



Voluntary carbon markets and opportunities for African Climatech ventures

MODULE 4

2025



1 Carbon Market 101 for African Climatechs

2 Macro Trends and opportunities in Africa's VCM

3 Buyers of African carbon credits

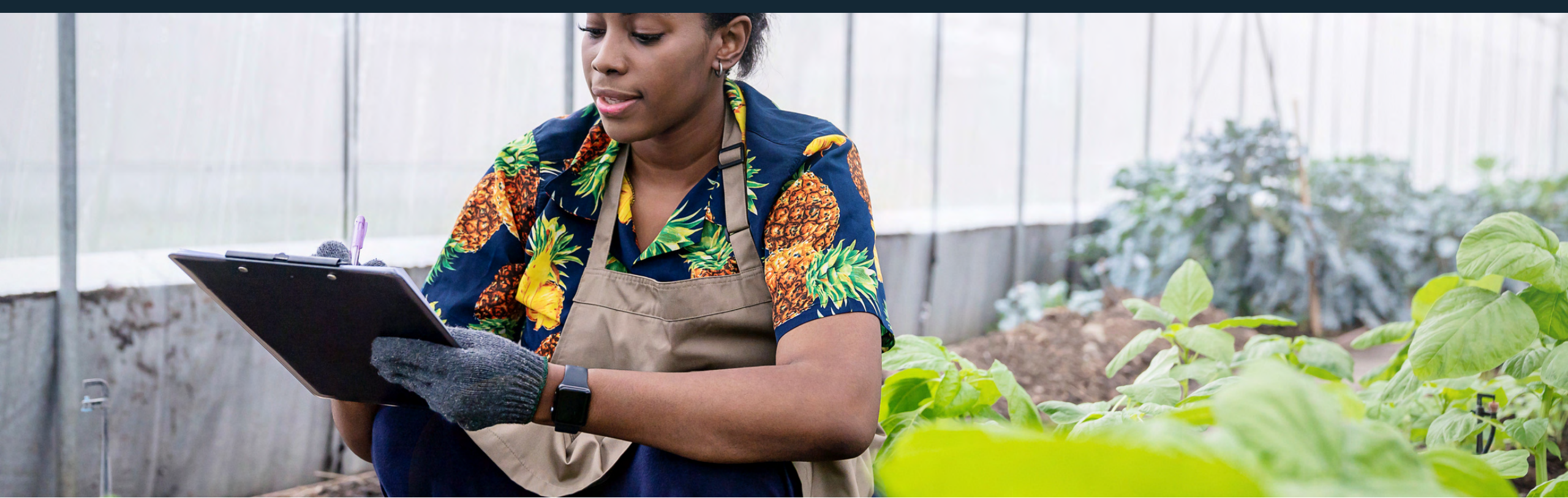
4 Supply-side Opportunities for African Climatech Ventures

ICYMI: Module #3

In case you missed it (ICYMI), Module 3 blog delved into the evolving buyer landscape in Africa's VCM, mapping out key buyer archetypes and the sectors driving carbon credit demand. It highlighted how a small group of buyers dominates transactions and explored strategic entry points for African climate tech ventures targeting specific buyer segments. The blog also underscored opportunities for startups to align with sectoral demand, from agriculture to energy, to maximize credit sales.

[DOWNLOAD IT HERE](#)





MODULE

4

Supply-side Opportunities for African Climatech Ventures

Before You Flip Through: What This Module Covers

Welcome to Module 4: Supply-Side Opportunities for African Climatech Ventures — the final part of our blog series, focused on how African startups can lead the next phase of carbon credit supply across the continent.

This module pulls back the curtain on who is currently (at time of research) generating carbon credits in Africa — and where startups can step in. The key message: while just 7% of developers are responsible for 80% of Africa's carbon credits, climatech ventures have a huge opportunity to expand and diversify the market.

We take a close look at startup participation in the market and uncover a surprising insight: even with over \$3 billion in climatech funding across Nigeria, Kenya, Egypt, and South Africa, few VC-backed startups have issued carbon credits in the past five years. This gap isn't just a missed opportunity — it's a call to action.

