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By Henry Okodua and Mouhamadou Hady Diallo

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Editorial

Since its adoption by the African Union (AU) in 2003, the [Comprehensive Africa Agriculture Development Programme](#) (CAADP) has been Africa's primary policy framework for agricultural transformation, wealth creation, food security, economic growth, and prosperity. It guides the African Union Commission (AUC), the African Union Development Agency-New Partnership for Africa's Development (AUDA-NEPAD), Regional Economic Communities (RECs), and Member States in driving agricultural transformation toward a self-reliant and productive Africa.

The recently adopted [Kampala CAADP Declaration](#) on ***“Building Resilient and Sustainable Agrifood Systems in Africa”*** and the associated [CAADP Strategy and Action Plan \(2026-2035\)](#) will build on the success and deepen the progress achieved after two decades of CAADP implementation, during which Africa significantly improved in economic and agricultural growth, poverty reduction, nutrition outcomes, and agricultural trade expansion. The next 10-year cycle of CAADP implementation must further deepen its focus to incorporate lessons while responding to emerging issues to accelerate sustainable food system transformation within a context of climate change and multifaceted stressors and shocks.

The longevity and continued success of CAADP can be attributed to its credibility as a shared framework designed to guide Member States toward agricultural transformation and economic growth. Driven by the CAADP principles and values, with emphasis on African ownership and mutual accountability, alongside review and benchmarking, data and analytics have been central to CAADP's evidence-based planning and implementation approach. As Africa prepares for the implementation phase of the Kampala CAADP Declaration, which comes into force on January 1, 2026, evidence and robust data analysis will continue to remain indispensable to the successful implementation on the ground. This is the rationale behind AKADEMIYA2063's ***Kampala Policy Brief Series***.

The purpose of the policy briefs is to serve as reference documents for policy analysts and planners across AU Member States as they prepare their programs in response to the Kampala CAADP Declaration. The policy briefs will provide a synthesis of a large body of research tackling topics of strategic relevance to Africa's development agenda in parallel with key issues to be addressed during the new phase of CAADP implementation to provide insights, analyze emerging ideas, review crosscutting thematic areas, and propose policy recommendations that can be replicated for sustainable impact.

The evidence presented in the Kampala Policy Brief Series is derived from published research and data by AKADEMIYA2063's scientists and collaborators across Africa and outside the continent. These lessons are made accessible to policymakers, non-state actors, and other practitioners at continental, regional, and national levels, as well as development partners, to support the implementation of CAADP 2026-2035. In addition to packaging the lessons and insights into comprehensive yet accessible knowledge products, AKADEMIYA2063 is facilitating policy dialogue through webinars. During these sessions, the findings are presented to a broad range of stakeholders to guide programmatic interventions supporting the implementation of the Kampala CAADP Agenda.



Executive Summary

The new strategy for implementing the Comprehensive Africa Agriculture Development Programme (CAADP), as outlined in the 2025 Kampala CAADP Declaration adopted by the African Union (AU), presents a transformative agenda to build resilient, sustainable, and nutrition-sensitive agrifood systems in Africa. Central to this vision is the integration of climate adaptation and resilience into agricultural policies and programs. However, in practice, many African countries continue to treat adaptation and mitigation as separate pathways, inadvertently leading to inefficiencies, fragmented policies, and missed opportunities for synergy. This policy brief addresses that challenge by advocating for an integrated approach that bridges climate adaptation and mitigation efforts. Drawing on empirical insights from Rwanda and Nigeria, the brief illustrates how climate strategies can generate mutual benefits when aligned. Rwanda's emphasis on emissions mitigation through reforestation, clean energy, and land-use reform has contributed to both environmental sustainability and agricultural resilience.

Conversely, Nigeria's focus on adaptation, such as drought-resistant crops, efficient irrigation, and natural resource management, also yields mitigation co-benefits like carbon sequestration and ecosystem restoration. Based on evidence from these cases, the brief identifies key policy lessons and presents four actionable recommendations, including scaling up climate-smart agriculture, integrating reforestation and land restoration into national food systems, expanding access to decentralized renewable energy, and strengthening institutional coordination.

The brief offers a practical framework to help AU Member States implement the climate-related objectives of the Kampala Declaration in a coherent, cost-effective, and development-aligned manner. By linking adaptation and mitigation through evidence-based strategies, countries can improve food system resilience, reduce emissions, and advance broader goals such as Agenda 2063, the Sustainable Development Goals (SDGs), and the AU Climate Change and Resilient Development Strategy (AUCCaRD) 2022–2032 (AUC 2022).



