



Policy Brief

No. 2, 2025

Carbon Trading in Tanzania: Policy Options to Unlock its Potential

Noah Makula Pauline, Fasco Chengula
and Emanoel Alfred



Abstract

- Policymakers across Africa increasingly recognize that voluntary carbon markets present a significant opportunity for climate financing with the potential to accelerate sustainable economic development while curbing greenhouse gas emissions. Adopting a qualitative approach, primarily through consultations with key stakeholders, this study explored the opportunities and challenges for carbon trading in Tanzania. It found that Tanzania has high potential to develop both land-based and non-land-based sources of carbon credits. To unlock this potential, the study recommends enhancing public awareness, building domestic capacity and expertise in carbon trading, and clarifying the roles of key institutions, including the National Carbon Monitoring Centre (NCMC).
-
-
-
-
-
-
-
-

Introduction

In the 1980s and 1990s, global awareness about climate change led to the adoption of the UN Framework Convention on Climate Change (UNFCCC) in 1992, ratified by 194 countries, including Tanzania, which aims to prevent and reduce the release of greenhouse gases, such as carbon dioxide (CO2) and methane (CH4) (United Nations Climate Change 1992). One practical and popular policy tool for achieving this goal is the emissions control trading mechanism. Put simply, emissions trading involves buying and selling credits that permit a company to emit a certain amount of carbon dioxide equivalent (CO2e) emissions.

Two principal types of carbon markets exist: compliance and voluntary. The UNFCCC recognizes the importance of voluntary cooperation in implementing Nationally Determined Contributions (NDCs) under the Paris Agreement of 2015. Voluntary carbon credits, which are the focus of the current study, are mainly generated by private entities developing carbon projects that reduce or remove emissions.

A core challenge for Africa in tackling climate change is securing the necessary financing for the sustainable transformation of its economies. During the United Nations climate summit in Copenhagen (COP15) in 2009, developed countries pledged to mobilize \$100 billion per year by 2020 in financial assistance to developing nations, but this promise remains unfulfilled (Ahluwalia & Patel, 2023, Chapter 12, pp. 310-312). An alternative avenue for climate finance is for African countries to utilize voluntary carbon markets to accelerate sustainable economic development while curbing emissions. With an estimated 48 million hectares of forests, 44.5 million hectares of agricultural land, 1,424 kilometres of coastline, and diverse ecosystems that are rich in biodiversity, Tanzania has enormous potential to develop land-based carbon trading projects. Given strong population growth and rapid urbanization, the country also has significant opportunities to reduce emissions and generate carbon credits through non-land based resources, such as waste management projects, expansion of renewable energy production and use of clean energy in transport facilities.

