CLIMATE INDUSTRY SPOTLIGHTS

Climate Entrepreneurship Landscape in Africa: Finance and Policy Needs

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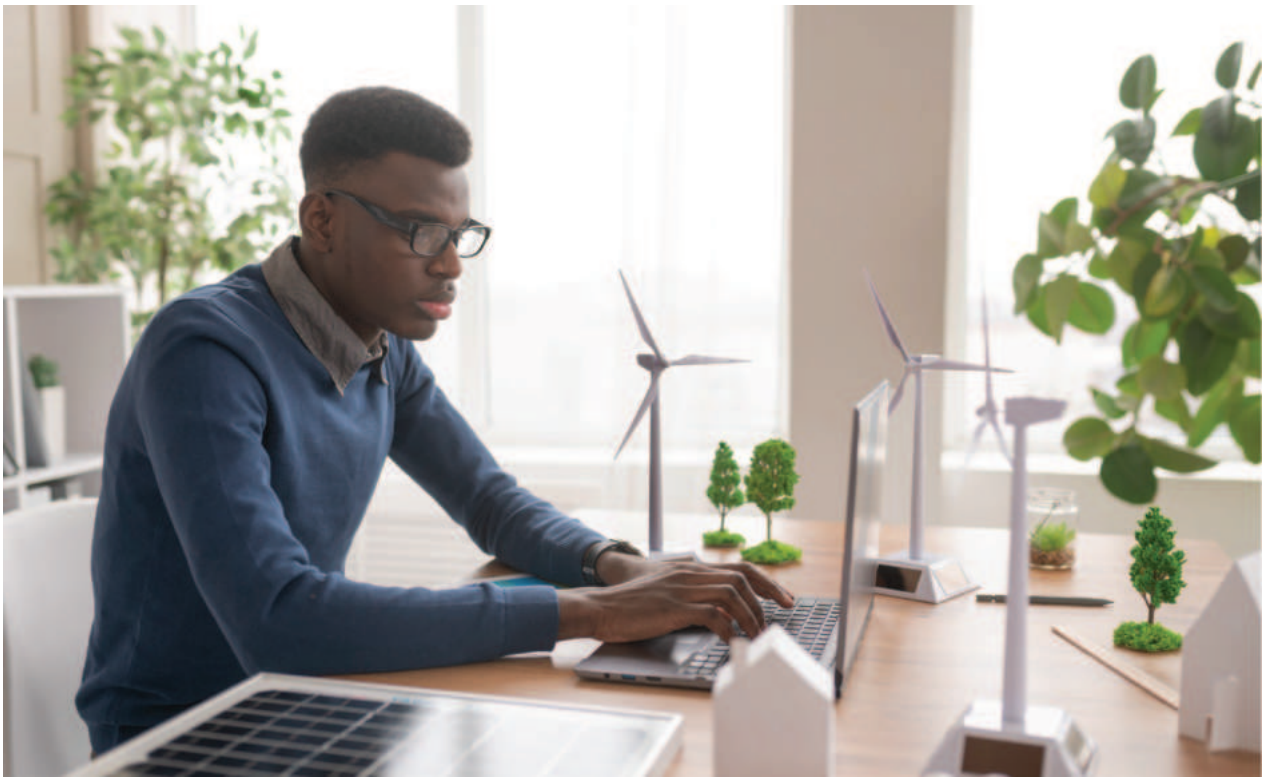
Introduction

The intersection of climate change and entrepreneurship presents both challenges and opportunities across Africa. This brief examines the current landscape of climate entrepreneurship in Africa, analyzing key trends in climate finance flows, identifying sectoral opportunities, and providing policy recommendations for strengthening climate innovation ecosystems. Drawing from recent data and market analysis, it offers insights into how entrepreneurs, policymakers, and financial institutions can collaborate to address the continent's climate challenges while capturing emerging market opportunities.

While Africa receives only 3.3% of global climate finance flows (CPI, 2024), the continent stands at a critical crossroads requiring transformative action. The scale of opportunity is remarkable - according to the International Finance Corporation (2016), climate investment opportunities in developing economies could reach USD $23 trillion by 2030, with the World Bank's InfoDev (2014) identifying a specific USD $1.6 trillion opportunity for SMEs in the climate sector.