But this isn't about competition — it's about collaboration and growth. We shift the narrative away from foreign dominance toward how African ventures can partner with, learn from, and build alongside existing suppliers. You'll see examples of how newer players are emerging across renewable energy, cookstoves, and biochar — and what it will take to scale in other high-impact areas like agriculture, waste, and transport. We also highlight some of the foundational case studies:

- KOKO Networks in clean cooking Octavia
- Carbon in Direct Air Capture
- Earthbond in distributed solar
- Releaf Earth in biochar from agricultural waste

These startups show that carbon credit generation is possible — and that African-led innovation is already reshaping the landscape. You'll also find a practical slide titled “Is Carbon Financing Right for Your Startup?” — a step-by-step guide to help you assess your project's readiness and financial viability.

We even link you to a [breakeven calculator](#) from GSMA, so you can run the numbers before making your next move.

If you're a climatech founder working in a sector like energy, waste, agriculture, or transport — and you're asking whether carbon credits can fund your growth — this module helps you explore the how, where, and what's next.

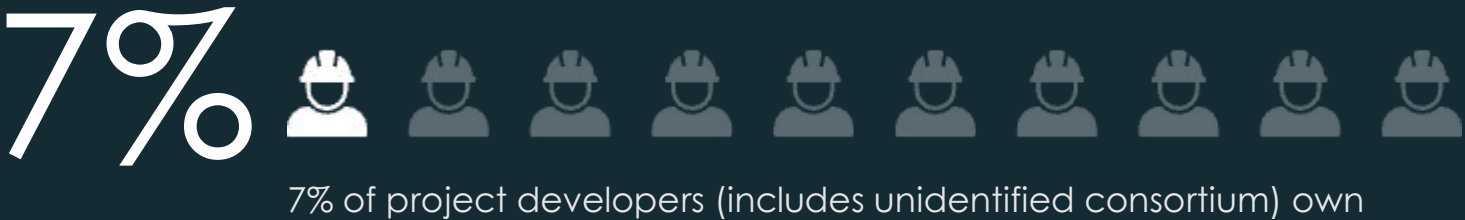
Let's close out the series by unlocking the supply potential. 🖱️

Expanding Africa's Carbon Supply: Developer Dominance and Startup Potential

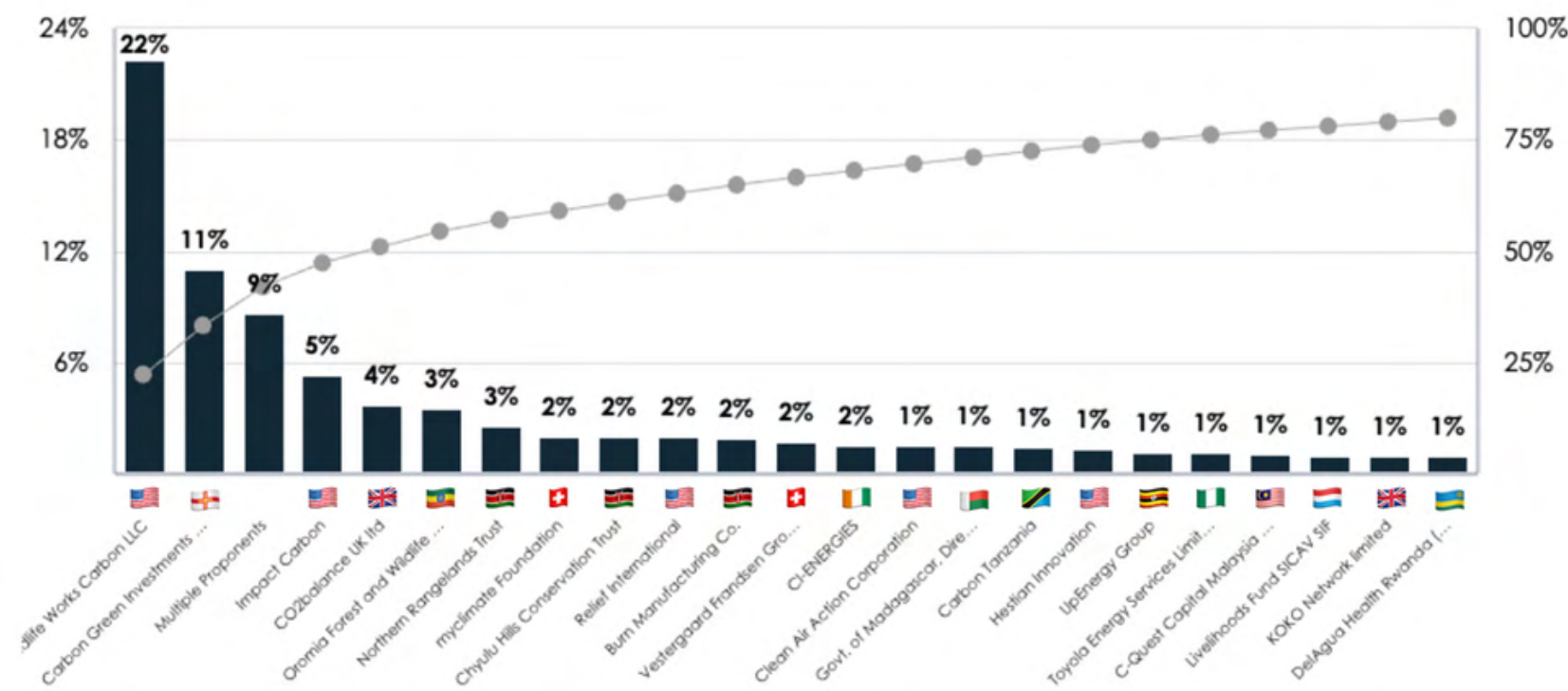
- A few large developers currently dominate Africa's carbon credit supply, but climate tech startups have significant opportunities to expand their participation.
- Despite over \$3 billion in funding to climate tech ventures in the Big 4 countries, only six startups had successfully generated credits as at YE2024, signaling a significant untapped potential.
- African nations can diversify their carbon credit supply across underrepresented scopes, such as agriculture, waste management, and transportation, through targeted, startup-led projects.
- Lessons can be drawn from countries that have successfully scaled carbon projects in niche sectors, presenting pathways for African ventures to leverage similar models.
- Expanding Africa's carbon credit supply requires strategic alignment with emerging buyer preferences, strategic partnerships, and



