



SMOG CONTROL STRATEGY 2024-26



**Industries, Commerce, Investment
& Skills Development Department**



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Message by the Chief Minister Ms. Maryam Nawaz Sharif

The Government of the Punjab is committed to addressing the pressing issue of smog through a comprehensive, multi-faceted strategy aimed at achieving a cleaner, healthier environment. The Government's vision is a smog-free Punjab, underpinned by sustainable industrial growth and a commitment to environmental preservation.

To this end, key objectives include reducing industrial emissions, promoting the use of cleaner fuels, and strengthening monitoring and enforcement mechanisms. Legislative measures will regulate fuel quality, while rigorous inspections will ensure the efficacy of pollution control systems across industries.



Financial incentives, including low-interest loans, are designed to support the transition to greener technologies, particularly for small and medium-sized enterprises. Public awareness, capacity building and community engagement initiatives are central to the strategy, fostering a culture of environmental responsibility. Through these efforts, the Government of Punjab seeks to mitigate the adverse impacts of smog, ensuring a sustainable and prosperous future for all.

Message by the Minister Chaudhry Shafay Hussain

The Government of the Punjab, in alignment with its commitment to sustainable industrial development, has developed a comprehensive strategy, aimed at addressing environmental challenges within the industrial sector. This roadmap, driven by a strong focus on reducing industrial emissions, promoting cleaner fuels, enhancing monitoring, and expanding financial incentives, seeks to foster green industrial practices.

Our key objectives include the rigorous enforcement of regulatory standards, coupled with strategic awareness campaigns to encourage industries to adopt cleaner technologies.



Expanding financial mechanisms, including low-interest loans for green technologies, supports industries transitioning to sustainable practices. Promoting CSR for green initiatives ensures environmental sustainability becomes central to operations. With stakeholder efforts, we can create a sustainable industrial future.

Message by the Secretary Dr. Ehsan Bhutta

The Strategy Roadmap for FY 2024-25 and 2025-26 outlines a comprehensive approach to industrial sustainability in Punjab. It focuses on reducing industrial emissions, promoting cleaner fuels, and encouraging corporate responsibility for environmental stewardship. Key actions include enforcing regulatory standards, offering financial incentives, and supporting industries in adopting green technologies.

Additionally, the roadmap emphasizes capacity-building programs to educate industries about sustainable practices. Regular monitoring and evaluation mechanisms will ensure compliance and track progress, aiming to position Punjab as a leader in industrial sustainability.



Message by Director SPU Mr. Abu Bakar Salman

The Industries Department is committed to addressing the critical challenge of smog through the Smog Control Strategy. This initiative focuses on reducing industrial emissions, promoting the use of cleaner fuels, and supporting the adoption of sustainable technologies across Punjab's industrial landscape.

Key measures include enforcing regulatory standards, providing financial incentives for green technologies, and launching capacity-building programs to equip industries with the knowledge needed to adopt sustainable practices. Through these efforts, we aim to significantly reduce pollution and create a more sustainable industrial environment.



The Industries Department remains a vital stakeholder in this mission, ensuring compliance with environmental regulations while supporting industrial growth in harmony with sustainability goals. Through continuous monitoring and evaluation, we will track progress and ensure that industries meet the required standards. Our commitment to innovation and sustainable practices will drive long-term environmental benefits. With collective action and strong collaboration, we are confident in creating a smog-free, greener Punjab for future generations.

INTRODUCTION TO STRATEGY

The Smog Control Strategy for the period 2024-2026 has been meticulously crafted to align with global sustainability frameworks, notably the United Nations Sustainable Development Goals (SDGs). This document outlines a strategic roadmap aimed at addressing the persistent challenge of smog and air pollution, a matter of utmost importance to the health and well-being of the citizens of Punjab. In particular, this initiative strongly supports SDG 3 (Good Health and Well-being), SDG 7 (Affordable and Clean Energy), SDG 9 (Industry, Innovation, and Infrastructure), and SDG 13 (Climate Action).