However, the current financing gap is stark. Climate finance in Africa must quadruple annually until 2030 to meet investment needs for implementing countries' Nationally Determined Contributions (NDCs). Current flows of USD 43.7 billion in 2021/22 represent only 23% of the estimated annual finance required for Africa to implement NDCs and meet 2030 climate goals (CPI, 2024). This financing shortfall occurs against a backdrop of mounting climate vulnerabilities - without immediate action, Africa's future costs related to climate change could reach up to 20% of the continent's GDP by 2050 and range from 64% to 80% by 2100 (CPI, 2024).

The African context presents unique opportunities for "leapfrogging" - the ability to skip less efficient, more polluting stages of development and move directly to clean technologies. This is particularly evident in sectors like energy, where distributed renewable solutions can provide access to clean power without traditional grid infrastructure. However, mobilizing adequate finance remains a critical challenge. International sources provided 87% of Africa's tracked climate finance in 2021/22, highlighting the urgent need to catalyze domestic resource mobilization (CPI, 2024).



Current State of Climate Entrepreneurship and Finance in Africa

Africa's climate finance landscape shows some positive trends but requires significant scaling. Private climate finance almost doubled between 2019/20 and 2021/22, reaching USD 8 billion. However, this represents just 18% of Africa's total climate flows, a far lower share than any other global region (CPI, 2024).

The sectoral distribution of finance reveals both opportunities and gaps:

Energy Systems: Received USD 13.7 billion (31% of total flows) in 2021/22, with renewable energy presenting significant entrepreneurial opportunities. However, Africa accounts for only 1% of installed solar PV capacity despite possessing 60% of the world's best solar resources (CPI, 2024).

Agriculture and Food Systems: Attracted USD 7 billion (16% of flows), reflecting the sector's critical importance for both mitigation and adaptation. AFOLU finance has grown by 51% since 2019/20, though this remains insufficient to meet sectoral needs.

Water and Ecosystems: Received USD 3.2 billion (7% of flows) in 2021/22, despite water security being a critical climate vulnerability. The sector presents compelling opportunities for entrepreneurs in water monitoring technologies and ecosystem restoration.

Ecosystem Development and Financial Innovation

A critical gap exists in domestic capital mobilization. While Africa has approximately USD 2.4 trillion in bank, insurance, and pension assets under management domestically, only 10% of tracked climate finance (USD 4.2 billion) comes from domestic sources (CPI, 2024). This represents a significant untapped opportunity to strengthen domestic financial markets and reduce exposure to exchange rate risks and external debt distress.

The venture capital landscape is evolving positively - climate tech startups received about a third of startup funding in Africa in 2023, raising USD 1.04 billion, marking a threefold increase from 2019 (Catalyst Fund, 2024). However, the average climate project size in Africa remains less than USD 2 million, lower than other regions with high concentrations of emerging markets (CPI, 2024).

Financial Innovation and Access

Access to appropriate financing remains a critical challenge. Current financing instruments show concerning trends:

1. Debt Dominance: 51% of climate finance comes as debt—split equally between low-cost and market-rate debt—despite high debt vulnerability in many African countries. This proportion of loans is more than double that of other regions like East Asia and Pacific (18%) or Latin America and Caribbean (20%) (CPI, 2024).

2. Grant Funding: While grants increased by 59% between 2019/20 and 2021/22 to reach USD 14 billion, their distribution remains uneven. Least Developed Countries (LDCs) receive 50% of their investments as grants, while other developing countries receive only 11% (CPI, 2024).

3. Private Sector Engagement: Private finance mobilized by bilateral and multilateral funders decreased between 2019/20 and 2021/22, despite increasing in other regions, highlighting the need for better private sector engagement mechanisms (CPI, 2024).

Emerging Financial Instruments

New financing mechanisms show promise:

1. Carbon Markets: Africa saw an 11% increase in demand for its carbon credits in 2023, with the global value share of African projects rising from 10% in 2021 to 26% in 2023 (CPI, 2024). However, stagnant carbon credit prices and lack of transparency by intermediaries hinder market effectiveness.

2. Guarantees: With only four African countries rated as investment grade, improving risk profiles through guarantees can have a catalytic effect. However, of 67 analyzed guarantee mechanisms, only six were climate-exclusive, highlighting a gap for more tailored climate products (CPI, 2024).

