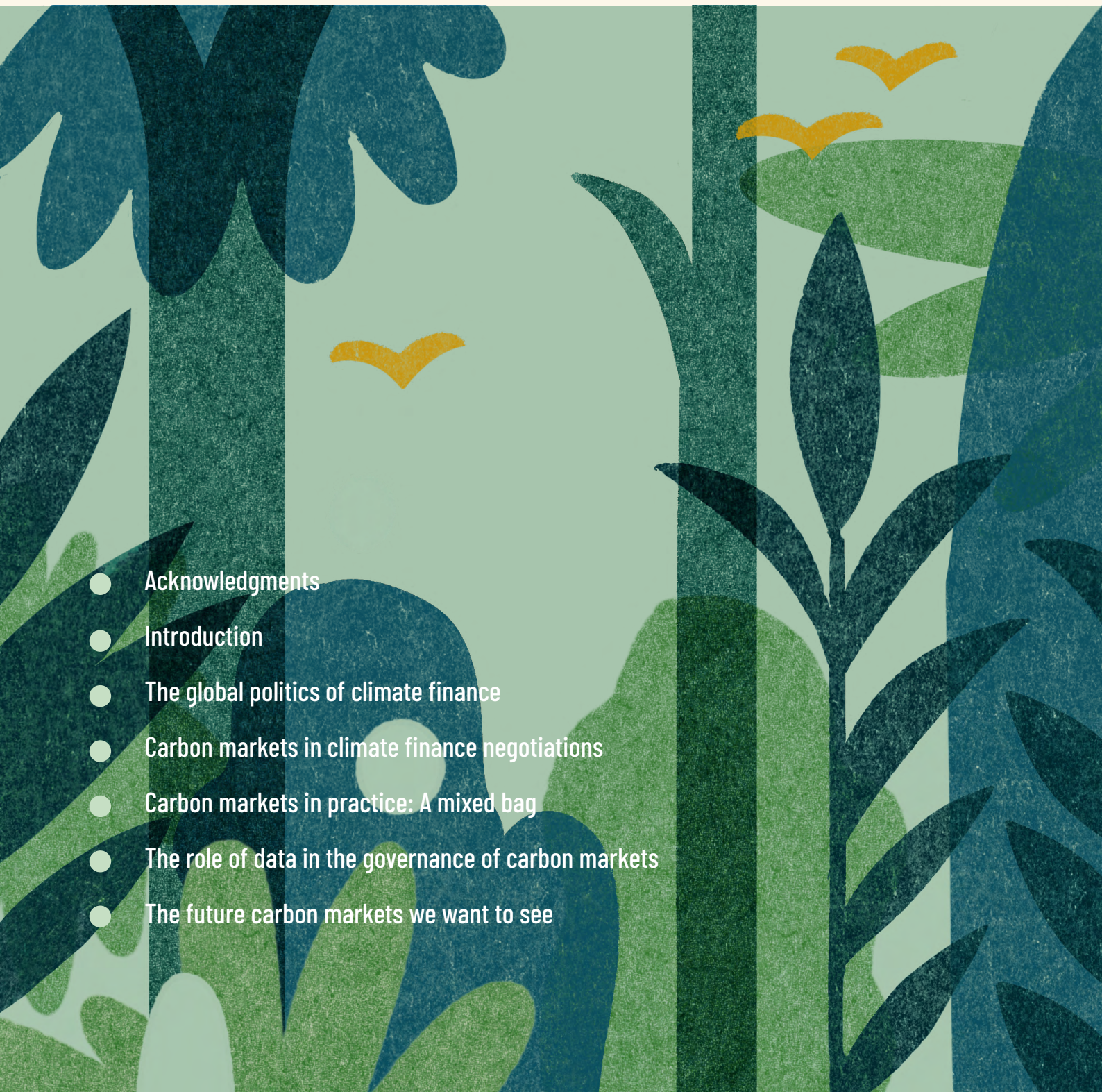


Explaining Carbon Markets

An introduction for practitioners in sustainable development, civic tech, and anti-corruption

May 2025

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- A stylized illustration of a forest with various shades of green and blue trees and foliage. Three yellow birds are flying in the sky.
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Introduction

The climate crisis is arguably the most consequential and complex collective challenge that humanity has ever faced. Adapting to and mitigating its many manifestations requires both global consensus and local action on an unprecedented scale. The challenge of financing the global transition from fossil fuel-driven economies to net zero greenhouse gas emissions is as vital and complex as human-induced climate change itself.