The overarching objective of this strategy is to reduce industrial emissions and mitigate the adverse effects of smog, thereby improving air quality and public health in Punjab. This directly contributes to SDG 3 by enhancing the health and well-being of the population through cleaner air. In parallel, the strategy emphasizes the adoption of cleaner technologies and sustainable energy practices, supporting SDG 7 by promoting the transition to renewable and energy-efficient solutions across industries.

Furthermore, by mandating the implementation of pollution control technologies and enacting stringent regulations to limit the use of sub-standard fuels, this strategy reinforces SDG 9. It encourages sustainable industrial practices, innovation, and the development of environmentally responsible infrastructure. These actions are pivotal in advancing industrial transformation, fostering a green economy, and supporting a sustainable future for Punjab.

In alignment with SDG 13, the strategy underscores the importance of reducing greenhouse gas emissions through enhanced monitoring and enforcement mechanisms, as well as incentivizing the adoption of green technologies. Large-scale tree plantation campaigns and public awareness programs form an integral part of this strategy, reinforcing the government's commitment to environmental sustainability and climate action.

Through collaboration with key stakeholders, this comprehensive approach aims to create a cleaner, healthier environment for future generations, contributing to the global agenda for sustainable development. By integrating innovative solutions and promoting sustainable practices, it ensures a lasting positive impact on both local communities and the planet. This collective effort fosters long-term environmental stewardship and supports the global transition to a more sustainable future.



OVERVIEW

In addition, the strategic initiatives outlined within this document are fully in line with the overarching objectives of COP 29. The emphasis on international collaboration to combat climate change and reduce environmental pollution resonates with the global commitments being advanced at COP 29. The Government of Punjab's commitment to reducing industrial emissions, promoting cleaner fuels, and enforcing robust regulatory standards reflects an active contribution to global efforts to mitigate the impacts of climate change.

This strategy prioritizes the use of energy-efficient production systems, the adoption of emission control technologies, and the implementation of corporate social responsibility practices in the industrial sector. By incentivizing green initiatives and enhancing public awareness through capacity-building programs, the strategy aims to involve all relevant stakeholders in the pursuit of a low-carbon future. The alignment of regional environmental policies with international climate goals underscores our dedication to improving air quality, safeguarding public health, and contributing to global climate action.

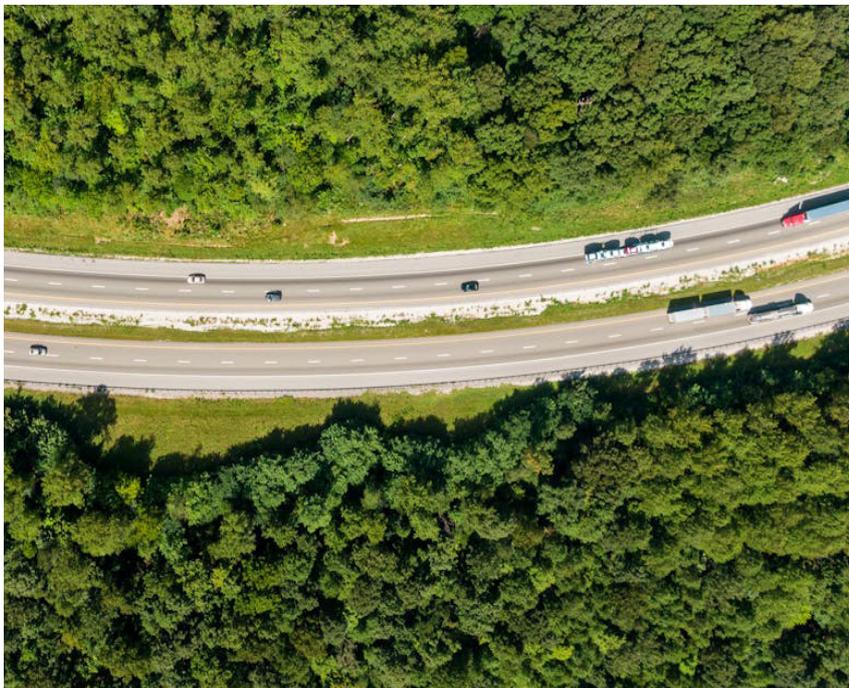
This document serves as a clear declaration of the Industries, Commerce, Investment and Skills Development Department's resolve to address the challenges posed by industrial pollution, to safeguard the health of its citizens, and to contribute meaningfully to the global effort to combat climate change.



