefulness of partner funding for modelling and research, but warned of reliance risks when grant cycles lapse, once again underscoring the vulnerability of LT-LEDS processes to external financing. Indeed, officials from South Africa also emphasised the need to identify and retain national staff with the requisite

technical expertise (especially for activities like modelling) to reduce reliance on external support. Similarly, **Zimbabwe** noted that targeted training programs and workshops were useful in improving national technical skills in climate data collection, emissions inventory, scenario analysis, and MRV systems, and would be useful to entrench in future partnerships.

Several teams also cautioned that running long-term strategies and NDCs on separate tracks results in inconsistent assumptions and duplicated effort. It is often the case that countries have to navigate multiple projects and external partners that all require similar information, but are all requested and utilised independently. Aside from duplicated efforts and inconsistent data, this fragmented approach to external partner collaboration can also lead to vastly different conclusions from different initiatives, which further complicated longer-term action. In this regard, **Kenya** consolidated its coordination efforts through multi-stakeholder working groups and even has the DPF as a platform to coordinate engagement with external partners.

**Uganda's** solution was to run LTS work in tandem with the NDC. With both efforts relying on support from external consultants, harmonising the workstreams enabled partners to share datasets and team insights. This not only streamlined the process of data requests and uniformity but also enabled the NDC to function as the near-term action plan for the LT-LEDS. To overcome partner knowledge gaps on national contexts, sector experts were brought in to replace default tool assumptions with more localised parameters. This approach is also being emulated in other countries in nascent stages of developing their LT-LEDS. In Malawi, for example, the LT-LEDS development process overlaps with the development of the NDC 3.0 and 4th National Communication to the UNFCCC. The Government is actively facilitating the interaction of various national staff and external consultants attached to these projects to enable the sharing and alignment of data, stakeholder engagement, and best practices.

External partnerships therefore play a crucial role in closing the gaps in capacity, knowledge, and institutional readiness faced by many African countries when executing their LT-LEDS. However, the full potential of these partnerships is limited by, among others, short-term project windows, insufficient transfer of knowledge and skills, and unfamiliarity with country-level contexts.

# Lessons learnt and best practices

The comparative analysis of implementation experiences reveals several cross-cutting lessons that can inform enhanced LT-LEDS implementation across African countries. These lessons address the institutional, technical, financial, and coordinative dimensions identified in the theoretical framework while providing practical guidance for implementation strengthening.

## Political leadership and institutional authority

The experiences of all interviewed countries confirm the critical importance of high-level political support for effective LT-LEDS implementation. Ensuring that the LT-LEDS has sufficient political buy-in, as well as institutional empowerment through formal and clear mandates, provides a vital foundation for officials to begin implementing such long-term initiatives and targets.

Nigeria's emphasis on presidential and ministerial backing as addressing fifty percent of problems illustrates how political leadership can unlock coordination, financing, and stakeholder participation. However, this dependence on political support also creates vulnerability to political transitions and changing priorities. Nigeria’s approach to multi-level coordination also represents a significant innovation in aligning subnational and federal climate actions. The country developed a systematic approach to building understanding, ownership, and integration across governance levels, addressing the vertical coordination challenge that often undermines implementation. By emphasising co-benefits and holistic ownership building, Nigeria enables broader political and social support beyond traditional climate constituencies. The integration of research institutions as peer reviewers and technical evaluators further demonstrates how countries can leverage domestic expertise while building analytical capacity, providing an alternative to consultant dependency.

The institutional authority challenge requires systematic attention to mandate definition, resource allocation, and coordination mechanisms. Countries with clearer legal frameworks such as Uganda or elevated institutional status like Nigeria's NCCC demonstrate stronger coordination capacity, though resource constraints continue to limit effectiveness across all contexts.

