

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 4382**  
TO BE ANSWERED ON 02.04.2026

**Rising air pollution in North India**

4382. SHRI C. VE. SHANMUGAM:

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

- (a) whether it is a fact that air pollution rises significantly during winter season in North India, especially in the National Capital Region;
- (b) if so, the details of the major factors contributing to air pollution in North India;
- (c) whether stubble burning by farmers is the main reason for the increasing air pollution;
- (d) if so, the details thereof;
- (e) whether Government has made any plan to control air pollution and curb stubble burning; and
- (f) if so, the details and outcomes thereof?

**ANSWER**

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

**(a) to (f):** Air pollution is a collective result of multiple factors including high level of anthropogenic activities, arising from various sectors viz. Vehicular Pollution, Industrial Pollution, Dust from Construction & Demolition Project activities, Road and Open Areas Dust, Biomass Burning, Municipal Solid Waste burning, air pollution from dispersed sources, etc. as well as various meteorological factors. Stubble burning in the North India during winter season has also been identified as an episodic event which also contribute to air pollution in Delhi-NCR.

During post-monsoon and winter months, lower temperature, lower mixing heights, inversion conditions and stagnant winds lead to trapping of pollutants resulting in high pollution in the region.

Government has taken various measures to address air pollution from various sources including stubble burning with 'Whole of Government' approach. All the states under Delhi NCR have prepared short term and long term action plan for mitigation of air pollution in Delhi NCR. With coordinated efforts, the States of Punjab and Haryana have collectively recorded about 90% reduction in fire incidences during paddy harvesting season in the year 2025 in comparison to the same period in the year 2022.

Details of major steps taken by the Government to address air pollution from various sources including crop residue burning are enclosed at **Annexure-I**.

## Annexure-I

### Details of major steps taken by the Government to address air pollution from various sources in Delhi-NCR including crop residue burning

- i. Leap frogging from BS IV to BS VI fuel and vehicle standards w.e.f 1st April 2018 for Delhi and w.e.f 1st April 2020 for rest of the country.
- ii. 5340 CNG/e-buses have been deployed for public transport in Delhi including 3535 e-buses. 2800 E-Buses and 1100 E-trucks have been allocated for Delhi under PM E-DRIVE scheme of Ministry of Heavy Industries (MHI).
- iii. Entry of commercial goods vehicles conforming to BS-III and below emission standards was restricted in Delhi with effect from 01.11.2025.
- iv. To fast-track cleaner mobility, Commission for Air Quality Management (CAQM) issued Direction No. 94 dated 03.06.2025, as amended on 23.12.2025, mandating that Motor Vehicle Aggregators, Delivery Service Providers and E-Commerce Entities shall not induct any conventional ICE vehicles running purely on diesel or petrol into their existing fleets of four-wheeler LCVs, four-wheeler LGVs (N1 category up to 3.5 tonnes) and two-wheelers from 01.01.2026 onwards. However, induction of BS-VI emission standard two-wheelers has been permitted in existing fleets up to 31.12.2026.
- v. Directions were issued by CAQM to shift public transport buses coming from neighbouring States to BS-VI diesel/CNG/EV. From 01.11.2026, only CNG/EV/BS-VI diesel buses, including tourist buses, have been permitted to enter Delhi.
- vi. Entry of Commercial goods vehicles with non BS-VI Low Goods, Medium Goods and High Goods Vehicles into Delhi has been prohibited from 01.11.2025, with limited, time-bound relaxation for BS-IV vehicles up to 31.10.2026.
- vii. To promote Cleaner mobility, aggregators and delivery services have been mandated to induct only CNG or electric three-wheelers and discontinuation of new diesel/petrol vehicles in specified categories from 01.01.2026.
- viii. CAQM conducted a comprehensive review of the existing Graded Response Action Plan (GRAP) and made the actions more stringent under the various stages of the GRAP. The revised GRAP schedule was issued by CAQM, vide Order dated 21.11.2025. Based on the dynamic model and weather/ meteorological forecast by IMD / IITM on a day-to-day basis, actions under Stages I, II, III and IV of the GRAP have been invoked in advance of the AQI of Delhi reaching to the projected levels of that stage.
- ix. To tackle emissions from industrial sector in Delhi-NCR, CPCB has issued directions to DPCC/NCR SPCBs for Online Continuous Emission Monitoring System (OCEMS) installation in remaining air polluting Red categories (Medium & Large), common facilities and 17 category industries on 01.10.2025 and in Textile, food processing and metal industries on 09.10.2025, Progress of installation of Online Continuous Monitoring System (OCEMS) in air polluting industries in Delhi-NCR was closely monitored.
- x. All the industries in NCR have been shifted to approved fuels. Out of 240 industrial areas in Delhi-NCR, 224 industrial areas have been provided with PNG connectivity,

6 are provided through cascade system. Directions have been issued for mandating stringent emission norms for industries in NCR.

