

May 25, 2024

# Kenya's Carbon Credits on the Blockchain - A Brief

## Key Insights

01

Kenya has positioned itself as a leading carbon credit market in Africa, driven by its energy transition to renewables, high traded carbon credit volumes, and supportive policy environment, with significant contributions from forestry, land use, and agriculture sectors.

02

Blockchain technology is enhancing Kenya's carbon credit market through projects like CYNK, Shamba Network, and Verst Carbon, which focus on verifiable carbon markets, monitoring, reporting, and verification, as well as tokenization of carbon credits.

03

Key stakeholders, such as the National Climate Change Council, National Environment Management Authority (NEMA), and Nairobi Securities Exchange, are crucial in guiding policy, authorizing projects, and facilitating carbon credit trading, supported by a developing regulatory framework.

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## Primer

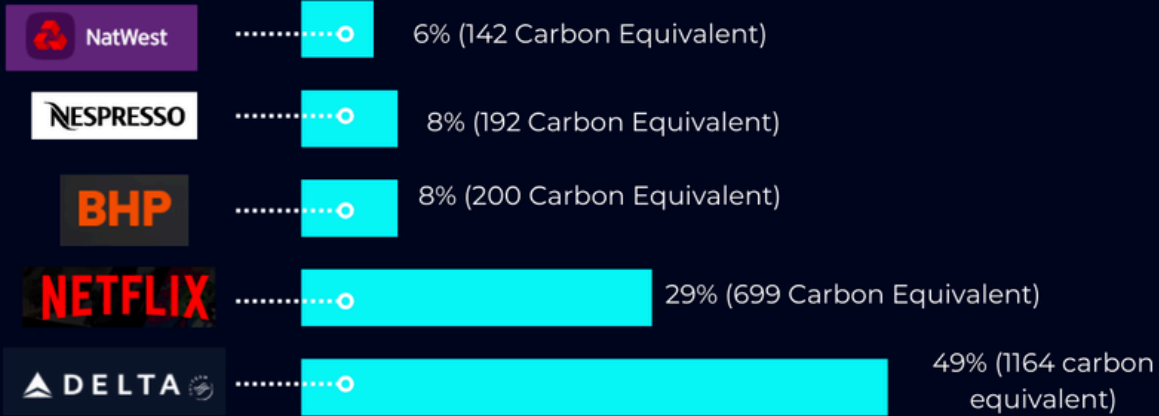
For a good reason, Kenya has attracted big brands clamouring for its carbon credits.

### What market factors contribute to this trend?

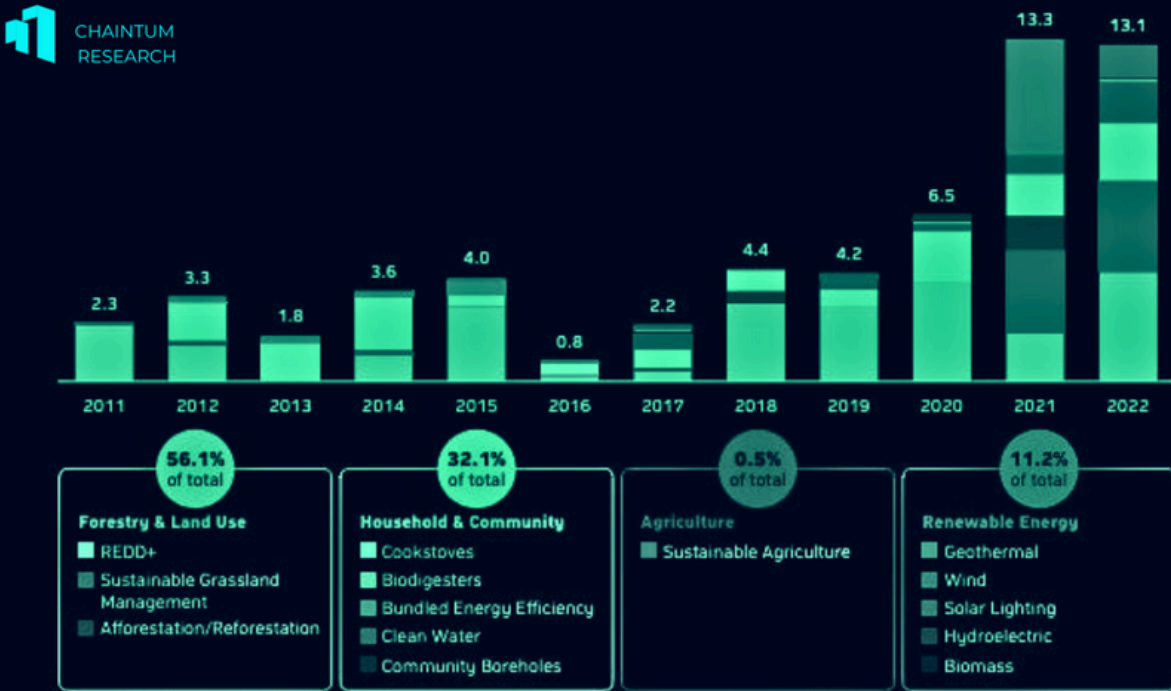
- Energy transition from thermal to renewable is emerging as a crucial source of generating carbon credits.
- Kenyan President William Ruto [projected](#) carbon credits as the country's next major export at COP 27.
- In 2022, Kenya was Africa's [second biggest issuer](#) of voluntary carbon market (VCM) carbon credits, following only the Democratic Republic of the Congo.
- Kenya's traded carbon credit volumes have increased, [and its](#) primary focus areas are forestry and land use, household and community, agriculture, and renewable energy.
- Push for carbon credits to be traded on [African-based exchanges](#).
- Kenya's Capital Market Authority (CMA) aims to regulate carbon credit trading platforms and support the [Nairobi Securities Exchange \(NSE\)](#) to develop a carbon credits exchange.
- Legal regulation of Kenya's carbon market is underway, and there is a political desire to create strong carbon markets in Kenya.