A handful of
suppliers
generate
Africa's
carbon supply



With the emergence of smaller suppliers, Africa's climatech increasing have a role to play

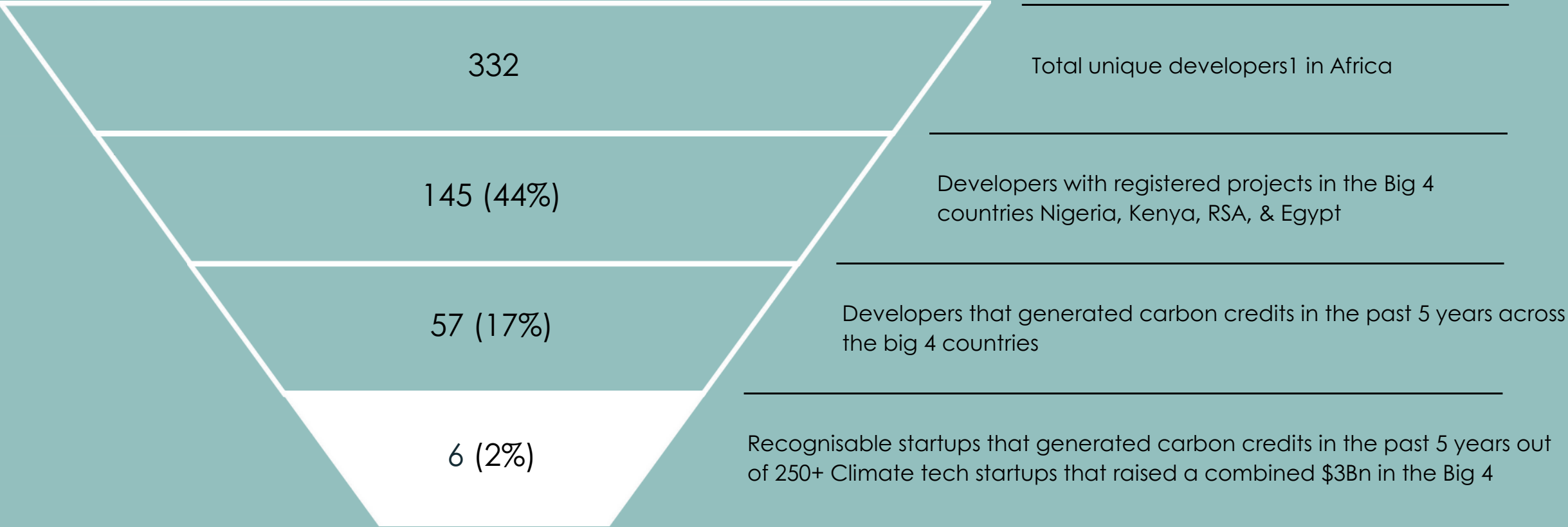


Limited share of verified carbon credits have come from African-owned or led suppliers

