Climate-KIC

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Nairobi Climate Network.

Unlocking Climate Innovation in East Africa

Exploring Stakeholder Dynamics and Ecosystem Needs

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Authors

This report was developed by Briter Bridges and the Nairobi Climate Network with funding and support from EIT Climate-KIC and Salesforce. The co-authors for the report are Thuli Montana (Briter Bridges), Clara Onkware (Briter Bridges) and Lisa With (Briter Bridges), Abidah Ferej (Nairobi Climate Network) and Joanna Sabat (EIT Climate-KIC).

Briter Bridges, is a fast-growing market intelligence and research firm focused on emerging economies. Briter has built the largest collection of visual publications on Africa and underserved markets and regularly provides data and insights to corporates, development finance institutions, governments, and investors.

Nairobi Climate Network, (NCN) is a thriving and interconnected community of climate professionals dedicated to advancing climate action in Kenya. The NCN serves as the collective voice of the industry, empowering members to accelerate Kenya's journey towards climate-positive growth.

EIT Climate-KIC is Europe's leading climate innovation agency and community, using a systems approach to shape innovation to support cities, regions, countries and industries meet their climate ambitions.

Together with partners across the globe, EIT Climate-KIC acts to bridge the gap between climate commitments and current climate realities by enabling decision-makers and investors to act. EIT Climate-KIC implements solutions in integrated ways and mobilises finance to build skills, accelerate learning and explore innovation, opening pathways to shift mindsets and behaviours. Through radical collaboration, EIT Climate-KIC orchestrates large-scale demonstrations that show what is possible when cycles of innovation and learning are deliberately designed to trigger exponential decarbonisation and build resilient communities.

EIT Climate-KIC is currently advancing its portfolio of work in the field of climate entrepreneurship in partnership with Salesforce. Within the project collaboration with Salesforce, EIT Climate-KIC aims to help Entrepreneur Support Organisations (ESOs) to better identify and support more inclusive and diverse cohorts of climate entrepreneurs and early-stage businesses around the world.

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Glossary

Apex Bodies: Entities formed to coordinate and support industry specific stakeholders. Apex bodies in the climate innovation ecosystem play a key role in guiding global, regional and local efforts to mitigate and adapt to climate change. These bodies create platforms for cross-collaboration, networking and partnership formation to support climate ecosystems.

Climate Adaptation: Climate change adaptation refers to measures undertaken to adjust to and reduce vulnerability to climate impacts.

Climate Ecosystem: The climate ecosystem encompasses the network and interactions among stakeholders and their environment. These stakeholders include businesses, investors, governments, NGOs, research institutions, and communities, that are involved in addressing the impacts of climate change.

Climate Entrepreneurship: Climate entrepreneurship involves the creation and scaling of businesses or ventures that offer innovative solutions to combat climate change and promote environmental sustainability. Climate entrepreneurship is characterised by its dual focus on achieving both economic viability and positive environmental impact, often addressing critical gaps in the market with products and services designed to mitigate or adapt to the effects of climate change.

Climate Innovation: Climate innovation refers to the development and implementation of new technologies, strategies, and practices aimed at addressing the challenges of climate change. The goal of climate innovation is to reduce greenhouse gas emissions, enhance adaptation and resilience, and promote sustainable development.

Climate Leader: A climate leader is an individual, organisation, or government that takes proactive and influential action in addressing climate change. Climate leaders set ambitious goals for reducing carbon emissions, they advocate for climate policies, and drive climate-related innovations. They are often recognised for their commitment to sustainability and their role in advancing global climate action.

Climate Network: A climate network is a collaborative system comprising various stakeholders, including governments, private companies, non-governmental organisations (NGOs), research institutions, and community groups, who work together to address climate-related challenges. These networks which form a climate ecosystem, facilitate the exchange of knowledge, resources, and best practices, and are instrumental in driving the development and implementation of climate solutions.

Climate Tech: Climate-tech refers to technology-driven innovations that contribute to the reduction of emissions and increased climate resilience. This cuts across a range of sectors, including waste management, recycling and smart living, access to energy, and agriculture.

Entrepreneur Support Organisation (ESO): Entrepreneur Support Organisations are entities or initiatives such as incubators, accelerators, hubs and co-working spaces providing advisory services, resources, mentorship and other business development support needs to help entrepreneurs and start-ups grow and scale their business.

Climate mitigation: Climate mitigation refers to efforts to address climate change by reducing greenhouse gas emissions.

Stakeholder nodes: Stakeholder nodes are the linkages and connectors between different stakeholders within a network of ecosystems. They act as central points of connection and help in understanding the degrees of interactions and interdependencies among various stakeholders.

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Executive Summary

Background

East Africa is emerging as a vibrant hub for climate innovation, with a growing number of innovators and stakeholders developing solutions to address the region's pressing climate challenges. The region's unique combination of urgent climate needs, a burgeoning tech ecosystem, and an increasing focus on sustainability has attracted significant attention from investors looking to support the advancement of climate action.

Within the East Africa climate ecosystem, stakeholder networks and relationships are crucial for ensuring the successful implementation of climate action policy and innovative solutions. Effective collaboration across the diverse stakeholders shaping the East Africa climate ecosystem, is key to fostering a more integrated and impactful approach for tackling climate challenges. Several factors influence how these stakeholders interact and collaborate within the climate ecosystem. These include the availability of funding, policy frameworks, technological infrastructure, and the strength of local entrepreneurial support systems.

This study examines the dynamics of climate innovation in East Africa, with a focus on the interactions, relationships and networks among key climate stakeholders. Qualitative and quantitative data collection was used to identify the enablers, barriers, and support needs critical to fostering a mature and integrated climate innovation ecosystem in the region. The insights provided in this report are aimed at informing stakeholders on the varying factors shaping interactions among key players in the ecosystem. Greater awareness of these dynamics can help reduce fragmentation in adaptation and mitigation efforts, while also enhancing the scalability of climate solutions to drive increased impact and inclusivity in East Africa's climate ecosystem.

Key Findings

The climate innovation ecosystem in East Africa is growing, marked by increasing investor interest and heightened engagement from a wide range of stakeholders. Since 2015, funding to East African climate start-ups has grown steadily, totaling $2.5 billion across 165 companies and 365 deals. This growth has been driven by a strong focus on renewables and clean energy, which dominate the landscape, attracting nearly $2 billion in investment. The increase in funding in the region has been matched by a corresponding growth in climate and sustainability innovators and stakeholders, particularly in the energy and agriculture sectors.

Kenya is drawing the majority of investments and serving as the central hub for climate-focused start-ups, initiatives and stakeholder networks. Despite neighbouring countries seeing growth in their climate innovation efforts, Kenya's well-established infrastructure, favourable policies, and strong networks provides a distinct advantage, making it the primary destination for both local and international investors interested in climate

innovation. However, this concentration risks further centralising networks and initiatives, which could hinder investment and growth across the region. This trend highlights the need to understand the distribution of resources and opportunities, and how these can be harnessed to enable a more integrated climate ecosystem in the region.

The strongest climate innovation stakeholder nodes identified within the East Africa climate ecosystem are among climate innovators, investors and ESOs. When centering climate innovators, the prominent interactions among investors and ESOs are driven by access to funding and support interventions essential for the innovators to grow their businesses. While these nodes have strong interdependencies, the research findings also show that geographical and demographic still pose challenges for how local innovators in East Africa gain access to investors and ESOs. Understanding the dynamics of the lesser-engaged stakeholders is also crucial for bridging integration gaps.

Enablers for a more integrated climate innovation ecosystem in East Africa include supportive regulatory environments, robust technological infrastructure, capacity building, access to social media, inclusive ecosystem convenings, established aggregator networks, and the availability of early-stage capital. Regional climate innovation hubs, such as Nairobi and Kigali, have cultivated ecosystems that nurture start-ups and provide platforms for innovators to connect with investors, mentors, and peers. While all stakeholders play a key role in elevating the enablers, this study also points to the key role that apex bodies play in ensuring that stakeholders are informed and aware of drivers and barriers in the East Africa ecosystem.

Barriers in the East Africa climate ecosystem include underdeveloped government policies and regulations, limited cross-border collaboration and localised implementation, the rural-urban divide, language barriers, inadequate access to training opportunities to develop technical expertise, and poor access to early-stage investment. With the climate innovation landscape being nascent in East Africa, these barriers hinder the growth and scalability of climate solutions, limiting the progress needed to address climate challenges. While some barriers are structural and rooted in governance and infrastructure issues, other barriers can be mitigated and addressed through targeted support interventions.

To overcome the above-mentioned barriers, the support interventions highlighted in this report include engaging with apex bodies and ESOs to scale the support they provide to climate innovators, distributing resources to underrepresented countries and founders, increasing access to funding, facilitating knowledge transfer opportunities, and recognising climate leaders who are driving innovation and inclusivity in the region. These findings emphasise the importance of understanding the dynamics that shape stakeholder network nodes, the ecosystem enablers, barriers, and needs required to scale climate innovations and promote inclusivity within the East Africa climate innovation ecosystem.

1 | Introduction

Climate change poses significant challenges for East Africa, a region already grappling with diverse environmental and socio-economic issues. It is projected that East Africa will continue to experience variations in rainfall and increasing temperatures leading to flood and drought events.[1] With agriculture being the cornerstone of the region's socio-economic development, employing 60-80% of the population and significantly contributing to GDP, climate extremes make the region particularly vulnerable to food insecurity and poverty. As these challenges intensify, building climate resilience and promoting sustainable practices across sectors and stakeholders is critical to safeguarding livelihoods and ensuring long-term development in the region.

Climate leaders and innovators are at the forefront of addressing these challenges. These leaders, encompassing policymakers, activists, scientists, investors, founders and community organisations - the individuals behind climate action, play a vital role in advocating for and implementing measures to reduce the impacts of climate threats in the region. Their proactive engagement in driving policy reforms and developing innovative solutions is essential to fostering resilience, promoting sustainable development, and ensuring that climate action efforts are inclusive and far-reaching.

Among climate leaders and innovators, specific network groups are formed by their product and service offerings, co-dependencies, as well as broader organisational mandates aligned with their climate objectives. Research shows that effective stakeholder engagement and networks can drive transformational change accelerating the transition to low-carbon economies and fostering climate-resilient communities.[2] Climate ecosystems characterised by mature and integrated stakeholder networks tend to develop progressive climate investment plans that align with national priorities, they implement effective support interventions for ecosystem players, and promote transparency and inclusivity. By leveraging the strengths of diverse stakeholders, these ecosystems are more likely to achieve significant progress in their climate innovation efforts. On the contrary, many ecosystems, particularly across Africa, face challenges such as limited access to funding, fragmented networks, and a lack of coordinated policies, which hinder their ability to drive meaningful change.

This report serves as an extension of the 2022, Adapt, Mitigate and Grow Africa Climate Tech Report developed by Briter Bridges and EIT Climate-KIC. The aim of this report is to provide findings on the state of the ecosystem and dig deeper into the connections and networks within the climate innovation ecosystem in East Africa, by understanding network dynamics including individual relationships, ecosystem enablers, barriers, and support needs to contribute towards building a robust and resilient ecosystem in East Africa. Understanding the

[1] Climate Risk Profile East Africa, 2024
[2] Climate Investment Fund, Country Level, Stakeholder Engagement Study, 2020

interplay among entrepreneurs, investors, policymakers, and support organisations is crucial for enhancing collaboration, optimising resource allocation, and accelerating the development and deployment of climate technologies.

2 | Methodology

To better understand the stakeholder dynamics and support needs of climate stakeholders in East Africa, this project was designed to align with the broader strategic pillars of EIT Climate-KIC. These pillars focus on building the capacity of Entrepreneurship Support Organisations (ESOs).

Pillar 1 centres on enhancing EIT Climate-KIC's enabling platform for ESOs, aiming to provide more impactful and cost-effective support services to a growing number of ESOs globally, with a particular emphasis on Latin America and Africa.

Pillar 2 focuses on identifying and supporting a select group of women-led ESOs across Latin America and Africa (from existing EIT Climate-KIC programmes) to develop inclusive and equitable approaches to entrepreneurship. This pillar empowers individuals of all genders to create climate-positive, early-stage business solutions. Through this targeted support, ESOs will be better equipped to design and deliver more inclusive and equitable programmes.