## Top Brands Buying Kenya's Carbon Credit

in Carbon equivalent (ktCO<sub>2</sub>e)



Data as of: April 2024  
Source: World Bank



Sources: Berkeley Carbon Trading Project Voluntary Registry Offsets Database (data from Climate Action Reserve, American Carbon Registry, Verra, and Gold Standard), Clean Development Mechanism.  
Note: Percentage of total refers to all credits issued from 2011 to 2022.

\*Voluntary Carbon Credits Issued in Kenya 2022

## A Favorable Policy Environment on the Cards

### Pre-Climate Act Issues

- Carbon finance and carbon markets in Kenya were in a legal limbo before the Climate Act amendment.
- The issues included, allegations of exploitation of Kenyan farmers and local communities by carbon project proponents, skewed benefit-sharing arrangements, wrong reporting of carbon emission reduction, forceful evictions, and cultural disruption.
- The [Governor of Kajiado County](#) issued a notice revoking all carbon credit contracts between private entities and local communities in June 2023.

### Amendment of Climate Act

- The [Climate Change Act, No 11](#) of 2016, was amended in September 1 2023 to provide regulation of carbon markets in Kenya.
- The Act now establishes a national carbon registry and regulates trade in carbon credits.
- Carbon trading projects are required to undergo mandatory environmental and social impact assessment under Kenya's environmental laws.
- Community development agreements are introduced to regulate the relationship and obligations of project proponents with impacted communities in carbon trading projects.

### Proposed Legislative Changes

- The [Carbon Credit Trading and Benefit Sharing Bill, 2023](#) is undergoing legislative process in Kenya.
- The Bill proposes the introduction of carbon trading permits, benefit-sharing ratios, a Carbon Credit Trading Register, greenwashing offences, a Carbon Trading and Benefit Sharing Authority, and a Carbon Credit Trading Tribunal.
- Potential overlap between the proposed Carbon Trading Bill and the amended Climate Act, especially in community development/benefit sharing agreements and benefit-sharing ratios.
- The Carbon Trading Bill is in early legislative stages and may undergo significant changes.

- The proposed amendments represent a legal step toward Kenya's reaction to climate change, helping to meet its international obligations under [Africa's Agenda 2063](#), [the Paris Climate Change Agreement](#), and the United Nations [Agenda 2030 for Sustainable Development](#).
- Kenya joins South Africa, India, Indonesia, and Vietnam in establishing domestic carbon trading markets.

## Regulatory Requirements for Companies

- Companies in Kenya will likely be required to disclose their environmental sustainability performance in addition to their usual quarterly profit reports.
- The first global sustainability reporting standards, IFRS S1 and IFRS S2 will be [launched](#) in Kenya on September 5.
- Kenya is [expected](#) to withdraw the first funds from the \$551.4 million Resilience and Sustainability Facility (RSF) secured from the International Monetary Fund (IMF) on November 7, requiring it to demonstrate that climate risk consideration has been incorporated into its national planning and investment framework.

