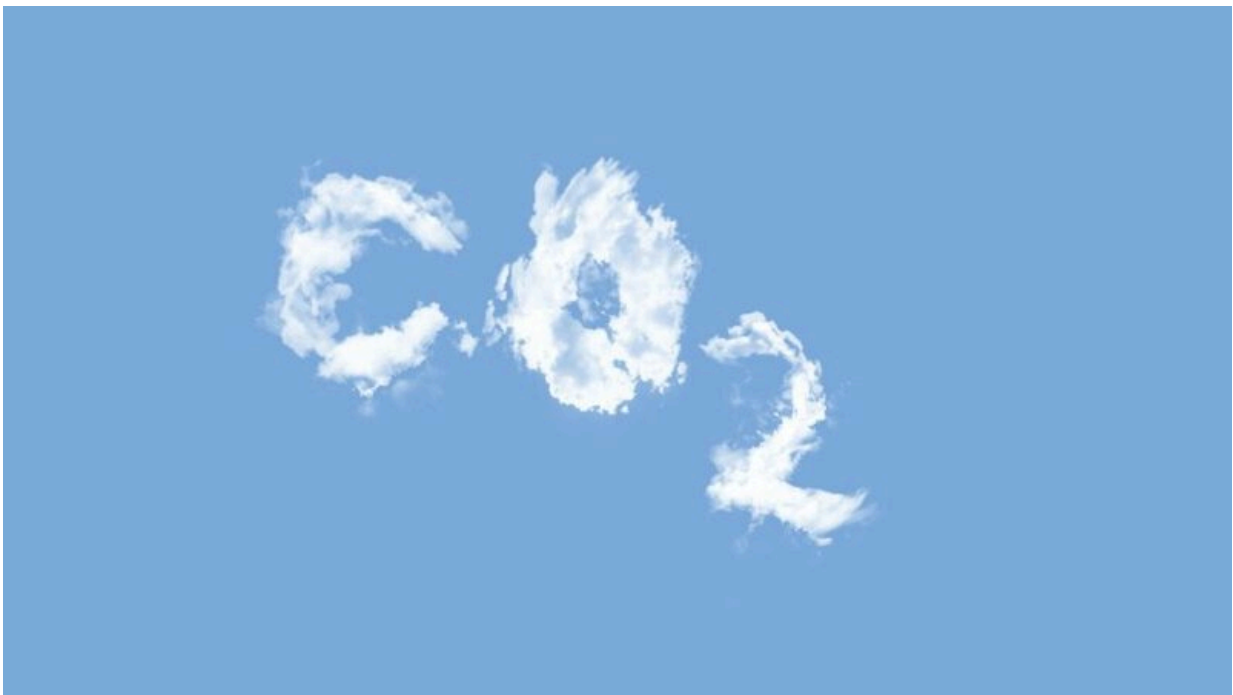


Border tax on carbon dioxide offers huge opportunity to fight climate change, say researchers

April 24 2023, by Samuel Hanegreefs



Credit: Unsplash/CC0 Public Domain

A tax on CO₂ emissions from products entering the EU offers unprecedented opportunities in the fight against global warming. That is the conclusion of research on which Leiden environmental scientist Hauke Ward collaborated. "A new world is opening up," Ward says.

"But success hinges on how we involve low- and middle-income countries."

With a new [border](#) tax on CO₂ (CBAM), the EU wants to prevent countries from relocating their industries to countries with less strict climate policies. The European proposal is to impose a step-by-step tax on CO₂ emissions from products entering the EU starting in 2025. Politicians agree that this mechanism should be put in place, but the precise implementation is still under discussion.

Leiden environmental economist Hauke Ward and three international colleagues investigated the possible applications of the border tax. In *Nature Communications Earth & Environment*, they share their findings. "Our starting point is the flow of goods going in and out of a country," Ward says. "Everything you import and export has a [carbon footprint](#). That provides opportunities to exert influence."

The CBAM (Carbon Border Adjustment Mechanism) is an offshoot of the European Emissions Trading Scheme (EU-ETS). The idea of CBAM and a carbon border tax is that companies are less likely to move production outside the EU if imports are subject to the same carbon price as domestic production.

Potential of border tax greater than expected

Together with colleagues Timothé Beaufils, Leonie Wenz (Postdam Institute for Climate Impact) and Michael Jakob (Ecologic Institute), Ward concluded that the potential of CBAM is enormous. Many times greater even than European policymakers themselves realize. "If we were to apply the border tax in its least ambitious form, it would already affect about 83 megatonnes of CO₂ (based on 2016 figures)," Wenz says. "In that case, it's mainly about direct emissions from imported steel, aluminum and cement."

But that is only a fraction of the potential, the study shows. The EU could expand the scope of the CBAM to the point where it covers the direct and indirect carbon footprint of all goods arriving in the EU. In such a scenario, the mechanism would cover as much as 1,558 megatons of CO₂, the scientists argue. In other words: twenty times more than the least ambitious scenario.

Is that fair for low-income countries?

A prerequisite is that the CBAM applied carefully, otherwise low- and middle-income countries will be disproportionately affected. First author Beaufils says, "Many of those countries have relatively small domestic markets. They generate a large part of their CO₂ emissions in the production of goods destined for the EU. As a result, they are hit extra hard by CBAM."

Canceling the tax for some of those vulnerable countries might be a solution. But that does not emerge from the study as the best approach. It would be a *carte blanche* to keep emitting lots of CO₂.

Ward and his colleagues therefore put forward an alternative: cleverly reusing the revenue generated by the CO₂ border tax. The EU could invest that money to help precisely those low- and [middle-income countries](#) develop clean industries and cope with climate change-induced damages. Countries most affected by the climate crisis, especially in Africa, Southeast Asia and Latin America, should receive the largest share of the proceeds, according to the researchers.

According to Ward, if we expand the scope of CBAM and use the proceeds of the tax smartly, the mechanism could truly become a gamechanger. "Especially if other [major economies](#), such as the U.S. or China, follow the European example and come up with similar regulations."

More information: Emissions trading scheme:
[climate.ec.europa.eu/eu-action ... ing-system-eu-ets_en](https://climate.ec.europa.eu/eu-action/eng-system-eu-ets_en)

Provided by Leiden University

Citation: Border tax on carbon dioxide offers huge opportunity to fight climate change, say researchers (2023, April 24) retrieved 11 May 2024 from <https://phys.org/news/2023-04-border-tax-carbon-dioxide-huge.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.