

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
UNSTARRED QUESTION NO. 2157
TO BE ANSWERED ON 06.08.2026

Improving air quality of northern States

2157 SHRI BIRENDRA PRASAD BAISHYA:

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

- (a) whether Government is aware that cities in northern India, including Delhi-NCR, Lucknow, Kanpur, Ludhiana and others, regularly record very poor and severe air quality for extended periods each year;
- (b) the steps taken or proposed to strictly regulate crop-residue burning, industrial emissions, construction dust and vehicular pollution in northern India, along with timelines for measurable improvement in AQI levels; and
- (c) whether Government proposes to expand free or subsidized screening and treatment facilities for pollution-related illnesses in government hospitals and health centers in the affected northern States?

ANSWER

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

(a): Air Quality Index is divided across 6 categories, namely Good (AQI: 0-50), Satisfactory (AQI: 51-100), Moderately Polluted (AQI: 101-200), Poor (AQI: 201-300), Very Poor (AQI: 301-400) and Severe (AQI:401-500). The city-wise analysis of Air Quality Index (AQI) in terms of Good Days (Number of days in Good, Satisfactory & Moderate AQI category) and Bad Days (Number of Days in Poor, Very Poor & Severe AQI category) of North India including Lucknow, Kanpur, Ludhiana along with Delhi-NCR for the year 2025 is at **Annexure-I**.

(b): To address air pollution, Ministry of Environment, Forest and Climate Change (MoEFCC) launched National Clean Air Programme (NCAP) to improve air quality in 130 cities (nonattainment cities and Million Plus Cities) in 24 States/UTs through implementation of National, State and City level clean air action plans.

Air quality performance linked grant of ₹ 16,423.56 crore has been provided to 130 cities during FY 2019-20 till 2025-26 to implement air quality improvement measures in respective cities. Of the 130 cities, 46 cities in 09 North Indian States/UTs are funded under NCAP and air quality performance linked grant of Rs. 5338.21 Crore has been provided to these cities from FY 2019-20 till FY 2025-26.

The focused actions under NCAP have yielded positive results. During 2025-26, 108 cities recorded reductions in annual PM10 concentrations compared to 2017-18, with 72 cities achieving

reductions of more than 20% and 26 cities achieving reductions of more than 40%. Further, 14 cities met the National Ambient Air Quality Standards in FY 2025-26, compared to six cities in 2017-18.

To address air pollution in Delhi-NCR, the 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. CAQM has so far issued 101 Statutory Directions and 17 Advisories/executive orders to the Governments of NCR States/GNCTD and the agencies concerned, and their implementation is rigorously monitored through periodic progress reviews and follow-up orders and directions.

Government has taken various measures to eliminate the paddy and wheat stubble burning. For the prevention of crop residue burning in the NCR region and Punjab, CAQM has issued a framework for prevention and control of paddy stubble burning, including measures like in-situ crop residue management, ex-situ utilization of paddy straw in various applications, enforcement and IEC activities. Based on the said framework, the State Governments of Punjab, Haryana and UP have prepared State-specific action plans. Further, CAQM has also issued direction for prevention and elimination of Wheat Stubble Burning in 2026.

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.

The Ministry of Environment, Forest and Climate Change (MoEF&CC) enacted the Air (Prevention and Control of Pollution) Act, 1981 and Environment (Protection) Act, 1986 and notified different Rules and Regulations under the said acts to prevent and control of air pollution. Actions towards control of industrial pollution are primarily implemented by industries and monitoring & enforcement of industrial emission norms are carried out by the State Pollution Control Boards through Consent mechanism under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.

CPCB and State Pollution Control Boards (SPCB)/Pollution Control Committees (PCCs) monitor emissions of industries to ensure compliance of the provisions of the Air (Prevention and Control of Pollution) Act, 1981 and Environment (Protection) Act, 1986.

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

(c): The National Centre for Disease Control (NCDC) conducts sentinel surveillance of Air Pollution related illnesses through the network of more than 230 sentinel surveillance sites spanning across 30 States/UTs. Acute Respiratory Infection (ARI) digital surveillance was started in August 2023 through Integrated Health Information Portal (IHIP).