## Capacity building and knowledge management

As noted above, the persistent technical capacity challenges across all countries highlight the need for systematic, long-term approaches to capacity building. Nigeria's emphasis on identifying technology, infrastructure, and capacity gaps while tailoring capacity building to specific stakeholder needs provides a framework for strategic capacity development that is proactive and well-planned, rather than sporadic and ad-hoc.

The knowledge retention challenge revealed through staff turnover across all countries suggests the need for systematic approaches to career development, compensation, and knowledge management within climate institutions. South Africa's emphasis on skills transfer focused on youth development represents a long-term approach to addressing capacity constraints but is not a silver bullet to the staff retention and turnover challenges that persist across many countries.

## Integration and alignment strategies

Many countries attributed the advancement of their LT-LEDS processes to date to strong integration across climate policies and targets. Harmonising key documents like national climate change policies, NDCs, NAPs, and LT-LEDS enables countries to holistically view their climate actions as well as their national (economic) development blueprints, UNFCCC processes and Sustainable Development Goals (SDGs). The alignment of policies and targets across timeframes and focal areas was also affirmed as more efficiently enabling the realisation of long-term ambitions. Countries often referred to the NDCs as "building blocks" that can, if aligned well, create a progressive and piecemeal pathway for achieving targets in their LT-LEDS.

In this regard, the successful integration approaches shared by country officials demonstrate the importance of aligning LT-LEDS with existing government priorities and planning processes. Nigeria's emphasis on speaking to current government agendas and Uganda's systematic alignment across climate instruments provide models for enhanced integration. The development of business plans and investment frameworks emerges as crucial for implementation effectiveness. Nigeria's emphasis on bankable, investable, and nationally-owned strategies addresses the financing challenge while building implementation capacity.

Uganda's experience provides a practical model for cascading LT-LEDS objectives through governance levels. The country integrates LT-LEDS objectives into national development plans, which are then systematically disaggregated into sectoral

development plans. This multi-level approach ensures that long-term climate objectives are translated into actionable sectoral strategies. However, Uganda's experience also reveals the temporal alignment challenge: the long-time horizon of LT-LEDS (typically 30 years) creates difficulties in integration with shorter-term planning cycles (typically 5-10 years). This misalignment requires adaptive planning approaches that can bridge different temporal scales while maintaining strategic coherence.

Uganda's parallel development of LT-LEDS and NDC processes demonstrates how countries can maximise limited capacity through process integration. By developing these instruments simultaneously, Uganda achieved data collection efficiency while ensuring consistency across climate strategies. This approach enabled the country to use NDCs as near-term implementation frameworks for longer-term LT-LEDS objectives, creating clear linkages between immediate actions and long-term goals. The systematic alignment of different climate instruments (LT-LEDS, NDCs, National Adaptation Plans and National Development Plans) within integrated planning frameworks shows how countries can overcome capacity constraints while ensuring policy coherence.

This approach was also mirrored by Kenya, where the LT-LEDS was explicitly integrated with the NDC, NAP, NCCAP, and also broader national planning documents like the Vision 2030 to ensure that climate considerations are mainstreamed at the highest strategic levels possible.

## Stakeholder engagement and communication

The communication and awareness challenges highlighted across all countries suggest the need for systematic approaches to stakeholder engagement and public communication. Burkina Faso's media outreach and Nigeria's parliamentary engagement demonstrate how countries can build broader support while maintaining technical rigor. The stakeholder fatigue identified in Uganda's experience highlights the need for efficient, integrated approaches to climate strategy development that minimise consultation burdens while maximizing input quality.

### Managing stakeholder engagement: lessons from implementation

Effective stakeholder engagement requires balancing comprehensive consultation with efficiency. Burkina Faso's communication strategy demonstrates innovative approaches through radio and television outreach to raise awareness about LT-LEDS importance among diverse stakeholders. The country's specific focus on youth and women in implementation messaging addresses inclusion concerns while building broader social support. However, Uganda's experience highlights the challenge of stakeholder fatigue, where repeated consultations for different climate instruments (NDCs, NAPs, LT-LEDS) can lead to diminishing engagement quality. Countries should develop integrated consultation approaches that minimise burden while maximising input quality, potentially combining consultations for related climate instruments and using diverse communication channels to maintain engagement without overwhelming stakeholders.