Kenya, Nigeria, Egypt, and South Africa, the big four countries for VC and Climatech investments over the years, only have 4 suppliers contributing >1% of Africa's carbon credits

Source: Internal analysis using data from Voluntary Registry Offsets Database, v10, Internal estimates

As at H1 2024, Only a few project developers were startups with VC-like scale and investment appeal

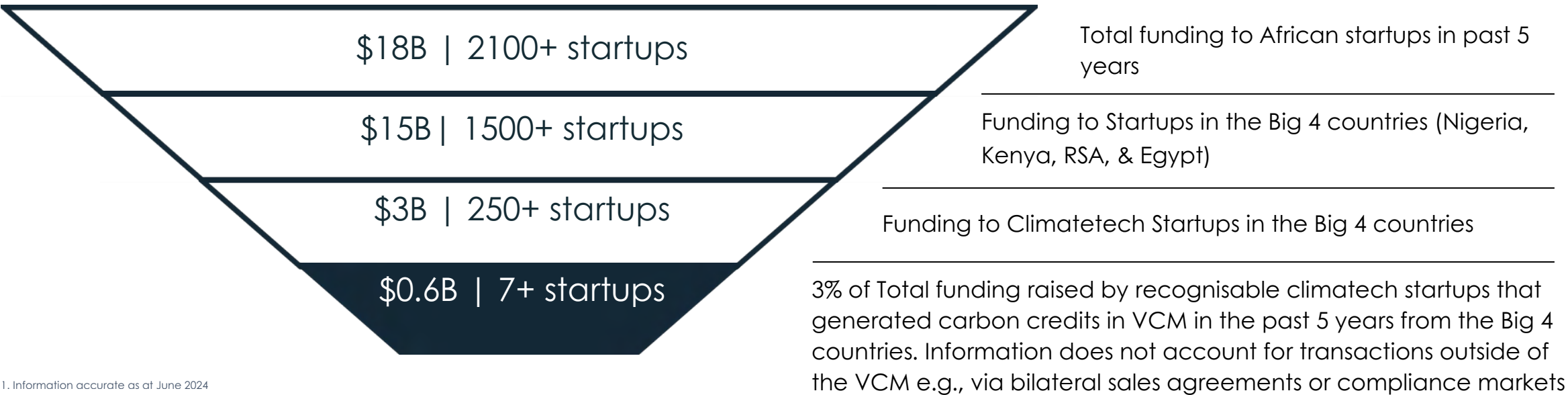


1. Information accurate as at June 2024

Source: Internal analysis using data from Voluntary Registry Offsets Database, v10, Africa The Big Deal Database

Funded startups with innovative carbon models contribute minimally to supply

Despite a much larger share of funding towards climate-tech startups in recent times



