GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO. 3652
TO BE ANSWERED ON 10.08.2026

Pollution in Metro Cities

3652. DR. THIRUMAAVALAVAN THOLKAPPIYAN:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

(a) whether the Government is aware of the increasing pollution level in metros with special reference to Delhi;
(b) if so, the measures taken by the Government to curb the same;
(c) whether the Government has the Sector-wise (Agriculture, Industry, Automobile Sectors), details of pollution creators; and
(d) if so, the details thereof with steps taken to stagnate, reduce and reverse the pollution?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI KIRTI VARDHAN SINGH)

(a) to (d): Government has launched the National Clean Air Programme (NCAP) in 2019 as a long-term, time-bound, national-level strategy to address air pollution in 130 cities across 24 States/UTs, including metropolitan cities like Delhi, Mumbai, Kolkata, Chennai, Bengaluru, Hyderabad, Ahmedabad, Pune and Surat.

City Specific Clean Air Action Plans have been prepared for all 130 cities under NCAP to implement air quality improvement measures in respective cities to target air pollution sources like soil & road dust, vehicular emissions, waste burning, construction & demolition activities and industrial pollution.

Air quality performance based incentive grant of ₹ 16,423.56 crore has been released to targeted cities under National Clean Air Programme (NCAP) as a critical gap funding to implement air pollution mitigation measures, during FY 2019-20 till 2025-26.

Details of air quality improvement in terms of reduction in PM10 concentrations of metro cities under NCAP in FY 2025-26 as compared to FY 2017-18 has been provided at **Annexure-I.**

To identify various factors contributing to air pollution and prioritise the air quality improvement measures under city action plans under NCAP, Source Apportionment (SA) studies have been carried out in NCAP cities including Delhi. Sources of air pollution as per source apportionment studies conducted in metro cities are enclosed at **Annexure-II.**

Details of various steps taken by the Government for air quality improvement are enclosed at **Annexure III.**

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Annexure-I

Improvement in PM10 concentrations of metro cities under NCAP in FY 2025-26 w.r.t. FY 2017-18

Sl. No.	Cities	2017-2018	2025-26	% improvement in 2025-26 w.r.t. FY 2017-18
		Average concentration (F.Y.) of PM_{10} ($\mu g/m^3$)	Average concentration (F.Y.) of PM_{10} ($\mu g/m^3$)	
1.	Mumbai	161	81	49.7
2.	Kolkata	147	87	40.8
3.	Surat	130	79	39.2
4.	Ahmedabad	164	101	38.4
5.	Hyderabad	110	80	27.3
6.	Bengaluru	92	76	17.4
7.	Delhi	241	200	17.0
8.	Pune	102	97	4.9
9.	Chennai	66	69	-4.5

Annexure-II

Source apportionment studies and dominant sources of air pollution in major cities

Cities	**Dominant sources contributing to PM_{10} levels**
Ahmedabad	• Dust (Road dust, Construction dust, Resuspended/Wind blown dust), • Residential/Domestic • Industry (including power plants), • Transport
Bangalore	• Dust (Road dust, Construction dust, Soil) • Transport
Delhi	• Dust (Road dust, Construction dust, Resuspended/Wind blown dust), • Transport
Mumbai	• Dust (Resuspended Road dust/Wind blown dust), • Industrial Emission/Fossil fuel combustion
Kolkata	• Dust (Road dust, Construction dust, Resuspended/Wind blown dust), • Residential • Transport
Surat	• Dust (Road, Soil & Construction) • Industry/Power Plant
Hyderabad	• Road Dust • Industries
Chennai	• Industries including Power plants • Domestic/residential sources
Pune	• Road Dust, Construction Dust • Fossil Fuel Combustion/Industrial Emission • Vehicular Emissions