## Financing LT-LEDS

Taken together, the interviews and literature point to the importance of financing as a binding constraint between long-term vision and delivery. Countries routinely draft credible pathways yet stall at implementation because:

- Costed, prioritised investment packages are missing or incomplete;
- Finance tracking and budget alignment are thin; and
- Access to concessional and risk-bearing instruments remains slow and fragmented.

Pairing the LT-LEDS with a resource-mobilisation plan or pipeline, robust financial monitoring arrangements, and private-sector engagement can enable strategies move from paper to bankable pipelines. The insights from the interviews therefore point to a common pivot in LT-LEDS financing: developing long-term pathways in tandem with concrete investment programming. Governments in the implementation phase of their LT-LEDS are moving from target-setting to actionable measures by costing measures, identifying diverse instruments, and starting to green their public finance systems. Others are building sectoral investment plans and leaning into domestic financial

intermediation. In other contexts, blended support is keeping processes moving, with external supplementary support sustaining the LT-LEDS drafting and stakeholder engagement even as implementation finance remains the harder lift without a fully costed package.

## Cross-cutting implementation insights

The implementation experiences across countries reveal several cross-cutting insights that transcend specific institutional or technical arrangements. Nigeria's observation that political backing addresses "fifty percent of problems" underscores the fundamental role of high-level support in unlocking coordination, financing, and stakeholder participation. South Africa's narrative approach demonstrates the importance of connecting technical climate strategies with broader societal aspirations to build public support. Uganda's parallel process development shows how resource-constrained countries can achieve efficiency through integrated approaches rather than sequential development of climate instruments. Finally, Nigeria's experience with subnational disparities highlights the need for differentiated approaches that account for varying levels of capacity and political will across different governance levels. These insights suggest that successful implementation requires not only technical solutions but also political acumen, strategic communication, and adaptive management approaches.

# Policy recommendations for LT-LEDS stakeholders

The preceding sections of the report summarised country experiences around the challenges, solutions, and lessons learnt when implementing the LT-LEDS. Based on these various insights spanning governance, capacity, finance, and stakeholder engagements, several recommendations can be made for future implementation of LT-LEDS in Africa.

The proceeding section summarises potential future actions and considerations for Government MDAs, non-state development partners (e.g., consultants and multilateral NGOs), regional intergovernmental bodies, and civil society and private sector representatives. Each of these broader stakeholder groups was identified in Sections 3 and 4 as crucial enablers of a more efficient and successful LT-LEDS implementation process. The recommendations below are accordingly targeted at enhancing the roles and impacts of these groups on the development and execution of long-term, climate friendly development pathways in African states.

## For national governments

National governments should prioritise establishing clear mandates and legal anchoring for LT-LEDS coordination bodies, ensuring adequate authority and resources for coordination institutions. The development of transparent governance frameworks is essential for continuity across political cycles, while systematic investment in long-term capacity building programs can address persistent human resource constraints. Career development pathways within climate institutions should be established to retain technical expertise, and partnerships with universities can support knowledge preservation and transfer.

Financial readiness requires comprehensive investment plans with clear costing and pipelines, integration of climate considerations into national budgeting through green public financial management, and diversification of funding sources including domestic resources and private capital. The development of climate budget tagging systems and financial Monitoring and Evaluation (M&E) frameworks can enhance transparency and accountability while building investor confidence.

National governments must also address subnational implementation disparities through differentiated approaches. Nigeria's experience reveals how uneven awareness, capacity, and political will across states can create significant implementation gaps. Governments should develop targeted capacity building programs that account for varying subnational contexts, establish mechanisms for peer learning between advanced and emerging regions, and create incentive structures that encourage subnational climate action even where political will may be initially limited.

