BLOG POST

CARBON MARKETS: NAVIGATING THE FUTURE OF CLIMATE FINANCE

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In 2015, the United Nations established 17 Sustainable Development Goals (SDGs) and 169 specific targets in its 2030 Agenda for Sustainable Development. With only six years left until the deadline, challenges remain significant. In Latin America and the Caribbean (LAC), one of the richest regions in biodiversity and natural resources, the investment deficit is estimated to be between US$470 billion and US$1.3 trillion annually in infrastructure.[1] The financial gap is also evident even in regions that are more advanced in sustainability management, such as Europe, where it is estimated that an annual investment of EUR€350 million is required to achieve the climate change mitigation goals.[2]

Faced with growing concern about the advance of climate change and the loss of biodiversity; companies, banks, and governments are intensifying their decarbonization efforts. This strategic shift recognizes two facets of climate change: the financial risks it poses, and the growing opportunities it represents for investments in clean and renewable technologies. In this context, the carbon credit market—encompassing both regulated and voluntary markets—are emerging as increasingly significant instruments on the global stage. This market is a testament to the growing recognition of the need for innovative financial mechanisms to support the transition towards a sustainable, low-carbon economy.

BUT, WHAT IS THE CARBON MARKET?

The carbon market is a financial trading system designed to reduce global greenhouse gas (GHG) emissions. A carbon credit essentially serves as an emission allowance. Under this system, entities are allocated a certain number of credits and can acquire more in two ways: by purchasing them from others, or, by generating new credits through mitigation projects that remove carbon from the atmosphere.[3]

On one side of the market, there are the emitters: companies, industries, and sometimes governments that produce GHGs as a byproduct of their operations. These entities have a certain amount of credits, which represent the right to emit a specific amount of GHGs. If they emit less than they are allowed, they will have a surplus to sell on the market; if they emit more, they will have to pay to obtain more credits. This mechanism encourages emitters to reduce their carbon footprint, either by improving their operational efficiency or investing in cleaner, renewable energy sources.

On the other side of the market are the investors, or project developers who contribute to the generation of carbon credits. They invest in projects that are designed to reduce carbon emissions or capture carbon, such as reforestation projects, renewable energy installations, and carbon capture technologies. These projects generate carbon credits by quantifiably reducing GHG emissions.

The credits can then be sold on the carbon market, providing financial returns for the investors and contributing to global emission reduction targets. The aim of this scheme is to encourage the reduction of emissions responsible for climate change by penalizing higher emitters and providing alternative financing options for those who manage to lower their emissions and choose to sell their surplus credits. This model not only assigns a market price to carbon dioxide and other GHGs—reflecting the environmental and social costs associated with their release—but also emphasizes global efforts to mitigate climate change.

Currently, there are two types of carbon markets:[4]

1. **Regulated markets:** are a result of national, regional, and/or international policies or regulatory requirements. Participants must buy carbon credits to comply with caps on their carbon emissions.
    a. **Participants:** Entities that are legally required to offset their carbon emissions, typically large emitters from sectors like power generation, manufacturing, and aviation.
    b. **Implications:** Failure to comply with regulatory requirements can result in legal penalties. Participation is often driven by necessity rather than choice.
    c. **Examples:** The oldest emission trading scheme is European Emissions Trading System (EU ETS), established in 2005, covering around 10,000 installations in the energy sector and manufacturing industry and around 40% of the EU's emissions. China's ETS is the world's largest in terms of covered emissions, estimated to cover more than 4 billion tons of CO2 and accounting for over 40% of the country's carbon emissions.
2. **Voluntary markets:** emerge from the need and interest of companies and consumers to reduce their carbon footprint. Operates outside of compliance markets, allowing participants to buy carbon credits to offset emissions on a voluntary basis.
    a. **Participants**: Any organization, government, or individual looking to offset their carbon footprint voluntarily.
    b. **Implications**: Participation is driven by sustainability goals, reputation management, and investor or consumer pressure rather than legal obligation. It offers more flexibility in choosing projects to support but lacks the enforceable framework of regulatory markets, often driven by corporate sustainability goals and consumer demand for environmentally responsible practices.
    c. **Framework**: In 2020, the Taskforce on Scaling Voluntary Carbon Markets (TSVCM) was published by the United Nations for Climate Action and Finance, aiming to propel these initiatives forward.

WHAT IS THE ORIGIN OF CARBON MARKETS AND HOW HAVE THEY EVOLVED?

The first carbon market system emerged in 1997 following the signing of the Kyoto Protocol. Under this agreement, 191 countries committed to mitigating or reducing their GHG emissions. Article 17 of the protocol allowed countries to sell their unused emission allowances to those who exceeded their limits, thus establishing a carbon price and economically penalizing the largest emitters.[5] This system incentivized reductions in GHG emissions by assigning a financial value to carbon.

From this, the Protocol establishes three market-based mechanisms, thus creating what is now known as the carbon market[5]:

- **Clean Development Mechanism (CDM):** aims for more developed countries to invest in emission reduction or elimination projects in developing countries.
- **Joint Implementation (JI):** allows developed countries to carry out emission reduction or elimination projects in other developed countries.
- **Emissions Trading (ET):** a system that permits the trading and selling of more emission units than actually exist.

The Kyoto Protocol laid the groundwork for the global carbon market, introducing mechanisms that underpin both its regulatory and voluntary segments. Despite this foundation, the carbon credit market's growth was somewhat constrained by issues of standardization, verification, and market credibility. It wasn't until the 2021 Glasgow Climate Change Conference (COP26) that significant strides were made to address these challenges.[6] A landmark achievement of the conference was the global consensus on standardized criteria for measuring, reporting, and verifying GHG emission reductions, alongside the establishment of a unified database and registry.

These advancements did not merely enhance the regulatory markets; they also gave a significant boost to voluntary initiatives. In response to the evolving landscape, the voluntary market saw the introduction and adoption of a range of standards for emissions reduction certification, aimed at bolstering credibility, transparency, and environmental integrity. Among these standards are the Verified Carbon Standard (Verra), Gold Standard, Carbon Fix, Plan Vivo, Climate Community and Biodiversity Standard, among others. These frameworks have been pivotal in legitimizing voluntary carbon offsetting efforts, ensuring that such activities contribute meaningfully to global climate goals.

Additionally, complementary initiatives have emerged such as REDD+ launched by the UNFCCC. This initiative targets the reduction of emissions from deforestation and forest degradation in developing countries by assigning a financial value to the carbon stored in forests.

In Latin America and the Caribbean, Mexico led the way in 2020 by launching the region's first carbon market with the goal of full compliance by 2023, aiming to cover 37% of its national emissions before adopting a broader global framework. Concurrently, Colombia is working to finalize the framework of its carbon market, while Chile updated its carbon tax legislation in 2021.[7]

Finally, as the market grows, significant innovations emerge. In 2021, the World Bank introduced a pioneering **bond linked to emission reductions**, allowing investors to earn returns related to the generation of carbon credits from a specific project. [8]

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