United Nations
Climate Change



COP29
Baku
Azerbaijan



DIRECTION



VISION

A smog-free Punjab, fostering sustainable industrial growth, and ensuring a healthy environment for future generations.

MISSION

To mitigate the impact of industrial activities on smog, promote eco-friendly practices, and facilitate collaborative efforts with stakeholders to achieve cleaner air and a greener Punjab.



OBJECTIVES

1. Reduction of Industrial Emissions: Reduce the release of harmful emissions by implementing strict standards and adopting advanced, cleaner technologies.
2. Promotion of Cleaner Fuels: Advocate for the transition of industrial operations to cleaner energy sources, in order to mitigate the reliance on substandard fuels and reduce associated emissions.
3. Enhancement of Monitoring and Enforcement: Improve pollution monitoring systems and introduce clear enforcement measures, including penalties, to encourage compliance with air quality standards.



EXECUTIVE SUMMARY

The Smog Control Strategy for the period 2024-2026 is a comprehensive framework developed by the Industries, Commerce, Investment, and Skills Development Department (ICI&SDD) to address the persistent issue of smog in Punjab, with a clear focus on improving air quality, public health, and environmental sustainability. The strategy is aligned with the United Nations Sustainable Development Goals (SDGs), particularly SDG 3 (Good Health and Well-being), SDG 7 (Affordable and Clean Energy), SDG 9 (Industry, Innovation, and Infrastructure), and SDG 13 (Climate Action), ensuring a holistic approach to tackling smog while fostering sustainable industrial growth.

A key feature of the strategy is the introduction of legislative measures to ban the use of substandard boiler fuels, a significant contributor to harmful pollutants such as sulfur dioxide, particulate matter, and volatile organic compounds, which exacerbate smog formation. This regulatory initiative is supported by strict inspections of Emission Control Systems (ECS) across industries to ensure compliance with environmental standards. The enforcement of these regulations, in collaboration with the Environmental Protection Agency (EPA), aims to significantly reduce industrial emissions.

In parallel, the strategy promotes cleaner industrial practices through financial incentives, including low-interest loans and energy efficiency programs, to encourage the adoption of cleaner technologies. Additionally, industries are incentivized to integrate Corporate Social Responsibility (CSR) initiatives focused on green technologies, pollution control, and renewable energy adoption.

The strategy further emphasizes the development of specialized waste treatment infrastructure within industrial estates. Key initiatives include the establishment of Common Effluent Treatment Plants (CETP), which aim to manage industrial waste more effectively and mitigate its contribution to smog. The promotion of tree plantation programs is another crucial element, designed to improve air quality by increasing green cover and reducing harmful emissions.

Through targeted awareness campaigns and capacity-building and community engagement programs, the ICI&SDD seeks to engage both industry stakeholders and the general public in the effort to reduce smog levels. This involves educating the business community on the importance of cleaner practices and facilitating the transition to more sustainable operations. The implementation of this strategy will involve multiple stakeholders, including government agencies, industrial sectors, and local communities, all working in unison to combat smog and improve environmental conditions. By fostering collaboration and promoting green initiatives, the strategy aims to create a cleaner, healthier environment, advancing Punjab's contribution to global climate action and sustainability goals.