Based on these insights, some no-regrets actions emerge that any African country could follow to address bottlenecks surrounding LT-LEDS financing. While specific interventions, timelines, and degrees of success will vary based on national contexts and international dynamics, the actions below would provide a country with a sufficiently robust foundation to more effectively finance the development and implementation of an LT-LEDS:

1. Develop Green Public Financial Management (PFM) Architecture: mandate a financing function (such as a CFU or an analogous mechanism) within or collaboratively with the Ministry of Finance (MoF) to link LT-LEDS to annual and medium-term budget cycles, coordinate partners, and lead resource mobilisation. Green PFM would also entail rolling out climate-budget tagging and tracking climate finance flows.

2. Develop a costed, prioritised investment plan: the plan should cover mitigation and adaptation, map key actions and potential instruments (domestic, international, private), and create preliminary pipelines for both project and programmatic funding.[1]

3. Encourage domestic intermediation: prepare sectoral investment plans, convene local banks and institutional investors early, and leverage innovative financial instruments to de-risk projects.

4. Sequence delivery through the NDC: use the NDC cycle as the near-term implementation vehicle for LT-LEDS, and leveraging blended finance and readiness support to ensure financed near-term actions are aligned with mid-century targets. This would also need to be integrated in overall development visions and sectoral plans and strategies.

[1] Resources like the Technical guide for the development of Long-Term Low Emission Development Strategies in Africa (AGNES, 2024) provide an overview of key steps that countries can follow to develop a robust and comprehensive investment plan.

5. Acquire and leverage high-level political buy-in: communicate the alignment of the LT-LEDS with government priorities as a means of sending a strong signal to investors about the long-term national commitment to low-carbon development pathways.

In short, LT-LEDS financing advances when countries institutionalise financing functions, cost and prioritise what matters, align with budgets, and program partnerships around pipelines rather than projects — backed by concessional instruments that cut risk and unlock private capital. The building blocks are known; the task is to put them to work systematically and at speed.

Lastly, national governments should seek to proactively map and coordinate all activities with external partners. As seen from discussions with officials, this can include the clear allocation of focal points from relevant entities to facilitate streamlined liaisons and knowledge sharing. Improved coordination of external consultancies can also maximise the alignment of similar projects, and reduce duplicated efforts for climate-related processes (e.g., data collection) and outcomes (e.g., emissions models and projections). In instances where different consultancies are working on overlapping deliverables (e.g., NDC, NAP, or LT-LEDS updates), improved coordination can ensure that knowledge across partnerships is synthesised and disseminated to all stakeholders working towards longer-term climate action.

Simultaneously, both national governments and external partners could more proactively adopt a programmatic approach to initiatives supporting the LT-LEDS process. This means moving beyond ad hoc support for drafting documents, and instead structuring partnerships around the full chain of delivery: from modelling and costing, through investment planning and budget alignment, to project preparation and finance mobilisation. Countries could achieve this by embedding explicit capacity-building and knowledge transfer deliverables within their requests for support. This should also include initiatives towards Africa-led and based models that reflect the African context for use in LT-LEDS scenarios and ensuring that national and subnational officials have access to them and the underlying data for analysis and update.

## For regional bodies

The African Union and Regional Economic Communities should establish peer learning platforms for LT-LEDS implementation, supporting regional M&E harmonisation and developing regional capacity building initiatives. Regional centres of excellence for technical assistance can provide sustainable support while building continental expertise. Support for development of regional/national data collection, baseline

development and methodology formulation can address common constraints while facilitating South-South cooperation. In some contexts, regional bodies can even enable coordination across sector-specific actors. The Eastern Africa Power Pool (EAPP) and the West Africa Power Pool, for example, bring together electric utility companies from 13 and 14 countries respectively to coordinate cross-border power trade and grid interconnection. Indeed, interviewees from Zimbabwe explicitly highlighted technical assistance from regional bodies like COMESA as being crucial in providing critical expertise, funding, and knowledge-sharing platforms.