In light of the above pillars, this report analyses the dynamics among climate innovators, ESOs, investors, and related stakeholders to assess the current landscape of climate innovation in East Africa. It examines the key challenges, opportunities, and support interventions needed to drive sustainable growth, promote inclusivity, and foster stronger collaboration within the ecosystem.

Data collection

Both qualitative and quantitative data were collected for this study. The quantitative data was gathered through Briter Intelligence and includes a wide range of data on innovation and investment across Africa. For the quantitative data, 5 countries in East Africa which have the most extensive data on climate innovation and investment trends, these are Kenya, Tanzania, Ethiopia, Uganda and Rwanda (see Annex 2 for details) were analysed. The focus on these 5 countries is based on the higher concentration of stakeholders, innovations and collaborative networks compared to the other countries in the region[3]. These 5 countries' climate spaces are relatively more developed with stronger ecosystems. In contrast, the other East African countries exhibit fragmented and less developed climate ecosystems. The qualitative data was collected through 15 Key

[3] The East African region covers 13 countries namely Burundi, Comoros, Djibouti, Ethiopia, Eritrea, Kenya, Rwanda, Seychelles, Somalia, South Sudan, Sudan, Tanzania, and Uganda.

Informant Interviews (KIIs) with stakeholders working in the climate and sustainability space. In addition to the KIIs, a focus group was held with Climate-KIC-Hive members to gather insights on the state of networks and barriers to connections.

Network analysis

To analyse the connections within the East Africa climate innovation ecosystem, we employed a network analysis approach. Network analysis is a method used to investigate and visualise the relationships and connections between various entities, often referred to as nodes. These nodes are influenced by working relationships, regulatory dynamics, funding structures and other codependencies essential for achieving organisational goals. Network analysis is useful for understanding the individuals and organisations shaping ecosystems, as well as seeing which stakeholders are missing or excluded within an ecosystem.

For this project, the KIIs were used as a basis to analyse the high, moderate, and low network relations nodes among key stakeholders in the East Africa climate innovation ecosystem. The network nodes identified were further validated through consultation with the Nairobi Climate Network (NCN) based on observed collaborations, partnerships, and broader stakeholder engagement trends among their network members. This methodology leverages the shared insights to offer valuable qualitative inputs for assessing the nodes and relationships within the East Africa ecosystem and drawing key recommendations for climate leaders in the region to enhance their climate action efforts.

3 | Data Trends: East Africa Climate Innovation

The climate tech sector in East Africa has grown from its nascent stages since the middle of the last decade, marked by a notable rise in the number of startups, investors, and entrepreneurial support organisations. The increase in active stakeholders is largely connected to the growing investment landscape and focus on solutions and innovations that foster sustainability over profit alone. According to Briter Intelligence, funding to East African start-ups has been growing steadily in both volume and the number of deals since 2015, totalling USD 2.5 billion across 165 companies and 365 deals by the end of H1 2024 (see Figure 1). This represents a 35.6% share of the total funding into all East African start-ups in the same period. The dips in funding in 2018 and 2021 are attributed to global economic instability with many donors not deploying funding. The 2021 decrease in funding is particularly attributed to the COVID-19 pandemic resulting in a reduced fiscal space for many governments and organisations, impacting their ability to fulfil climate finance pledges. The funding dynamics over the past two years have also been influenced by a global funding slowdown, with the venture capital space across the continent taking a conscious approach to investments.

3.1. Aggregate Overview

406 African climate tech companies raised funding across **742** deals

165 East African climate tech companies raised funding, across **365+** deals

$4.1b Raised by African climate tech companies, **18%** of the total funding into the continent in the same period

$2.5b Raised by East African climate tech companies , **35.6%** of the funding into all East African startups in the same period

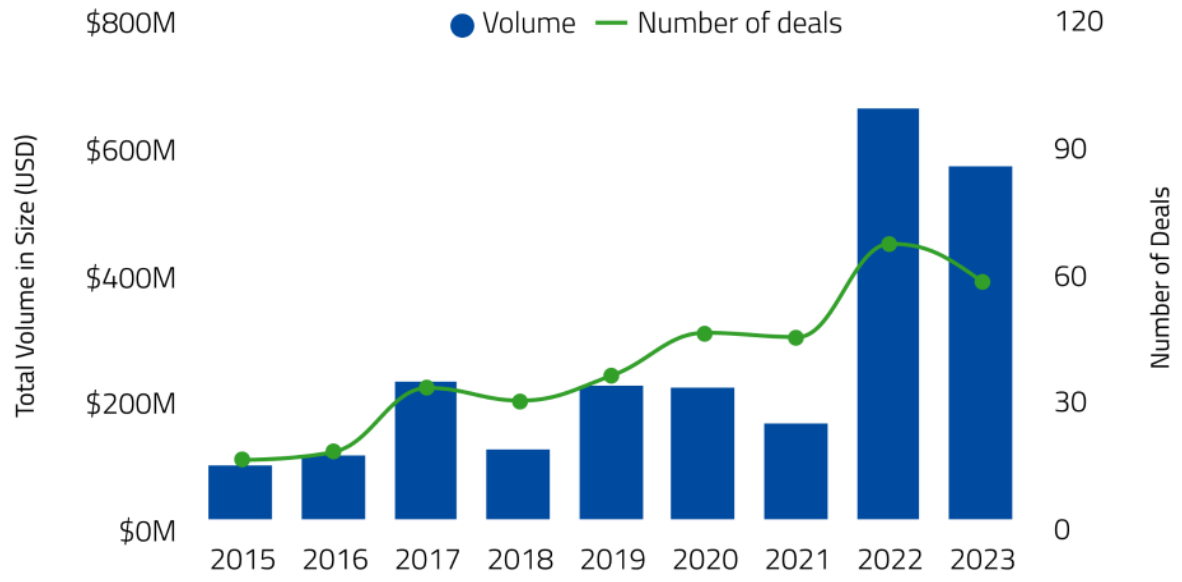

Figure 1: Funding into climate techs in East Africa by volume of funding and no. of deals

Funding into East Africa's climate innovation ecosystem peaked in 2022 at $645 million across 93+ deals, including significant investments into solar energy companies such as Sun King, d.Light and Bboxx. Funding volumes remained steady in 2023, however, our analysis reveals a substantial decline of approximately 65% in investment volume during the first half of 2024 compared to the same period in the previous year. Despite this drop in total funding volume, the number of deals has remained steady.

The funding peaks in East Africa's climate tech ecosystem not only reflect the sector's robust growth, but also highlight the expanding number of players driving solutions and climate resilience initiatives. While investors

directly influence the ecosystem's financial and operational growth, policy actors, NGOs, researchers, and ESOs are crucial in shaping its development. These entities create the regulatory and social frameworks that enable innovation, provide essential resources and knowledge, and ensure that growth is both inclusive and sustainable, while also influencing the trajectory of specific climate tech products and services.

3.2. Climate Tech Product Breakdown

Annex 1 shows the climate tech and innovation taxonomy developed for this study, including key categories and products in the ecosystem. A breakdown of products within the climate tech space in East Africa reveals a strong focus on renewables and clean energy, which dominate with nearly $2 billion in investment, significantly surpassing funding to all other products. Renewables also lead in terms of the number of deals, although not in the deal volume. The average ticket size for renewables is also significantly higher compared to the other sectors showing larger investments per transaction. The renewables ecosystem consists of products such as solar and wind, which are generally more capital intensive and address the energy needs of the region. The start-ups in this sector are generally also more mature and attract both local and international investment.

While clean energy leads in the climate tech funding landscape in East Africa, the remaining 22.3% of the investments are spread across a diverse range of products such as aquaculture (e.g., Tanzania's Wezesha Aqua Farms and Kenya's Victory Farms) and biodigesters (e.g., Kenyan Sistema.Bio) and electric vehicles (e.g., Rwanda's Ampersand and Uganda's Zembo). Products focused on carbon markets (e.g., Kenya's Bevis Africa) are also seen to emerge, in line with global trends and growing focus on carbon reduction strategies. These varied products signal the overall ecosystem development and broadening of climate solutions in East Africa.

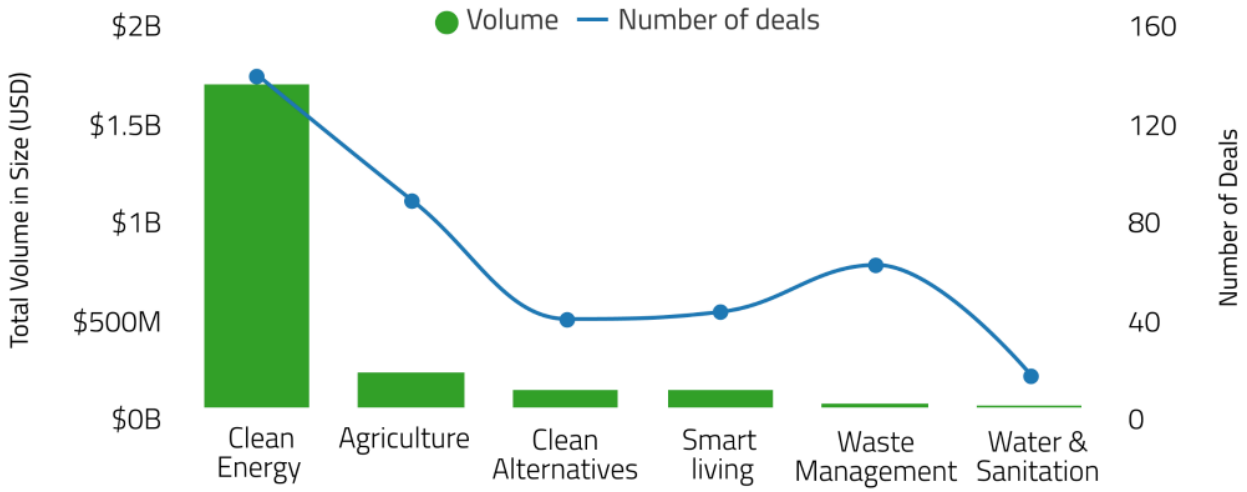

Figure 2: Product breakdown by deal count for climate tech in East Africa

The data analysed for this study suggests that advancements in clean energy solutions and agriculture have been accompanied by a rise in stakeholders and networks working on these products. However, emerging climate solutions in areas like carbon markets, despite growing interest, still have relatively few experts and active players within the region. This indicates a need for increased investment and capacity-building to broaden the ecosystem's reach across the broad range of climate tech products.

3.3. Geographical Breakdown

While there has been overall growth in the funding ecosystem in some East African countries, substantial disparities still exist with Kenya dominating the landscape. Kenya has attracted more than $2 billion in climate investment, accounting for 92% of climate investment into the sub-region. Kenya is home to some of the biggest climate start-ups in the region like Sun King,M-Kopa and d.Light which have received a large portion of the funding. Additionally, Kenya boasts the highest number of hubs, accelerator and incubator programmes which encourage climate entrepreneurship and add to progress in the success of these companies. However, the majority of these support entities are concentrated in urban centres such as Nairobi and Kigali. Data from Briter Intelligence indicates that many company use cases, such as off-grid energy supply, are primarily focused on servicing rural areas. This suggests a potential disconnect between where funds are raised, where operations are based and where the actual impact is being realised.