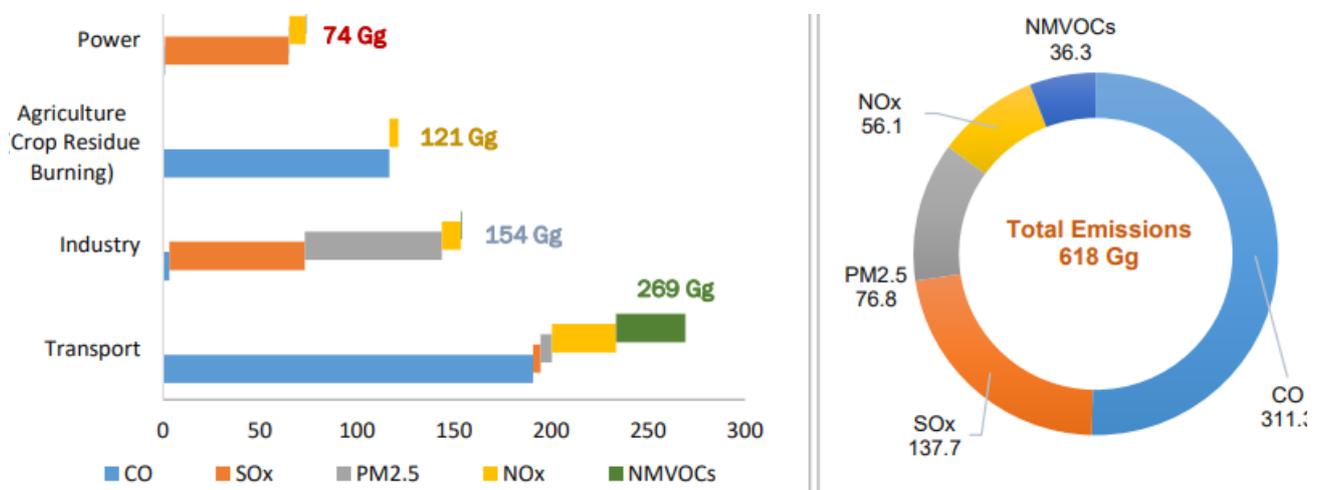
INTRODUCTION

Smog in Punjab has become a significant environmental and public health issue, particularly during the winter months. This atmospheric phenomenon, marked by dense smoke and fog, is often laden with high concentrations of pollutants, severely deteriorating air quality and creating hazardous living conditions. The primary contributors to this persistent issue are the transport sector, industrial activities, and agricultural practices.

The transport sector is a leading source of air pollution in Punjab. Rapid urbanization, particularly in cities such as Lahore and Faisalabad, has led to an increase in vehicular traffic, significantly raising emissions of carbon monoxide, nitrogen oxides, and particulate matter. The widespread use of outdated and poorly maintained vehicles, coupled with inadequate enforcement of emission standards, exacerbates the region’s air quality problems. During peak smog periods, urban areas often experience dangerously high levels of pollution, with particulate matter concentrations surpassing safe limits.

Industrial activities, particularly from cement plants and textile mills etc., also contribute significantly to smog. Many industries still operate with outdated technologies that release large quantities of black carbon and particulate matter. Additionally, emissions from power plants and manufacturing units further compound the pollutant load.

Agricultural practices, particularly the burning of crop residues after harvest, further intensify the problem, releasing significant amounts of smoke and particulate matter, especially during the autumn months.



SOURCE (SECTORAL EMISSION INVENTORY - URBAN UNIT)

ACTIONS BY THE ICI&SDD

Legislative Interventions

Boilers used for heating, power generation, and industrial processes in Punjab often utilize low-quality fuels, such as tyres, substandard oils, and poorly processed biomass, which release harmful pollutants that contribute to smog and deteriorate air quality. The province currently operates 4,992 boilers, with 741 located in Lahore District. The Directorate General of Industries, Prices, Weights and Measures (DGIPWM), in collaboration with the EPA oversees the maintenance and regulation of these boilers, ensuring they are equipped with ECS and use standard fuels in line with regulatory requirements.

To further enhance environmental protections, a legislative measure has been proposed to ban the use of substandard fuels in boilers. This ban, to be enacted through amendments to the Boilers and Pressure Vessels Ordinance, aims to significantly reduce smog, particularly in industrial areas. Additionally, relevant field agencies, including PIEDMC, FIEDMC, and PSIC, have amended their by-laws to prohibit the use of substandard fuels in industrial operations.

ECS inspections are vital to ensuring the efficacy of pollution control technologies and minimizing the release of harmful pollutants that contribute to smog, deteriorate air quality, negatively impact public health, and accelerate climate change.

The ICI&SDD, in partnership with the EPA, has implemented several initiatives to enhance ECS inspections. These include the activation of SMOG Cells at DGIPWM, PIEDMC, FIEDMC, and PSIC, as well as the deployment of joint inspection teams in key regions such as Lahore, Faisalabad and Gujranwala.



