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Towards a Decarbonized Future: India and EU on Carbon Pricing

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Introduction

With an ambitious target of achieving carbon neutrality by 2050 under the European Green Deal, the EU has already displayed its aspiration to be a global leader in climate action. As part of the Green Deal, the EU is gearing towards creating Carbon Border Adjustment Mechanism (henceforth CBAM). The aim is to address the issue of Carbon leakage and discourage carbon-intensive imports by imposing additional import duties on specific products based on their carbon content. **Policies like CBAM will give Brussels the first-mover advantage and help shape global climate governance norms.**

India is also pursuing a greener future and has made substantial progress on its Nationally Determined Contribution (NDC) to the UNFCCC. New Delhi has committed to 33-35 % reduction in greenhouse gas (GHG) emissions by 2030 compared to the 2005 level. It has set the target of increasing the share of renewables in the power sector to 450 GW by 2030. However, **to demonstrate leadership on climate change, New Delhi needs to accelerate the decarbonization of its economy.** In this regard, one of the most efficient and cost-effective ways to ensure emission reduction is to use fiscal tools, like the Carbon tax. **Pricing Carbon will allow New Delhi to direct climate-related policies and generate revenue to fund other green initiatives.**

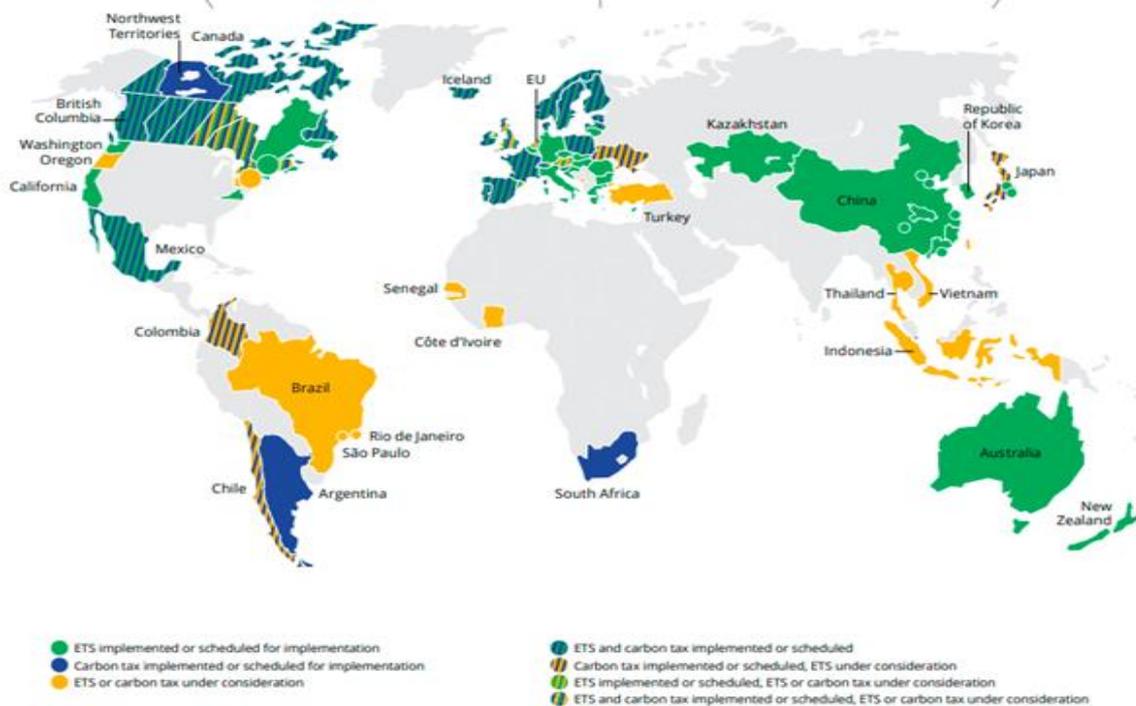
This task has become more urgent in the background of the recent IPCC report and the CBAM proposed by the EU. The EU's roadmap for achieving ambitious climate goals will affect the global trading systems, which are currently roiled by tariff wars and rising protectionism (Sangappillai & Ganesan, 2020). Proposed CBAM will be applied on steel, aluminium, iron, electricity and fertilizers, some of India's major exports to the EU. **As the third-largest trading partner of the EU and with no provision of the carbon tax, Indian exports are bound to lose their competitive advantage in the European market once CBAM is implemented** (Krishnankutty, 2021). Therefore, CBAM is a cause for concern for India. **New Delhi has to prepare its economy for the green transition to keep Indian exports competitive and take the lead in global climate governance.**

Why Carbon pricing is the way forward for India?