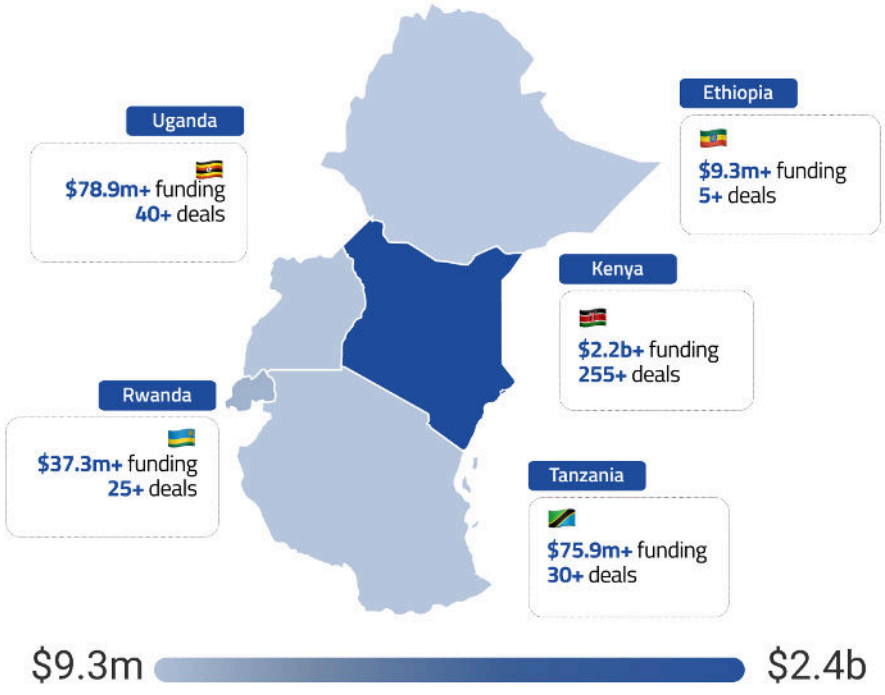

Figure 3: Climate innovation funding and deal share across 5 East African countries

Figure 3 illustrates the geographical distribution of the climate tech ecosystem in East Africa, highlighting selected top-funded companies in the 5 analysed countries. Alongside Kenya, the advancements in Uganda, Rwanda, Tanzania, and Ethiopia indicate interest and investment in these regions and concurrent growth in the ecosystem networks albeit at a different scale compared to Kenya (see Figure 8 for top funded companies and Annex 2 for details on maturity of each ecosystem). With East Africa being composed of 13 countries, the lack of data available in the other countries points to the nascent nature of the climate innovation ecosystems across East Africa and the limited support being provided to develop other parts of the region.

In addition to the disparity in funding and development within East Africa, an important feature of the region's climate ecosystem is the presence of start-ups that operate across multiple countries. Cross-border operations are a key indicator of developments in regional synergy, particularly in countries like Kenya, Rwanda, and Uganda, which are becoming testing grounds for innovations that can be scaled to other markets. For example, BasiGo (electric vehicles) operates in both Kenya and Rwanda, helping to foster sustainable mobility, while M-Kopa's solar energy products span across Kenya, Uganda, and Tanzania, showing the scalability of clean energy solutions across different countries and regulatory environments. Companies like One Acre Fund and Sistema.bio also demonstrate the regional potential in agriculture and waste management solutions, by offering products that cater to smallholder farmers across several East African countries. These start-ups are enabling climate-smart agricultural practices that improve food security and resilience.

Climate-smart agriculture has gained significant momentum in East Africa, with developments across a range of practices ranging from irrigation, soil health management, crop insurance and sustainable land use to improve agricultural productivity (see Box 1). From 2015 to the first half of 2024, the funding volume for climate smart agriculture in East Africa has reached $300m across 137 deals. This is the highest share of funding across the continent. Briter's Intelligence data shows that over the last 2 years, agtechs offering climate-smart agriculture solutions across Africa have attracted nearly 50% of total funding in the agricultural sector and deal flow to these start-ups is expected to increase. Most of the products contribute to both adaptation and mitigation by addressing the impact of climate change while also reducing emissions.

Box 1: Climate-Smart Agriculture

Climate-smart agriculture refers to agricultural practices that enhance productivity, increase resilience to climate change, and reduce greenhouse gas emissions where possible. Climate-smart agriculture aims to sustainably increase agricultural productivity and income while adapting to and mitigating the effects of climate change.

Key Practices Include:

- Conservation Agriculture: Techniques like minimum tillage, crop rotation, and maintaining soil cover to preserve soil structure, reduce erosion, and improve water retention.
- Agroforestry: Integrating trees and shrubs into crop and livestock systems, which helps to sequester carbon, improve soil health, and provide shade and windbreaks.
- Integrated Crop-Livestock Systems: Using livestock manure as fertiliser, integrating livestock grazing with crop production, and optimising land use.
- Water Management: Practices like drip irrigation, rainwater harvesting, and constructing water storage facilities to optimise water use efficiency.
- Improved Crop Varieties: Using drought-resistant, heat-tolerant, and high-yield crop varieties to ensure productivity under changing climate conditions.
- Soil Health Management: Practices like cover cropping, organic fertilisers, and crop residue management to maintain soil fertility and reduce emissions from synthetic fertilisers.

The renewable energy sector, especially solar energy, has seen the most regional integration, with companies like CrossBoundary Energy and Bboxx expanding into multiple countries. This cross-country approach amplifies the collective impact of climate solutions, driving greater investment and collaboration within the region. However, these expansions are often met with challenges such as fragmented regulatory landscapes, logistical hurdles, and differing levels of infrastructure readiness. For instance, while Azuri Technologies and d.light have been successful in scaling their solar home kits to several countries, they face unique operational challenges in each new market due to varying grid access, energy regulations, and consumer behaviour.

These cross-border operations offer a pathway to broader impact within the East Africa climate innovation ecosystem, yet challenges such as uneven funding, infrastructure gaps, and regulatory inconsistencies must be addressed. A more coordinated approach across countries is essential to unlock the full potential of climate innovations and ensure that their benefits are received equitably across the region.

3.4. Demographic Breakdown

In recent years, there has been an overall increase in female participation in East Africa's climate tech ecosystem, but it remains a male-dominated ecosystem. Female founders comprise 19.7% of the total founders

and are concentrated in agriculture and waste management. Overall, 15.4% of climate tech start-ups in East Africa are led by all-female teams, while 73.5% are male-led, and 11.1% have mixed-gender founding teams. Despite this, female-led start-ups have only raised 0.3% of total funding compared to the 98.5% raised by male-led teams (see figure 4), highlighting a considerable gender disparity. A significant gap is also evident in the total funding per start-up, as the top 20 most funded companies feature only one with a female co-founder, and the first all-female-founded company ranks as the 38th most funded.

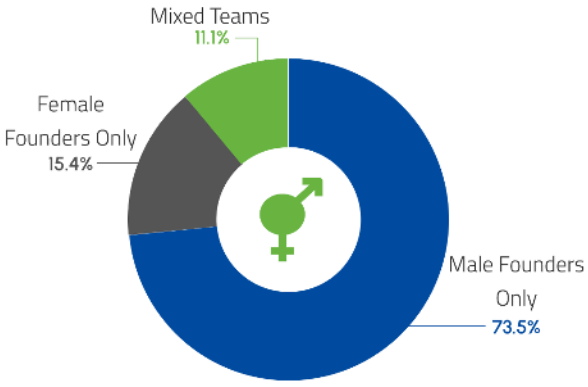

Figure 4: Demographic breakdown of climate Innovators in East Africa

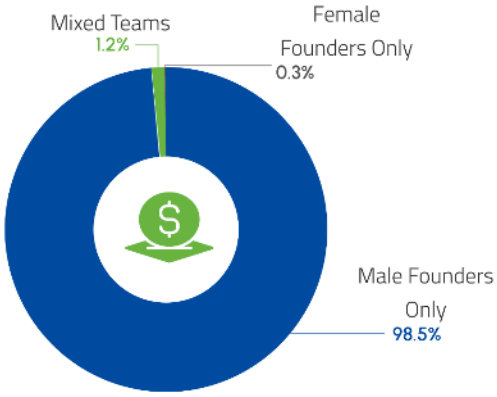

Figure 5: Funding share by demographic breakdown of climate innovators in East Africa

In terms of ethnicity, almost half (46%) of the founders are Black, followed closely by White founders at 40%. While the majority of the East African population and founders are Black, White founders dominate the higher funding brackets. For instance, among the top 15 climate tech companies by deal volume, none have any Black co-founders, and only 1 company in the top 20 includes a Black co-founder. Black founders are more prevalent in start-ups with smaller total funding volumes, showing a mismatch in the access to early-stage and growth-stage funding. Black-led companies may find it easier to secure initial funding, but face significant hurdles when scaling to growth stages. Black-led ventures have only secured 2.65% of the total funding.

Regarding educational background, around 68% of founders studied outside Africa, and a substantial portion of the funding (96%) has been directed towards companies with founders who have an international education. Only 4% of the funding has gone to those with at least one co-founder who studied locally. A large number of the founders (66%) also hold either a Bachelor's or a Master's degree, while a relatively low number of founders have Phds.

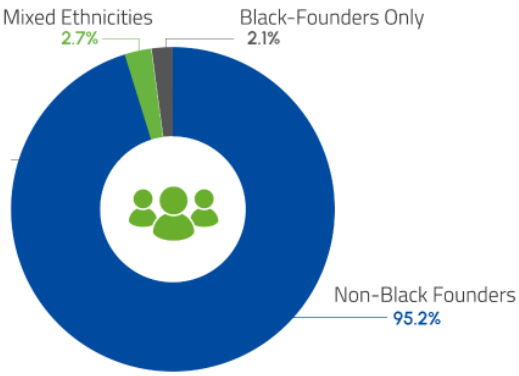

Figure 6: Funding share by ethnic breakdown of climate innovators in East Africa

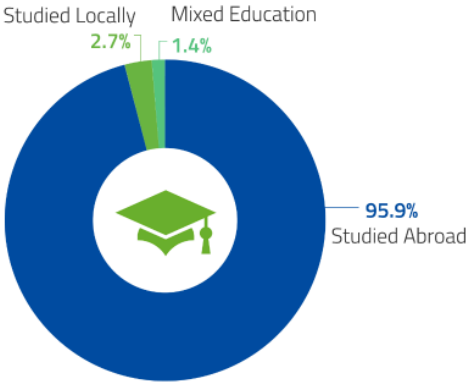

Figure 7: Funding share by educational background of climate Innovators in East Africa

The dominance of male-led and predominantly White-founded companies, coupled with a bias towards an international education, raises concerns about the diversity and inclusivity of the innovation network. International investors and donors tend to favour founders with connections to Western education and the way networks are formed can reinforce existing inequalities and limit locally-driven innovation. The investor preferences can be attributed to historical and global economic power dynamics, where access to education, resources and capital was often concentrated towards a privileged few. These dynamics make it difficult for local entrepreneurs to access opportunities and be equally integrated within star-tup ecosystems. Despite these structural impositions within Africa's broader tech and innovation landscape, DFIs, impact investors and governments are making attempts to level the playing field, by creating targeted funding opportunities for local innovators.

When networks are predominantly based on one demographic, there is a risk of creating echo chambers, reinforcing similar ideas and approaches, and limiting the scope of innovation. This exclusion of diverse perspectives may lead to a more homogeneous ecosystem, potentially stifling innovative solutions and restricting the sector's impact. While the above analysis looks at the company-level data, it is key to note that there have been advancements in breaking ethnic and gender representation among other stakeholders, such as within government and research and consultancy fields seeking increased local representation within their organisations and in their distribution of resources.