Carbon markets are one of many mechanisms presently being explored as potential solutions to financing climate change mitigation. With the aim to discourage heavily polluting activities by making it more expensive to emit greenhouse gasses, carbon markets, in theory, incentivize industries to prioritize the switch to net zero. In practice, however, **carbon markets are grappling with an integrity crisis. Their market-oriented structure, global scope, and inherent complexity provide fertile ground for greenwashing, corruption, and nefarious profiteering.**

Within this context, [Development Gateway: An IREX Venture](#) is working to better understand how **the integrity of carbon markets can be improved.** Our analysis centers on leveraging our evidence and data-driven approach to develop digital public anti-corruption tools for carbon markets. We strive to support the development of high-integrity carbon markets that maximize transparency, local participation, and accountability.

This brief provides an introduction to carbon markets for readers working across the sustainable development, anti-corruption, and civic tech sectors. It outlines the political context behind their evolution, explains the operational procedures of these complex mechanisms, and highlights the fundamental principles essential for building digitally-enabled, high-integrity carbon markets.

The global politics of climate finance

The adoption of the [Paris Agreement](#) in 2015 marked the first time governments from around the world reached a legally binding international treaty to limit climate change. To monitor progress and continually strengthen efforts to achieve its core objective of keeping global warming below 1.5° Celsius above pre-industrial levels, annual Conferences of the Parties (COPs) are held in alternating locations to discuss the Agreement. **In recent years, climate finance—the term describing the deeply contested question of who is responsible for funding global climate change mitigation and adaptation—has taken center stage in COP negotiations.**

At the [29th COP](#), held in Azerbaijan in November 2024, [parties agreed on a target of at least US\\$300 billion per year](#) by 2035, to be transferred from (in their terms) “developed” to “developing” countries to finance climate adaptation and mitigation activities. While this figure marks a tripling of previous commitments, negotiators argue that more is needed. Despite a more recent fracturing of consensus around climate policy in 2025, **the prominence of climate finance as an issue at future COPs is still expected to increase as the impacts of climate change intensify, along with the escalating need for mitigation and adaptation funding.**

Carbon markets in climate finance negotiations

A significant milestone at the 29th COP was [an agreement](#) to “kick-start global carbon credit trading.” **Carbon trading refers to the buying and selling of carbon credits within carbon markets.**

In a carbon market transaction...



CO₂ POLLUTION EMITTED



COST OF OFFSET



TONS OF CO₂ SEQUESTERED

DATA POINTS

Compulsory and voluntary carbon markets can [trace their roots](#) back to the 1980s, and play a crucial role in incentivizing the transition to net zero greenhouse gas emissions for high-polluting industries. In carbon markets, polluters offset their carbon emissions by purchasing carbon credits, which are backed by real-world decarbonization activities such as reforestation. Carbon markets operate both locally within a single country or transnationally across multiple countries. They are intended as temporary stopgap measures, designed to incentivize companies to lower their emissions rapidly in the short term while working toward reaching net zero emissions in the medium to long term.

Carbon markets in practice: A mixed bag

While carbon markets are often praised by UN bodies, regional economic blocs like the EU, and governments as integral to combating climate change, they can also have disruptive effects on local communities and serve as a vehicle for corruption, as Kenya's experience illustrates.

Kenya's experience of carbon markets

Kenya has emerged as a leader in Africa's carbon market ecosystem, using its wealth of natural resources to generate carbon credits while simultaneously pursuing national climate goals. The country has a growing portfolio of projects—spanning reforestation, land restoration, and renewable energy—that collectively reduce greenhouse gas emissions and deliver co-benefits, including income for communities, biodiversity conservation, and improved local climate resilience.

Kenya's carbon market ecosystem is shaped by a supportive policy environment and a set of evolving regulations. The cornerstone regulations are the Climate Change (Carbon Markets) Regulations (2024) and the Climate Change (Amendment) Act 2023. These regulations provide technical and regulatory oversight for participation in carbon markets in Kenya, as well as promote transparency, standardize project registration, and aim to ensure environmental and social safeguards.

Kenya's budding carbon market ecosystem, however, is not without its controversies¹²³. One of Kenya's flagship initiatives is the Kasigau Corridor REDD+ Project in southeastern Kenya, which protects over 200,000 hectares of dryland forest. Operated by Wildlife Works, a US-based company, the project generates carbon credits by preventing deforestation and directly reducing CO2 emissions. It also emphasizes community development, with carbon credit revenue being used to finance schools, fund healthcare, and provide employment for local residents, particularly women. However, the project has been marred by [allegations](#) of adverse community impacts, unethical employment practices, and sexual harassment.