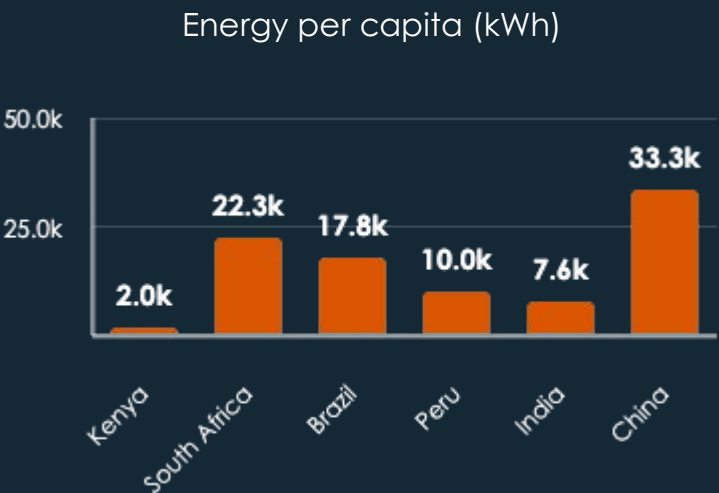
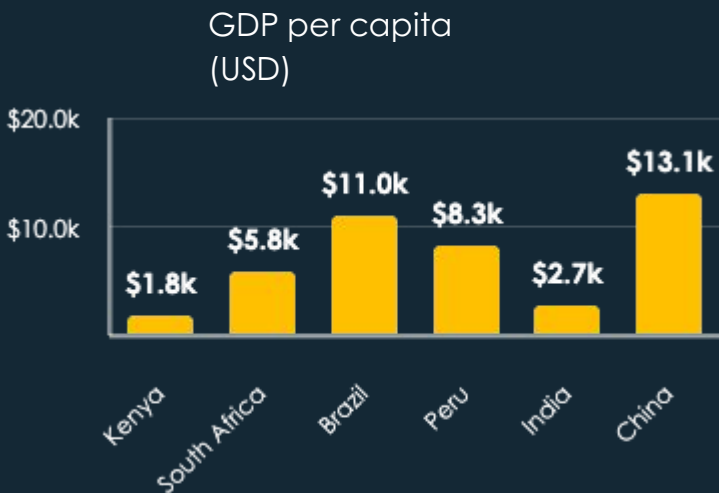
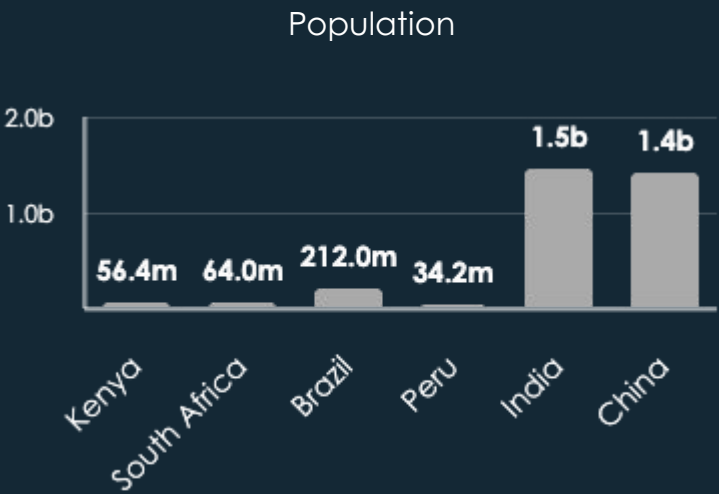
With a surge in climate-tech investments and enhanced project oversight, Africa's carbon markets can potentially expand as more startups harness this growth opportunity to bolster the continent's carbon supply

Of the funded startups with registered carbon projects, cookstoves have earned the most substantial credits

								
# of Projects	2	3	39	4	3	2	1	1
Project distribution by Countries	Kenya	Burkina Faso, Rwanda	Kenya, Nigeria, Ghana, +6 countries	Kenya, Nigeria, Uganda	Kenya	Kenya	Kenya	Kenya
Credits Issued, Millions	0	0	4.99	0	2.42	0	0	0
Scope Area	Transport	HH&C, RE	HH&C	HH&C	HH&C	HH&C	HH&C	Agric.
Funding Raised (2019 to date), \$M	\$74.4	\$133.5	\$27.7	\$311.5	0	\$1.0	\$0.7	\$77.6

Registered projects in Agriculture, Renewable Energy, and Transportation scope areas are yet to generate any offsets from startups, even for projects registered in Kenya

African nations
can emulate
prosperous
countries with
diverse
characteristics
beyond Kenya
and South
Africa



1. GDP, current prices, April 2024 (IMF) Source: IMF 2024, Our World in Data, World Population Review

African climatechs have potential to broaden their carbon portfolios while pursuing economic expansion

	Kenya	South Africa	Brazil	Peru	India	China
Share of Carbon Credits within Region	23%	3%	38%	29%	40%	29%
Agriculture						
Carbon Capture & Storage						
Chemical Processes						
Forestry & Land Use						
Household & Community						
Industrial & Commercial						
Renewable Energy						
Transportation						
Waste Management						

Opportunity for African climatechs to diversify into scopes within Agriculture, Energy, Transportation, and Waste management that have strategic benefits for the continent

Legend

- Mature market with over 50M credits issued
- Strong market, dominated by a few project types
- Fairly strong, despite being relatively undeveloped
- New market showing potential
- Limited or no traction vs benchmark countries
- Model countries for carbon scope & types

Assessing Carbon Financing: Is It Right for Your Startup?

