

Impact of carbon based unilateral trade measures on exports from developing countries: A case study of India

Topic: Environmental input-output modeling IX

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At a time when countries are struggling to arrive at a consensus in fighting climate change, countries and primarily developed, are planning to move unilaterally and adopt strategies to curb local and global GHG emissions. Developed countries perceive that if developing countries do not commit on emission cuts in a post 2012 global climate policy regime, emissions intensive production units in developed countries may relocate to the developing nations (carbon leakage), and undermine the global combat against climate change. As a result, developed countries are exploring trade measures in the form of carbon based border adjustments on imports from developing countries to create a level playing field for industries of developed nations. These strategies have important trade implications for developing countries.

In such a possible scenario, the paper tries to identify countries that can possibly adopt such policies and the impact of these policies on exports from developing countries. It learns whether they comply with the existing WTO and UNFCCC principles, and finally suggests a possible roadmap that would create win-win situation and help in addressing the global problem of climate change.

Extensive literature review is undertaken to understand the impact of domestic carbon taxes on carbon leakages from developed countries and how effective are carbon based border taxes in preventing carbon leakages. The study also makes a detailed review of existing voluntary trade barriers and qualitatively analyse the key impacts being already faced by certain exporters from India. The study estimates the possible impact on India's exports revenue under two border carbon tax scenarios i.e. €20 and €30 per ton of carbon embodiment in India's products exported to US, UK, France and Germany. It uses India's energy and environment input output table (derived from the latest economic input output table, sectoral energy use and the carbon emission factors). Further it uses and commodity and country specific price elasticities that are estimated from the unit values of exported products (calculated at the 8 digit level) published by CEPII. These results along with India's exports to selected developed countries help in estimating the decline in total exports. Results reveal that decline in exports revenue from certain sectors like cotton textiles, glass and ceramic, leather, and iron and steel can be as high 40 percent. Many of these sectors involve a lot of manual labour any impact on revenue will result in short run to medium unemployment and can potentially affect capital investment. This may also affect possible improvement towards making production processes resource efficient. The study identifies and presents certain best practices primarily focusing on technology collaboration and transfer, and presents a possible win-win strategy for industries from developed and developing countries while addressing the global problem of climate change.