Similarly, the Northern Kenya Rangelands Carbon Project (NKRCP), recognized as the world's largest soil carbon removal initiative, has sold carbon credits to corporations such as Meta, Netflix, and the UK-based bank, NatWest. However, local Maasai pastoralist communities have accused the company of "disrupting their ways of life and denying them access to their ancestral land."

1 <https://www.bbc.com/news/world-africa-67352067>

2 <https://www.tmg-thinktank.com/blog/navigating-carbon-markets-implications-for-land-rights-and-community>

3 <https://www.ifcreview.com/articles/2024/january/kenya-s-carbon-markets-the-goose-that-lays-the-golden-egg/>

The integrity and trustworthiness of a carbon market can be undermined by corruption at any stage of the carbon value chain. Corruption in carbon markets can take many forms, from double counting or issuing fake credits to artificially inflating or deflating the price of carbon offsets. Corrupt government officials may engage in approving non-compliant projects or facilitating land transfers for carbon projects, and there are also [growing concerns](#) around the use of carbon credit purchases as a conduit for money laundering and tax evasion.

OPPORTUNITIES FOR CORRUPTION IN A CARBON MARKET VALUE CHAIN



Clear standards and tracking mechanisms, however, can help to prevent corruption in carbon markets. For this reason, **the COP29 carbon trading deal is particularly significant, as it represents a tangible first step toward establishing common international standards and coordination mechanisms for tracking and regulating transnational carbon trading.** Reflecting the contentious nature of all climate finance negotiations, [the carbon credits deal represents a compromise](#). On the one hand, the EU and many developing countries advocated for centralized tracking and credit authentication under the auspices of the UN. On the other hand, several other states favored a system that promoted direct country-to-country carbon trading.

The final agreement accommodates both perspectives by green-lighting a UN trading system and

global registry of transactions, *while* also clarifying that registry entry “[does not qualify as a UN endorsement of the credits](#),” thereby limiting the UN’s oversight role. Furthermore, while a centralized UN system for carbon trading has been authorized, it does not preclude the continuation of country-to-country carbon trading.

From a good governance perspective, the key takeaway is that agreement on common standards and coordination mechanisms are essential for reducing opportunities for corruption in carbon markets, as well as for strengthening their integrity.

Better data and greater transparency can support higher-integrity carbon markets, in which good governance checks and balances are built into their design.

High-integrity carbon markets rely on stringent standards and best practices to ensure that traded carbon credits reflect genuine, verifiable reductions in greenhouse gas emissions. These markets build trust and credibility by ensuring that purchased credits contribute to real climate action and are not double-counted, exaggerated, or based on unreliable data.

A HIGH-INTEGRITY CARBON MARKET VALUE CHAIN



The role of data in the governance of carbon markets

Climate finance data reflect the complexity of the political compromises involved in global climate negotiations. Questions about which projects or investments should qualify as efforts to combat climate change remain contentious, as [our research](#) into climate finance tracking in Africa highlights. For instance, should investments in natural gas or nuclear power be counted as ‘climate finance’? Measuring—and, in some instances, even knowing what to measure—as climate finance is a contentious issue.

As a key climate finance tool, this political complexity is also prevalent in carbon market data. In carbon markets, data are crucial to tracking, monitoring, and evaluating transactions across each stage of the carbon trading value chain. **The primary challenge with carbon market data is that, without transparency, accountability, and inclusive, participatory governance, the political complexity of carbon trading can erode public trust in climate change mitigation efforts. This challenge is well recognized, and numerous international initiatives exist to enhance the transparency of these transactions.**

The future carbon markets we want to see

At Development Gateway, we believe that digital development efforts should be based on the good governance principles of transparency, accountability, inclusion, and participation. The agreement on carbon markets at COP29 is a welcome development, particularly for its inclusion of provisions on the development of common standards and registries of transactions. In time, **we anticipate that these provisions will result in higher-quality, more consistent data that can be used to better identify, monitor, track, and evaluate the efficacy of global carbon markets.**

Ultimately, whether organized through a centralized UN system or based on country-to-country agreements, we believe all carbon markets should be:

- Effective vehicles for reducing greenhouse gas emissions and promoting sustainable development;
- Based on high integrity and trustworthy processes;
- Actively managed to minimize the risk of corruption;
- Inclusive of, and accountable to, host communities; and
- Based on high-quality data that are accessible, transparent, and interoperable.



If you are working to tackle any of the issues covered in
this brief and would like to get in touch, please write to:
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