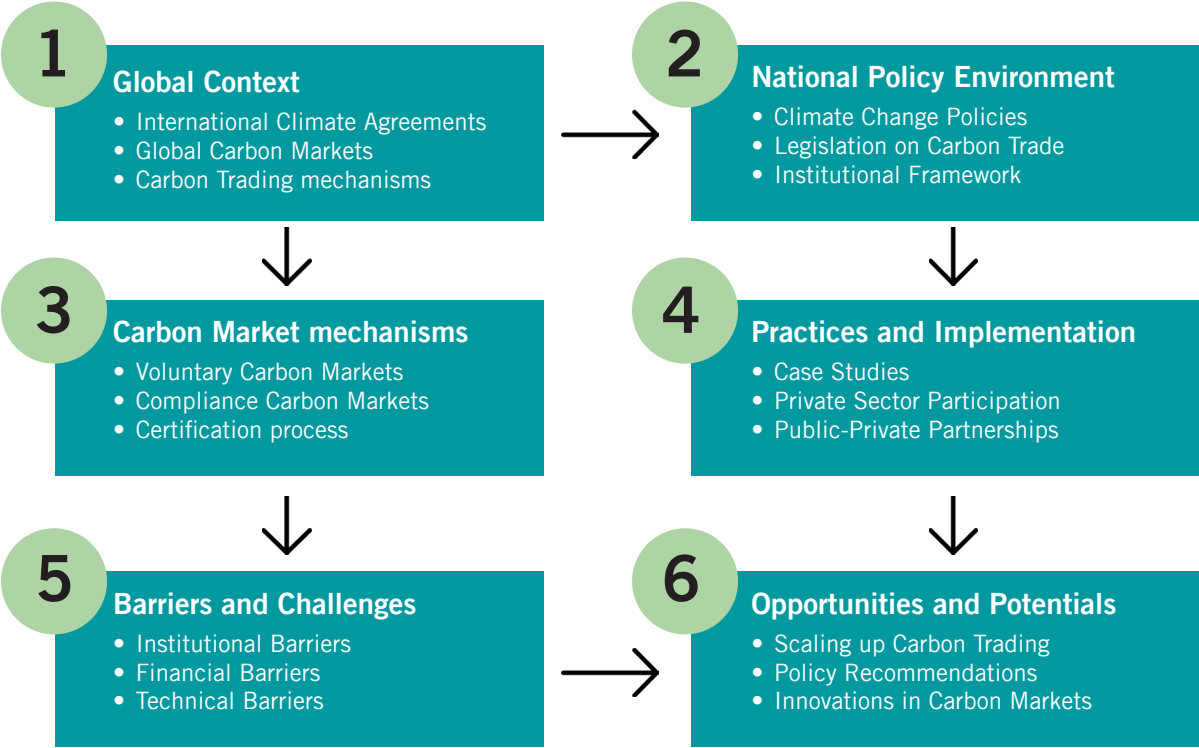


Photo credit: Imani Nsamila

In addition, Tanzania has a supportive land tenure system, stable political landscape compared to neighbouring countries, and strong track record of international advocacy and diplomacy for increased climate finance, which highlights the country's proactive approach to climate change and enhances the attractiveness of carbon trade projects to potential investors. However, despite enacting the Environmental Management (Control and Management of Carbon Trading) Regulations in 2022 (amended in 2023) and the National Carbon Trading Guidelines in 2022 (URT 2022, 2023), the country's carbon trading projects have been slow to materialize. Based on the National Carbon Monitoring Centre (NCMC) database as of June 2024, Tanzania has only 48 carbon trade projects.

The need therefore exists to identify and address the barriers hindering Tanzania's carbon trade potential. Addressing concerns about complexity, credibility, and potential harm to local communities of carbon initiatives is crucial to improving policy and expanding carbon markets. Guided by a framework for examining the carbon trading system (Figure 1), this study aimed to analyze the opportunities and challenges to promote carbon trading in Tanzania and provide actionable insights to enhance the country's participation in global carbon markets.

FIGURE 1. CONCEPTUAL FRAMEWORK OF THE CARBON TRADING SYSTEM



Methodology

The study employed a qualitative methods approach. A preliminary stakeholder and institutional mapping exercise was conducted to identify key actors and their roles in Tanzania’s carbon trading ecosystem. Based on the results of this exercise, key informant interviews, focus group and round table discussions were conducted to collect data across national, district and local government levels in Tanzania as well as non-governmental organizations, private sector enterprises and local communities engaged in carbon trading. The interviews and discussions focused on the roles of institutions and stakeholders in the carbon trade landscape, and the challenges and opportunities for advancing carbon trading in Tanzania. The research also included a review of national policies, laws and regulations for carbon trading as well as global reports on carbon trading to identify best practices in other countries.