These inspections ensure the proper installation and functionality of pollution control technologies, such as scrubbers, catalytic converters, electrostatic precipitators, and selective catalytic reduction systems, which are designed to capture or neutralize pollutants before they are released into the atmosphere.

Furthermore, these inspections promote the transition to cleaner technologies by identifying outdated or inefficient equipment and encouraging the adoption of newer, more effective systems. To enhance monitoring, e-mapping and the installation of CCTV cameras on industrial chimneys for live monitoring of industrial units in industrial estates are also in progress.



Financial and Policy Measures

Measures to promote green investments are vital for industries aiming to reduce their contribution to smog. These initiatives support the adoption of cleaner technologies, enhance energy efficiency, and encourage a transition from high-emission practices. Key tools include low-interest loans and industry relocation programs, which provide significant financial and operational benefits.

Low-interest loans are a primary financial instrument, easing the transition to green technologies by offering more favorable repayment terms compared to traditional financing. These loans make it more affordable for industries to invest in pollution control systems, renewable energy, and energy-efficient equipment.

The Punjab Green Development Program (PGDP) provides low-interest loans to small and medium-sized enterprises (SMEs) to promote the adoption of pollution control technologies. Financial support of up to Rs. 10 million is available for implementing resource-efficient and cleaner production (RECP) technologies, such as scrubbers and solar systems. By November 2024, Rs. 758.36 million had been disbursed to 79 SMEs to support these initiatives. Under the Punjab PGDP, financial support has been provided to SMEs for the installation of various RECP technologies, which include:

- Leather Sector: Solar power generation, wastewater treatment plant
- Stone Crusher: Solar power generation, wet dust suppression system
- Rice Husking Mills: Paddy drying unit with dust control system, solar power generation
- Steel Furnace: Dry scrubber, solar power generation system
- Steel Rolling Units: Dry scrubber/smoke control system, solar power generation
- Foundry: Wet scrubber, solar power generation system
- Textile Sizing: Wet scrubber, solar power generation

The PSIC has also introduced the Green Development Loan scheme, offering up to Rs. 10 million to support environmentally sustainable activities by micro and other enterprises adopting RECP technologies. Implemented through the Bank of Punjab, the scheme has disbursed Rs. 881.20 million to 613 borrowers to date.

Relocation of Polluting Industries

The PSIC is implementing the Demonstration Project on Industries for Urban Centers, Relocation of Tannery Units to the Sialkot Tannery Zone (STZ), with a budget of Rs. 900 million. The project provides financial support to the Sialkot Tannery Association (STAGL) for establishing a grid station, supplying natural gas, and setting up a Chrome Recovery Plant. Additionally, the scheme offers Relocation and Cleaner Production Loans to promote the relocation of tannery units to STZ. Established in 2011, STZ spans 620 plots, with infrastructure construction beginning in 2016 after acquiring 396 acres with support from the Environment Protection Department, Punjab.

Corporate Social Responsibility (CSR)

The Government of Punjab's initiative to mandate industries extend their CSR efforts towards green technologies will significantly reduce smog. By requiring businesses to invest in pollution control technologies, renewable energy, and energy-efficient processes, emissions will be lowered. This approach aligns corporate actions with environmental goals, yielding long-term benefits for public health and air quality. It also fosters a culture of environmental responsibility, expediting the shift towards sustainable industrial practices.



Accordingly, the ICI&SDD organized a series of consultative sessions, followed by awareness conferences at the Lahore Chamber of Commerce and Industry and the Gujranwala Chamber of Commerce and Industry. Prominent chambers were urged to channel and mobilize their CSR resources towards supporting green initiatives. Furthermore, the ICI&SDD has formally raised the matter with the Planning and Development Board, advocating for the mandate that industries expand their CSR initiatives to include Clean Energy, Air Quality, Tree Plantation, as well as Waste Reduction and Recycling.