Annexure-III

Measures taken by the Government to address air pollution

1.0 Measures for control of vehicular emissions:

- Leapfrogging from BS-IV to BS-VI fuel standards from 1st April, 2020 for the rest of the country.
- Introduction of BS VI compliant vehicles across the country since April, 2020.
- Installation of Vapor Recovery System (VRS) in new and existing petrol pumps selling gasoline >100kl per month in million plus cities and those selling >300kl per month in cities with population between 1 lakh to 1 million to control vehicular refuelling emissions.
- Promotion of electric vehicles through Electric Mobility Promotion Scheme 2024 (EMPS 2024) scheme of Ministry of Heavy Industries, Government of India
- Sustainable Alternative Towards Affordable Transportation (SATAT) has been launched as an initiative to set up Compressed Bio-Gas (CBG) production plants and make CBG available in the market for use in automotive fuels.
- Establishment of charging infrastructure for E-vehicles as per guidelines issued by Ministry of Power.
- Synchronization in traffic movements/Introduction of Intelligent Traffic System (ITS) for lane-driving.
- Ministry of Road Transport & Highways (MoRTH) has issued notifications on the establishment of Registered Vehicle Scrapping Facility (RVSFs) and Automated Testing System (ATS) to create an enabling framework for implementation of Vehicle Scrapping Policy.
- Improving and Strengthening of Pollution Under Control (PUC) Certificate System programme across the country by MoRTH.

2.0 Measures for control of industrial emission:

- MoEF&CC notified "Standards for Emission or Discharge of Environmental Pollutants from various Industries" under Schedule-I of the Environment (Protection) Rules, 1986. So far, more than 79 industrial specific environmental standards have been notified. In respect of the industrial sectors, for which specific standards are not available, general standards as notified under Schedule-VI of the Environment Protection Rules, 1986 are applicable.
- For strengthening monitoring mechanism and effective compliance through self-regulatory mechanism, CPCB directed all 17 categories of highly polluting industries to install Online Continuous Emission Monitoring System (OCEMS).
- CPCB vide direction dated 12.02.2025 classified a total of 419 sectors and sub-sectors in Red (125), Orange (137), Green (61), White (87) and Blue (9).
- The Ministry of Environment Forest and Climate Change (MoEF&CC), Government of India notifies industry specific discharge standards under Schedule-I: 'Standards for Emission or Discharge of Environmental Pollutants from various Industries' of Environment Protection Act, 1986. So far, industry specific environmental standards, for 79 industrial sectors (including emission standards for 56 sectors) have been notified. Industrial sectors, for which specific standards are not available, general standards as notified under Schedule-VI of Environment Protection Rules, 1986 shall be applicable.
- Ban on use of imported pet coke in the country since July 26, 2018, with exception for use in permitted processes.

- CPCB has come out with System and Procedure for Emission Compliance Testing of Retro-fit Emission Control Devices (RECD) for Diesel Power Generating Set Engines up to Gross Mechanical Power 800 kW.
- In 2022, CPCB mandated new brick kilns must use zig-zag technology, vertical shaft, or piped natural gas, and adhere to specific standards. Also, Existing kilns must also convert to these technologies or use approved fuels.
- In 2023, CPCB introduced stricter emission standards (CPCB IV+) for diesel generators (DG sets) up to 800 kW, mandating dual-fuel systems (70% gas, 30% diesel) where gas infrastructure is available and requiring Retro-fit Emission Control Devices (RECD) with a minimum PM capturing efficiency of 70%.

3.0 Air Quality Monitoring and Network

- National Air Quality Index (AQI) was launched in 2015. Information is being disseminated to public through daily air quality bulletins.
- Ambient Air Quality Network: The country has a network of 1646 ambient air quality monitoring stations (593 continuous and 1053 manual) covering 603 cities in 28 states and 7 UTs.
- A centralized air quality monitoring portal is operated by Central Pollution Control Board wherein, tracking of various information such as hourly PM concentrations, Live Air Quality Data of Monitoring stations and Live Air Quality Index is being carried out.
- Daily AQI Bulletin is published on CPCB website giving AQI information for cities across India.

4.0 C&D Waste & MSW

- CPCB published following guidelines (available on website of CPCB)
    1. Environmental Management of Construction & Demolition (C & D) Wastes' in March, 2017
    2. 'Guidelines on DUST Mitigation Measures in Handling Construction Material & C&D Wastes' in November 2017.
    3. Disposal of legacy waste by bio-mining and bio-remediation to address open burning and landfill fires
- MoEFCC notified the Construction & Demolition Waste Management Rules, 2025, in force from 1st April, 2026. These rules emphasize the roles and accountability of waste generators at source and various stakeholders focusing on segregation, recovery, reuse, and recycling. In the said revised rules, various provisions have been introduced for better management of waste generated by bulk waste generators due to Construction and Demolition activities including Extended Producer Responsibility (EPR) for recycling of such waste generation.
- CPCB has issued direction to all SPCBs/ PCCs for deployment of Anti-Smog Gun and implementation of adequate dust mitigation measures at construction projects/ sites having area more than 20,000 sq. meters. CPCB has issued guidelines/ mechanism for use of anti-smog guns in Construction and Demolition projects.
- MoEFCC notified the Solid Waste Management (SWM) Rules, 2026, notified under the Environment (Protection) Act, 1986 and effective from April , 2026. The revised rules integrate the principles of Circular Economy and Extended Producer Responsibility, with a specific focus on efficient waste segregation and management. The rules provide for the levy of environmental compensation based on the 'Polluter Pays' principle for non-compliance, including cases of operating without registration, false reporting, submission of forged documents or improper solid waste management practices.