Key Findings

Institutional framework

The National Carbon Monitoring Centre (NCMC), established under the Sokoine University of Agriculture (SUA), is responsible for registering carbon trading projects in Tanzania. Despite this critical role, NCMC is not mentioned by the Environmental Management (Control and Management of Carbon Trading) Regulations as one of the key institutions for implementing carbon trading in Tanzania. It acts as a coordinator or technical arm of the Division of Environment, Vice President’s Office, rather than as an independent unit. NCMC staff are all employed by SUA, which is under the Ministry of Education, leading to potential conflicts of interest, bureaucratic delays, miscommunication and inefficient coordination with other relevant agencies and stakeholders, further complicating the management of carbon trading projects. The NCMC also faces significant shortages of full-time trained staff, which impacts the timely processing of project applications, verification of projects and enforcement of carbon trading regulations.

Regulation

The current regulatory framework for carbon trading in Tanzania is overly focused on REDD+ and land-based carbon projects, neglecting other potential areas like industrial emissions, renewable energy and waste

management, thus limiting the scope of the domestic carbon sector. According to stakeholders consulted for this study, the registration process for carbon projects in Tanzania is also bureaucratic, overly complicated and largely manual despite the existence of an online registration system. This results in increased costs, processing times and frustration and delays for investors in getting projects off the ground. Incomplete and evolving regulations further contribute to an unstable investment climate, stalling the development of new carbon projects and limiting the growth of

Tanzania’s carbon market.

Project monitoring, reporting and verification (MRV) Tanzania struggles with inadequate MRV infrastructure and processes to accurately track, report and verify emissions reductions, which undermines the reliability and transparency of carbon credits generated, making it difficult to gain international acceptance and trust in the country’s carbon credits.

Funding

Tanzania relies heavily on external financing for carbon trading initiatives. Indeed, the NCMC is still operating as a donor-funded project. This reliance jeopardizes the long-term stability and sustainability of the domestic carbon sector.

Domestic awareness and expertise

The study revealed a notable deficit of specialized knowledge and skills which limits the country’s ability to diversify its carbon trading portfolio and capitalize on a broader range of carbon reduction opportunities. A low level of awareness and understanding of carbon trading among stakeholders, including government officials, project developers and the general public, also hampers the effective implementation and growth of the sector.

Market intelligence and monitoring system

The absence of a robust market intelligence and monitoring system in Tanzania impedes the ability of domestic stakeholders to track and analyse market trends, prices and demand for carbon credits. Without adequate market intelligence, project developers and policymakers operate in a knowledge vacuum, increasing the risk of poor decision-making and missed opportunities. For example, the amounts paid to communities for ongoing land projects differ significantly, raising alarm about transparency in the disclosure of carbon credit prices.

Listing of investors in carbon trade

According to Tanzania’s Natural Wealth and Resources (Permanent Sovereignty) Act of 2017, investors in natural resource sectors, including land-based carbon trading businesses, are required to list on the Dar es

Salaam Stock Exchange (DSE). However, the study found limited compliance with this requirement, which restricts transparency and public scrutiny and limits access to capital markets for raising funds. With higher confidence, the value of carbon credits will be higher, which will also be beneficial to potential stakeholders.

Taxation and levy arrangements

Proponents and local communities in land-based projects lamented high taxes. These taxes are charged directly to the projects or to projects associated with the carbon trading initiative. For example, the distribution of funds from carbon credit sales, based on the benefit-sharing agreements between project developers and communities, occurs after necessary taxes and government fees are paid. However, research indicates that local communities are still subject to withholding tax, as carbon credit revenue is treated as income, like other goods. Critics argue that taxing these revenues disincentivizes communities and developers to maintain or expand carbon sequestration efforts as it reduces financial returns, potentially compromising the quality of the credits and undermining project sustainability. This, in turn, could weaken community engagement in conservation efforts and diminish social co-benefits like improved livelihoods and sustainable development typically associated with carbon offset projects.

Benefit-sharing schemes

The current benefit-sharing schemes are not tailored to individual projects, which can lead to inefficiencies and dissatisfaction among stakeholders. A one-size-fits-all approach fails to account for the unique characteristics and needs of different carbon projects, whether they are land-based, industrial, waste management or related to renewable energy. This can result in unequal distribution of benefits and may not incentivize the development of diverse types of carbon projects.

