Transitioning to a Green Economy for Resilient Growth and Sustainable Food Security in Africa

Summary

Climate change poses one of the greatest threats to economic transformation, environmental sustainability, and food security in Africa. Despite contributing a small share of global greenhouse gas emissions, African countries, including Ghana, are among the most vulnerable to climate-related shocks (droughts, floods, land degradation, and erratic rainfall). These challenges have undermined agricultural productivity, increased food insecurity, constrained job creation, and weakened the resilience of livelihoods and economies. Therefore, transitioning to a green economy presents a strategic opportunity to achieve resilient economic growth, sustainable food security, environmental sustainability, and inclusive development. This policy brief synthesises insights from the maiden Economic and Policy Dialogue on *Building Inclusive and Resilient Economies: Policy Pathways for Job Creation, Digital Innovation, Social Protection, and Climate-Smart Development*, organised by the Faculty of Social Science and Arts, University of Business and Integrated Development Studies (UBIDS). Drawing on expert presentations, stakeholder discussions, and evidence from Ghana and across Africa, the brief highlights practical experiences in climate-smart agriculture, renewable energy, sustainable land management, and green enterprise development. The evidence demonstrates that green economy initiatives such as climate-smart agriculture, solar-powered irrigation, sustainable forestry, and renewable energy investments have improved agricultural productivity, strengthened resilience to climate shocks, created employment opportunities, increased rural incomes, and enhanced environmental conservation. However, implementation remains constrained by fragmented policies, inadequate financing, limited digital infrastructure, and weak institutional coordination. The brief recommends the development of a coherent national green economy policy framework that integrates climate resilience, industrialisation, agriculture, energy, and digital transformation. It further calls for expanding green financing mechanisms, investing in climate-smart infrastructure, strengthening micro, small and medium-sized enterprises (MSMEs) within green value chains, institutionalising digital agriculture, and building the human capital required for emerging green jobs. Successful implementation will require strong partnerships among the government, the private sector, development partners, academia, and local communities. Accelerating the transition to a green economy is not only an environmental imperative but also an economic necessity. By scaling up proven interventions and adopting integrated policy approaches, Ghana and other African countries can build more resilient economies, create decent jobs, strengthen food security, and achieve sustainable and inclusive long-term development.

Key Messages

- The green economy is Africa's most practical pathway to resilience and sustainable food security.
- The greatest risk to African economies is not climate change alone, but delayed policy action and investment in climate adaptation and mitigation.
- Climate-smart development is not a peripheral concern; it is central to the future of economic transformation.
- Food security in Ghana is no longer solely an agricultural issue; it is a climate, energy, and economic system issue.
- We cannot build resilient economies on a collapsing natural resource base.
- Every wasted harvest, every piece of degraded land, and every unemployed youth is a signal that our current model of economic development is no longer fit for purpose.

Introduction

The impacts of climate change have tested economic systems, institutions, people and their resilience across Ghana and Africa. The lesson is clear: resilience and inclusiveness are not optional; they are foundational to sustainable development. While global shocks cannot always be prevented, governments can shape how they respond, recover, and rebuild. This moment demands more than adaptation. It requires a transformation toward economies that are strong, inclusive, innovative, and climate-resilient. Such economies generate quality jobs, harness opportunities related to climate change, protect the most vulnerable, and sustain growth amid increasing global uncertainties. A resilient economy can withstand economic, environmental, and social shocks and recover in ways that preserve long-term development prospects. The two are interdependent: inequality creates instability, and low resilience erodes inclusive gains as shocks disproportionately affect the most vulnerable.

Food security in Africa is no longer just an agricultural issue. It is a climate, energy, and economic issue. Every wasted harvest, degraded land, and unemployed youth signal that the current development model is no longer fit for purpose. Transitioning to a green economy is not a luxury for advanced nations; it is Africa's most practical pathway to jobs, resilience, sustainable environments, and food security.

Global and Local Pressures

Climate change is a global externality that harms economies and poses serious tail risks to many countries. It is no longer a distant threat as it has already impacted economies, communities, and ways of life. It is exerting undue pressure on productivity, infrastructure and the foundations of both short- and long-term economic development planning and growth. It has become one of the most complex challenges of our time, with far-reaching implications for economic development, particularly in vulnerable regions such as Africa. The longer the world delays in acting decisively on climate change, the greater the loss of life and damage to the world economy. Fortunately, climate change also presents business and development opportunities and could generate over $2.1 trillion in clean energy, resilient and green infrastructure construction[1], and hybrid and electric vehicle production.

