Tackling Industrial Pollution: Cleaner Air for Lahore

Cleaner air through clarity: How emissions data can drive accountability

How can information disclosure reduce industrial pollution?

Continuous exposure to high levels of particulate matter in cities such as Lahore reduces life expectancy by **7.5 years**[1]. The International Growth Centre (IGC) is researching whether sharing independent and transparent emissions data with regulators can encourage factories to reduce pollution. By revealing which factories comply with pollution standards and which do not, we aim to bring cleaner air to Lahore through informed accountability and action.

Why does independent emissions disclosure matter?

Industrial emissions are a major contributor to Lahore's air pollution, affecting public health, the environment, and quality of life. Traditional regulations alone have been less effective at managing pollution levels, partly due to potential collusion between factories and monitoring firms[2]
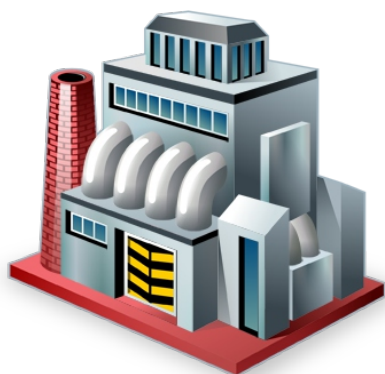
DID YOU KNOW?

Industrial emissions are rising sharply across Punjab, particularly PM10 emissions which have risen from 73kT in 1990 to 450kT in 2020 and PM2.5 emissions which have risen from 46kT in 1990 to 147kT in 2020[3].

Sulfur Oxides emissions are primarily produced by industrial processes. In 2021, more than 11,000 tonnes of sulfur oxides were emitted by industries in Lahore[4].

What are we studying?

This study uses a randomized control trial (RCT) approach with over 800 factories. The treatment group will have its emissions data collected by independent labs and shared with relevant government stakeholders. Each factory's data will be cross validated by public and private labs.

We are looking to see whether

Whether independent disclosure of emissions data improve compliance?

Does transparency help regulators enforce pollution standards?

How will this project impact Lahore?
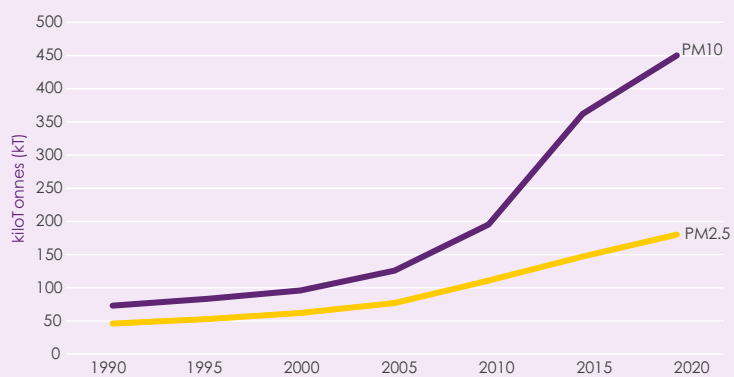
Cleaner Air, Healthier Lives

Reducing industrial pollution can significantly improve Lahore's air quality and public health outcomes.

Informed Policy

This study will help policymakers understand if emissions disclosure is an effective tool for reducing pollution in industrial areas, potentially influencing broader environmental policies in Pakistan.

Rising industrial PM2.5 & PM10 emissions in Punjab

(Line chart: y-axis "kiloTonnes (kT)" from 0 to 500; x-axis years 1990, 1995, 2000, 2005, 2010, 2015, 2020. PM10 line rises from ~73 in 1990 to ~450 in 2020; PM2.5 line rises from ~46 in 1990 to ~180 in 2020.)

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[1] Energy Policy Institute at the University of Chicago. (2023). AQLI annual update: Global particulate pollution and life expectancy (Embargoed report). Air Quality Life Index.
[2] Duflo et al. (2013). Environmental regulations, air and water pollution, and infant mortality in India (NBER Working Paper No. 19259).
[3] Air Pollution Emission Inventory of Punjab 1990-2020, The Urban Unit
[4] Emission Inventory of Lahore 2023, The Urban Unit