

Understanding Carbon Markets and Their Role in Combating Climate Change

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What is a Carbon Market?

- A **carbon market** is a system that allows the buying and selling of the right to emit carbon dioxide (CO₂) into the atmosphere.
- Governments issue **carbon credits**, where **one credit equals 1,000 kilograms of CO₂ emissions**.

- The idea is to control the total carbon released by limiting the number of carbon credits issued.
- Firms or individuals exceeding their emission quotas must buy additional credits from those who emit less than their allowance. This trading creates a financial incentive to reduce emissions.
- The concept first emerged in the 1990s in the U.S., using a **cap-and-trade model** to regulate sulphur dioxide emissions.
- Now, carbon markets are expanding to include **carbon offsets**, where businesses pay for environmental projects like tree planting to compensate for their emissions.

Benefits of Carbon Markets

- **Internalizing Externalities:** Emissions are a classic **externality**, where businesses do not bear the cost of the pollution they cause. Carbon markets impose a price on emissions, motivating companies to reduce their carbon footprint.
- **Market Efficiency:** Allowing the trading of credits ensures that firms with lower costs of reducing emissions take more action, optimizing resource allocation.
- **Improved Monitoring:** Technological advancements have enhanced the tracking and reporting of emissions, making the system more reliable.

Criticism and Challenges

- **Manipulation of Supply:** Governments might issue excessive credits, reducing their price and failing to curb emissions effectively.
- **Lack of Incentives:** Firms may engage in **virtue signalling** by purchasing offsets without ensuring real emission reductions.
- **Voluntary Systems:** Large corporations often resist government-imposed budgets, preferring voluntary frameworks like the **Carbon Disclosure Project**.
- **Economic Impacts:** Critics argue that restricting carbon credits might slow economic growth.

How Carbon Markets Work?

- **Cap-and-Trade:** Governments set a cap on total emissions and issue credits accordingly. Companies that emit less can sell their unused credits to others.
- **Carbon Offsets:** Businesses pay for environmental initiatives, such as afforestation, to offset their emissions.
- **Price Determination:** Market forces of supply and demand decide the price of carbon credits.

Global Perspective and the Role of COP29

- The ongoing **COP29 Climate Conference in Baku** has approved standards to establish an international carbon market, potentially operational next year.
 - **COP** stands for **Conference of the Parties** and it often refers to the **United Nations Framework Convention on Climate Change** (UNFCCC) international meeting focusing on climate.
- This move aims to harmonize global efforts to curb emissions and align with the **Paris Agreement** goals.

Criticisms of Carbon Offsets

- **Efficacy Concerns:** Some argue offsets are more about public image than actual impact.
- **Lack of Verification:** Ensuring that projects genuinely offset emissions remains a challenge.

Industry & Government Perspectives

- Large corporations like ExxonMobil support market-based mechanisms over government controls, arguing for flexibility and cost-efficiency.
- Governments must balance environmental objectives with economic growth, navigating complexities in regulating and monitoring emissions.

Conclusion

- Carbon markets offer a promising tool for mitigating climate change by assigning economic value to carbon emissions.
 - However, their success depends on robust regulation, transparency, and genuine commitment from all stakeholders.
 - By addressing the criticisms and refining the system, carbon markets can significantly contribute to achieving global climate goals.
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Q1. What is the UNFCCC and what do they do?

The UNFCCC secretariat (UN Climate Change) is the United Nations entity tasked with supporting the global response to the threat of climate change. UNFCCC stands for United Nations Framework Convention on Climate Change.

Q2. What is the difference between mitigation and adaptation?

In essence, adaptation can be understood as the process of adjusting to the current and future effects of climate change. Mitigation means preventing or reducing the emission of greenhouse gases (GHG) into the atmosphere to make the impacts of climate change less severe.

News: [How would a carbon market function? | Explained](#)

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