## Top Carbon Blockchain-Based Carbon Credit Projects in Kenya

- [CYNK](#) has launched Africa's first verifiable carbon market in Kenya.
- Kenya's [Shamba Network](#) uses blockchain to monitor, report, and verify carbon credit creation on smallholder farms.
- [Verst Carbon](#) uses a blockchain-enabled platform to unlock finance, improve community governance, and enhance carbon market integrity.
- [Nexum, Inc. Foundation](#), [HBKDOP](#), and [The ClimateGroup Africa](#) launched a new online carbon credits exchange that will also tokenize carbon credit.

### Takeaways:

- Most projects are focused on carbon exchange, tokenization, monitoring, reporting, and verification.
- Most initiatives are private-led and aim to promote social and economic impact.

## BLOCKCHAIN-BASED CARBON CREDIT PROJECTS IN KENYA



**FIRST VERIFIABLE CARBON MARKET ON BUILT ON THE CARBON-NEGATIVE DISTRIBUTED LEDGER TECHNOLOGY (DLT)**

- Full audit trail and dMRV leveraging blockchains, and access to Climate Markets.
- The tokenization of high-quality climate assets.
- A decentralized exchange built for climate assets.



**FOR CARBON MARKETS, TOKENIZATION AND EUDR COMPLIANCE**

- Ecological impact from regeneration and climate action.
- Generate reports of the source of farm produce headed to Europe.
- Verify carbon claims and EUDR compliance



**UNLOCKING FINANCE, IMPROVING COMMUNITY GOVERNANCE AND ENHANCING INTEGRITY IN CARBON MARKETS**

- Taking down the cost barrier.
- Bringing together all stakeholders in the carbon ecosystem.
- Innovative project monitoring solutions.
- Providing a platform for the sharing of gains among community members



**NEXUM FOUNDATION, HBKDOP, AND THE CLIMATE GROUP AFRICA ARE PARTNERING TO LAUNCH A NEW ONLINE CARBON CREDITS EXCHANGE.**

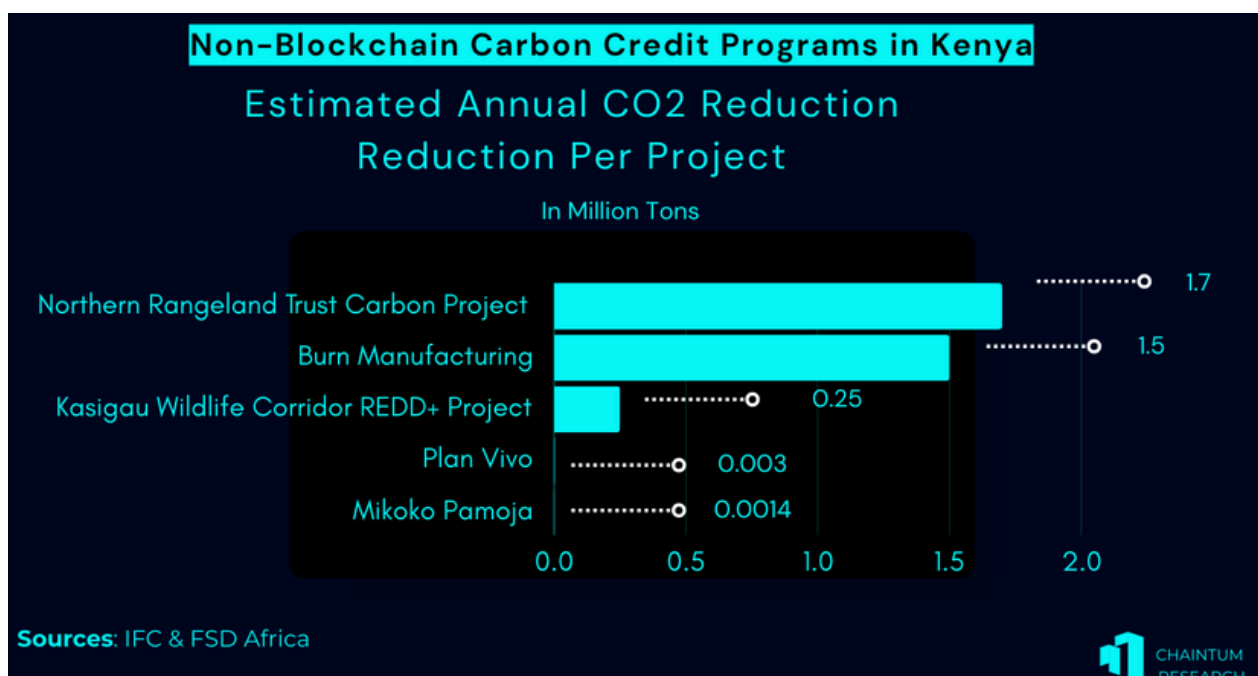
- Nexum Foundation will provide its blockchain technology platform.
- The exchange will act as the exclusive market conduit for carbon credits.