Introduction

Africa faces mounting challenges as climate change intensifies pressures on its agrifood systems. Increasingly frequent and severe droughts, floods, and temperature extremes are threatening agricultural productivity, food security, rural livelihoods, and economic stability. These climate-related risks intersect with longstanding structural issues, including poverty, undernutrition, and limited access to infrastructure, making Africa's agrifood systems transformation an urgent development priority. In response, the AU adopted the 2025 Kampala Declaration on "Building Resilient and Sustainable Agrifood Systems in Africa," which sets forth a bold vision for climate-resilient, inclusive, and sustainable food systems. A core element of the Declaration is its call, in Commitment Five, for Member States to integrate adaptation and mitigation measures into their agricultural development policies, investments, and programs (AUC and AUDA-NEPAD 2025). This approach recognizes that long-term food security and sustainable development cannot be achieved without

confronting the threats posed by climate change.

However, a critical barrier to realizing this vision lies in the continued separation of climate adaptation and mitigation strategies, a practice that understandably reflects the UNFCCC¹ processes, which require countries to develop separate Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs). Unfortunately, climate adaptation is often not given much attention because many countries consider mitigation more "profitable" as it attracts more opportunities to tap into international climate finance. The independent pursuit of adaptation and mitigation strategies, however, often results in unintended inefficiencies, reduced policy coherence, and missed opportunities to achieve broader, synergistic development goals. Bridging these two climate pathways is essential to operationalizing the Kampala Declaration and unlocking co-benefits for climate, agriculture, and economic resilience.

¹ United Nations Framework Convention on Climate Change.

This policy brief responds directly to that challenge by presenting an integrated framework that links adaptation and mitigation as complementary strategies. Drawing on case studies from Rwanda and Nigeria, the brief illustrates how each country's climate approach — Rwanda's mitigation-driven model and Nigeria's adaptation-focused pathway — can inform a more cohesive and effective continental strategy. The goal is to support African policymakers in transitioning from siloed to integrated climate action that aligns with the objectives of the Kampala Declaration, as well as broader frameworks such as Agenda 2063, the SDGs, and the AUCCaRD. The brief is grounded in empirical analysis conducted under the *Comprehensive Action for Climate Change Initiative* (CACCI) led by AKADEMIYA2063. It draws specifically on two in-depth studies: Okodua, Sedegan, and Tankari (2024), which examines emissions mitigation strategies in Rwanda using Computable General Equilibrium (CGE) models, and Okodua, Fofana, and Tadesse (2024), which provides an assessment of adaptation pathways in Nigeria using mixed economic modeling.

Using Rwanda and Nigeria as illustrative case studies, representing contrasting climate strategies, the scope encompasses land use, climate-smart agriculture (CSA), clean energy, resilient infrastructure, and institutional capacity—all areas where adaptation and mitigation intersect. Of course, this brief is not without limitations. First, while Rwanda and Nigeria offer useful contrasts, they do not represent the full diversity of ecological, economic, and institutional contexts across the continent. Second, economic simulations are based on assumptions that may not fully capture local political dynamics or unexpected shocks. Third, the analysis centers on national-level planning and may underrepresent the importance of localized, community-led adaptation and mitigation initiatives.

The brief contributes to an emerging policy discourse on integrated climate governance in Africa. Its relevance lies in demonstrating how climate-smart solutions that simultaneously address adaptation, and mitigation can enhance policy efficiency, improve development outcomes, and build systemic resilience. By offering practical or actionable recommendations rooted in evidence, the brief aims to equip AU Member States and development partners with a roadmap to implement the Kampala Declaration in a coherent and impactful manner.

1. Insights and Implications of the Past Findings

In the face of accelerating climate threats, countries across Africa are developing context-specific strategies to adapt to and mitigate the impacts of climate change within their agrifood systems. Two instructive examples, Rwanda and Nigeria, offer valuable empirical evidence on how differentiated approaches to climate action can generate synergies when effectively integrated. Their experiences, documented in *CACCI Field Notes No. 14* (Rwanda) and *CACCI Field Notes No. 18* (Nigeria), published by AKADEMIYA2063, shed light on how adaptation and mitigation strategies can be harmonized to support the goals of the 2025 AU Kampala Declaration.