A glimpse of the CSR Awareness Conference at the LCCI

Energy Efficient Programs

Energy-efficient programs administered by the Industries Department are critical in mitigating smog, as they directly address industrial energy consumption, a significant contributor to air pollution. Through the adoption of energy-saving technologies and practices, industries can substantially reduce pollutant emissions. In this regard, FIEDMC has designated land for the establishment of an 80 MW solar power plant at AIC and a 40 MW facility at M-3IC. Furthermore, the PIEDMC has launched a comprehensive initiative to promote solar energy within its industrial estates. Currently, over 25 MW of green energy is being generated across PIEDMC-managed industrial estates.



Waste Treatment in Industrial Estates

The implementation of dedicated waste treatment in industrial estates is crucial to reduce smog in Punjab. Industrial waste, especially untreated or inadequately treated, contains harmful pollutants contributing to smog formation. Specialized waste treatment facilities within these zones will ensure the proper management and neutralization of these pollutants before their release into the atmosphere.

The budget for establishing a Common Effluent Treatment Plant (CETP) in Quaid-e-Azam Business Park (QABP) has been approved. This initiative will centralize effluent treatment, reduce emissions, and improve water quality. The QABP project's bidding process is nearing completion.

Additionally, a feasibility study for a proposed CETP at Sundar Industrial Estate is in progress, assessing the facility's viability and design. The project aims to implement state-of-the-art wastewater treatment technologies that will effectively address the environmental impact of industrial discharges. These actions reflect ICI&SDD's commitment to reducing industrial pollution and promoting sustainable practices in Punjab, aligning with the region's long-term environmental and economic goals.



Awareness and Community Engagement



A glimpse of the Smog Awareness Session at the GCCI

The ICI&SDD recognizes the paramount importance of community engagement in mitigating the pervasive issue of smog, particularly through targeted awareness campaigns. These initiatives play a crucial role in educating the industrial and commercial sectors about the detrimental effects of smog, thereby promoting the adoption of sustainable practices, cleaner technologies, and compliance with environmental regulations.

As industries are significant sources of air pollution, these campaigns emphasize the need for effective measures to reduce emissions, including the optimization of production processes, the use of cleaner fuels, and adherence to proper waste disposal protocols. In addition, raising awareness aids businesses in aligning with governmental policies, reducing the risk of penalties, and enhancing their corporate social responsibility profiles.

To engage the business community and the public, ICI&SDD uses digital media, organizes conferences in key cities like Lahore and Gujranwala, and holds seminars in industrial hubs such as Faisalabad and Sialkot. Smog helplines have been set up in industrial estates for reporting environmental concerns. These efforts aim to protect public health, enhance sustainability, and promote Punjab's long-term economic growth.



Tree Plantation

Tree plantation is crucial for curbing smog in Punjab, Pakistan, as trees improve air quality by absorbing carbon dioxide, filtering pollutants, and releasing oxygen. They also mitigate heat and reduce smog formation. In the recent plantation drive, 100,000 plants have been planted in the industrial estates of PIEDMC, FIEDMC, and PSIC, alongside TEVTA institutions. Increasing green cover through such large-scale initiatives will significantly reduce air pollution, improve public health, and foster a more sustainable, breathable environment for all.



Strategy Roadmap for FY 2024-25

1. Objective: Reduction of Industrial Emissions

Action Plan	Action By
<ul style="list-style-type: none"> • Enforcement of Regulatory Standards: Implement and strengthen legislation prohibiting the use of substandard fuels in industrial boilers, especially in Lahore and other major industrial districts. 	<ul style="list-style-type: none"> • DGIPWM
<ul style="list-style-type: none"> • Inspection and Monitoring: Begin a series of high-priority inspections for ECS across critical industries (e.g., textile mills and cement plants) to ensure compliance with air quality standards. 	<ul style="list-style-type: none"> • DGIPWM

2. Objective: Promotion of Cleaner Fuels

Action Plan	Action By
<ul style="list-style-type: none"> • Industry Engagement: Launch a comprehensive awareness campaign focused on the environmental benefits of transitioning to cleaner fuels. 	<ul style="list-style-type: none"> • DGIPWM
<ul style="list-style-type: none"> • Financial Mechanisms: Introduce new program(s) to include industries transitioning to cleaner fuels and technologies. 	<ul style="list-style-type: none"> • DGIPWM • PSIC