Regional bodies can play a crucial role in aggregating demand for technical assistance and climate finance, enhancing negotiating power and reducing transaction costs for individual countries. The development of regional standards and protocols for LT-LEDS implementation can enhance quality while facilitating cross-border collaboration on transboundary climate challenges.

## For non-state actors

### Civil society

The civil society – including both civil society organisations (CSOs) and community based organisations (CBOs) – can play a key role in bridging knowledge gaps and ensuring local realities and needs are reflected in the rollout of an LT-LEDS. They can cover a range of interests, including (but not limited to) thematic, geographic, constituent, or broader advocacy affairs. While the channels, extent, and even quality of civil society input towards national climate action will vary across countries and political systems, the organisations offer valuable grassroots insights, expertise, and resources that can be leveraged for long-term interventions. In addition to offering granular, contextualised community-level knowledge, civil society can mobilise public awareness of and ownership over LT-LEDS initiatives.

To this end, their active engagement in the designing and execution of a country's LT-LEDS can prove a valuable catalyst, and ensure that long-term climate targets are achieved in a manner that addresses local needs and priorities, while building social support for transformational change. Several of the countries assessed in this report have leveraged existing stakeholder engagement and coordination mechanisms to facilitate civil society participation in different stages of the LT-LEDS process. Interviewees noted the importance of these inclusive engagements to refine the accuracy of the LT-LEDS, and ensure buy-in for its rollout. From design to implementation and M&E, governments should therefore seek to meaningfully include civil society insights and support in the LT-LEDS process. For their part, where possible,

civil society entities should leverage existing engagement channels with the national government to explore avenues for collaboration on LT-LEDS priorities.

### Private Sector

Similarly, the private sector spans a range of interests and activities, from Micro, Small, and Medium Enterprises (MSMEs) to investment banks and large industries. Understanding how the implementation of an LT-LEDS could affect – and ideally benefit – these different actors can affect their participation and support. Through sustained and inclusive engagement across private sector groups, the government should identify areas and pathways for alignment. Interventions could include broader legislative or policy reforms to incentivise investment, as well as lighter-touch activities such as sensitisation initiatives to build awareness on existing opportunities for private sector participation in activities aligned with the LT-LEDS.

Enhanced engagement with government planning processes can ensure that private sector perspectives inform strategy development while identifying investment opportunities. The development of industry-specific implementation roadmaps aligned with LT-LEDS can provide clarity for private sector engagement while building confidence by sending strong signals on long-term policy directions. Creating direct engagement pathways with these various stakeholder groups – as South Africa has done with its national Banking Association – can create avenues for these collaborations to solidify.

Ultimately, CSOs and the private sector are stakeholder groups that can offer valuable support in catalysing and sustaining the effective rollout of an LT-LEDS. The groups represent a broad base of society whose resources, expertise, and buy-in would enhance both the design and implementation of an LT-LEDS that is grounded in local realities and needs. Governments should seek to actively integrate their participation into the LT-LEDS process, and a crucial first step for doing so would be to ensure that stakeholder engagement mechanisms are tailored to harness the knowledge and resources of CSOs and the private sector.

### Development partners

For their part, development partners should provide multi-year, programmatic support rather than short-term projects, focusing on capacity transfer and institutional strengthening aligned with country-led processes and priorities. Resource pooling for institutional strengthening can enhance efficiency while reducing transaction costs for recipient countries. Harmonisation of support across different climate policies and instruments including NDCs, NAPs, and LT-LEDS can reduce duplication and enhance coherence.