## Non-Blockchain Carbon Credit Projects in Kenya

- The [Northern Rangeland Trust Carbon Project](#) in Northern Kenya (spanning over 1.9 million hectares) is among the world's most significant soil carbon removal projects. It is expected to remove 50 million tons of carbon dioxide (Co2) over 30 years.
- [Burn Manufacturing](#) has produced over 4 million clean cookstoves, eliminating 17 million tons of CO2 and transforming the lives of over 22 million people.
- [The Kasigau Wildlife Conservancy Corridor REDD+ Project](#), the first project to issue voluntary forestry carbon credits in Kenya, enables an estimated annual emission reduction 251432 on 30169 Hectares.
- [Plan Vivo Foundation](#), an organization that helps communities grow trees and create carbon credits, plans to sell at least 3,000 metric tons of CO2 equivalent every year from 2013 to 2033.
- [Mikoko Future Energies Pamoja](#), a community-led mangrove conservation and restoration initiative in southern Kenya and the world's first blue carbon project, has issued 20,095 PVCs to 1081 households since 2010.

### Takeaway

Most non-blockchain initiatives focus on ecological restoration and community empowerment.





# Go-To Stakeholders in Carbon Credit Market



- **National Climate Change Council:** Provides guidance and policy direction on carbon markets to national and county governments, the public, and other stakeholders.
- **The Cabinet Secretary:** Advises the National Climate Change Council on the carbon budget available for trading and approves the measurement, reporting, and verification of greenhouse gas emissions.
- **Designated National Authority (DNA)- The National Environment Management Authority (NEMA):** Authorizes participation in projects under the Paris Agreement and maintains a National Carbon Registry.
- **Rural Electrification and Renewable Energy Corporation (REREC):** Tasked with harnessing opportunities under clean development mechanisms and carbon credit trading.
- **Kenya Forest Service (KFS):** Beneficiary of carbon trading
- **Kenya Electricity Generating Company (KenGen):** booked Sh12.7 million in revenue from trading carbon credits.
- **Nairobi Securities Exchange:** It has taken steps to reduce its carbon footprint.

## World Bank's Recommendations on Areas for Growth in Kenya's Carbon Market.

- **Forestry and land use:** High potential due to Kenya's large forest and wetland coverage.
- **Agriculture:** Large sector with potential for climate-smart agriculture due to market interest.
- **Industrial processes:** Cement manufacturing offers significant opportunities for GHG emissions reduction.
- **Waste management:** The large volume of waste and government attention to the Sustainable Waste Management Act (2022) present opportunities.

## Challenges to the Growing Carbon Market

- Kenyan firms have limited awareness of carbon markets, as well as the competence to verify and validate carbon projects.
- Limited access to affordable finance sources for projects and methods for financiers to de-risk investments
- Policies and laws governing land rights, carbon credit ownership, taxation policy, and domestic Article 6 regulation affect businesses that implement carbon projects amidst uncertainty surrounding the Climate Change Amendment Bill.
- Carbon credit rates vary by project type and year, and carbon credits are generated at least two years after project inception.
- Certification standards developers, third-party verifiers, project developers, and other ecosystem participants are outside Africa.

## Trends to Capitalize on in the Next Decade in the Market

- Increased corporate commitments and industry schemes to reduce carbon footprints.
- Carbon credit buyers will pay more attention to project quality and integrity, which entails robust digitized monitoring, reporting, and verification (MRV).
- Nature-based and tech-based projects will command a greater share of VCM trading volumes and higher market prices.

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*We thank you for your continued support in our efforts in promoting blockchain and web3 adoption in Africa.*

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