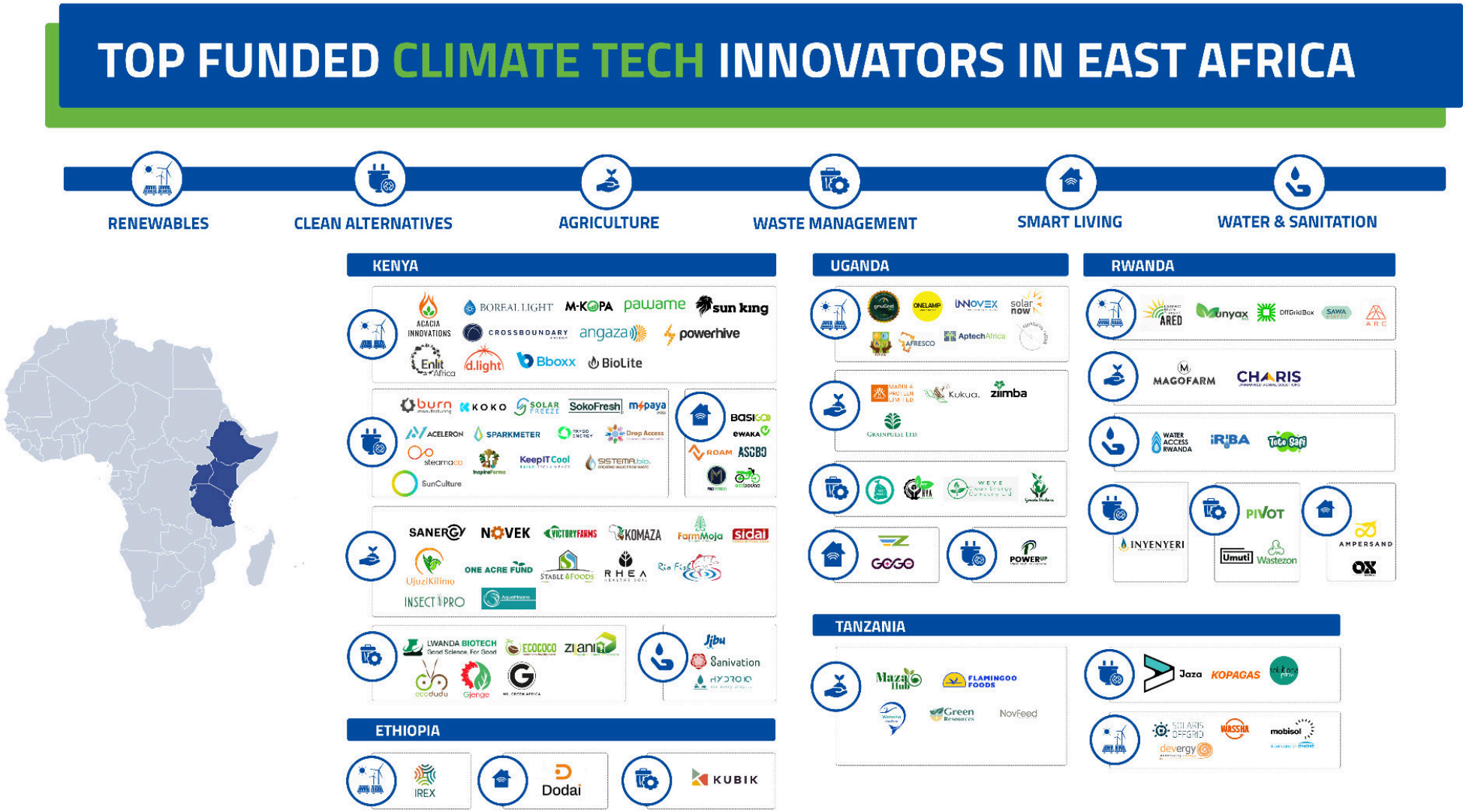

Figure 8: Top funded climate innovators

4 | Key Findings: Climate Innovation Stakeholder Insights

The findings in this report are structured to reflect the qualitative insights from the Key Informant Interviews (KIIs), alongside the data trends discussed in section 3. This section provides insights into the state of the climate ecosystem and networks in East Africa, including an analysis of country-specific trends and an overview of the network nodes among key stakeholders. Additionally, this section discusses perspectives on network enablers and barriers, and concludes with an exploration of the support needs of climate stakeholders in the region.

4.1. Climate Innovation Market Makers & Stakeholders

While innovators are frequently seen as central to the climate tech and innovation ecosystem, the support ecosystem is far more expansive, encompassing a diverse range of stakeholders. These include actors from both the public and private sectors, investors, as well as ESOs.

In the public sector, both national and local governments are key network players, driving regulatory policy developments and providing funding alongside other investors, such as venture capitalists, impact investors, and corporate entities. Cross-departmental collaboration across public sector scales is crucial for the creation of an enabling climate tech ecosystem (i.e. interactions between the National Treasury, SMME agencies, and environmental agencies).

The private sector also plays a significant role in the climate tech ecosystem, with corporations, VC firms, and impact investors driving much of the financial support and innovation needed to scale climate solutions in East Africa. These private sector entities are not only key sources of funding, but also bring valuable industry expertise, market access, and strategic partnerships that help accelerate the growth of climate tech start-ups. Their involvement is crucial in bridging the gap between early-stage innovation and large-scale implementation, ensuring that groundbreaking solutions reach the market and make a tangible impact on climate resilience.

Hubs and apex bodies play a pivotal role in bringing together key players within the ecosystem. For instance, the Kenya Climate Innovation Center (KCIC), Impact Hub Nairobi/Rwanda, Climate Innovation Hub, and the East African Centre for Renewable Energy and Energy Efficiency (EACREEE) are instrumental in nurturing founders and connecting them with investors, facilitating the growth and scalability of climate tech start-ups. Additionally, associations such as the Climate Action Network - Tanzania, the Nairobi Climate Network, and the

A&A Collective are central to fostering partnerships and creating knowledge-sharing opportunities within the broader climate tech ecosystem.

International support from DFIs often collaborates with local entities to co-fund projects, share knowledge, and implement best practices from other regions. The partnership between local and international support structures enhances the resilience and scalability of climate tech solutions, to ensure that solutions and networks are locally grounded and globally connected.

Non-Governmental Organisations (NGOs) and Civil Society Organisations (CSOs) and Foundations are pivotal in advancing climate innovation and addressing local environmental challenges. These organisations often work on the ground to implement climate solutions, advocate for policy changes, and raise awareness about climate issues. NGOs and CSOs bring critical grassroots perspectives and community engagement to the ecosystem, helping to ensure that climate innovations are relevant, equitable, and impactful.

Research institutions and think tanks play a key role in the climate innovation ecosystem by providing data, analysis, and evidence-based recommendations to inform policy and practice. These organisations (i.e. conduct in-depth research on climate impacts, technology advancements, and best practices, helping to shape strategic decisions and drive innovation. Their work is essential for identifying emerging trends, evaluating the effectiveness of climate interventions, and bridging the gap between scientific knowledge and practical application.

The stakeholder groupings mentioned above are a high-level representation of key ecosystem players that could be applied to other sectors too. This study recognises the diversity within stakeholder networks, acknowledging that additional groups also play a significant role in shaping the ecosystem. The Nairobi Climate Network (NCN), 2023 Perspectives from African Climate Leaders Report, surveyed a diverse group of stakeholders (see Figure 9). In line with NCN's sampling approach, the report acknowledges that while it reflects a wide range of organisations and perspectives, it may not fully capture the entire spectrum of stakeholder views. Instead, this study provides a foundation for understanding emerging dynamics within the East Africa climate ecosystem, offering insights that can be explored to shape future projects looking to understand networks and stakeholder dynamics.

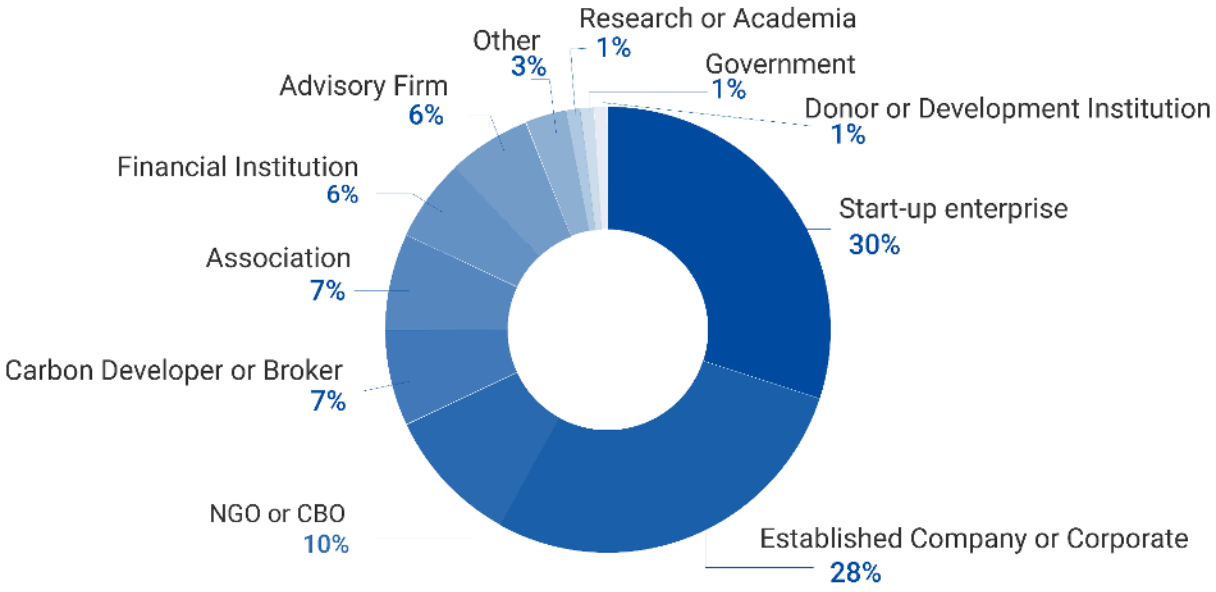

Figure 9 : Surveyed respondents NCN Africa's Climate Leaders Report (2023)

4.2. The State of Climate Innovation Ecosystem Networks in East Africa

Climate innovation centralisation in Kenya

Kenya has become a focal point for climate innovation in East Africa with a noticeable centralisation of activities and investments within its borders. Nairobi in particular has drawn in a dense concentration of start-ups, investors and international partners. Kenya has made significant strides in creating an enabling environment for climate tech start-ups fostering a supportive regulatory and policy environment (i.e. establishment of the National Climate Change Action Plan 2023 - 2027, the Science Technology and Innovation Act, 2013 and the Feed- in- Tariff (FiT) for fixed payments to renewable energy producers for the electricity they generate). Kenya was one of the first countries globally to develop policies, strategies, and institutional frameworks for climate action, creating a policy and legal environment to advance an effective climate change response in the country.[4]Additionally, Kenya has developed ecosystem support structures, such as innovation hubs and accelerators[5], further bolstering the growth and success of climate tech ventures in the region. While there is a stark focus on

[4] https://www.climatepolicyinitiative.org/wp-content/uploads/2021/03/The-Landscape-of-Climate-Finance-in-Kenya.pdf

[5] See list of existing hubs in Kenya https://www.posttraining.go.ke/connect-innovation-hubs-networks

Kenya in the findings shared, this section also focuses on detailing additional insights on the region - beyond Kenya.

Geofrey Mutabazi, Founder of Karaa Africa, discussed the regional differences between operating in Kenya and Uganda, as well as the disparities between local and international climate tech founders in East Africa. His insights echo the demographic data in section 3.4, which highlights that although Black founders make up the largest group of entrepreneurs, they are underrepresented among the most highly funded companies, often securing smaller funding allocations. This points to a gap in equitable access to capital and underscores the need for more inclusive support and investment strategies to empower local founders.

Regarding the regional comparison, Mutabazi noted that Kenya is a fast-paced, developed market with access to networks, climate accelerators, and investors. While more bureaucratic, it offers quicker product adoption. However, despite its dynamism, there is still a gap in the success of local founders compared to their international counterparts. He also shared that running a business is more affordable in Uganda, with more local founders emerging, however the market remains smaller and investment is limited.

> *In terms of the regional comparison, Kenya is a fast-paced and developed market with access to networks, climate accelerators, and investors. It is complex to operate in, since it is more bureaucratic, but in terms of adoption, the products tend to be bought faster. However, in terms of inclusivity, we still struggle to find successful local founders. There is still a divide between foreign and local founders. In comparison, it is cheaper to operate a business in Uganda, but the market is limited. We have a lot more local founders, but less investment, however, it is growing steadily.*
>
> 
>
> **Geofrey Mutabazi, Founder, Karaa Africa**

Adding to the above perspective, Calvin Jodisi, President of ASENTI, highlighted Kenya's leadership in advocating for increased climate-related funding and championing climate initiatives and convenings. Jodisi emphasised that this demonstrates the government's commitment and willingness to support climate action, positioning Kenya as a leader for climate-related funding and a key player in shaping the continent's climate agenda. In addition to the government, an enabling environment for climate innovation relies on the interactions across and within stakeholder groups, Jodisi notes the involvement of local government in rural areas and empowerment of youth as a key driver to Kenya's leadership in the climate innovation space. [6]

[6] See Kenya's Financing Locally-Led Climate Action Program (FLLOCA)

The Kenyan government champions the need for more climate related funding. Kenya has been at the forefront of climate related summits, such as the Africa Climate Summit, Nairobi. Carbon Credit Market Forum. In Kenya we see a lot of advocacy roles and workshops on climate resilience, different product designs for climate related solutions and climate technologies. Additionally, there is a lot of engagement in the rural areas and local governments play a key role in developing young people's skills and assessing impact.