Technical assistance should emphasise knowledge transfer and capacity building rather than standalone deliverables, with systematic approaches to ensuring that models, tools, and analytical capabilities are transferred to national institutions. Language compatibility and cultural context should be prioritised in technical assistance arrangements to enhance effectiveness and national ownership.

### Academia and research

Academia and research communities can play critical roles in the process of development and implementation. They are critical in conducting research and providing critical reviews on what is working and how that can enable governments to review and update their strategies over time. They are also important in developing innovations and innovative strategies that can hasten implementation.

# Conclusion

The transition from LT-LEDS development to implementation reveals systematic challenges affecting all African countries studied, yet the diversity of approaches and innovations demonstrates both the need for context-specific solutions and the potential for cross-country learning and adaptation. Implementation success requires strong institutional frameworks with clear mandates and adequate resources, systematic capacity building and knowledge management, comprehensive financing strategies beyond traditional climate finance, effective coordination across sectors and stakeholder groups, and integration with national development priorities and processes.

The experiences documented in this assessment demonstrate that while implementation challenges are substantial, African countries are developing innovative approaches to address these constraints. Among many others, Nigeria's institutional transformation, Uganda's legal framework approach, South Africa's sophisticated coordination mechanisms, and Burkina Faso's national ownership model provide diverse examples of how countries can strengthen implementation capacity within their specific contexts.

The transition from strategy development to implementation reveals a persistent gap between strategic ambition and operational capacity across all studied countries. This implementation deficit manifests in various forms — from technical capacity constraints to financing gaps to coordination challenges — yet countries are developing innovative approaches to bridge these gaps. The importance of adaptive management becomes clear as countries navigate unexpected challenges, from staff turnover to political transitions to evolving international support. Documenting and sharing these implementation experiences, both successes and failures, provides invaluable learning opportunities for countries at different stages of their LT-LEDS journey. The diversity of approaches demonstrates that while common challenges exist, solutions must be tailored to specific national contexts, political economies, and institutional arrangements.

Moving forward, the success of LT-LEDS implementation in Africa will depend on sustained political commitment, enhanced technical and financial support from development partners, building regional/national-led modelling and data analysis capabilities, and continued innovation in institutional arrangements and coordination mechanisms. The lessons learned from early implementation experiences can guide enhanced approaches that balance climate ambition with development imperatives

while building resilient institutional ecosystems for sustained climate action. As African countries continue to navigate the complex landscape of climate action and sustainable development, the insights from this assessment can inform more effective, equitable, and transformational approaches to achieving long-term climate and development goals.

# References


Calvin, K., Dasgupta, D., Krinner, G., Mukherji, A., Thorne, P. W., Trisos, C., Romero, J., Aldunce, P., Barrett, K., Blanco, G., Cheung, W. W. L., Connors, S., Denton, F., Diongue-Niang, A., Dodman, D., Garschagen, M., Geden, O., Hayward, B., Jones, C., … Péan, C. (2023). *IPCC, 2023: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland.* (First). Intergovernmental Panel on Climate Change (IPCC). https://doi.org/10.59327/IPCC/AR6-9789291691647

Català, A. P., Waisman, H., Gunfaus, M. T., Jaramillo, M., & Achaichia, S. (2024). *NDC – LT-LEDS alignment guide: Aligning short term plans with long term ambitions*. Institute for Sustainable Development and International Relations (IDDRI).

Center for Access to Climate Finance. (2025). *A Practical Guide to Understanding and Establishing Climate Finance…*. NDC Partnership. https://climateanalytics.org/publications/a-practical-guide-to-understanding-and-establishing-climate-finance-units

Climate Analytics. (2022). *Long term strategies: Low carbon growth, resilience and prosperity for Least Developed Countries*. Climate Analytics. https://climateanalytics.org/publications/long-term-strategies-low-carbon-growth-resilience-and-prosperity-for-least-developed-countries

