GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
UNSTARRED QUESTION NO. 524
TO BE ANSWERED ON 04.12.2025

Deterioration of air quality

524. DR. JOHN BRITTAS:

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

(a)whether the Air Quality Index (AQI) in some Indian cities, including Delhi, has reached "hazardous" levels with PM2.5 concentrations several times higher than WHO limits, resulting in a surge in respiratory and cardiac illness;
(b) the details thereof, State-wise;
(c) the average household and hospital treatment costs attributable to air-pollution-related illnesses;
(d) whether Government has assessed the impact of such chronic air pollution on the average life expectancy of residents;
(e) if so, the details thereof; and
(f) whether Government has assessed the major causes for air pollution in Delhi and if so, the corrective measures currently being undertaken?

ANSWER

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

(a)to (f): World Health Organization's Global Air Quality Guidelines (2021) serve as a non-binding reference for policy makers. Countries are advised to consider their geographical, socioeconomic, and environmental factors before adopting these guidelines as enforceable standards. Ministry of Environment, Forest and Climate Change has notified the National Ambient Air Quality Standards (NAAQS) for the country for 12 key air pollutants to safeguard public health and environmental quality.

The Air Quality Index (AQI) categorizes PM2.5 concentrations into six bands based on 24-hour average values. "Good" air quality corresponds to PM2.5 levels between 0–30 µg/m³ (AQI 0–50), while "Satisfactory" ranges from 31–60 µg/m³ (AQI 51–100). "Moderately Polluted" spans 61–90 µg/m³ (AQI 101–200), "Poor" covers 91–120 µg/m³ (AQI 201–300), and "Very Poor" includes 121–250 µg/m³ (AQI 301–400). The "Severe" category indicates PM2.5 levels above 250 µg/m³, corresponding to AQI values between 401–500. These thresholds help assess health risks and guide pollution control measures. AQI data of 08 Metropolitan cities during in 2025 is enclosed as **Annexure I**.

The analysis of Air Quality Index (AQI) in terms of Good (Number of days in Good, Satisfactory & Moderate AQI category) and Bad (Number of Days in Poor, Very Poor & Severe AQI category) days in year 2024 revealed that 228 cities including Delhi, had more number of good days than bad days. Source apportionment studies conducted for Delhi reveal that air pollution in Delhi - National Capital Region (NCR) is a collective result of multiple factors including high level of anthropogenic activities in the high-density populated areas in NCR, 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 NCR region and Punjab during winter season has also been identified as an episodic event which aggravates air pollution in Delhi- NCR.

To address air pollution in Delhi-NCR, Government has established the Commission for Air Quality Management (CAQM) under the Commission for Air Quality Management in NCR and Adjoining Areas Act, 2021 for better coordination, research, identification and resolution of problems of air pollution in Delhi- NCR and adjoining areas. Commission has been provided powers under the Act to take measures and issue directions to the various agencies in the National Capital Region for protecting and improving air quality.

The Commission has been addressing the issue of air pollution in Delhi-NCR in a collective, collaborative and participative mode involving all the major stakeholders. The Commission has so far issued 95 Statutory Directions to specifically guide and direct various actions towards abatement of air pollution in the region. A monitoring mechanism to oversee the implementation of these directions has been put in place.

Commission has come up with much stringent emission norms for various polluting activities in NCR, as compared to the national standards. These directions are rigorously monitored for implementation through periodic progress reviews, issuing subsequent orders and directions from time to time.

Commission has prepared Graded Response Action Plan (GRAP) which provides set of emergency response actions, depending on severity of air pollution levels, to be implemented by identified agencies for minimizing air pollution, a situation that generally persists in the Delhi-NCR during the peak winter months.

Based on the dynamic model and weather forecast provided by IMD (Indian Meteorological Department) / IITM (Indian Institute of Tropical Meteorology) on a day-to-day basis, actions under Stages I, II, III and IV of the GRAP are invoked in advance in anticipation of the AQI of Delhi reaching to the projected levels of that stage based on the overall meteorological conditions and anthropogenic activities. The Commission has recently conducted comprehensive review of the contours of the existing GRAP and made the actions more stringent under the various stages of the GRAP.

The Government has regularly reviewed and monitored the actions taken to address air pollution related issues in Delhi-NCR and adjoining areas. Review meetings have been held with GNCT of Delhi and agreed to take measures to improve air quality. To implement air pollution mitigation measures, NCAP also leverages the mobilisation of resources through convergence of Central Government schemes and programmes, such as, AMRUT 1.0 & 2.0, Swachh Bharat Mission 1.0 & 2.0, FAME II/PM E-DRIVE, Grand Challenge Scheme and Urban transport.

With coordinated efforts, number of good days (AQI<200) in Delhi have increased to 200 days in 2025 from 110 days in 2016. While there is an overall improvement in the AQI this year, very poor days (AQI: 301-400) and severe days (AQI more than 401) have reduced from 71 days in 2024 to 50 days in 2025. Delhi has observed lowest average AQI in the past 8 years i.e. from 2018 to 2025 (barring 2020 – COVID lockdown).

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Annexure I

AQI analysis 08 Metropolitan cities during in 2025

S. No	State	City	Good (0–50)	Satisfactory (51–100)	Moderate (101–200)	Poor (201–300)	Very Poor (301–400)	Severe (>400)	Good Days	Bad Days	Total No. of days
1	Tamilnadu	Chennai	35	250	49	0	0	0	334	0	334
2	Maharashtra	Pune	38	144	152	0	0	0	334	0	334
3	Maharashtra	Mumbai	55	165	113	1	0	0	333	1	334
4	Karnataka	Bengaluru	41	255	38	0	0	0	334	0	334
5	Gujarat	Surat	119	96	40	9	3	0	255	12	267
6	Gujarat	Amedabad	33	134	156	11	0	0	323	11	334
7	Telangana	Hyderabad	0	291	43	0	0	0	334	0	334
8	Delhi	Delhi	0	79	121	82	49	3	200	134	334