Ghana and Sub-Saharan Africa

In Africa, global climate change pressures are intensified by domestic structural challenges, resulting in a paradox of growth without transformation. Climate vulnerability, low agricultural productivity, weak value addition, demographic pressure, and fragmented policy compound Africa's development challenge. These challenges complicate the transition to a green economy amid worsening climate change impacts. This has contributed to rising youth unemployment, as job creation lags behind population growth. These realities compel a rethink of development strategies toward development models that integrate economic transformation, environmental sustainability, and climate change resilience.

Therefore, one critical policy direction is promoting the transition to a green economy[2]. This involves incentivising transition to low-carbon industries and strengthening environmental due diligence and resilience, so that industrial expansion does not come at the cost of the natural environment. Such a policy direction will provide a clear pathway for integrating economic growth with environmental sustainability. This policy brief analyses existing climate change policies and offers recommendations to transition to a green economy for resilient growth and sustainable food security.

[1] https://news.climate.columbia.edu/2019/05/29/co2-utilization-profits/
[2] https://news.climate.columbia.edu/2019/06/20/climate-change-economy-impacts/

Methodology/Approach

The methodological approach was based on a policy dialogue organised on 6th May 2026 by the Faculty of Social Science and Arts, University of Business and Integrated Development Studies, on the theme "*Building Inclusive and Resilient Economies. Policy Pathways for Job Creation, Digital Innovation, Social Protection, and Climate-Smart Development*". Four presentations were made; however, the keynote address and a presentation on "Transitioning to a Green Economy for Resilient Growth and Sustainable Food Security" were considered for this policy brief. The forum culminated in an open discussion involving 110 participants from industry, academia, policymakers, and Non-Governmental Organisations. Participants' views on the address and the presentation were also used to synthesise the policy brief.

Analysis of findings and Policy Options

Empirical evidence from Ghana and other African countries shows that the green economy is not theoretical. It is already delivering results where projects are well-designed and coordinated effectively. For instance, the Ghana Commercial Agriculture Project (2012–2021), led by the Ministry of Food and Agriculture with support from the World Bank and USAID, invested about $145 million in irrigation development and integrating smallholders into value chains, notably in the Accra Plains. Results included expanded irrigated land, year-round production, and thousands of jobs in farming and agribusiness. It demonstrated how irrigation, combined with agribusiness, can enhance food availability, jobs, and income. With support from the World Bank, Food and Agriculture Organisation, and the Global Environment Facility, this framework promoted climate-smart agriculture, soil fertility management, irrigation, and improved seed production and utilisation. The initiative provided a foundation for scaling up green agriculture nationwide. The adoption of climate-smart agricultural practices has resulted in yield improvements of up to 50% in key staple crops while enhancing resilience to climate shocks, including droughts and erratic rainfall (Ashesi Climate Innovation Centre, 2026).

Solar Irrigation for Agricultural Resilience, 2018–present

Partnerships between the government, the private sector, and non-governmental organisations have deployed solar-powered irrigation systems in off-grid farming communities across Ghana. These interventions have enhanced agricultural productivity by enabling year-round farming, reducing dependence on erratic rainfall, lowering irrigation costs, and improving farmers' incomes. In some beneficiary communities, farmers increased production from a single cropping season to as many as three cropping cycles annually using solar-powered irrigation systems (UNDP Ghana, 2018; Gebrezgabher et al., 2020). These initiatives illustrate the critical role of the energy–agriculture nexus in promoting climate-smart agriculture, strengthening resilience to climate change, and improving food security.

Ghana Shea Landscape Emission Reductions Project (GSLERP), 2020-2026

Led by the Forestry Commission with World Bank support, GSLERP advanced sustainable shea parkland management, agroforestry, and women-focused value chain development. Outcomes include reduced deforestation, increased incomes for rural women, and reduced carbon emissions. It links climate mitigation with livelihoods and gender inclusion.

Regional Examples

Ethiopia's Climate Resilient Green Economy Strategy, Kenya's Climate-Smart Agriculture Project, Rwanda's Green Growth and Climate Resilience Strategy, and the Great Green Wall Initiative demonstrate that similar approaches are working across Africa. Strategic Insight: These projects prove the green economy delivers measurable results. The policy challenge is to scale up, finance, and coordinate these successes into a coherent national transformation agenda.

Policy Pathways for a Green, Inclusive, and Resilient Economy

Job Creation through Green Enterprises

Jobs are the backbone of inclusive economies, and SMEs drive innovation and employment. SMEs need improved access to finance, tax incentives for sustainable practices, and training in green technologies and business models. Linking SMEs to green value chains in renewable energy, agro-processing, waste management, and eco-tourism can create decent jobs and local economic dynamism. Supporting incubators and startups, and developing funding, tax incentives, and collaborative platforms, encourage climate solutions, smart agriculture, and energy production. However, digital technologies must be used as an enabling environment to transform and accelerate the green transition.

