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Preparing an Emission Trading Scheme (ETS) in Pakistan

Pakistan's road to Net Zero

The Challenge

According to the 2022 annual report of Pakistan's National Electric Power Regulatory Authority (NEPRA), 59% of the country's electricity mix consists of fossil fuels, 25% is hydropower, 7% comes from renewable sources (wind, solar, and biomass), and 9% is nuclear power. Besides power generation, agriculture, industry, and transport are among the sectors with the highest greenhouse gas (GHG) emissions in Pakistan. The industrial sector accounts for up to 37% of final energy consumption and around 30% of energy-related GHG emissions.

The most energy-intensive subsectors include textiles, iron and steel, cement, paper, pulp, and fertilisers. With an average share of 61% of total national exports, the textile sector is Pakistan's most important industrial sector. To reduce GHG emissions in the energy and industry sectors, Pakistan's Nationally Determined Contributions (NDCs) include measures to promote energy efficiency and renewable energy. Furthermore, emphasis is placed on the use of market-based instruments for climate action to mobilise financial resources for NDC implementation. Market-based climate action instruments, such as an emission trading scheme (ETS), assign costs to CO2 emissions and help implement climate action efficiently.

A study on the introduction of carbon pricing mechanisms, supported by the United Nations Framework Convention on Climate Change (UNFCCC) Regional Collaboration Centre in Bangkok, concludes that an ETS could have a major impact in Pakistan. The study identifies an ETS as the most appropriate instrument to achieve long-term GHG emission reductions, implement the NDCs, and accelerate transformation in high-emission sectors such as energy/power generation, iron and steel, cement, and chemicals. A study conducted by the Cluster of Excellence 'Climate, Climatic Change, and Society' at the University of Hamburg found that, besides reducing CO2, the EU ETS has also led to a significant reduction in hazardous air pollutants such as sulphur dioxide, particulate matter, and nitrogen oxides. A similar effect can be expected for Pakistan when an ETS is introduced.

Carbon pricing is also important considering the EU Carbon Border Adjustment Mechanism (CBAM), as goods imported from ETS-relevant sectors in third countries will, in the future, be subject to a carbon price through the CBAM.

Project name	Preparing an Emission Trading Scheme (ETS) in Pakistan
Commissioned by	Federal Ministry for Economic Cooperation and Development (BMZ)
Project region	Pakistan, South Asia
Lead executing agency	Ministry of Climate Change and Environmental Coordination (MoCC&EC)
Duration	06.2025 – 05.2028

Our Approach

The project aims to strengthen the professional and organisational capacities of public institutions and emission-relevant companies to enable them to make informed decisions regarding the introduction of an emission trading scheme (ETS) in Pakistan. It will focus on establishing a system for the monitoring, reporting, and verification (MRV) of industrial GHG emissions, which is essential for the operation of an ETS. By gaining knowledge of their own emissions status and if the country decides to establish an ETS, companies and institutions will be incentivised to implement measures to reduce GHG emissions and invest in low-GHG technologies, for example, in the field of renewables.

Pg. 1, Left: The aerial view of the National Power Regulatory Authority building in Islamabad, Pakistan

Right: A shot from the Textile sector in Pakistan

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Pg. 2, Left: Power plants in the Asia and the Pacific Region

Right: Ghazi Road Substation, Lahore, Pakistan.

The project supports the government of Pakistan through the following measures:

- Sharing the knowledge required by the authorities to decide whether an emissions trading scheme should be adopted.
- Providing support to companies in developing plans to monitor their greenhouse gas emissions using standardised procedures.
- Conducting socio-economic analyses on the effects of CO2 pricing through the ETS and feeding the results into political dialogue.

Expected Results

Strengthening the professional capacities of relevant actors for emissions trading

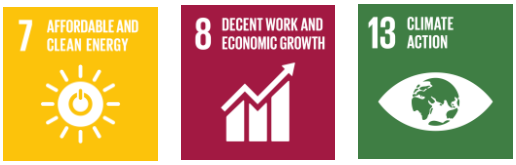
The project will focus on practical capacity development measures, including simulated processes for designing an ETS (simulations). These simulations will enable various actors to gain insights and experiences, therefore enabling them to determine whether to pursue ETS further and effectively apply this knowledge when implementing an actual ETS in practice.

In combination with organisational consultancy to establish the newly created unit for MRV and ETS processes at MoCC&EC, this will, in turn, support the development of professional and institutional capacities for introducing an ETS.

The project also aims to strengthen the professional capacities of relevant provincial-level actors and the private sector for reporting and managing industrial GHG emissions. Punjab is the province where more than half of the ETS-relevant companies are located. Therefore, the province will be enabled to systematically record and manage industrial GHG emissions in accordance with standardised procedures. This will create an important professional foundation for introducing an ETS.

Establishing professional and technical foundations for setting an emissions cap in selected industrial sectors in Punjab

Evidence-based emissions data is key to a robust MRV system. Therefore, data will be transmitted via a web platform and used by policymakers to set subsectoral emissions caps. Using this data, decision-makers will subsequently analyse the socio-economic effects of carbon pricing and mitigate them with appropriate measures. These aspects, along with the acceptance generated, will be important prerequisites for the introduction of an ETS.



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