Marginalized communities, particularly those with insecure land tenure, face significant disparities in carbon trading. These can lead to loss of livelihoods, as these communities often lack formal land rights and adequate representation in decision-making processes. Inequitable benefit-sharing mechanisms and limited access to information and resources further marginalize them, preventing fair participation and distribution of carbon credit benefits.

A low level of awareness and understanding of carbon trading among stakeholders... hampers the effective implementation and growth of the sector

Policy Recommendations

Based on the key findings, the study proposes the following policy and practice recommendations for unlocking the full potential of carbon trading in Tanzania.

1 Strengthen the institutional framework for the carbon sector

The National Carbon Monitoring Centre (NCMC) needs to be strengthened as an independent institution to become the Designated National Authority (DNA) for carbon trade in Tanzania, with administration of the Centre transferred to the Vice President's Office—Division of the Environment. If adequately equipped with staffing and resources, this institution will be able to clarify the chain of command and mandate for the carbon sector within government, establish appropriate coordination and communication mechanisms, and put in place the registration process for projects outside the forest sector. Enhanced sectoral coordination is also required to harmonize and streamline information sharing since the carbon trade involves multiple sectors.

2 Strengthen the regulatory framework

A more inclusive regulatory framework would encourage innovation and investment in the carbon trade in Tanzania. To address emerging issues and align with international best practices, the following actions are recommended to create an environment conducive for carbon trade in Tanzania:

- Modernize and streamline the project registration and approval procedures and processes to facilitate participation of investors.
- Review the current guidelines for:
 - » Benefit-sharing schemes to cater for non-land-based projects.
 - » Taxation and levy arrangements. Carbon trading should be treated like any other business, but tax rules for carbon credit revenue should be different as these initiatives directly help with climate change and sustainable development. Hence, tax policies should be carefully designed, such as offering tax incentives or exemptions to encourage participation



Photo credit: The World Bank

in carbon markets and support broader environmental goals.

- Introduce a mandatory provision for listing of investor companies on the Dar es Salaam Stock Exchange (DSE).
- Ensure compliance with local content provisions (employment, capacity building, technology transfer, joint venture, shareholding and corporate social responsibility) for carbon projects that involve natural wealth and resources (i.e., land-based projects).

- Benchmark the institutional and regulatory frameworks for carbon trading with developed markets in the region and internationally.

3 Build domestic capacity and promote continuous learning of core aspects of the carbon trade ecosystem and value chain.

Capacity building and continuous learning are crucial to build domestic capacity and expertise to implement successful carbon initiatives. The following activities may be considered:

- Conduct a baseline assessment to map and inventory existing projects.

- Establish a comprehensive digital registration system/platform.

- Strengthen and digitalize the national measurement, reporting and verification (MRV) system to enable the country to verify carbon credits locally prior to sale in the market.
- Zone potential forest areas earmarked for carbon trade and other land uses to ensure that land is available for all uses at all times.

- Organise awareness programs for stakeholders on the carbon trade business.

- Undertake regular analysis of trends in global carbon markets. An effective market intelligence and monitoring system is essential for informing strategic decisions, identifying market opportunities and ensuring competitive participation in global carbon markets

- Involve higher learning institutions to drive research and innovation in carbon trade, develop new MRV methodologies, and develop advanced carbon capture and storage technologies.

4 Enhance transparency and stakeholder engagement

Effective MRV systems are critical for the credibility and success of carbon trading projects. To ensure greater transparency and involve a broader range of stakeholders in the carbon credit market in Tanzania, it will be essential to:

- Mandate public disclosure: To build trust and ensure accountability, all key project information, including financial information, environmental and social impacts, and community benefits, needs to be publicly disclosed.
- Engage stakeholders regularly: Regular consultations should be held with local communities, private sector players, civil society organizations and international partners to gather input and address concerns related to carbon credit projects.
- As recommended above, the creation of a digital MRV platform will enable real-time monitoring, reporting and verification that is accessible to all stakeholders and provides transparent data on emissions reductions and project performance.