Sectoral Analysis and Opportunities

Agriculture and Food Systems: The agricultural sector represents a critical frontier for climate entrepreneurship in Africa. The World Bank notes that agriculture accounts for 25 percent of GDP in some developing countries while contributing 19-29 percent

This presents a dual opportunity for entrepreneurs: addressing food security while mitigating climate impacts.

The landscape of climate entrepreneurship in Africa is marked by innovative ventures addressing critical environmental challenges while creating sustainable business opportunities. Here are some notable examples across key sectors:

- Twiga Foods (Kenya): A B2B food distribution platform that reduces post-harvest losses and improves food security. The company uses mobile technology to connect farmers directly with vendors, reducing food waste by up to 50% in their supply chain.
- Hello Tractor (Nigeria/Kenya): Often called the "Uber for tractors," this platform enables smallholder farmers to access tractor services on demand, improving agricultural efficiency while reducing emissions from inefficient farming practices.
- Releaf (Nigeria): Focuses on industrializing food processing in Africa, starting with oil palm. Their technology reduces post-harvest losses and increases farmer income while promoting sustainable agricultural practices.

Water and Ecosystem Services:
Innovation in water management and ecosystem services is growing:

• Sanergy (Kenya): Combines safe sanitation with waste-to-value processing, converting organic waste into agricultural inputs. They process over 12,000 tons of waste annually, creating a circular economy solution.
• Water Access Rwanda: Provides affordable safe water through innovative business models and technology. They've developed a smart water management system that reduces water losses and improves distribution efficiency.
• The Great Green Wall Accelerator: While not a single enterprise, this initiative has spawned numerous local businesses focused on ecosystem restoration across the Sahel region, creating opportunities in sustainable forestry and carbon sequestration.

Ecosystem Development and Financial Innovation:
The development of support ecosystems remains crucial for climate entrepreneurship success. Success stories include:

• Kenya Climate Innovation Center: Has supported over 300 clean technology enterprises, creating 6,000 jobs and reducing 150,000 tons of CO2 emissions annually.

• Impact Hub Accra (Ghana): Runs climate-focused acceleration programs that have supported dozens of early-stage climate enterprises.

• GreenCape (South Africa): A special purpose vehicle that supports the development of green economy businesses, having facilitated over $500 million in green economy investment.

Recommendations for Advancing Climate Entrepreneurship in Africa

For Entrepreneurs:

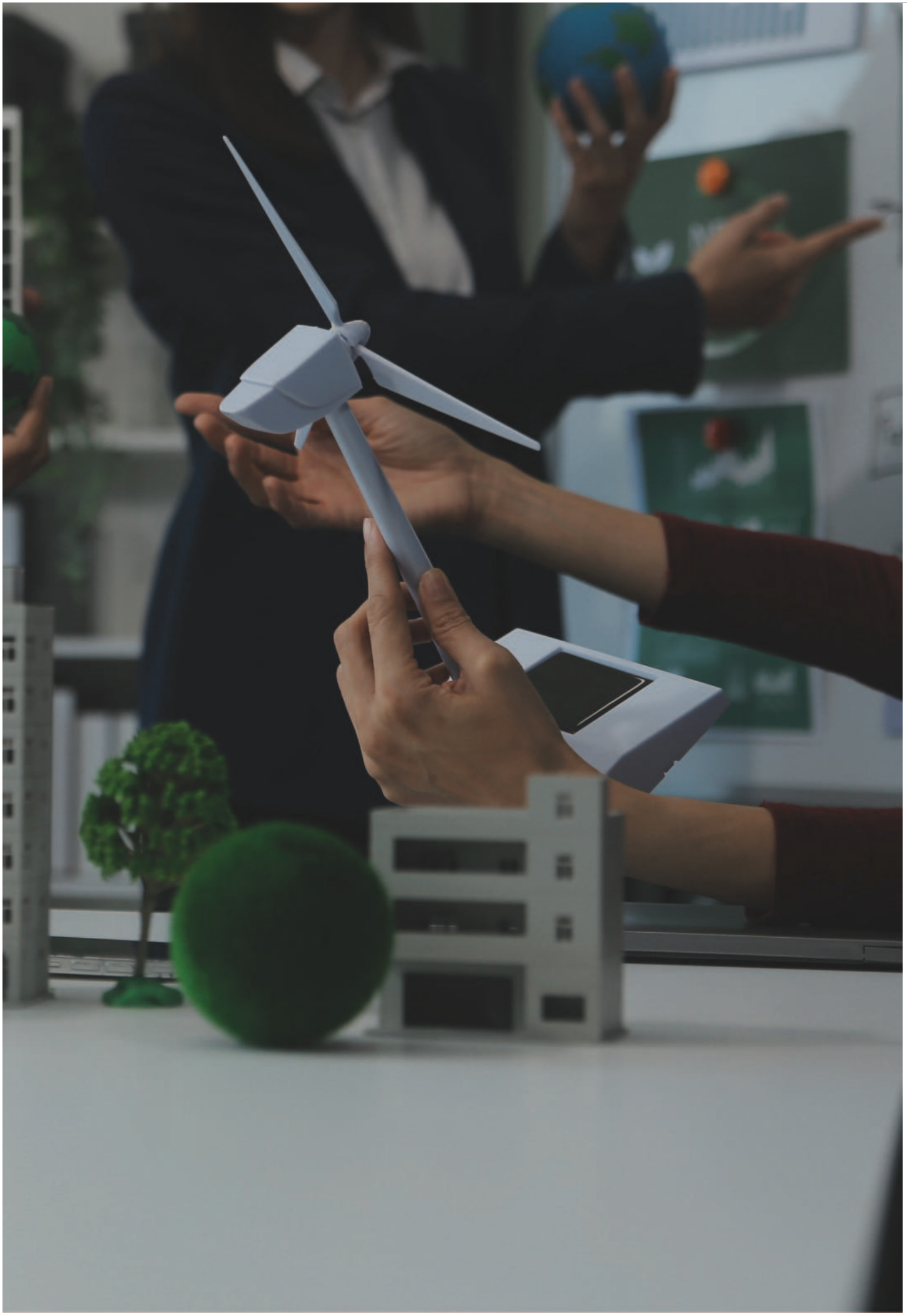
Focus on High-Impact Sectors: Entrepreneurs should prioritize opportunities in sectors with the highest climate impact potential. Energy systems received the largest flows at USD 13.7 billion (31% of total), followed by AFOLU at USD 7 billion (16%), and water and wastewater at USD 3.2 billion (7%) in 2021/22 (CPI, 2024). Within these sectors, entrepreneurs should focus on developing solutions that address both mitigation and adaptation needs. For example, in the energy sector, opportunities exist in both utility-scale renewables and distributed solutions, with off-grid solar already representing a USD 1.75 billion annual market serving 420 million users globally (CPI, 2024).

Build Partnerships with Financial Institutions: Entrepreneurs must actively develop relationships with financial institutions to access appropriate funding. This is particularly important given that private climate finance almost doubled between 2019/20 and 2021/22, reaching USD 8.0 billion, but remains concentrated among a few players (CPI, 2024). Entrepreneurs should focus on building track records, developing viable business models, and presenting clear impact metrics that align with financiers' requirements. They should also explore partnerships with multiple types of funders, including commercial banks, impact investors, and climate funds.

A notable example of successful institutional engagement with financial institutions in Africa is the African Climate Foundation (ACF). As a climate-focused organization, ACF has actively partnered with financial institutions to advance funding for sustainable development projects across the continent.

Through its collaborations, ACF has successfully mobilized financial resources to support renewable energy projects, climate adaptation strategies, and capacity-building initiatives. By fostering strong relationships with banks, venture capital firms, and development finance institutions, ACF has not only unlocked funding opportunities but also demonstrated the importance of aligning financial priorities with climate action goals. This serves as a blueprint for other African institutions seeking to strengthen their partnerships with financial entities and amplify their impact in addressing pressing developmental and environmental challenges.

Develop Bankable Projects Aligned with Climate Goals: Entrepreneurs must focus on developing projects that meet strict bankability criteria while delivering clear climate benefits. This is particularly crucial given that public finance providers still dominate climate funding, contributing 82% of total flows (CPI, 2024). Projects should demonstrate clear revenue models, risk mitigation strategies, and measurable climate impacts. In the renewable energy sector, for example, entrepreneurs should develop projects that take advantage of pay-as-you-go models, which have revolutionized energy access by utilizing mobile payment systems and making clean energy accessible to previously underserved communities (CPI, 2024). The uptake of off-grid solar solutions demonstrates the potential for such business models, though recent cost challenges due to exchange rates highlight the need for robust financial planning.