3. Objective: Enhancement of Monitoring and Enforcement

Action Plan	Action By
<ul style="list-style-type: none"> • E-Mapping of Industries: Complete the e-mapping of industrial estates and set up a dedicated pollution monitoring system for smog hotspots. 	<ul style="list-style-type: none"> • PIEDMC • FIEDMC
<ul style="list-style-type: none"> • SMOG Cells Activation: Activate and expand the operations of SMOG Cells at DGIPWM, PIEDMC, FIEDMC, and PSIC to address violations effectively. 	<ul style="list-style-type: none"> • DGIPWM • PIEDMC • FIEDMC • PSIC

4. Objective: Expansion of Financial Incentives for Cleaner Practices

Action Plan	Action By
<ul style="list-style-type: none"> Green Financing Initiatives: Disburse additional in low-interest loans for green technologies, targeting key industries such as steel furnaces, and leather production etc., with a particular focus on small and medium-sized enterprises (SMEs). 	<ul style="list-style-type: none"> PSIC
<ul style="list-style-type: none"> Relocation and Cleaner Production Loans: Provide support for the relocation of polluting industries to designated industrial zones with cleaner production capabilities, such as the Sialkot Tannery Zone (STZ). 	<ul style="list-style-type: none"> PSIC
<ul style="list-style-type: none"> Promotion of Energy Efficiency: Increase collaboration with industries to implement energy-efficient solutions, especially in industrial estates like FIEDMC and PIEDMC. 	<ul style="list-style-type: none"> PIEDMC FIEDMC

5. Objective: Promoting Corporate Social Responsibility (CSR) for Green Initiatives

Action Plan	Action By
<ul style="list-style-type: none"> Mandating Green Corporate Responsibility: Advocate for the mandatory integration of green technologies in CSR programs, emphasizing renewable energy adoption and carbon emission reduction. 	<ul style="list-style-type: none"> PBIT
<ul style="list-style-type: none"> CSR Workshops and Seminars: Conduct workshops in leading chambers / trade associations to foster the integration of environmental sustainability into corporate operations. 	<ul style="list-style-type: none"> PBIT

6. Objective: Tree Plantation

Action Plan	Action By
<ul style="list-style-type: none"> Greening Initiatives: Implement large-scale tree plantation programs in key industrial zones, with a focus on FIEDMC, PIEDMC, and TEVTA, aiming to plant at least 150,000 trees by the end of FY 2024-25. 	<ul style="list-style-type: none"> PIEDMC FIEDMC PSIC TEVTA

7. Objective: Awareness and Community Engagement

Action Plan	Action By
<ul style="list-style-type: none"> • Awareness Campaigns: Increase the frequency of digital and mass media campaigns to educate the public and industries about the dangers of smog and the benefits of cleaner industrial practices. 	<ul style="list-style-type: none"> • ICI&SDD
<ul style="list-style-type: none"> • Community Engagement: Organize targeted seminars and training sessions for industry workers on emission control technologies and energy-efficient production practices. 	<ul style="list-style-type: none"> • PBIT

8. Objective: Waste Treatment in Industrial Estates

Action Plan	Action By
<ul style="list-style-type: none"> • Common Effluent Treatment Plants: Conclude the bidding process for the QABP CETP and begin construction. 	<ul style="list-style-type: none"> • PIEDMC



Strategy Roadmap for FY 2025-26

1. Objective: Promotion of Cleaner Fuels

Action Plan	Action By
<ul style="list-style-type: none"> Expansion of Financial Support: Provide funding through low-interest loans and/or grants to support the transition to cleaner fuels and technologies 	<ul style="list-style-type: none"> DGIPWM

2. Objective: Expansion of Financial Incentives for Cleaner Practices

Action Plan	Action By
<ul style="list-style-type: none"> Financial Incentives Expansion: Enhance financial incentives to support the development of green industries, the installation of renewable energy systems, and the adoption of sustainable manufacturing processes. 	<ul style="list-style-type: none"> PSIC