Expanding Digital Infrastructure as an enabler

The Ghana Digital Acceleration Project, backed by $200 million in World Bank financing, aims to expand broadband access in underserved rural areas. Reliable connectivity is a prerequisite for participation in modern economic life, enabling access to climate information, digital finance, and e-commerce. Skill training must integrate digital literacy and advanced competencies in data analysis, coding, and digital marketing. Digital agriculture platforms can improve advisory services, market linkages, and climate risk management for farmers. Policy must ensure digitalisation expands opportunities rather than restricts them.

Climate-Smart Development and Green Industrial Policy

Climate change is central to economic transformation. Deliberate, climate-smart policies are required to safeguard livelihoods and promote sustainable growth. Green Industrial Policy: National industrialisation strategies must align with the National Climate Change Policy and National Energy Transition Framework. Incentivising low-carbon industries, strengthening environmental due diligence, and promoting cleaner production create green jobs and long-term competitiveness.

Green Export Transformation

The African Continental Free Trade Area provides a platform to reposition economies toward sustainable production. Strengthening agro-processing standards and investing in low-carbon manufacturing enables industries to meet international requirements while reducing environmental impact. Green Investments and Renewable Energy: Strategic subsidies, public investments, and incentives for private participation in solar, wind, and off-grid solutions accelerate the energy transition. These investments reduce fossil fuel dependence, lower emissions, and create jobs across multiple sectors.

Food Systems

Climate-smart farming, efficient water management, and sustainable land use are essential for food security. Supporting smallholder farmers with technology, finance, and capacity building strengthens grassroots resilience. Engaging youth in agriculture brings innovation and addresses rural unemployment.

Urban Planning and Disaster Resilience

Rapid urbanisation increases exposure to climate risks. Investments in climate-resilient infrastructure, sustainable housing, and low-carbon transport are critical. Integrating flood control, climate-adaptive design, and early-warning systems reduces vulnerability.

Policy Integration and International Cooperation

Climate action must be embedded across sectors and aligned with the Paris Agreement. Access to climate finance, technology transfer, and knowledge sharing through international partnerships will support national efforts.

Lessons Learned

Experience from Ghana and Africa highlights several lessons for scaling the green transition:

- Integrated approaches are essential. Siloed interventions in agriculture, energy, or industry have limited impact. Policies must align across sectors. Access to finance remains the biggest constraint. MSMEs and smallholder farmers lack affordable, long-term capital for green investments.
- Technology alone is insufficient. Behaviour change, capacity building, and local ownership determine adoption and sustainability. Projects must respond to local contexts and involve beneficiaries in design and implementation.
- Partnerships drive scale-ups. Collaboration between the government, the private sector, development partners, and communities is critical.

Policy Recommendations

To accelerate the transition to a green economy for resilient growth and sustainable food security, the following actions are recommended:

- ***Develop a Coherent Green Economy Policy Framework:*** Establish a national framework that integrates economic transformation, environmental sustainability, and social inclusion. Ensure alignment between industrialisation strategies, agricultural policies, energy plans, and urban development strategies.
- ***Establish a Green Financing Architecture:*** Create blended finance mechanisms, green credit lines, and de-risking instruments to mobilise private capital. Strengthen access to climate finance, carbon markets, and results-based financing for MSMEs and smallholder farmers.
- ***Invest in Climate-Smart Infrastructure:*** Scale investments in irrigation, solar-powered systems, rural roads, storage facilities, and climate-resilient infrastructure. Prioritise projects that enhance productivity, reduce post-harvest losses, and improve market access.
- ***Strengthen MSMEs in Green Value Chains:*** Provide targeted support for MSMEs to participate in renewable energy, agro-processing, circular economy, and sustainable forestry value chains. Link support to job creation and environmental outcomes.
- ***Institutionalise Digital Agriculture:*** Expand digital agriculture platforms for weather information, market prices, input access, and advisory services. Integrate digital skills into agricultural extension and vocational training programs.
- ***Build Human Capital for Green Jobs:*** Align technical and vocational education with the needs of the green sector. Promote youth engagement in agriculture and green enterprises through mentorship, financing, and entrepreneurship programs.

Conclusions

- Building resilient economies is not a single policy choice; it is a deliberate and coordinated transformation.
- It requires an integrated policy approach that creates empowering green jobs, leverages digital innovation, advances climate-resilient development and food security.
- The real policy question is whether Africa and Ghana will scale-up what works, align investments with sustainability, and act with urgency.
- If the transition is managed well, the region will not only achieve food security but also unlock a new development paradigm defined by resilience and sustainability.
- The responsibility rests with policymakers, scholars, practitioners, and citizens to act with purpose and collaborate with intent.
- The transition to a green economy is no longer optional; it is essential for achieving resilient growth, sustainable food security, and long-term prosperity in Africa.

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