Calvin Jodisi, President, ASENTI

Climate innovation beyond Kenya

Apart from Kenya, Figure 8 highlights emerging climate tech ecosystems in Rwanda, Ethiopia, and Uganda, where renewable energy and agricultural climate tech products are gaining prominence. Although these markets are relatively smaller and less developed compared to Kenya, with limited access to capital, infrastructure, and support networks necessary for scaling innovations, they are showing signs of growth. For instance, Rwanda has made significant strides in areas of climate policy development and ecosystem support through the establishment of hubs. E-mobility has been a leading climate tech sector in Rwanda. In Uganda climate-smart agriculture and renewable energy are gaining traction, driven by both local innovation and international partnerships.

A trend observed from the data is that while Kenya boasts a wide array of climate innovation products and services, smaller markets tend to concentrate on specific sectors, allowing for greater depth and growth in those areas. For instance, Rwanda focuses heavily on e-mobility, while Uganda emphasises climate-smart agriculture. However, this specialisation may also drive local founders and investors with broader interests to gravitate toward Kenya, which offers a more diverse and expansive climate innovation landscape, attracting varied opportunities for collaboration and investment.

The quote below sheds light on reflections from the ecosystem in Rwanda highlighting signs of growth, as well as challenges that hinder the scaling of climate innovations and the interactions among key stakeholders.

Rwanda's ecosystem is relatively small, and while there are numerous programmes, accelerators, and co-working spaces, the ecosystem still lacks networks that connect all stakeholders. However, Rwanda excels in policy predictability and formation, whereas Kenya is slower in providing clarity on legislation.

Joshua Whale, Founder & CEO, Ampersand

From the above perspectives it is evident that climate innovation ecosystems and the engagement of stakeholders is heavily reliant on the state of country-specific macroeconomic conditions. Evidently, ecosystems like Ethiopia, Seychelles and Somalia are extremely nascent and have a significantly lower number of funded climate tech companies and deal flow. As such, it can be argued that these ecosystems are also reflective of lower climate innovation stakeholder engagements with fewer interactions among key players that enable the ecosystem.

While Kenya plays a leading role in pulling in climate innovation players, this presents both opportunities and challenges for the region. A concentration of climate innovation, investments and individuals in Kenya can centralise power and influence, which may inadvertently impact how the region can grow. This would stifle innovation and limit opportunities for smaller players which can influence those markets. The opportunities lie in how climate ecosystem players would know where to target growth, support interventions and networking efficiencies through the growth of the Kenyan market.

Understanding the drivers of centralisation is crucial for fostering both collaboration and inclusivity within the climate innovation ecosystem in East Africa. Given the region's significant potential, gaining insight into stakeholder dynamics is essential for achieving a balanced and interconnected ecosystem and understanding where the opportunities and gaps lie in elevating inclusivity and collective growth to contribute to the region's overall progress.

Climate innovation stakeholder nodes

Stakeholder interactions and relationships within the East Africa climate ecosystem shape the effectiveness of climate action and the overall resilience of the region. Stakeholders in this ecosystem, including governments, NGOs, ESOs, private sector entities, investors, and local communities, operate at different levels with varying degrees of influence and collaboration. The interactions among these actors determines how resources are allocated, how policies are implemented, and how adaptive strategies are developed and executed within East Africa's climate innovation ecosystem. By analysing these interactions, it becomes possible to identify synergies, address gaps, and foster more integrated approaches to climate resilience that are tailored to the unique needs and challenges of East Africa.

Based on the insights gathered from the KIIs, Figure 10 shows existing climate innovation network nodes among stakeholders within East Africa. Supporting quotes are shown to indicate the nature of high, moderate, and low stakeholder nodes. Stakeholder nodes can be understood as the links between different stakeholders shaping their relationship and interactions with each other for a particular cause. These nodes were identified based on the insights gathered from the KIIs.

However, the results provide a valuable overview of stakeholder dynamics and the varying levels of engagement within the climate innovation ecosystem. The recommendations for this study aim to identify areas of support that foster a deeper understanding of the challenges faced in establishing meaningful connections among weaker stakeholder nodes. A classification of the network nodes is provided below:

High nodes refer to stakeholders with frequent and robust interactions, often heavily reliant on each other to drive operations and success. These nodes are situated within the inner circle of the climate innovation ecosystem, where negotiations are critical to maintaining collaborative relationships and overall organisational success.

Medium nodes represent stakeholders with moderate levels of interaction. These stakeholders are less reliant on each other for their operations and success and fall between the peripheral and inner climate innovation stakeholders. Their interactions are driven by mutually beneficial and negotiable relationships.

Low nodes refer to stakeholders with minimal interaction, typically positioned on the periphery of the core network. These stakeholders have limited engagement with the core ecosystem players.

The insights shared below do not discuss the full scope of network nodes that exist within the East Africa climate innovation ecosystem, but focus primarily on the nodes related to climate innovators. Examples are provided to detail how these nodes function based on the insight from the interviewed participants.

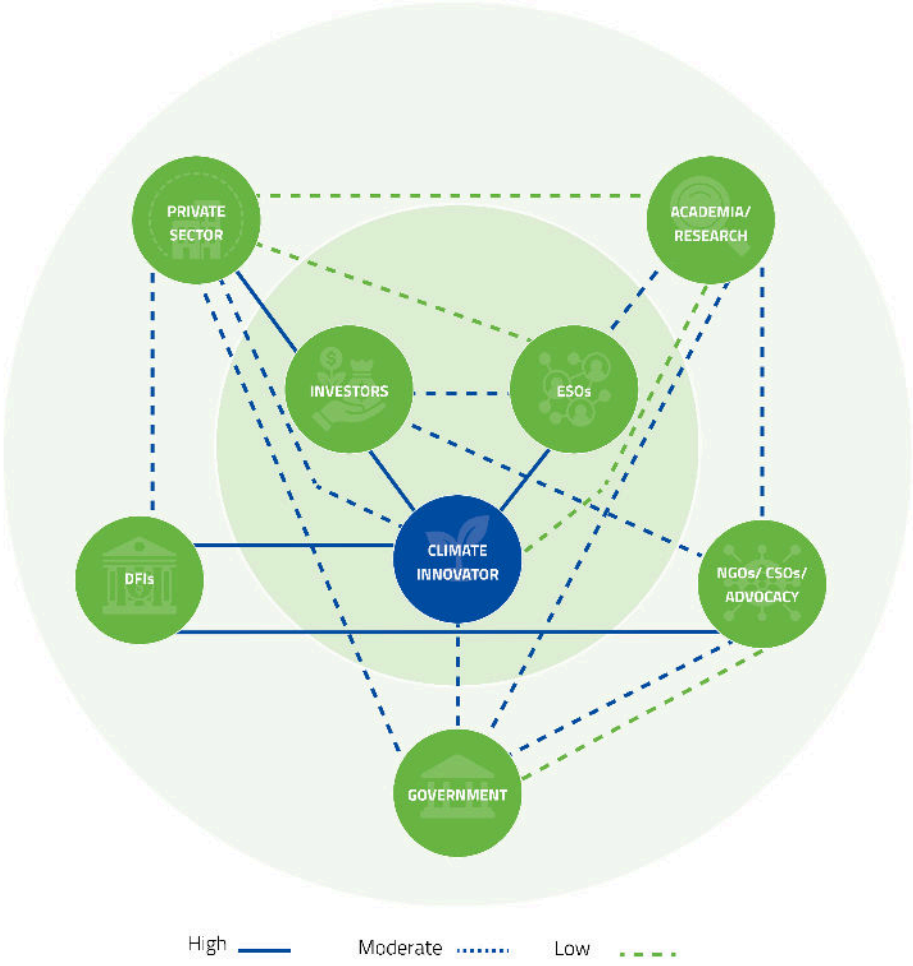

Figure 10: Network nodes for climate innovators in East Africa

High Nodes

Climate Innovators to ESOs and Apex Bodies: High nodes were identified between climate innovators and ESOs. Climate innovators engage with ESOs to access resources, mentorship, and capacity-building opportunities. These ESOs play a key role in helping innovators refine their business models, develop market access strategies, and connect with key partners. Moreover, ESOs are instrumental in building a pipeline of innovators and linking them with investors and other relevant stakeholders who can support their growth. These organisations include hubs, accelerators, and incubators that provide the necessary support for innovators to scale their solutions.

From the interviews gathered, it was noted that while ESOs in Kenya and Rwanda are abundant, their resources and programmes often concentrate on more generalised support, which may not fully address the unique challenges faced by innovators in specialised climate innovation areas. Additionally, there is a need for better coordination and collaboration among ESOs to avoid duplication of efforts and to create a more cohesive

support ecosystem that can effectively guide innovators from early-stage development to market readiness. Nonetheless, ESO's are a core part of the climate tech ecosystem in East Africa.

From the stakeholder insights, Keni Kariuki, Co-Founder of Impact Hub Nairobi emphasised the vital role that ESOs play in nurturing start-ups across key climate areas. A notable reflection shared by Kariuki, is the critical gap in support provided to ESOs, while innovators are the primary beneficiaries of ESO services, the ESOs themselves need to be provided with the necessary resources and support to sustain and enhance their operations. Without being backed, ESOs may struggle to continue offering the essential guidance and tools to innovators, thus affecting the overall growth and sustainability of climate innovation ecosystems. Section 4.2 delves deeper into the role of ESOs and apex bodies as key enablers of the East Africa climate ecosystem, expanding on the high nodal interaction with innovators.

> *As an incubator, we provide support to founders in a range of sectors including agtech, circularity, e-mobility and renewable energy. We also provide advice on access to funding, legal matters, and human resources. There is often a gap between the support that goes to entrepreneurs and the support that goes to ESOs. ESOs play a crucial role in creating enabling environments for startups to grow; we are the ones who train and facilitate the scaling of ideas... the support provided to ESOs needs to be better integrated into the support ecosystem in East Africa.*
>
> 
>
> **Keni Kariuki, Co-Founder, Impact Hub Nairobi**

Climate Innovators to Investors: Interactions between climate innovators and investors in East Africa are characterised by a focus on securing financial support and scaling up innovative solutions. Innovators actively engage with investors to pitch their ideas, secure funding, and gain strategic guidance to scale their businesses. A key insight suggesting the high node between innovators and investors was shared by Maelis Carro, Managing Partner of the Catalyst Fund who mentioned that within East Africa the close network facilitates easier connections and collaborations among founders and co-investors, but also reflects a degree of concentration within the ecosystem. In Kenya, where the sector is more concentrated, investors and innovators often find themselves interacting with familiar individuals, which streamlines networking and accelerates the flow of information and opportunities.

Connecting with people in the climate tech ecosystem is fairly easy as the ecosystem is still very small. We've been able to be part of a network of co-investors and it hasn't been hard to find startups. The climate sector in Kenya is even easier to operate in, because you meet the same people regularly, in comparison to fintech which is broader and a little harder to know what everyone is up to.

Maealis Carro, Managing Partner, Catalyst Fund

From the 5 countries sampled, the investor data shows that VCs, impact investors and corporate entities and governments are the most prominent climate innovation investors. Co-investment opportunities are also common within the East Africa climate innovation landscape, where investors join forces to distribute risk while pooling resources to scale climate innovations within the region.