1.1 Rwanda: trends in emissions mitigation strategies

Rwanda's approach to climate action is strongly oriented toward mitigating greenhouse gas (GHG) emissions, particularly in the agriculture, energy, and land-use sectors. Agriculture alone accounts for nearly 40 percent of the country's total emissions, with livestock and synthetic fertilizer use being the primary contributors (Okodua, Sedegan, and Tankari 2024). Despite the upward trend in agricultural emissions, Rwanda has achieved a remarkable 91 percent reduction in emissions from land use and forestry. This achievement is largely attributed to large-scale reforestation programs, sustainable land management practices, and progressive land-use policy reforms (REMA 2011; FAO 2021).

These efforts reflect a broader mitigation strategy that emphasizes long-term environmental sustainability. However, economic simulations using CGE models reveal key trade-offs: while mitigation scenarios result in reduced emissions and improved energy efficiency, they also lead to short-term declines in GDP, investment, and sectoral value-added in agriculture, manufacturing, and services (Okodua, Sedegan, and Tankari 2024). This underscores a critical trend: climate goals pursued in isolation can come at the expense of economic development unless integrated with adaptive strategies. However, Rwanda's investments in renewable energy transitions, such as expanding hydropower and solar infrastructure, not only reduce emissions but also improve energy access, especially in rural areas (Okodua, Sedegan, and Tankari 2024). This dual benefit strengthens agricultural value chains and enhances resilience to energy and climate shocks in the long run. These trends underscore Rwanda's recognition that sustainable climate action must be integrated with broader development and growth objectives.

1.2 Nigeria: trends in adaptation-centered approaches

In contrast, Nigeria's climate strategy has primarily focused on climate adaptation due to its acute vulnerability to climate risks. Ranked among the top ten most climate-vulnerable countries globally, Nigeria experiences recurrent droughts in the north, flooding and coastal erosion in the south, and widespread disruptions to its agrifood system (ND-GAIN 2023). Its climate policy emphasis spans multiple sectors, including agriculture, water, health, and infrastructure.

Despite Nigeria's array of adaptation programs, agricultural productivity has declined in key crop categories over the past decade, revealing a gap between policy and practice (Okodua, Fofana, and Tadesse 2024). One possible explanation is that agricultural productivity might have dropped even further without adaptation strategies in place. So, there are likely other additional underlying reasons for the observed decline. An observed yield stagnation in the country, however, points to weak support systems and underinvestment in adaptation (Okodua, Fofana, and Tadesse 2024). Additionally, economic projections suggest that failure to act decisively on climate change could cost Nigeria up to 30 percent of its GDP by 2050 (Nigeria, Federal Ministry of Environment 2021). This stark forecast underscores the need for adaptive strategies that are not only technically sound but also economically viable and institutionally anchored.

Yet, there are promising trends. Nigeria has introduced measures such as drought-tolerant crops, improved irrigation, agroforestry, and access to renewable energy in off-grid communities. These adaptation strategies carry inherent mitigation co-benefits, such as enhanced carbon sequestration through re-greening and improved soil health (Okodua, Fofana, and Tadesse 2024). The case of agroforestry in Nigeria's Sahelian belt exemplifies how ecosystem restoration efforts contribute both to resilience and emissions reduction. In short, the Nigerian case study affirms the brief's central call: to operationalize the goals of the Kampala Declaration through integrated climate strategies that are coupled with other policies, including infrastructure, and grounded in national realities and aligned with long-term development goals.

1.3 Country insights and strategic lessons for advancing the Kampala Declaration

To successfully implement the climate-related targets outlined in the 2025 Kampala Declaration, African countries must develop climate strategies that are both evidence-based and locally grounded. The cases of Rwanda and Nigeria offer valuable insights into how different approaches to climate policy — emphasizing mitigation and adaptation, respectively — can yield mutual benefits and inform a more integrated continental response. Despite their differing starting points, both countries demonstrate the importance of strategic alignment between climate action and broader development goals.

Rwanda's climate policy is anchored in its Green Growth and Climate Resilience Strategy (GGCRS), adopted in 2011. This forward-looking framework is designed to guide the country toward a low-carbon, climate-resilient economy. Central to this strategy is the promotion of sustainable land use and agricultural transformation through terracing, agroforestry, and erosion control. These practices have helped strengthen food security and protect against soil degradation, while also contributing to adaptation by improving water retention and reducing vulnerability to extreme weather events (REMA 2011; Okodua, Sedegan, and Tankari 2024).