- xi. To address air pollution from construction and demolition activities, construction projects having built up area above 500 square meters have been mandated to register on SPCB/DPCC portals, with provisions for video fencing, remote access, standardized checklists, fortnightly self-audits and installation of PM<sub>2.5</sub>/PM<sub>10</sub> monitors.
- xii. 70 Dust Control and Management Cells have been set up by road owning agencies across Delhi-NCR, with regular reviews by the CAQM. States and GNCTD have augmented infrastructure for dust control, including mechanized road sweeping machines, water sprinklers and anti-smog guns.
- xiii. In order to abate pollution from road dust, Commission for Air Quality Management in NCR and Adjoining Areas (CAQM), CSIR-CRRI and SPA-New Delhi have signed Memorandum of Understanding (MoU) on 10.06.2025 for the implementation of the standard framework for paving and greening of urban roads.
- xiv. Further, on 24 February 2026, a tripartite MoU has been signed between CSIR-CRRI, School of Planning and Architecture and Public Works Department/Department of Urban local bodies of Governments of NCT of Delhi, Rajasthan, Uttar Pradesh, and Haryana. These MoUs will facilitate the State Governments as part of Delhi-NCR for development of Road Asset Management System (RAMS) for planning, monitoring and maintenance of dust free roads and greening of traffic corridors in Delhi-NCR.
- xv. Enforcement Task Force (ETF), assisted by 40 Flying Squads to conduct incognito inspections for compliance of various directions and extant statutes on matters related to air pollution.
- xvi. The Government has regularly reviewed and monitored the actions taken to address air pollution including stubble burning related issues in Delhi-NCR and adjoining areas. Regular review meetings have been held on 08.08.2025, 16.09.2025, 10.10.2025, 11.11.2025, 26.11.2025, 03.12.2025, 15.12.2025, 16.12.2025, 17.12.2025, 19.12.2025, 06.01.2026, 12.01.2026, 20.01.2026 and 02.02.2026 under the chairmanship of the Hon'ble Minister for Environment, Forest and Climate Change, on the issues relating to air pollution control in Delhi-NCR.
- xvii. States of Delhi-NCR have been directed to prepare comprehensive district-wise action plan for greening of urban areas including identification of forest areas, Protected Areas, Zoos, Community forests, revenue forests, Nagar Vans/Namo Parks, Identification and mapping of degraded forest lands.

### **Crop Residue Burning**

- i. A comprehensive framework for prevention and management of paddy straw was developed by Commission for Air Quality Management in NCR and Adjoining Areas (CAQM), followed by year-wise, State specific action plans for Punjab, Haryana and Uttar Pradesh. Based on the framework, State Governments of Punjab, Haryana and UP prepared state specific action plans to address paddy stubble burning.
- ii. The Action Plan includes in-situ crop residue management, ex-situ utilization of paddy straw, strict monitoring and enforcement, and extensive awareness

campaigns, all aimed at reducing the practice of burning agricultural residue after harvest.

- iii. 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.
- iv. Central Pollution Control Board (CPCB) provides one-time financial support for establishment of pelletization and Torrefaction plants to promote utilisation of paddy straw.
- v. Ministry of Power has established National Mission of Use of Biomass in Coal based thermal power plants to address the issue of air pollution due to farm stubble burning. A comprehensive policy for co-firing of biomass pellets in Coal based Thermal Power Plants has been issued on 7<sup>th</sup> November 2025.
- vi. CAQM has issued directions to all the Coal based Thermal Power Plants located within 300 Kms radius of Delhi to co-fire biomass-based pellets, torrefied pellets/briquettes (upto 5-10%) with coal to promote use of biomass.
- vii. Minister level Inter-Ministerial meeting was held on 07.10.2025 under the Co chairmanship of Hon'ble Minister for Environment, Forest and Climate Change and Hon'ble Minister for Agriculture & Farmers' Welfare on the issues of management of Crop Residue Burning.
- viii. To support the efforts of the Governments of Punjab, Haryana, Uttar Pradesh and NCT of Delhi to address air pollution caused due to paddy stubble burning and to subsidize machinery required for management of crop residue, a Central Sector Scheme on Crop Residue Management has been implemented by MoAFW since 2018-19.
- ix. During the period from 2018-19 to 2025-26 (as on 02.03.2026), Rs. 4233.84 crores have been released. The States have distributed more than 3.53 lakh machines to the individual farmers and established more than 43,535 Custom Hiring Center (CHCs) in the States of Haryana, Madhya Pradesh, Rajasthan, Uttar Pradesh and Govt. of NCT of Delhi.
- x. Ministry of New and Renewable Energy (MNRE) provides Central Financial Assistance (CFA) for setting up of Waste to Energy plants for generation of Biogas, Bio-CNG/enriched Biogas/Compressed Biogas, Power/ generation of producer or syngas, from urban, industrial, agricultural wastes and municipal solid waste.
- xi. Ministry of Petroleum and Natural Gas (MoPNG) has launched a scheme to provide financial assistance to Compressed Bio-gas producers for procurement of biomass aggregation equipment for ex-situ management of paddy straw.
- xii. Ministry of Petroleum and Natural Gas has launched 'Pradhan Mantri JI-VAN (Jaiv Indhan- Vatavaran Anukool fasal awashesh Nivaran) Yojana' to provide financial support for integrated bio-ethanol projects for setting up Advanced Biofuels projects in the country using lignocellulosic biomass and other renewable feedstock, i.e. agricultural and forestry residues, industrial waste, synthesis (syn) gas, algae etc
- xiii. CAQM through Direction 90 dated 09.05.2025 directed the States to plan for rent-free availability of CRM machines for small / marginal farmers.

- xiv. 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.
- xv. CAQM vide Direction No. 96 has directed the states concerned to implement their respective Action Plans to abate burning of wheat straw, with specific facilitative measures to ensure viable alternatives.

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