Annexure - I

Number of Good Days (Good, Satisfactory & Moderate) and Bad Days (Poor, Very Poor & Severe) in cities of Delhi-NCR and Northern India during the year 2025

Sr. No.	State/UTs	City	2025								
			No. of days in different categories of AQI						Good Days	Bad Days	Total No. of days
			Good	Satisfactory	Moderate	Poor	Very Poor	Severe			
			(0-50)	(51-100)	(101-200)	(201-300)	(301-400)	(>400)			
1.	Chandigarh	Chandigarh	37	134	148	38	6	0	319	44	363
2.	Delhi	Delhi	0	79	121	86	71	8	200	165	365
3.	Haryana	Ambala	1	12	38	20	4	0	51	24	75
4.	Haryana	Bahadurgarh	1	7	8	26	31	5	16	62	78
5.	Haryana	Ballabgarh	1	4	14	32	27	0	19	59	78
6.	Haryana	Bhiwani	12	0	28	32	12	1	40	45	85
7.	Haryana	Charkhi Dadri	10	15	48	72	26	0	73	98	171
8.	Haryana	Dharuhera	2	2	10	26	33	3	14	62	76
9.	Haryana	Faridabad	0	34	87	66	0	0	121	66	187
10.	Haryana	Fatehabad	1	1	33	26	15	0	35	41	76
11.	Haryana	Gurugram	9	59	118	117	32	0	186	149	335
12.	Haryana	Hisar	0	6	44	6	0	0	50	6	56
13.	Haryana	Jind	5	8	16	34	19	2	29	55	84
14.	Haryana	Kaithal	2	7	39	20	4	0	48	24	72
15.	Haryana	Karnal	0	6	32	41	4	0	38	45	83
16.	Haryana	Kurukshetra	7	4	29	42	3	0	40	45	85
17.	Haryana	Mandikhera	0	34	41	8	0	0	75	8	83
18.	Haryana	Manesar	2	5	12	38	26	0	19	64	83

Sr. No.	State/UTs	City	2025								
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			Good	Satisfactor y	Mode rate	Poor	Very Poor	Sever e			
			(0-50)	(51-100)	(101-200)	(201-300)	(301-400)	(>400)			
19.	Haryana	Narnaul	1	12	23	44	6	0	36	50	86
20.	Haryana	Palwal	1	31	45	4	0	0	77	4	81
21.	Haryana	Panchgaon	52	148	93	12	2	0	293	14	307
22.	Haryana	Panchkula	2	18	46	26	10	1	66	37	103
23.	Haryana	Panipat	2	3	20	38	7	1	25	46	71
24.	Haryana	Rohtak	1	9	36	24	23	4	46	51	97
25.	Haryana	Sirsa	4	43	28	6	5	0	75	11	86
26.	Haryana	Sonipat	0	0	2	40	27	0	2	67	69
27.	Haryana	Yamunanagar	0	1	17	33	3	0	18	36	54
28.	Himachal Pradesh	Baddi	6	73	211	61	11	0	290	72	362
29.	Jammu and Kashmir	Pampore	4	4	1	3	0	0	9	3	12
30.	Jammu and Kashmir	Srinagar	92	105	33	4	0	0	230	4	234
31.	Punjab	Amritsar	45	169	109	12	1	0	323	13	336
32.	Punjab	Bathinda	89	135	76	13	0	0	300	13	313
33.	Punjab	Jalandhar	40	175	137	12	0	0	352	12	364
34.	Punjab	Khanna	46	182	116	12	1	0	344	13	357
35.	Punjab	Ludhiana	20	163	166	9	0	0	349	9	358
36.	Punjab	Mandi Gobindgarh	12	115	143	37	3	0	270	40	310
37.	Punjab	Patiala	83	121	141	7	0	0	345	7	352
38.	Punjab	Rupnagar	36	97	79	16	3	0	212	19	231
39.	Rajasthan	Ajmer	17	219	121	5	0	0	357	5	362
40.	Rajasthan	Alwar	7	267	76	1	0	0	350	1	351
41.	Rajasthan	Banswara	32	150	164	1	1	0	346	2	348