A cornerstone of Rwanda's mitigation efforts has been its ambitious reforestation programs. By expanding forest cover to over 30 percent of its land area, the country has achieved a 91 percent reduction in emissions from land use and forestry. These efforts exemplify the dual benefits of nature-based solutions, as they contribute to both carbon sequestration and ecosystem resilience (FAO 2021).

Rwanda's investment in renewable energy further demonstrates its commitment to an integrated approach. Through a combination of hydropower expansion and rural solar initiatives, the government is reducing emissions while improving access to clean energy. These energy investments support agricultural value chains and enhance resilience by reducing dependence on traditional biomass fuels (REMA 2021). Additionally, the establishment of the Rwanda Green Fund (FONERWA) has enabled the country to mobilize both domestic and international finance to scale up climate action, while strengthening institutional coordination across various sectors.

However, economic modeling shows that focusing solely on mitigation may come at a short-term cost. Rwanda's emissions reduction scenarios indicate potential declines in GDP and investment, particularly in energy-intensive sectors such as agriculture and manufacturing. This underscores the importance of balancing climate goals with inclusive growth strategies that ensure mitigation does not compromise development outcomes (Okodua, Sedegan, and Tankari 2024).

Conversely, Nigeria's climate policy has largely focused on adaptation, driven by its acute exposure to climate risks such as drought, desertification, and coastal flooding. Guided by its National Adaptation Plan Framework (NAP-F), Nigeria has outlined key thematic priorities, including climate-resilient agriculture, water resource management, ecosystem restoration, and disaster risk preparedness (Nigeria, Federal Ministry of Environment 2021).

Climate-resilient agriculture, for example, is promoted through the dissemination of drought-tolerant seeds, improved irrigation techniques, and agroforestry systems. These measures are designed to stabilize crop yields amid increasingly erratic weather. Nigeria's adaptation strategy also emphasizes ecosystem-based approaches, notably through the Great Green Wall initiative, which seeks to restore millions of hectares of degraded land in the Sahel. This not only strengthens ecological resilience but also contributes to emissions reduction through carbon sequestration (Okodua, Fofana, and Tadesse 2024). Other components of Nigeria's adaptation framework include infrastructure designed to withstand climate shocks, such as flood-resilient roads and climate-proof housing, along with the deployment of early warning systems and climate information services. These are critical for safeguarding both livelihoods and infrastructure in high-risk areas.

Recognizing the co-benefits of integrated action, Nigeria's updated NDC introduces a conditional mitigation target and acknowledges the mitigation potential of adaptation programs. Despite these policy advances, implementation challenges persist. Fragmented institutional arrangements, limited financing, and inadequate coordination at the subnational level continue to hinder progress.

Moreover, agricultural productivity has declined in key crop sectors, suggesting that while adaptation policies are in place, investment and execution have not kept pace with the growing urgency of climate threats (ND-GAIN 2023). Nevertheless, promising innovations are emerging. Pilot projects in off-grid renewable energy, community-based natural resource management, and climate-smart agriculture offer scalable models. Nigeria's participation in international initiatives such as the African Adaptation Acceleration Program (AAAP) reflects a growing commitment to more integrated climate governance.

Together, the experiences of Rwanda and Nigeria demonstrate how tailored yet harmonized strategies can enhance policy coherence, improve climate outcomes, and reduce inefficiencies. Rwanda shows how mitigation, when supported by strong institutions and effective financing mechanisms, can contribute to development and resilience. Nigeria, in turn, brings out how adaptation measures can simultaneously strengthen food systems and reduce emissions.

Both cases affirm the value of integrated planning that avoids the artificial separation of adaptation and mitigation. For AU Member States, the strategic lesson is clear: climate strategies that bridge both pathways are more likely to achieve the resilience, sustainability, and inclusiveness that the Kampala Declaration envisions.