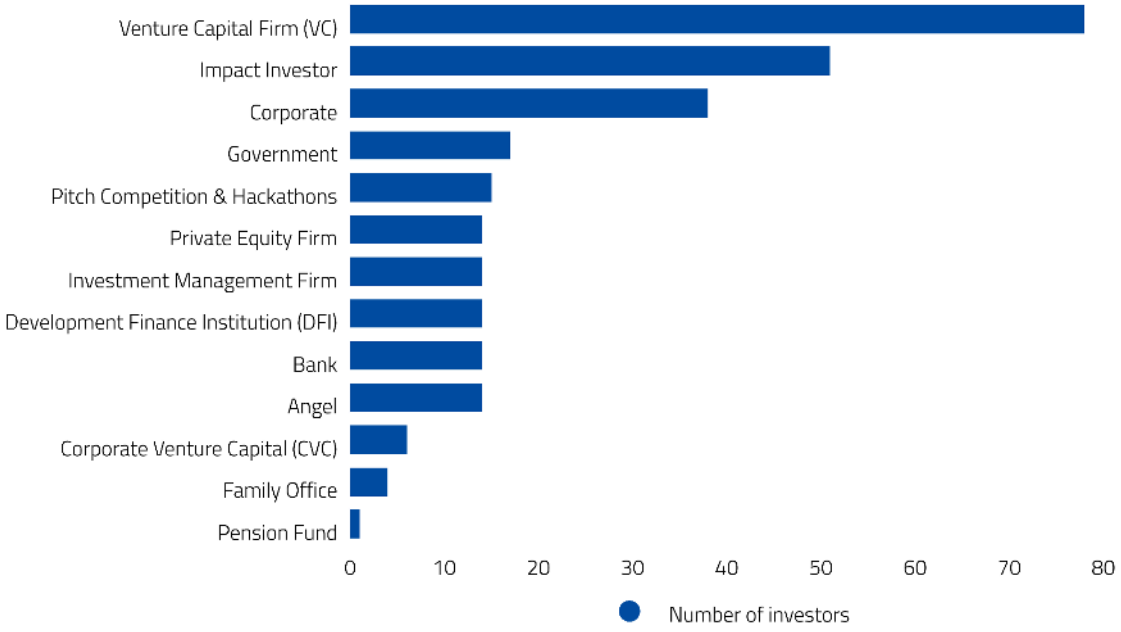

Figure 11: Top investors climate innovation, East Africa

Moderate Nodes

Climate Innovators to Government: Interactions between climate innovators and government entities in East Africa were analysed as being moderate, characterised by periodic collaboration and consultation. Innovators often engage with government entities to align their projects with national climate policies, seek regulatory approvals, advocate for legislative reform and access funding innovation aligned with particular government objectives. While these interactions are essential for ensuring that innovations are in line with governmental

priorities and frameworks, they are not as frequent as those with other stakeholders like investors or ESOs. The quote below from Alex Freeland suggests that founders mostly engage with very particular government entities that may influence or enhance their ability to function in particular markets.

> *One significant government entity we engaged with was the National Treasury's Climate Finance Unit in Kenya, which oversees the flow of investments. For any DFI or Multilateral Development Bank investing in Kenya, a letter from this unit is required to authorise and oversee the investment, so it was crucial to build a relationship with them and understand their processes.*
>
> 
> **Alex Freeland, Former Chief Finance Officer, Komaza**

Investors to ESOs: Investors often engage with ESOs to identify promising start-ups, evaluate their progress, and understand the support structures available to these early-stage companies. ESOs, in turn, provide valuable insights and recommendations about start-ups' investment readiness and potential, helping investors make informed decisions about funding opportunities. However, the connection is moderate because these interactions, while crucial, are not as frequent or direct as those between investors and innovators themselves. The types of investors supporting ESOs specifically are also noted as being specific (i.e. foundations and DFIs) as noted in the quote below by Christine Mbaabu, Program Manager of the Kenya Climate Innovation Center.

> *We believe that climate change can be addressed at the intersection of climate innovation and entrepreneurship, ensuring both climate action and economic prosperity. SMEs in the climate space are the frontline warriors in the fight against climate change. They innovate, pioneer sustainable practices, and serve as our bridge to a greener future. Key stakeholders in supporting these efforts include donors such as DANIDA, the European Union, the Mott Foundation, the IKEA Foundation, and the Embassy of Switzerland. National and county governments, particularly the Ministry of Environment, Energy, and Agriculture, also play a vital role in supporting our endeavours. The primary beneficiaries of this support are start-ups and growth-stage enterprises, which are crucial in driving climate innovation and impact.*
>
> 
> **Christine Mbaabu, Program Manager, Kenya Climate Innovation Center**

Low Nodes

Climate Investors to Government: The interactions between climate investors and government entities in East Africa are relatively infrequent and less direct. Investors may engage with government bodies primarily to understand regulatory environments, ensure compliance, or gain insights into public sector climate initiatives. However, these interactions were described as being generally limited, as investors typically prioritise direct engagements with innovators and other private sector players to identify and support climate start-ups for

investment. The quotes below illustrate two investor perspectives that emphasise the low level of interaction with government.

> *Engagement with the government is mainly for understanding the policies that will impact the founders. We try to keep updated with the latest policy changes that may affect the founders in our portfolio.*
>
> 
> **Cynthia Mwaura, E3 Capital**

> *Our interaction with the government is limited; we don't engage with the government directly, except during events or when we support founders with regulatory issues.*
>
> 
> **Maealis Carro, Managing Partner, Catalyst Fund**

The above analysis shows an overview of dynamics and interdependencies within the climate innovation ecosystem in East Africa, with the key aim of spotlighting nodes from centering climate innovators. Although this analysis is not exhaustive, it reflects observed trends and interactions among various stakeholders in East Africa's ecosystem. By identifying these nodes, the analysis aims to illuminate the relationships and connections that drive the ecosystem, offering insights into how resources, support, and collaborations function. Additionally, it identifies areas for improvement in fostering greater integration within the ecosystem.

4.3. Enablers in the East Africa Climate Ecosystem

The growth and success of climate tech innovations in East Africa are heavily influenced by a range of enablers. These enablers are the key factors, institutions, and mechanisms that create a supportive environment for climate innovators to develop, scale, and deploy their solutions effectively, and for connected stakeholders to operate and meet their climate objectives.

Building on the ecosystem nodes discussed above, this section explores the market enablers that drive increased connections among stakeholders. Understanding these enablers is essential for identifying what propels the ecosystem forward and how various players contribute to its dynamism and resilience. While the discussion is informed by insights from the KIIs, it is important to note that the strength of these enablers can vary across contexts. Key drivers to be examined include, government support and regulatory frameworks, capacity building and knowledge sharing, social media and digital platforms, access to finance and collaborative networks and apex bodies.

Government Support

Governments in East Africa play a pivotal role in shaping the climate innovation ecosystem by establishing policies, regulations, and incentives that encourage sustainable practices and innovation. By fostering public-private partnerships, providing funding opportunities, and setting strategic priorities, governments can catalyse the development and scaling of climate solutions. If the influence of the government in creating an enabling environment for innovation ensures that climate-focused initiatives are aligned with national and regional goals, it holds the power to strengthen the overall ecosystem.

While some East African countries are advanced in their government interventions and responses to the development needs of climate innovators, others lag behind (see Annex 2 for details on deal flow and policies supporting climate innovation). Government support is a key enabler for uniting stakeholders, fostering collaboration, and facilitating access to opportunities aligned with national objectives on climate action. By creating an enabling environment through targeted policies and programmes, governments can enhance the capacity of local innovators, attract investment, and promote knowledge sharing. Governments can also act as berries to the maturity and inclusivity of climate ecosystems and this is discussed in section 4.4.

> *We are seeing a lot of engagement in the rural areas, and local governments play a key role in not only developing young people's skills but also in creating opportunities for entrepreneurship and innovation at the grassroots level. They help assess the impact of climate interventions by providing localised insights and support structures.*
>
> 
>
> **Calvin Jodisi, President, ASENTI**

Capacity Building & Knowledge Sharing Platforms

Capacity-building initiatives and knowledge-sharing platforms equip climate innovators and stakeholders with the skills and expertise needed to innovate and implement climate solutions. These platforms are classified as network enablers for their role in facilitating the exchange of international and local best practices, technical know-how, and innovative ideas across the ecosystem.

From the qualitative insights gathered, these opportunities often enhance collaboration, foster learning, and ensure that climate innovations are well-informed, contextually relevant, and effectively deployed for the relevant stakeholders. Knowledge sharing platforms are often constructed around specific products/services or practices as outlined by Geofrey Mutubazi below, who runs a start-up in the e-mobility space. Similar to the point shared about government support as enablers with limitations in some cases , a perspective was shared regarding knowledge platforms being time-consuming and often pulling innovators away from building their businesses. This quote shared by Maelis Carro underscores the importance of designing knowledge sharing

opportunities that lead to tangible opportunities for scaling climate innovations or supporting the development of stakeholders in fulfilling their climate action objectives and overcoming challenges.

> *We primarily engage with technology partners who can assist us, as well as capacity-building organisations that help refine our go-to-market strategies. Additionally, we collaborate with fellow entrepreneurs to share knowledge about the latest developments in the field.*
>
> 
> **Geofrey Mutabazi, Founder, Karaa Africa**

> *Knowledge sharing can take time away from innovators, these platforms need to be purposefully designed to support connections and the growth of climate innovation for founders.*
>
> 
> **Maealis Carro, Managing Partner, Catalyst Fund**

Access to Finance

Access to finance is a critical enabler for scaling climate innovations, as it empowers innovators and stakeholders to connect, collaborate, and expand their impact. Adequate funding allows innovators to develop and commercialise solutions, build capacity, and enter new markets. Moreover, access to finance supports the growth of ecosystem enablers such as hubs, incubators, and accelerators that provide training, mentorship, and technical support to emerging climate entrepreneurs. Without sufficient financial backing, many promising innovations remain at the idea stage and founders are forced to direct their time towards ensuring the sustainable financing of their businesses, while this may entail relationship building, it often detracts from their ability to engage in broader ecosystem engagement given the mandate to ensure the financial sustainability of their businesses.

The quotes below highlight the urgent need for better access to resources that foster growth and collaboration within the ecosystem. Alex Freeland, Former CFO of Komaza, points out that the risk appetite of commercial investors and impact capital pools can differ significantly. He reflects that while aligning with mission-driven capital is essential, building a venture in the East African market requires balancing mission alignment with funder preferences. Additionally, a ClimateHive participant emphasised the importance of securing adequate funding for climate innovation projects from both public and private sectors, as well as international climate finance. Finance is a crucial enabler for scaling and ensuring that innovators and stakeholders can develop solutions and collaborate freely.

The risk appetite of commercial investors and impact capital pools can be highly divergent, especially when concessional capital is involved. Aligning with mission-driven capital is essential, but building a venture in this market requires balancing consistent mission alignment with navigating complex partnerships.

Alex Freeland, Former Chief Finance Officer, Komaza

Ensuring adequate and accessible funding for climate innovation projects includes public and private sector funding, as well as international climate finance, these funding sources enable climate innovators to operate effectively.

Climate-KIC Climate HIVE Online Platform Participant

Social Media & Digital Platforms

Social media platforms serve as powerful tools for raising awareness, mobilising communities, and facilitating real-time communication within the climate innovation ecosystem. Platforms such as LinkedIn, WhatsApp and X enable stakeholders to share information, promote initiatives, and engage with a wider audience. Social media can also amplify grassroots movements, connect innovators with potential collaborators, and create a sense of urgency around climate action.

By bridging geographic and social divides, these platforms help to democratise access to information and resources, fostering a more inclusive and dynamic ecosystem. The quotes below shed light on how social media has improved engagement among climate stakeholders. A notable reflection from Caroline Mbaya, Research Fellow at the African Centre for Technology Studies (ACTS) was that social media's reach is not universal, particularly in rural areas where internet access is limited. As such creating integrated and inclusive climate innovation ecosystems should take into consideration the varying communication modes and digital technologies relevant to innovators in urban and rural contexts.

We leverage social media to showcase our operations and impact by highlighting the progress of the climate-focused startups we support, sharing success stories, and promoting key milestones. We actively engage with our audience by providing insights into industry trends, showcasing partnerships, and sharing updates on how our work drives sustainable development across sub-Saharan Africa. Social media serves as a platform for us to connect with stakeholders, investors, and other industry leaders, by communicating on their milestones and engaging in conversations about, fostering a sense of community and collaboration around the climate sector.

Joy Rukundo, Marketing and Communication Manager, Persistent Energy

In some villages radio is still the most common mode of communication. When we have public service announcements to promote initiatives or opportunities, these communities receive information by SMS, but we still need to do radio campaigns. If communication is not shared in ways that relate to the communities, we find that there is a barrier in how that the information is consumed. We've found that the use of social media is more effective for youth, we engage with youth on the platforms that they are on and partner with youth-led organisations to reach them.