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			(0-50)	(51-100)	(101-200)	(201-300)	(301-400)	(>400)			
42.	Rajasthan	Baran	41	141	162	9	0	0	344	9	353
43.	Rajasthan	Barmar	18	142	191	11	1	0	351	12	363
44.	Rajasthan	Bharatpur	70	122	158	13	0	0	350	13	363
45.	Rajasthan	Bhilwara	55	144	137	18	1	0	336	19	355
46.	Rajasthan	Bhiwadi	8	98	147	78	32	0	253	110	363
47.	Rajasthan	Bikaner	2	87	177	56	2	0	266	58	324
48.	Rajasthan	Bundi	50	103	174	18	2	0	327	20	347
49.	Rajasthan	Chittorgarh	64	105	161	17	0	0	330	17	347
50.	Rajasthan	Churu	20	103	178	56	2	0	301	58	359
51.	Rajasthan	Dausa	25	85	213	27	0	0	323	27	350
52.	Rajasthan	Dholpur	22	122	165	16	1	0	309	17	326
53.	Rajasthan	Dungarpur	57	158	128	12	0	0	343	12	355
54.	Rajasthan	Hanumangarh	36	109	161	37	2	0	306	39	345
55.	Rajasthan	Jaipur	5	118	216	26	0	0	339	26	365
56.	Rajasthan	Jaisalmer	9	127	202	20	7	0	338	27	365
57.	Rajasthan	Jalore	21	130	191	17	1	0	342	18	360
58.	Rajasthan	Jhalawar	30	191	127	13	0	0	348	13	361
59.	Rajasthan	Jhunjhunu	28	100	198	34	1	0	326	35	361
60.	Rajasthan	Jodhpur	30	136	192	7	0	0	358	7	365
61.	Rajasthan	Karauli	60	131	138	11	0	0	329	11	340
62.	Rajasthan	Kota	12	126	186	40	1	0	324	41	365
63.	Rajasthan	Nagaur	25	97	197	38	3	0	319	41	360
64.	Rajasthan	Pali	10	89	235	18	3	0	334	21	355

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			(0-50)	(51-100)	(101-200)	(201-300)	(301-400)	(>400)			
65.	Rajasthan	Pratapgarh	53	170	131	4	0	0	354	4	358
66.	Rajasthan	Rajsamand	11	226	106	8	0	0	343	8	351
67.	Rajasthan	Sawai Madhopur	34	107	189	23	0	0	330	23	353
68.	Rajasthan	Sikar	33	116	159	50	2	0	308	52	360
69.	Rajasthan	Sirohi	59	225	67	5	0	0	351	5	356
70.	Rajasthan	Sri Ganganagar	7	68	195	82	3	0	270	85	355
71.	Rajasthan	Tonk	23	115	171	47	1	0	309	48	357
72.	Rajasthan	Udaipur	29	157	163	6	0	0	349	6	355
73.	Uttar Pradesh	Agra	44	178	135	8	0	0	357	8	365
74.	Uttar Pradesh	Baghpat	16	46	118	67	26	3	180	96	276
75.	Uttar Pradesh	Bareilly	62	235	53	1	0	0	350	1	351
76.	Uttar Pradesh	Bulandshahr	34	74	169	68	18	1	277	87	364
77.	Uttar Pradesh	Firozabad	99	202	54	1	0	0	355	1	356
78.	Uttar Pradesh	Ghaziabad	6	79	145	67	54	14	230	135	365
79.	Uttar Pradesh	Gorakhpur	59	138	135	9	0	0	332	9	341
80.	Uttar Pradesh	Greater Noida	1	69	180	65	40	9	250	114	364
81.	Uttar Pradesh	Hapur	37	125	97	53	34	3	259	90	349
82.	Uttar Pradesh	Jhansi	122	179	57	0	0	0	358	0	358
83.	Uttar Pradesh	Kanpur	41	186	126	11	0	0	353	11	364
84.	Uttar Pradesh	Khurja	26	85	162	39	15	0	273	54	327
85.	Uttar Pradesh	Lucknow	16	123	190	36	0	0	329	36	365
86.	Uttar Pradesh	Meerut	27	114	136	50	37	1	277	88	365
87.	Uttar Pradesh	Moradabad	16	220	124	5	0	0	360	5	365

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			(0-50)	(51-100)	(101-200)	(201-300)	(301-400)	(>400)			
88.	Uttar Pradesh	Muzaffarnagar	20	125	126	59	24	0	271	83	354
89.	Uttar Pradesh	Noida	7	81	171	42	50	14	259	106	365
90.	Uttar Pradesh	Prayagraj	98	153	107	7	0	0	358	7	365
91.	Uttar Pradesh	Varanasi	139	156	68	2	0	0	363	2	365
92.	Uttar Pradesh	Vrindavan	71	170	106	1	0	0	347	1	348
93.	Uttarakhand	Dehradun	106	136	77	16	1	0	319	17	336
94.	Uttarakhand	Kashipur	92	112	91	13	2	0	295	15	310
95.	Uttarakhand	Rishikesh	94	162	36	1	0	0	292	1	293

NB. Good Days (Number of days in Good, Satisfactory & Moderate AQI category); Bad (Number of Days in Poor, Very Poor & Severe AQI category);

Cities monitored - Adequate monitoring days: 75% of 366 days & 365 day

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 Family 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. 01.11.2027 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 4.93lakh 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.