3. Objective: Promoting Corporate Social Responsibility (CSR) for Green Initiatives

Action Plan	Action By
<ul style="list-style-type: none"> Partnerships with NGOs and International Bodies: Establish partnerships with international environmental organizations to leverage global best practices in CSR and the implementation of green technologies. 	<ul style="list-style-type: none"> PBIT

4. Objective: Tree Plantation

Action Plan	Action By
<ul style="list-style-type: none"> Green Spaces: Expand tree plantation initiatives, targeting a total of 400,000 trees planted by the end of FY 2025-26, focusing on industrial estates and areas with the highest levels of smog. 	<ul style="list-style-type: none"> PIEDMC FIEDMC PSIC TEVTA

5. Objective: Awareness and Community Engagement

Action Plan	Action By
<ul style="list-style-type: none"> • Smog Awareness Campaign: Launch awareness campaigns targeting both industrial stakeholders and the general public, focusing on the long-term health benefits of reduced smog exposure and the importance of transitioning to cleaner technologies. 	<ul style="list-style-type: none"> • DGIPWM
<ul style="list-style-type: none"> • Community Engagement: Continue organizing targeted seminars and training sessions for industry workers on emission control technologies and energy-efficient production practices. 	<ul style="list-style-type: none"> • PBIT

6. Objective: Waste Treatment in Industrial Estates

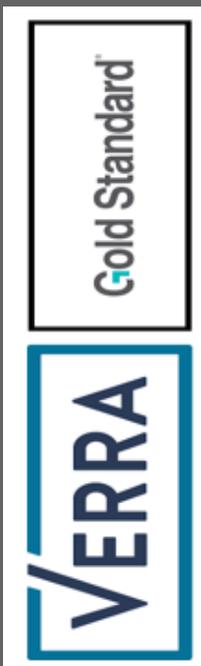
Action Plan	Action By
<ul style="list-style-type: none"> • Common Effluent Treatment Plants: Target operational startup of QABP CETP by mid FY 2025-26. Monitor effluent treatment performance and compliance, consider expanding CETPs to other industrial estates based on need. 	<ul style="list-style-type: none"> • PIEDMC • FIEDMC



Trajectory

PUNJAB'S PATH TO CARBON CREDITS

The ICI&SDD's strategic approach to environmental sustainability is designed to align with global carbon reduction frameworks, focusing on cleaner fuels, enhanced energy efficiency, industrial waste treatment, tree plantation, and corporate environmental responsibility. By implementing these initiatives, the province stands to earn carbon credits, contributing to global emissions reduction goals while improving local environmental health.



A core component of this strategy is the reduction of industrial emissions, achieved through stringent regulatory standards on industrial fuels, combined with rigorous inspection and monitoring systems. This will significantly reduce emissions, particularly in smog-prone industrial areas like Lahore, and position the province for carbon credits through compliance with air quality standards.

The promotion of cleaner fuels is another key element, with targeted awareness campaigns and financial mechanisms designed to incentivize industries to transition to renewable fuels and cleaner technologies.

This initiative is expected to decrease emissions, especially in energy-intensive sectors such as textile mills and cement plants, enabling Punjab to earn carbon credits.

Furthermore, the implementation of energy-efficient solutions across industrial estates, along with the provision of green financing for cleaner technologies, will facilitate reductions in carbon emissions. Industries such as steel and leather will benefit from these measures, potentially accumulating carbon credits through improved production practices.

The government has also launched large-scale tree plantation programs, targeting 150,000 trees by the end of FY 2024-25 and 400,000 by FY 2025-26. These initiatives, focused on key industrial zones like FIEDMC, PIEDMC, and TEVTA, will directly offset carbon emissions through carbon sequestration, generating significant carbon credits based on the volume of CO₂ absorbed by the new plants.

In addition, the integration of green technologies in corporate social responsibility (CSR) activities and the establishment of Common Effluent Treatment Plants (CETPs) for industrial waste management will further reduce emissions, improving air and water quality. These efforts, collectively, will support Punjab's pursuit of carbon credits and contribute to long-term environmental sustainability.



SMOG CONTROL STRATEGY

INDUSTRIES, COMMERCE,
INVESTMENT AND SKILLS
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