Caroline Mbaya, Research Fellow, African Centre for Technology Studies (ACTS)

Network Aggregators & Apex Bodies

Network aggregators and apex bodies are fundamental in bringing together diverse stakeholders within the climate innovation ecosystem, including entrepreneurs, investors, researchers, government officials and related stakeholders. These platforms facilitate networking, collaboration, and resource sharing, helping to consolidate efforts and align goals. By providing a centralised space for interaction, they enhance connectivity, reduce duplication of efforts, and enable stakeholders to leverage collective expertise and resources. This, in turn, accelerates the development and scaling of climate innovations across East Africa. Daniel Kitiwa, Assistant Director, Energy Access and Finance at Greenmax Capital highlights that apex bodies act as a unifying voice for the sector. They act as unbiased bodies, representing the view of many to create opportunities for synergy.

Having engaged the NCN on this project, a case study is provided below to highlight the role of aggregators in developing and enhancing the integration of climate networks in East Africa. While apex bodies facilitate increased interactions and collaborations among stakeholders, they also tend to be centralised in major cities. This urban concentration can limit access for organisations and innovators operating in more remote or rural regions, where climate challenges are often more pronounced. To truly drive inclusive climate innovation, it is essential to decentralise these bodies and establish localised hubs that can reach underserved areas, ensuring that the benefits of collaboration and resource sharing are accessible to all.

What we've seen with many associations is that they have the ability to be the voice; a neutral voice for the sector. Sometimes investors and developers don't want to be profiled, so these associations provide sectoral balance by not being biased about who they represent and what types of information they share about the industry.

Daniel Kitwa, Assistant Director, Energy Access Finance, Greenmax Capital Advisors

We've been connecting the NCN members with many international partners, and asking ourselves how we can better enable improved connections, and become a curator for the international community, while elevating the voices and solutions of the NCN members on the international stage. We want to tell the stories of what the climate leaders are doing and how they can be best supported.

Flavia Howard, Co-Founder, Nairobi Climate Network

Case Study: Unpacking the role of aggregator entities, insights from the Nairobi Climate Network (NCN)

The NCN has established itself as a crucial connector in Kenya's climate space by creating a centralised platform that enhances collaboration among its more than 1,500 members, representing over 800 organisations. These include climate scientists, startups, corporates, and community-based organisations all working on various climate solutions. Through events, knowledge exchange, and resource sharing, NCN has created a space where members can engage with one another and the broader climate community.

This collaborative model addresses a key need in the region: the lack of coordination and integration that previously slowed down the pace of progress. By bringing together a diverse range of stakeholders, NCN ensures that efforts are not duplicated, and innovations are accelerated.

Some of NCN's core contributions include:

- Bridging Sector Divides: NCN provides a dedicated platform for stakeholders to connect, collaborate, and form partnerships. The network has been instrumental in connecting its members to key industry players, funders, and policymakers, enabling them to scale their solutions. For example, NCN facilitated funding for a local nature-based project, securing USD 200,000 from an international donor.
- Influencing Policy: NCN's Carbon Markets Working Group brought together 125 carbon experts, contributing critical feedback to the Kenyan government and shaping the country's carbon market regulations. This engagement led to the creation of the Carbon Markets Association of Kenya, exemplifying NCN's role as a trusted government partner and industry representative

- Elevating the African Climate Voice: NCN has played a key role in amplifying African perspectives in global climate forums, acting as a bridge between regional stakeholders and international players. During the 2023 Africa Climate Summit, NCN facilitated key conversations between the Kenyan government and the private sector, further solidifying its role as a leading voice in the climate ecosystem.

Operational Barriers

Despite its successes, the NCN faces **barriers** such as:

- **Balancing inclusivity with relevance:** ensuring that the network remains open to diverse voices while also maintaining focus on its mission and building value for members.
- **Financial sustainability remains an ongoing concern with a reluctance from funders to fund more intangible, cross-sector ecosystem building activities; over traditional development programmes:** NCN has created membership and sponsorship packages to raise revenue, and has been careful to work with those closely mission aligned to maintain its integrity and independence. However, this approach has also limited its funding opportunities. Navigating this delicate balance—between maintaining integrity and securing the necessary resources—will be crucial for the network as it continues to grow and scale its impact across Africa.

Future Pathways: Growing East Africa's Climate Networks

As NCN has continued to grow, its success has already spurred demand for similar communities in multiple cities across Africa. **The network is now evolving into "The Climate Network" (TCN), with plans to replicate its model across the continent.** This expansion will allow NCN to scale its impact by connecting and coordinating climate professionals beyond Nairobi, beginning with a newly established chapter in Tanzania. **The vision of TCN will ultimately be to create a hyper-local forum for climate professionals to engage within their own chapters, whilst simultaneously unifying and amplifying their efforts across the continent.** If the network can connect and coordinate these efforts across Africa, it could fundamentally change how Africa's role in climate solutions is perceived and leveraged, both within the continent and on the global stage.

The need for an organisation like NCN has become more apparent as the climate crisis continues to demand unified efforts across sectors to build resilience and scale solutions. The network addresses this by consolidating efforts, fostering partnerships, and reducing fragmentation within the climate space. Its role as an aggregator has become even more critical as East Africa sees a growing number of climate initiatives and increasing interest from both local and international investors.

This section outlined the key enablers within the East African climate tech ecosystem, focusing on factors that facilitate the growth, development, and scaling of climate innovations in East Africa. These enablers include regulatory frameworks, capacity building and knowledge sharing platforms, social media, access to network aggregators and access to finance. Together, these enablers create a supportive environment that enhances the connections, dynamism and inclusivity among various stakeholders in the East Africa climate ecosystem. A key narrative emerging from the KIIs is that while these enablers are critical, they tend to be centralised in major cities, limiting their accessibility for stakeholders in remote or underserved areas. This centralisation creates regional disparities and can slow down the overall progress of the ecosystem. Nonetheless, noting the enablers in these central hubs can also point to the areas needing development in smaller markets to support the development of robust stakeholder networks.

4.4. Barriers in the East Africa Climate Ecosystem

Despite the promising growth of the climate innovation sector, East Africa faces several network-related challenges which will be discussed below. These include limited access to early-stage funding for start-ups, regulatory barriers that hinder innovation, inadequate infrastructure for testing and scaling technologies. Addressing these challenges requires coordinated efforts across the stakeholder groups to create an enabling environment for sustainable development and innovation.

Government Policy & Regulations

Government policies and regulations can pose significant barriers to the growth of the climate tech sector. Regulatory hurdles, such as difficulties in registering businesses, obtaining permits, and navigating complex tax systems, can stifle innovation and discourage investment as reflected by one of the Climate-KIC-Hive Participants in the quote below. Moreover, the lack of coherent and supportive policies tailored to the needs of the climate tech ecosystem makes it challenging for start-ups and innovators to thrive. There is a critical need for African governments to design and implement policies that facilitate climate growth and innovation, including integrating support for early-stage innovations into national adaptation plans. While some countries in East Africa have adopted policies and strategies aimed at fostering innovation, they are often undermined by fragmented implementation, bureaucratic inefficiencies, and a lack of alignment between regulatory bodies.

> *There's a challenge with policy making and African governments need to think about how they design policies that support climate growth and innovation. This also includes how National Adaptation plans go towards supporting early-stage innovation.*
>
> 
>
> **Maealis Carro, Managing Partner, Catalyst Fund**

> *Regulatory and bureaucratic barriers cause difficulties in registering businesses, obtaining permits, and navigating tax systems, these hinder the ability of climate innovators to operate effectively.*
>
> **Climate-KIC Climate HIVE Online Platform Participant**

Fragmented Efforts

Insights from the stakeholder interviews suggest that the East African climate tech ecosystem suffers from a lack of cohesive and continuous collaboration among different organisations and individuals. This fragmentation limits the potential for creating synergies and sharing knowledge across initiatives. Establishing more information-sharing platforms and involving local organisations in project implementation can enhance coherence and improve cohesive outcomes across the ecosystem. Nihel Chabrak, Founder of Visionest, highlights that fragmentation is particularly pronounced in larger cities, which she describes as "crowded spaces" where many stakeholders are working on similar initiatives. Chabrak emphasises the importance of ecosystem mappings to gain a clear understanding of the diverse activities being undertaken by various stakeholders to reduce duplication.

> *The climate ecosystem in East Africa is nascent, it has not reached the maturity level. When you are in that nascent state, you will see high levels of fragmentation. It's also a crowded space, with many people involved and many people doing exactly the same thing. This is why a mapping of the ecosystem and the stakeholder involved is extremely important.*
>
> 
> **Nihel Chabrak, Founder, Visonest**

Language Barriers

Language barriers present significant challenges within the East African climate ecosystem. In many rural areas of East Africa, English is not widely spoken, limiting the integration of certain stakeholders. As noted by a participant in ClimateHive, the predominance of English restricts access to opportunities, knowledge-sharing platforms, and resources, creating a communication gap that often excludes local innovators, entrepreneurs, and stakeholders. With English as the dominant language among ecosystem stakeholders, support organisations and governments need to adopt more inclusive strategies. This could involve translating key resources, offering multilingual platforms, and incorporating local languages into technical training and capacity-building programmes. By addressing these barriers, the ecosystem can promote greater participation, inclusivity, and equitable access to opportunities for diverse language communities.

> *In some countries, such as Tanzania, many people do not know English, which is often the language used among stakeholders, so this limits how they can engage and grow in their practices.*
>
> **Climate-KIC Climate HIVE Online Platform Participant**

Lack of Localised Implementation & Cross- Border Collaboration

The East African climate ecosystem often sees projects designed and implemented by single organisations across multiple countries, without fully leveraging the expertise of local organisations that have a deeper understanding of specific regional contexts. This results in a one-size-fits-all approach that overlooks local needs and opportunities. Strengthening cross-border collaboration and involving local organisations in project implementation can improve regional knowledge sharing, adapt solutions to local conditions, and enhance the overall effectiveness and integration of climate initiatives across the region.

> *Many projects are designed and implemented by single organisations across different countries, rather than utilising local organisations that have a better understanding of the specific regional contexts. Establishing more information-sharing platforms between regions and using local organisations to implement projects can improve this for better inclusivity.*
>
> **Climate-KIC Climate HIVE Online Platform Participant**

Rural & Urban Divide

There is a clear disparity between rural and urban areas in terms of climate innovation support. Urban centres, especially major cities (i.e. Nairobi and Kigali), attract the majority of funding and resources, while rural areas often receive unsustainable grant-based support that lacks a long-term market-driven focus. This divide limits the growth of sustainable businesses in rural areas. Additionally, the lack of targeted engagement in rural areas exacerbates the challenges, as stakeholders from these regions are often excluded from critical discussions and decision-making processes within the ecosystem. This divide also transcends into inequalities in opportunities for women and youth, who also A more balanced approach that directs attention to underfunded regions is necessary to bridge the rural-urban gap and create a more inclusive climate innovation ecosystem. The quote reflected below by Geofrey Mutabazi, Founder, Karaa Africa further suggests that rural support which often comes in the form of grant-funding does not elevate the sustainability and growth of businesses in rural areas making these businesses dependent on short-term aid rather than building resilient, market- driven businesses.

The challenge in Uganda is that there is a lot of rural support in terms of grants and that support is not sustainable, but it pushes you into a direction which is not market based, it will be typically be easier to access funding with targeting rural projects, but it does not create sustainable businesses , there is less focus on smaller cities and there needs to be a balance.

Geofrey Mutabazi, Founder, Karaa Africa

Technical Expertise & Access to Training Opportunities

While East Africa has made significant strides in reducing skills gaps, there are still niche areas, such as carbon markets, where expertise is still in the developing stages. Communities participating in carbon projects often lack a full understanding of how carbon credits work, how they generate revenue, and how that revenue is distributed. The region has seen the rise of local fund managers and senior managers leading international projects, indicating progress. However, genuine and perceived risks remain, particularly concerning the availability of local expertise.