Here are five considerations for climatech founders

Project Scope and Type

Does your project align with high-demand sectors like forestry, agriculture, waste? Are there specific sectors where your startup can provide verified emissions reductions? Refer to [Module 1](#)

Project Stage and Timeline

Are you in the early feasibility stage, or do you have a ready-to-launch project? Consider the timeframes for certification and credit issuance (often 12-24 months)

Carbon Credit Pipeline and Volume

Can your project aggregate sufficient carbon credits to meet buyer volume thresholds? If not, can you partner with other smallholders or projects to pool credits?

Location and Bilateral Agreements

Are you operating in a country with existing Article 6 agreements that could facilitate credit sales? Refer to [Module 3](#). Check your country's status and potential partner countries to align with bilateral agreements.

Financial Viability

Does the projected revenue from carbon credits justify the costs of certification, monitoring, and verification? Use the [GSMA Breakeven Calculator](#) to assess the financial feasibility of your project.

KOKO Networks (Kenya)



Scope Area: Household Household & Community

Overview: KOKO Networks is a Kenyan technology company that provides clean cooking solutions through bioethanol fuel and smart cookstoves.

Carbon Credit Generation: By replacing traditional charcoal and kerosene stoves, KOKO's solutions reduce household emissions. These reductions are quantified and verified under the UNFCCC Clean Development Mechanism, allowing KOKO to generate and trade carbon credits in global markets.

Impact: As of August 2023, KOKO has invested **over \$100 million in customer subsidies**, financed by international carbon markets. The company has sold carbon credits in countries like South Korea and plans to expand to markets in Singapore and Japan.

Source: Disrupt Africa, Company website



Octavia Carbon (Kenya)



Scope Area: Carbon Capture & Storage

Overview: Octavia Carbon is Africa's first Direct Air Capture (DAC) company, based in Kenya, focusing on removing CO₂ directly from the atmosphere using renewable energy.

Carbon Credit Generation: By capturing atmospheric CO₂, Octavia generates high-quality carbon removal credits, which is being sold to organizations aiming to offset their emissions.

Impact: Besides Octavia's direct impact on the jobs (100+ employees) and its local community, its DAC technology positions Africa as a player in the global carbon removal market, offering scalable solutions for climate change mitigation.

Source: Company website, Discussions with founders, etc.



Earthbond (Nigeria)



Scope Area: Renewable Energy

Overview: Earthbond operates a digital marketplace connecting small and medium-sized businesses (SMBs) with solar energy solutions. The platform facilitates access to financing, certified solar installers, and equipment suppliers, aiming to replace the widespread use of diesel and petrol generators with clean, affordable solar power.

Carbon Credit Generation: Earthbond enable the generation of carbon credits when businesses transition from fossil fuel generators to solar energy. These quantified reductions is used to subsidize cost of ownership, making solar adoption more financially accessible for SMBs.

Impact: Earthbond has a pipeline of solar projects valued at approximately \$1 million. The company has also established partnerships with financial insittutions to offer flexible repayment plans.

Source: Company website, Discussions with founders, etc.



Releaf Africa (Nigeria)



Scope Area: Agriculture

Overview: Releaf Earth converts agricultural waste into biochar, capturing and storing CO₂ while enhancing soil fertility and supporting rural agriculture.

Carbon Credit Generation: The company's biochar production process is expected to sequester 700,000 metric tons of CO₂ by 2030, generating carbon credits for global markets.

Impact: Releaf Earth plans to recycle 50,000 metric tons of biomass annually, producing 20,000 metric tons of biochar, increasing crop yields by 40% for smallholder farmers and creating 500 jobs.

Source: Company website, Discussions with founders, etc.



References

1. <https://disruptafrica.com/2021/06/29/meet-the-african-companies-making-pioneering-strides-in-the-carbon-credits-space>
2. https://en.wikipedia.org/wiki/KOKO_Networks



Thank you!

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