5 Promote local community benefits and sustainable development

Carbon trade projects should benefit local communities and contribute to sustainable development. Achieving this outcome will require the Government to:

- Develop clear guidelines for sharing the financial benefits of carbon credits with local communities, such as direct payments, community project funding or infrastructure investments.
- Provide training and capacity-building programs for local communities to enable their active participation in carbon trade projects, including education on conservation and sustainable land management practices.
- Implement a comprehensive program to teach young people the technical aspects of carbon trading, including MRV processes, project development and sustainable practices. This can be done through short- and long-term training in schools, universities and dedicated training centres.



Photo credit: Imani Nsamila

Conclusion

This study aimed to provide insights into unlocking the potential for carbon trade in Tanzania by identifying the opportunities and challenges in developing the sector. The study clearly shows that Tanzania has vast opportunities to develop diverse sources of carbon credits. With further enhancements to the regulatory and institutional frameworks for carbon trade, the country can leverage its local community interest, national political will and international standing for climate change initiatives to expand the domestic carbon sector and contribute to Tanzania's sustainable development.

References

Ahluwalia, M. S., & Patel, U. (2023). Financing Climate Change Mitigation and Adaptation in Developing Countries. In: A. Bhattacharya, H. Kharas, and J. W. McArthur (Eds.), Keys to Climate Action: How Developing Countries Could Drive Global Success and Local Prosperity (pp. 309-331). <https://www.brookings.edu/wp-content/uploads/2023/02/Chapter-12.-Financing-climate-change-mitigation-and-adaptation-in-developing-countries.pdf>

United Nations Climate Change. (1992). United Nations Framework Convention for Climate Change (UNFCCC). New York: United Nations Headquarters. <https://unfccc.int/process-and-meetings/united-nations-framework-convention-on-climate-change>

United Republic of Tanzania. (2022). National Carbon Trading Guidelines, October 2022. Vice President’s Office, Dodoma. <https://www.vpo.go.tz/uploads/publications/sw-1715925778-en-1674038035-National%20Carbon%20Trade%20Guidelines-2.pdf>

United Republic of Tanzania (URT). (2023). Environmental Management (Control and Management of Carbon Trading) (Amendment) Regulations G.N No. 721 of 2023.

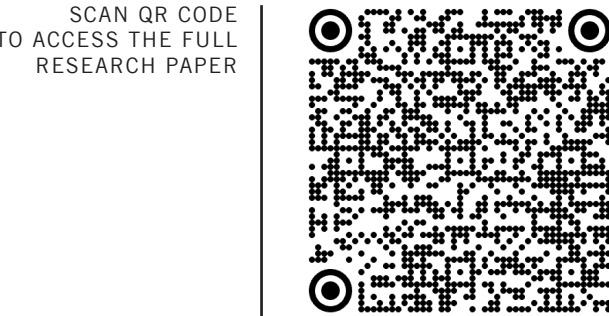


Dodoma
Kambarage Tower (PSSSF Building), 8th Floor,
18 Jakaya Kikwete Road
P.O. Box 1081
Phone: +255 (0) 26 296 3882/3

Dar es Salaam
Plot No. 100, 1 Magogoni Street, Kivukoni
P.O. Box 105753
Phone: +255 (0) 22 211 0372/3

Email: info@uongozi.or.tz
www.uongozi.go.tz

- UONGOZI
- UONGOZI Institute
- UONGOZI Institute
- uongozi_institute
- UongoziInstitute



SCAN QR CODE
TO ACCESS THE FULL
RESEARCH PAPER

Photo credit: Imani Nsamila