Policy Framework and Implementation Priorities

Articulate Costed, Investment-Ready Climate Action Plans: Governments must develop comprehensive climate action plans that clearly outline investment needs and opportunities. Currently, Africa's climate finance needs are estimated at just under USD 2 trillion until 2030 (approximately USD 190 billion per year), yet only 23% of this requirement is being met (CPI, 2024). Plans should include detailed sector-specific targets, implementation timelines, and clear frameworks for private sector participation. These plans must also address both adaptation and mitigation needs, noting that adaptation currently receives only 32% of total climate finance despite the continent's high vulnerability (CPI, 2024).

Strengthen Finance Ministries' Role in Climate Action: Finance ministries must take a leading role in mainstreaming climate considerations into national fiscal policy and budget allocation. Currently, only nine African countries have established climate budget tagging systems, with another eight in development (CPI, 2024). Ministries should develop frameworks for assessing climate-related fiscal risks, implement green budgeting practices, and create incentives for climate-aligned investments. They should also work to redirect climate-harmful subsidies, noting that investments in fossil fuel supply and power are currently 1.6 times higher than climate finance flows (CPI, 2024).

Reconfigure Fiscal Policies to Favour Climate-Positive Outcomes: Governments must reform fiscal policies to incentivize climate-aligned investments while discouraging harmful activities. This includes implementing carbon pricing mechanisms, providing tax incentives for clean energy investments, and reforming fossil fuel subsidies, which currently amount to USD 182 billion across Africa (CPI, 2024). Fiscal policies should also support the development of domestic green finance markets, noting that only four African countries have developed green taxonomies to guide sustainable investment (CPI, 2024).

Enhance Institutional Infrastructure for Climate Finance: Countries must develop robust institutional frameworks for managing climate finance flows. This includes establishing national climate funds, developing green bond markets, and creating dedicated units for climate finance coordination. The institutional framework should facilitate both international and domestic resource mobilization, noting that African countries have approximately USD 2.4 trillion in domestic assets under management that could be better leveraged for climate investment (CPI, 2024).

Leverage the African Continental Free Trade Area (AfCFTA): The AfCFTA presents a significant opportunity to coordinate climate finance efforts across the continent. Currently, 51% of South-South financial flows are intra-continental, with growing investments from countries like Nigeria (USD 0.3 billion), South Africa (USD 0.3 billion), and Egypt (USD 0.2 billion) (CPI, 2024). Regional coordination should focus on developing harmonized standards for climate investment, creating cross-border carbon markets, and facilitating technology transfer.

Way Forward

The success stories of climate enterprises across Africa provide a clear roadmap for strengthening the ecosystem. M-KOPA and PEG Africa's achievements in democratizing clean energy access through innovative pay-as-you-go models demonstrate how financial innovation can overcome traditional market barriers. Their success in connecting over 1.5 million combined households to solar power shows that when entrepreneurs combine technological innovation with appropriate financing mechanisms, they can achieve both scale and impact. These models can be adapted beyond energy to other sectors, as demonstrated by Hello Tractor's similar pay-as-you-go approach to agricultural equipment access.

The agricultural sector's transformation through digital innovation, as shown by Twiga Foods' success in reducing post-harvest losses by 50%, illustrates the potential for technology to address both climate and economic challenges simultaneously. Their B2B platform's success in improving food security while reducing waste provides a template for other entrepreneurs looking to create climate-positive business models. Similarly, Releaf's work in industrializing sustainable food processing demonstrates how focusing on specific value chains can create deep impact.

Support ecosystem development remains crucial, as evidenced by the Kenya Climate Innovation Center's success in nurturing over 300 clean technology enterprises. Their approach of combining technical assistance with business development support has created thousands of jobs while achieving significant emissions reductions. The GreenCape model in South Africa further shows how dedicated support organizations can catalyze substantial investment in the green economy.
The water and sanitation sector, exemplified by Sanergy's circular economy approach and Water Access Rwanda's smart water management systems, demonstrates the potential for innovative business models to address critical climate challenges while creating sustainable revenue streams. Their success in processing thousands of tons of waste and improving water distribution efficiency provides valuable lessons for entrepreneurs entering the sector.

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