Climate Analytics. (2024). *Technical guide for the development of long-term low emission development strategies in Africa*. Climate Analytics. https://climateanalytics.org/publications/technical-guide-for-the-development-of-long-term-low-emission-development-strategies-in-africa

CPI. (2024). *Landscape of Climate Finance in Africa 2024*. Climate Policy Initiative. https://www.climatepolicyinitiative.org/wp-content/uploads/2024/10/Landscape-of-Climate-Finance-in-Africa-2024.pdf

Galal, S. (2025, July 25). *Total population forecast in Africa*. Statista. https://www.statista.com/statistics/1224205/forecast-of-the-total-population-of-africa/

Gross, J., & Ivleva, D. (2024). *Good Practice for LT-LEDS Development*. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

IRENA. (2023). *Long-term energy scenarios and low-emission development strategies: Stocktaking and alignment*. International Renewable Energy Agency.

https://www.irena.org/Publications/2023/Jan/LTES-and-low-emission-development-strategies-Stocktaking-and-alignment

Jaber, A. A., Anderson, B., Nachtigall, D., & Ngom, F. (2020). *Long-term low emissions development strategies: Cross-country experience* (OECD Environment Working Papers No. 160; OECD Environment Working Papers, Vol. 160). https://doi.org/10.1787/1c1d8005-en

Mo Ibrahim Foundation. (2025). *From Nairobi to Addis Ababa: Taking stock of the 2023 Nairobi Declaration ahead of the second Africa Climate Summit*. Mo Ibrahim Foundation. https://mo.ibrahim.foundation/sites/default/files/2025-09/from-nairobi-to-addis-ababa.pdf

Ngaruko, F. (2023). *Annual Report to the Governors of the World Bank Group (WBG), Africa Group 1 Constituency* [Annual Report]. World Bank Group. https://thedocs.worldbank.org/en/doc/e0f016c369ef94f87dec9bcb22a80dc7-0330212023/original/Annual-Report-2023.pdf

Tilburg, X. van, Ochs, A., & Lee, S. (2024). *Planning for a Net-Zero Future: Guidance on how to develop a Long-Term Low Emission Development Strategy (LT-LEDS)*. UNDP.

UNECA. (2023). *Economic Report on Africa 2023: Building Africa's Resilience to Global Economic Shocks*. United Nations Economic Commission for Africa. https://hdl.handle.net/10855/49992

United Nations Framework Convention for Climate Change. (2023). *Long-term Low Emission Development Strategies: Synthesis Report on Submissions to the UNFCCC*. United Nations Framework Convention for Climate Change. https://unfccc.int/lt-leds-synthesis-report#Planning-and-implementation

United Nations Framework Convention for Climate Change. (n.d.). *Long-term strategies portal*. https://unfccc.int/process/the-paris-agreement/long-term-strategies

# Annex 1: Methodological approach

### Conceptual framework and benchmark approach

The assessment employs a comprehensive benchmarking framework based on implementation science principles and adapted for the African context through extensive stakeholder consultation. The framework recognises that LT-LEDS implementation is a complex, multi-dimensional process requiring sustained effort across multiple governance levels and sectors. The benchmarking approach draws on international best practices while accounting for African-specific contexts and constraints.

The conceptual framework is grounded in systems thinking, recognising that LT-LEDS implementation occurs within complex adaptive systems characterised by multiple actors, feedback loops, and emergent properties.[2] This systems perspective emphasises the importance of understanding interdependencies between different implementation dimensions and the need for integrated approaches that address multiple constraints simultaneously.

Four key implementation dimensions form the foundation of the benchmarking framework: **Institutional Effectiveness**, **Technical Capacity**, **Coordination Strength**, and **Financial Readiness**. Each dimension encompasses multiple indicators derived from international best practices and Africa-specific contexts. The framework employs a mixed-methods approach combining quantitative indicators with qualitative assessments to provide comprehensive evaluation of implementation status.