Carbon pricing is a tool that factors the external cost of carbon emissions – the cost that the public pays for incurring damages to the environment and health – and ties them to their sources through the price of the Carbon emitted. Placing a price on Carbon shifts the burden for the damage on the emitters – those responsible and who can avoid it. The World Bank's Carbon Pricing dashboard (2021) states that 45 countries have implemented national or supranational carbon pricing initiatives. Although these initiatives amount to a tiny percentage of the global GHG emissions, the international acceptance of the carbon pricing mechanism is gaining ground. Nearly 97 countries (signatory to the Paris Agreement) have included carbon pricing in their respective NDCs, indicating their intentions to consider this policy instrument seriously to meet their NDC commitment (Chandra, 2021).

Arguments for carbon pricing also stem from the criticism that climate change is a market failure, which imposes costs and risks for the future. This is because the negative impacts of the emissions generated from economic activities are not considered. Placing a price on the emissions thus internalizes the cost of climate change and steers the economy towards decarbonization. A robust carbon pricing mechanism can mobilize domestic revenues (through tax or Emission Tradings) for investing in low-carbon technologies. In 2019, governments generated more than \$45 billion through carbon pricing initiatives (World Bank, 2020).

Figure: 1.1
Carbon Pricing Initiatives Globally



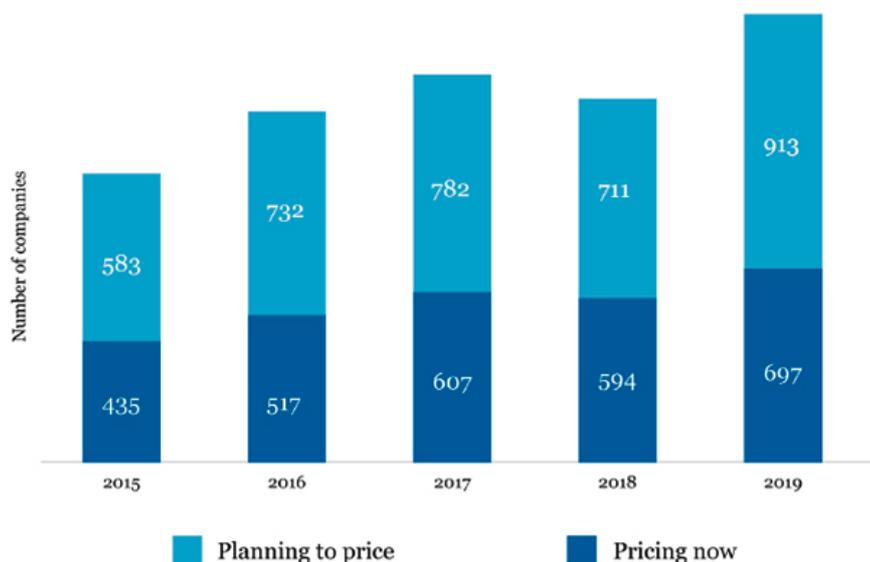
Source: World Bank Report 2020

Presently, India lacks a comprehensive carbon pricing mechanism; however, a few policy instruments such as the Perform, Achieve and Trade (PAT) scheme and the clean energy cess (tax on coal) are in place. **While fiscal measures have been implemented to curb carbon consumption, the question is whether these measures are in tune with the global carbon footprint** (Chandra, 2021). Additionally, the current regulatory measures do not comprehensively cover all sectors. Majority of the focus is on the transportation and the electricity sector accounting for 63% of the emissions. While the manufacturing sector amounts to a significant share in carbon emissions, it is not entirely covered by the existing policy apparatus (Ernst & Young, 2018).

Therefore, a more comprehensive carbon tax structure that robustly covers all sources of emission and provides an incentive to shift to clean sources of energy is necessary for India. The funds generated from these fiscal measures must be redirected towards greener projects. Our experience with the clean energy cess narrates that less than half of the funds generated remained unutilized, thus indicating a serious gap in the policy implementation.

While PAT and the clean energy cess have their limitation, internal carbon pricing (ICP) is emerging as a popular tool among Indian companies to cut emissions. ICP can help companies determine climate risks. Few Indian big-tech companies have already charted their ICP mechanisms. Infosys has an ICP of \$10.5/tonne of Carbon emitted, while Essar Oil has introduced ICP at \$15/tonne of Carbon (Gaurav & Burnwal, 2020). Many other Indian companies are planning to adopt ICP to mitigate the risk from climate change. **To sustain this momentum and push it further, companies would need a strong policy signal from the government of India** (Chandra, 2021).