Box 2: Carbon Markets

There has been a growing interest in the carbon market over the past few years. A carbon market refers to a market in which carbon units, representing emissions reductions, are exchanged within a defined framework. Carbon markets are created by governments for policy compliance or by governments and business for voluntary reductions of greenhouse gas (GHG) emissions (Carbon Markets Factsheet)

On the demand side, we see many players, both local and international, with the majority being international. Carbon markets can be either voluntary or regulated. In East Africa, the markets are predominantly voluntary, which presents a significant challenge: a general lack of trust due to limited transparency, overmediation, and past incidents of fraud. The carbon markets are often perceived as opaque and filled with middlemen.

On the supply side, there is a notable lack of local knowledge and expertise, especially among the communities generating the credits. These communities often feel they are not benefiting equitably and don't fully understand how the money is divided or how the credits generate revenue. In some cases, they believe their land could be put to better use, as carbon generation projects restrict activities like grazing or farming during the credit collection period. Additionally, intermediaries—both local and international—often take a large portion of the revenue, leaving the producers with only a small percentage.

Early Stage Investment

Accessing early-stage investment is a major challenge for climate innovators in East Africa. While impact investors, such as Development Finance Institutions (DFIs), are present, they often adopt a slow and conservative approach, with high barriers for early-stage companies to secure the necessary funding. The lack of investors willing to take risks at the early stages of business development stifles the launch and growth of climate-focused start-ups. Addressing this gap is essential to stimulate innovation and unlock the potential of emerging climate solutions in the region. The quotes below draw attention to the difficulties of raising climate innovation funding and the preferences among investors to support more growth stage businesses placing a gap in early stage investments.

> *The hurdle to access international capital markets is high, and listing on stock exchanges in places like Kenya is particularly challenging. It's even harder to raise money, and delivering returns for equity investors is difficult. Impact investors, especially DFIs, have been present, but they move slower compared to VCs. Their conservative approach and PE-heavy valuation methodologies often prevent companies from raising the capital they need to get off the ground.*
>
> 
> **Joshua Whale, Founder & CEO, Ampersand**

> *The problem is at the early stage in Africa's entrepreneurial ecosystem. No one wants to take the risk of funding at the early stage. We have very few funders and very little money willing to take the risk, of supporting the beginning or the launch of these projects.*
>
> 
> **Christopher Aidun, Co-Founder, Persistent**

The barriers outlined in this section demonstrate how the East African ecosystem is hindered from growing and becoming more inclusive. Governance challenges, fragmented efforts, language and communication obstacles, inadequate localised implementation, and limited access to early-stage capital are some of the critical issues that prevent stakeholders from fully engaging and contributing to the climate innovation landscape. These barriers not only restrict the flow of resources and knowledge but also create disparities between urban and rural areas, ultimately stifling the development of sustainable solutions. To foster a more resilient and equitable ecosystem, it is essential to address these challenges through coordinated efforts, targeted investments, and inclusive strategies that empower diverse stakeholders across the region.

5 | Support Needs & Recommendations

The recommendations provided below are aimed at climate innovation support stakeholders—organisations and individuals seeking to better understand the networks and interactions among key players in the climate innovation ecosystem in East Africa and tailor their support for increased impact and inclusivity. These recommendations take into account the dynamics of the ecosystem and have been reviewed and endorsed by the research participants.

1. **Engage climate and sustainability apex bodies**: To gain a deeper understanding of the climate innovation ecosystem's structure and dynamics, it is crucial to engage with climate and sustainability aggregator entities. These organisations, such as hubs, accelerators, incubators, associations and member networks, play a central role in connecting various stakeholders within the ecosystem. Aggregator entities can also support the identification of strong and weaker stakeholder nodes, thereby contributing towards an awareness of limitations to an integrated ecosystem.

2. **Reallocate climate innovation resources and opportunities across and region**: Expanding the reach of climate convenings beyond the central hubs such as Kenya will help in building a more inclusive network, creating opportunities for emerging players in less represented markets. Climate support organisations and stakeholders could consider coordinating events and gatherings to build out bigger nodes and opportunities that bring new players to the ecosystem. This could facilitate improved cross-border collaboration and enhance the exchange of ideas, resources, and expertise across the region. Consideration should be given to the inclusion of stakeholders in rural areas through satellite hubs, incubators and training programmes to ensure that stakeholders outside the urban centres have access to the resources and opportunities they need to grow.[7]

3. **Increase the continuum of funding for climate innovations and ESOs**: The data trends discussed in section 3 of this report show the gaps in how climate innovation funding is distributed across the region, as well as among products and services. Data intelligence platforms can play a key role in informing stakeholders how resources are allocated and who the prominent recipients are. Existing and emerging funders can leverage data insights to identify funding gaps and strategically direct resources to underserved areas. A key finding from the stakeholder interviews is that while climate innovators are the central drivers of new ideas and solutions to tackle climate change, ESOs and network entities also play a crucial role by offering training,

[7] Community-based solutions remain central to the climate change adaptation discourse as such, expanding support beyond urban areas would strengthen the resilience of rural communities and ensure that climate support interventions are inclusive and reflective of the diverse challenges faced across the region.

capacity building and networking opportunities. As such, funders should consider the distribution of funds to these entities as they are essential to creating stronger nodes across ecosystem players.

4. **Support knowledge transfers and capacity building to improve technical skills, leveraging research institutions and education networks**: To drive impactful climate innovation, it is essential to support the development and expansion of technical expertise across emerging climate solutions. Technical expertise enables innovators to refine their approaches, adopt cutting-edge technologies, and implement sustainable solutions at scale. The advancements in technical expertise within the East Africa climate ecosystem also need to be coordinated in cognisance of the rural and urban divide, and ensure that local innovators are exposed to the benefits and risks of new technologies. Strengthening the connection between research institutions, education networks and climate stakeholders is key to advancing the adoption and understanding of emerging climate technologies and innovations. By fostering collaboration between these entities, innovators and stakeholders across the ecosystem can gain the necessary technical knowledge and insights to tackle complex climate challenges.

5. **Include underrepresented founders, stakeholders and groups (women and youth) in targeted convenings and ecosystem networking spaces**: To develop more inclusive climate innovation ecosystems in East Africa it is essential to understand the demographic and geographical dynamics that influence participation and access to resources. In East Africa, the representation of women founders in climate innovation remains low, yet there are areas, such as climate-smart agriculture, where women entrepreneurs are creating innovations and impact that is gaining increased investor interest. It is essential to identify these areas of growth and explore how to better meet the specific support needs of underrepresented groups to scale their businesses and deepen their involvement in the broader ecosystem. Women and youth focused support programmes are necessary in the climate innovation ecosystem, however they should also integrate male and intergenerational perspectives to share where gaps and opportunities lie in elevating diversity and inclusion in the sector.

6. **Identify and recognise top climate leaders through incentives and awards**: By recognising climate leaders for their contributions to the ecosystem and sector, stakeholders can recognise the efforts of their peers, identify partnership opportunities and create healthy competition. Awards and incentives can contribute towards building a community of motivated and committed leaders who can drive the climate agenda and related solutions forward. Awards should take a multi-stakeholder approach in recognising excellence across research, governance, investment, network coordination, community development, youth and gender inclusion and other ecosystem factors relevant to East Africa.

6 | Conclusion

The East Africa climate innovation ecosystem is rapidly evolving, with networked stakeholders playing a crucial role in shaping its future development. The interactions and relationships among various players in the ecosystem are influenced by a range of dynamics that need to be studied to understand how resources flow, and how collaboration and inclusivity can be fostered to elevate the maturity and integration of the East Africa climate innovation ecosystem.

This study examined data trends within the East African climate innovation ecosystem, revealing that funding is on the rise, with energy—particularly solar—dominating both product offerings and investment. However, the majority of climate innovators are male, predominantly with international backgrounds. These insights highlight a need for greater geographical distribution and gender diversity within the ecosystem. Kenya, as a central hub for climate innovation, demonstrates both opportunities and challenges related to resource concentration and dominance by white male founders.

The insights from the study shed light on prominent stakeholder nodes, indicating varying levels of influence and interactions among stakeholders by classifying the identified high, moderate, and low nodes. While high nodes (i.e. between investors and innovators) drive growth in the climate innovation ecosystem, understanding where the moderate (i.e. and low nodes are would enable climate support organisations to tailor programmes and interventions that promote growth and increased integration among stakeholders).

Climate innovation ecosystem enablers within the East Africa ecosystem include supportive and progressive government policies and regulatory frameworks, capacity-building and knowledge-sharing platforms, access to finance, and the use of social media and digital platforms. However, the ecosystem barriers such as regulatory and policy limitations, the centralisation of resources in Kenya may lead to an uneven distribution of support, potentially limiting opportunities for innovators in less developed markets.

To address these challenges and drive increased growth, integration, and impact, the outlined stakeholder support needs include collaboration across apex bodies and ESOs, geographical distribution, access to finance, knowledge transfer, demographic considerations, and the implementation of incentives and awards for climate leaders in East Africa. These findings reflected here are from a select group of climate ecosystem stakeholders operating in East Africa. Future studies could expand the assessment of nodes among the stakeholder groups or across product and service offerings. These analyses are critical in enabling more innovation, inclusivity and impact for the East Africa climate innovation ecosystem.

Annex 1: Climate tech & innovation taxonomy

Climate category	Definition	Products
Agriculture	Practices and technologies that enhance sustainable farming and mitigate climate impacts on agriculture	Agro-Processing; Animal Feed; Apiculture; Aquaculture; Carbon Markets*; Cold Chain; Cold Storage; Drones; Environmental Protection; Fertilisers and Inputs; Fish Farming; Forestry; Hydroponics; Irrigation; Natural Resource Management; Precision Agriculture; Protein; Soil Testing; Urban Farming; Weather Forecast
Clean Alternatives	Sustainable solutions and technologies aimed at reducing pollution and reliance on non-renewable resources.	Air Filtration; Batteries; Charging; Chemical Processing; Electricity; Energy Management; Gas & Cooking Equipment; SaaS; Sciences; Smart Metering System; Utilities
Clean Energy	Energy innovations derived from renewable sources that significantly reduce or even eliminate the amount of greenhouse gases emitted during energy production.	Biomass; emerging power sources; fuel cells; geothermal; marine; measurement and analytics; nuclear; renewable fuels; solar; waste-to-energy; wind, biofuels; hydropower; wave energy
Waste Management	Strategies and technologies for reducing, reusing, and recycling waste to minimise environmental impact and carbon emissions.	Animal Feed; E-Waste; Organic Waste; Plastic Waste; Recycled Products; SaaS; Sanitation; Supply Chain Management; Waste Disposal; Waste Recycling; Waste to Energy
Water & Sanitation	Systems and practices that ensure sustainable water use and sanitation, crucial for climate resilience and public health.	Faecal Sludge Management (FSM); Sanitary Products; Sanitation; WASH; Water Access
Transport	Solutions that enable more sustainable mobility and transport.	Fuelling/charging infrastructure (EV charging); traffic management; vehicles (electric vehicles, electric boats, electric bikes/scooters)

* Carbon markets are increasingly becoming an important mechanism for addressing climate change. These markets enable the trade of carbon credits, which represent a reduction or removal of greenhouse gas (GHG) emissions from the atmosphere. Carbon markets form a small segment of the climate innovation funding in East Africa

Annex 2: East Africa country-specific climate ecosystem trends & maturity

Country	Total no. of funded climate start-ups (2015 – 2024)	Total number of deals (2015 – 2024)	Total volume of disclosed funding (2015 - 2024)	Country-specific policies
Kenya	97	257	$2,241,693,876	Climate Change Act (2016), National Climate Change Action Plan (NCCAP
Tanzania	17	32	$75,895,15	The Tanzania National Climate Change Response Strategy (NCCRS) 2021-26, the Third National Development Plan (FYDP III), and the NEMPSI (2022-2032) specify policy actions for addressing climate change Nationally Determined Contributions (NDCs): First submitted in 2015, updated in 2020
Rwanda	19	27	$37,323,780	Rwanda's Green Growth and Climate Resilience National Strategy (GGCRS) in 2011
Uganda	28	43	$78,809,314	National Climate Change Policy and NDCs
Ethiopia	4	6	$9,330,000	Climate Resilient Green Economy (CRGE), 2011