

Lessons from the world's largest market-based approach to lowering CO2 emissions



As part of the Kyoto Protocol, the Clean Development Mechanism (CDM) was designed to reduce greenhouse gas emissions as well as foment sustainable development in developing economies. Carbon offsets are created when private project developers undertake initiatives that reduce greenhouse gas emissions. In less-developed economies, carbon offsets can be sold to firms in advanced economies that need to meet government-mandated emission caps. However, in order to participate in this regulated market, projects must be approved by the local-country CDM office first before they are approved at the central CDM office in Bonn, Germany. Using detailed data from 8,769 project design documents across 92 countries, we examined project approval and whether the world's largest market-based approach to addressing United Nations Sustainability Goals (UNSDGs) yielded similar results across countries.

The results showed substantial differences in how country-level CDM offices approved carbon offset projects. Overall, projects addressing social and economic sustainability issues were more likely to be approved, but those addressing environmental issues were often discounted and more frequently rejected.

We dug deeper into these results to explore the drivers behind them. First, we explored the effects of the ministry that housed the country CDM office. Most CDM offices are housed in government agencies that oversee the environment, but in some countries, they are housed in ministries such as those related to economic development and commerce. Our results indicated a preference among local CDMs housed in environmental government agencies for projects claiming positive ecological benefits, in addition to the carbon reduction benefits of the project.

Second, controlling for local CDM office location, we examined approval by country to see whether idiosyncratic effects existed based on national political priorities. The analyses confirm this conjecture. Among the largest producers of projects, for instance, China preferred projects that claimed economic growth, while Brazil's CDM office favoured projects that addressed ecological issues.

Our findings have particular relevance for understanding the implementation challenges of the 2015 Paris Agreement on climate change, which went into effect earlier this year. Article 6 of the Paris Agreement proposes structures that promote sustainable development and limit global warming through "overall mitigation in global emissions."

Although many details of Article 6 are unclear, there are implementation differences between the CDM and the Paris Agreement. For one, the Paris framework offers countries greater autonomy in metric creation and project approval. This can result in greater global variability in the types of sustainability goals addressed as well as a higher impact of idiosyncratic political and economic priorities on project approval. Moreover, purchasing countries and businesses may find it difficult to accurately assess and compare carbon reduction and sustainability outcomes of projects across countries.

In order to address these issues, our paper offers several suggestions for the Paris Agreement. Businesses purchasing emission reductions and investing in climate mitigation efforts elsewhere will need to ensure that these activities actually achieve sustainability goals. They should push for transparency in reporting metrics and details related to the achievement of — and not just the intent to achieve — sustainable development goals. A recent survey showed that only 11 countries (representing 2.9% of global emissions) had submitted definitive emission reduction plans, suggesting that many are still under development and could still be influenced by public participation and comment. Given that environmental groups and businesses expressed doubts about whether the CDM actually limited carbon emissions, addressing these issues in the Paris Agreement will be even more important to enhance the legitimacy and effectiveness of this new market that replaces the CDM.



Notes:

- This blog post is based on the authors' paper "[Does a Common Mechanism Engender Common Results? Sustainable Development Tradeoffs in the Global Carbon Offset Market](#)" in *Academy of Management Discoveries*.
- The post expresses the views of its author(s), not the position of LSE Business Review or the London School of Economics.
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