Figure 1.2
ICP Trends in India



Source: Carbon Disclosure Project – India Report 2020

Further, the EU's major trading partners such as Japan, China, South Korea, Brazil, and Canada have implemented carbon pricing policies. South Korea launched its ETS in 2015, while in 2012, Japan placed a carbon tax on oil, gas, and coal imports. Singapore too passed a legislation adopting carbon tax in 2018. China's carbon market, the world's largest emission trading system, began trading online in July this year. The system covers around 2000 companies responsible for 14% of the world's GHG emissions (nearly 40-50% of the country's GHG emissions) (Nogrady, 2021).

Also with the EU now proposing implementing CBAM, we can see that the rules of competitive advantage in trade are being rewritten (Aylor et al., 2020). **Without an effective carbon pricing strategy in place, Indian exporters to the EU will directly face the impact of a carbon border tax, thus placing them at a competitive disadvantage.** Some of the carbon-intensive exports from India are bound to lose market access as they face the carbon wall (Sangappillai & Ganesan, 2020). There is fear among Indian policymakers that a carbon price on Indian exports will make our industries less competitive. However, with the shifts in the EU and elsewhere towards decarbonization, India will have to gear itself to maintain its competitiveness. **Decarbonizing without disrupting its industrialization and economic growth will remain a significant challenge for India.**

Policy Recommendations: To the Government of India

1. **India must adopt a market-based approach to carbon pricing.** The EU's Emission Trading System (EU ETS) has become a model for market-based approaches to reducing emissions and has been replicated in many other countries in the world. In India, efforts have begun in Gujarat with the launch of Surat ETS in 2019. This could serve as a starting point for the Indian government to introduce a country-wide ETS covering sectors that are deemed as 'high-polluting'. The exchange of policy evidence from the EU ETS can also serve as a good starting point for the Indian ETS.
2. **India should make efforts to account for the carbon footprint of the goods produced in the country.** Data is the most integral element in gauging products' carbon footprint, which could help us identify the right policy pathway and thus make the carbon pricing mechanism more viable. However, presently there is no mechanism in India to source this crucial information. The EU has pledged to account for the carbon footprint of the goods imported and the price they pay in the form of tax. However, it is still unclear how it intends to do so. Thus, both India and the EU can together find a way to capture this crucial data.
3. **India should design a robust regulatory framework promoting Internal Carbon Pricing (ICP) in the country.** ICP is already gaining popularity among Indian companies as they prepare themselves on the path towards decarbonization. However, this trend is much slower than in other countries. A robust policy architecture can help companies

devise strategies that can either benefit from or help them align with the existing policy apparatus in the country.

4. **Indian government must form a Carbon Tax Council, which shall be at par with the GST Council and shall be responsible for the design, implement and monitoring of the carbon fiscal reforms in the country** The Carbon Tax Council will have to ensure that the existing carbon fiscal measures are linked to the quantum of carbon emissions. It will also ensure that the revenues generated from the fiscal tools are directed towards clean energy projects.
5. **India must identify a clear strategy for utilizing Carbon revenues to increase the acceptability of carbon pricing at a mass level.** Otherwise, households and firms will not be favorable to a new tax that lowers their income or profit. The core challenge to gain popular acceptability would be identifying a strategy to deal with the diffused benefits and concentrated costs of Carbon pricing. Therefore, a roadmap for identifying viable projects before implementing carbon pricing would ensure that carbon revenues are appropriately utilized.
6. **Utilizing the Carbon revenues to compensate the households and firms is necessary to ensure the 'just transition' towards a greener future.** To address the distributional impact of the Carbon tax, the Indian government could resort to various support measures for vulnerable groups such as low-income families or people in disadvantaged regions.
7. **Before devising a carbon pricing policy, India must phase out fossil fuel subsidies.** For non-renewables, the Indian government provided a subsidy of Rs 83,134 crore in FY-19. In comparison, renewables and electric mobility received a subsidy of Rs 11, 604 crores in the same fiscal year. To start the groundwork for initiating a carbon pricing policy in the medium to long term, New Delhi must phase out the subsidies for fossil fuels. At the same time, it is critical to strengthen the existing policies to put an implicit price on Carbon.

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