**Institutional Effectiveness** is measured through eight indicators: presence of lead institutions with clear mandates, legal frameworks supporting implementation, integration with national development planning, regulatory instruments for sectoral transformation, institutional coordination mechanisms, monitoring and evaluation systems, stakeholder engagement platforms, and adaptive management capabilities. Each indicator is assessed on a five-point scale ranging from "absent" to "fully developed" (OECD, 2020).

**Technical Capacity** encompasses seven indicators: human resources with relevant expertise, greenhouse gas inventory systems, economic modelling capabilities, sectoral analysis capacity, M&E systems, data management infrastructure, and technology

[2] GIZ (2024) Good Practice for LT-LEDS Development

assessment capabilities. Assessment criteria consider both absolute capacity levels and capacity relative to country-specific implementation needs.

**Coordination Strength** includes six indicators: horizontal coordination across sectors, vertical coordination between governance levels, stakeholder engagement mechanisms, multi-stakeholder platforms, conflict resolution mechanisms, and information sharing systems. The assessment evaluates both formal coordination structures and informal coordination processes.

**Financial Readiness** comprises nine indicators: domestic resource mobilisation strategies, access to international climate finance, innovative financing mechanisms, cost assessment capabilities, financial management systems, investment promotion frameworks, risk management systems, fiscal integration, and private sector engagement. Assessment considers both current capacity and potential for enhancement (Climate Policy Initiative, 2023).

### Country Selection and Sampling Strategy

For this report, 14 countries were identified across Africa as being at advanced stages of their LT-LEDS journeys, or have otherwise made notable contributions to the landscape. The countries included in the assessment were selected through a stratified sampling approach designed to ensure representation across multiple dimensions of diversity. The sampling strategy considered six stratification criteria: geographic region, linguistic background, economic development level, LT-LEDS development status, institutional arrangements, and political system characteristics.

Of the 14 countries identified, 6 responded affirmatively to requests for in-depth discussions, and have subsequently become the focus countries for this assessment. The report therefore analyses the LT-LEDS and related insights of Burkina Faso, Kenya, Nigeria, South Africa, Uganda, and Zimbabwe. In addition to these direct discussions, the report was supplemented by information received during the AGNES Peer-to-Peer Exchange event held in Nairobi between 26 November – 28 November 2025. Insights received from participant countries, including Ethiopia, Rwanda, Togo, and Zambia were also integrated into the report, thus allowing the report to directly reference ongoing efforts in at least 10 countries across Africa.

Geographic representation sought to ensure as wide a coverage as possible of all major African sub-regions which have submitted LT-LEDS or are in the development process. The socioeconomic and political contexts represented are also highly varied, and includes countries ranging from the least developed to middle-income and resource-rich. This diversity enables examination of how economic context affects implementation approaches and constraints. LT-LEDS development status varies across

countries, with some having submitted comprehensive strategies, others having advanced drafts, and several in early development stages. This variation enables assessment of implementation readiness across different development stages.

Data collection employed multiple methods to ensure comprehensive coverage and triangulation of findings. The mixed-methods approach combined desk review of policy documents and technical reports with semi-structured interviews, focus discussions, and structured observations of coordination processes.

The desk review process encompassed four categories of documents: national strategy documents including LT-LEDS, NDCs; legal and regulatory instruments including climate change laws, sectoral regulations, and institutional mandates; technical reports, and capacity assessments. Document analysis focused on identifying implementation arrangements, institutional responsibilities, coordination mechanisms, capacity requirements, and financing strategies.

Stakeholder interviews across countries targeted key informants from the respective national agencies responsible for LT-LEDS activities. Interview selection employed purposive sampling to ensure representation across institutional types, sectors, and governance levels. Semi-structured interview protocols addressed institutional arrangements, implementation challenges, coordination mechanisms, capacity needs, and financing strategies. Interview protocols were adapted for different stakeholder categories while maintaining core questions for cross-cutting analysis.


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