2. Key Policy Lessons and Actionable Recommendations

Drawing on the findings from Rwanda's mitigation-driven model and Nigeria's adaptation-focused approach, several strategic opportunities emerge that can help AU Member States implement the Kampala Declaration in a more coherent and impactful manner. These insights point to the importance of integrated interventions that simultaneously address vulnerability to climate change while contributing to long-term emissions reductions. The following recommendations point out practical actions with dual benefits:

2.1 Scaling up climate-smart agriculture (CSA): Climate-smart agriculture (CSA) remains one of the most promising avenues for African countries to simultaneously build resilience and reduce emissions. As demonstrated in both Rwanda and Nigeria, CSA practices, such as drought-tolerant crop varieties, conservation agriculture, agroforestry, and efficient irrigation, have the potential to stabilize food production in the face of climate variability. When tailored to local ecological and cultural contexts, these interventions protect smallholder farmers from shocks while lowering greenhouse gas emissions associated with unsustainable land use and fertilizer overuse.

2.2 Mainstreaming reforestation and land restoration into national strategies: Integrating reforestation and land restoration into national food system and climate strategies offers a powerful dual-purpose solution. Rwanda's significant reduction in land-use emissions through reforestation and Nigeria's Great Green Wall efforts in the Sahel emphasize the environmental and livelihood benefits of restoring degraded ecosystems. Expanding these efforts through community-led afforestation, sustainable forestry, and land management programs can boost carbon sequestration, reverse desertification, and enhance agricultural productivity.

2.3 Expanding access to decentralized renewable energy: Particularly in rural agrifood zones, access to renewable energy is vital for both adaptation and mitigation. Rwanda's transition to solar and hydro power, alongside Nigeria's growing off-grid energy initiatives, demonstrate the value of clean energy in enhancing climate resilience. By investing in solar mini-grids, clean cooking technologies, and energy-efficient irrigation systems, governments can reduce their dependence on biomass and fossil fuels while supporting rural livelihoods and agribusiness development.

2.4 Strengthening institutional coordination: This will be critical for maximizing the impact of climate action. Both Rwanda and Nigeria face challenges related to fragmented climate governance. Establishing inter-institutional coordination mechanisms and integrating climate considerations into national and subnational development plans can enhance policy coherence and ensure that adaptation and mitigation efforts are pursued in tandem. Strengthening institutional capacity also enables more effective use of climate finance and supports evidence-based planning.

Together, these recommendations emphasize that integrated climate strategies are not only more efficient but also more likely to deliver sustainable outcomes. By aligning adaptation and mitigation through practical, context-sensitive measures, African countries can unlock synergies that advance the goals of the Kampala Declaration while building climate-resilient and low-carbon agrifood systems.

3. Conclusion

The integrated approach advocated in this policy brief, which bridges climate adaptation and mitigation, is not only desirable but also indispensable for building resilient and sustainable agrifood systems across Africa. The proposed policy actions provide a comprehensive framework for translating this integration into practice, guided by the core principles of sustainability, inclusivity, and cost-effectiveness. The experiences of countries like Rwanda and Nigeria show that adaptation and mitigation need not be treated as parallel efforts. When pursued together, these strategies can produce synergies that amplify development outcomes, reduce policy fragmentation, and enhance resource efficiency. By embracing integrated climate strategies, the continent can secure its agrifood future while making meaningful contributions to the global climate agenda.

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ABOUT AKADEMIYA2063

AKADEMIYA2063 is a pan-African non-profit research organization with headquarters in Kigali, Rwanda, and a regional office in Dakar, Senegal.

Inspired by the ambitions of Agenda 2063 and grounded in the recognition of the central importance of strong knowledge and evidence systems, the vision of AKADEMIYA2063 is an Africa with the expertise we need for the Africa we want. This expertise must be responsive to the continent's needs for data and analysis to ensure high-quality policy design and execution. Inclusive, evidence-informed policymaking is key to meeting the continent's development aspirations, creating wealth, and changing livelihoods for the better.

AKADEMIYA2063's overall mission is to create, across Africa and led from its headquarters in Rwanda, state-of-the-art technical capacities to support the efforts by the Member States of the African Union to achieve the key goals of the African Union's Agenda 2063 of transforming national economies to boost growth and prosperity.

Following from its vision and mission, the main goal of AKADEMIYA2063 is to help meet Africa's needs at the continental, regional and national levels in terms of data, analytics, and mutual learning for the effective implementation of Agenda 2063 and the realization of its outcomes by a critical mass of countries. AKADEMIYA2063 strives to meet its goals through programs organized under five strategic areas—policy innovation, knowledge systems, capacity creation and deployment, operational support, data management, digital products, and technology—as well as partnerships and outreach activities. For more information, visit www.akademiy2063.org.



Building Resilient and Sustainable Agrifood Systems in Africa



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