- CPCB issued directions to all SPCBs/PCCs for enforcement of provision of SWM Rules-2016 regarding bio-mining of legacy waste during Jan-2021.
- CPCB issued directions to all SPCBs/PCCs for implementation of SWM Rules-2016 regarding fire incidents at MSW dumpsites during May 2022.

5.0 Measures for control of Crop Residue Burning

- A Central Sector Scheme on Crop Residue Management has been implemented by Ministry of Agriculture and Farmers Welfare (MoAFW) since 2018-19. Under the scheme, from 2018-19 to 2026-27 (as on 29.07.2026), cumulative amount of Rs. 4550.451 crores have been provided to the concerned States (Punjab – Rs. 2206.28 crores, Haryana – Rs. 1220.42 crores, Uttar Pradesh – Rs. 911.03 crores, Madhya Pradesh – Rs. 90.218 crores, NCT of Delhi – Rs. 7.405 Crores, ICAR– Rs. 107.378 crores & others Rs. 7.7205 Crores). States have distributed more than 3.54 lakh machines to the individual farmers and established more than 43,508 Custom Hiring Centers (CHCs) in these States.
- Ministry of Power has issued a policy for co-firing of biomass in Coal based Thermal Power Plants on 7th November, 2025. The policy mandates Coal based Thermal Power Plants outside the National Capital Region to co-fire 5 per cent (by weight) of biomass pellets or torrefied MSW charcoal from 2025-26.
- A Standard Protocol for Estimation of Crop Residue Burning Fire Events using Satellite Data was developed by ISRO in consultation with State Remote Sensing Centers & Indian Agricultural Research Institute (IARI) and issued by CAQM in August, 2021. The said protocol is used for monitoring crop residue burning fire events and IARI through its CREAMS Laboratory, publishes daily fire event data for the States of Haryana, Delhi, Punjab, Uttar Pradesh, Madhya Pradesh and Rajasthan, based on this protocol during paddy and wheat harvesting seasons.
- CAQM has issued directions for co-firing of 5-10% biomass with coal in thermal power plants located within 300 kms of Delhi, and, in captive power plants of industrial units located in NCR.
- CAQM has issued directions to State Governments of Punjab and Haryana to mandate use of paddy straw-based biomass pellets / briquettes in all brick kilns located in the districts beyond NCR, as one of the means towards elimination of the practice of open paddy stubble burning, aiming for 50 % co-firing of paddy straw based, pellets /briquettes with a target of at least 20 % w.e.f. 01.11.2025, 30 % w.e.f. 01.11.2026, 40% w.e.f. 01.1.2027 and 50 % w.e.f. 01.11.2028.
- Central Pollution Control Board (CPCB) has framed Guidelines for grant of one-time financial support under Environment Protection Charge funds for establishment of pelletization and Torrefaction plants to promote utilisation of paddy straw.
- 32 pelletisation plants have been sanctioned so far (25 in Punjab, 07 in Haryana) at a cost of Rs. 34.72 crore. Total production capacity of 32 sanctioned plants is 137TPH and these are expected to utilise 6.36 lakh tonnes paddy straw annually for production of 4.93Iakh tonne pellets.

6.0 Regular Stakeholder Consultation, Public & Media Outreach

- CPCB has developed a mobile app i.e. SAMEER, where Real-time Ambient air quality data of various parameters including AQI is also given. Sameer app also facilitates the public in lodging of air pollution related complaints in NCR region and such complaints are assigned to various local agencies.
- Dedicated media corner, Twitter and Facebook accounts have also been created for public outreach.
- Complaint redressal on SAMEER app and social media platforms is monitored and redressal status is shared with respective agencies.

- Daily AQI status is shared on social media platforms. Various campaigns as well as informative posts related to air pollution, firecrackers, vehicular pollution, stubble burning, sustainable lifestyle, etc. are also posted regularly on social media platforms.

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