

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

**RAJYA SABHA**  
**UNSTARRED QUESTION No. 519**  
TO BE ANSWERED ON 07.11.2023

**Rising Air Quality Index in different cities**

519. SHRI PRAMOD TIWARI

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

- (a) whether Government is aware of the rising Air Quality Index in different cities of the country causing severe damage to the environment, if so, the details thereof and the reasons thereof;
- (b) the action being taken by Government to cater to this issue causing major health problems to the people of these cities; and
- (c) whether Government has any policy to prevent the hazardous chemicals and pollutants being released from different sources, including industries, and if so, the details thereof?

**ANSWER**

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE  
(SHRI ASHWINI KUMAR CHOUBEY)

**(a)to (c):**

Air Quality Index (AQI) is calculated based on pollution levels of 8 parameters namely, Particulate Matter 10, Particulate Matter 2.5, Nitrogen Dioxide, Sulphur Dioxide, Carbon Monoxide, Ozone, Ammonia and Lead. AQI is monitored in 265 cities/towns in the country. Details of AQI of 265 cities for the month of October, 2023 are provided in **Annexure I**

National Clean Air Programme (NCAP) has been launched in January, 2019 which is a long-term, time-bound national level strategy for prevention, control and abatement of air pollution. Under NCAP, it has been envisaged to achieve targets of 20 to 30% reduction in Particulate Matter concentrations by 2024 in 131 cities of 24 States/UTs with respect to base year 2017. Subsequently, the target has been revised to achieve up to 40% reduction or achieve National Ambient Air Quality Standards (NAAQS) in terms PM concentrations by 2025-26.

Under NCAP, an amount of Rs. 19,711 crores have been earmarked to 131 cities during the period FY 2019-20 till FY 2025-26 out of which 49 Million Plus Cities/Urban Agglomerations are funded under XVth Finance Commission air quality grant. So far, an amount of Rs. 9,635 crores were released to 131 cities to implement City Action Plans in their respective cities.

To control hazardous chemical and pollutants generated from various industrial sources, Ministry has notified standards for emissions and discharge of pollutants including industries under Environment Protection Rules, 1986. Industry specific standards have been notified for

80 industrial sectors. Disposal standards for leachates generated from sanitary landfills and discharge standards for sewage have been notified. SPCBs and PCCs in States and Union Territories, respectively have been mandated to ensure the compliance of these standards.

Industrial Pollution is regulated through Consent to Establish/ Consent to Operate issued and monitored by the concerned State Pollution Control Boards/ Pollution Control Committees (SPCBs/PCCs). Central Pollution Control Board or concerned SPCBs/PCCs impose Environmental Compensation and/ or legal action as mandated under Environment (Protection) Act, 1986.

Further, steps taken by the Government for prevention and control of pollution are enclosed as **Annexure II**

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## Annexure I

## State-wise details of Air Quality Index of 265 Cities

S.No.	State / Union Territory	City / town	Avg AQI for the month of October 2023
1	Andhra Pradesh	Amaravati	93
2		Anatapur	85
3		Chittor	120
4		Kadapa	65
5		Rajahmundry	96
6		Tirupati	70
7		Vijayawada	72
8		Visakhapatnam	148
9	Arunachal Pradesh	Naharlagun	23
10	Assam	Byrnihat	199
11		Guwahati	85
12		Nagaon	83
13		Nalbari	95
14		Silcher	34
15		Sivasagar	31
16	Bihar	Araria	117
17		Arrah	126
18		Aurangabad	90
19		Begusarai	156
20		Bettiah	120
21		Bhagalpur	118
22		Bihar Sharif	48
23		Chhapra	90
24		Gaya	85
25		Hajipur	120
26		Katihar	156
27		Kishanganj	107
28		Manguraha	59
29		Motihari	145
30		Munger	99
31		Muzaffarpur	130
32		Patna	134
33		Purnia	191
34		Rajgir	110
35		Saharsa	98
36		Samastipur	120
37		Sasaram	69
38	Siwan	137	

S.No.	State / Union Territory	City / town	Avg AQI for the month of October 2023
39	Chandigarh (UT)	Chandigarh	121
40	Chattisgarh	Bilaspur	99
41		Durg-Bhillainagar	79
42	Chattisgarh	Korba	47
43		Kunjemura	115
44		Milupara	66
45		Raipur	95
46		Tumidih	71
47	Delhi (UT)	Delhi	219
48	Gujarat	Ahmedabad	123
49		Ankleshwar	135
50		Gandhinagar	115
51		Nandesari	22
52		Surat	146
53		Vapi	193
54		Vatva	142
55		Haryana	Ambala
56	Bahadurgarh		231
57	Ballabgarh		156
58	Bhiwani		155
59	Charkhi Dadri		134
60	Dharuhera		182
61	Faridabad		212
62	Fatehabad		147
63	Gurgaon		184
64	Hissar		121
65	Jind		191
66	Kaithal		197
67	Karnal		174
68	Kurukshetra		181
69	Mandikhera		87
70	Manesar		179
71	Narnaul		131
72	Palwal		70
73	Panchukula		91
74	Panipat		108
75	Rohtak		170
76	Sirsa		101
77	Sonepat		246
78	Yamuna Nagar	148	

S.No.	State / Union Territory	City / town	Avg AQI for the month of October 2023
79	Himachal Pradesh	Baddi	145
80	Jammu & Kashmir (UT)	Srinagar	121
81	Jharkhand	Dhanbad	186
82	Karnataka	Bangalore	84
83		Devanagere	79
84	Karnataka	Gulbarga / Kalaburgi	76
85		Hubli-Dharwad	79
86		Bagalkote	45
87		Belgaum	75
88		Bidar	85
89		Vijayapura	39
90		Chamarajanagar	42
91		Chikkaballapur	85
92		Chikkamagaluru	56
93		Gadag	49
94		Hassan	84
95		Haveri	82
96		Kolar	100
97		Koppal	85
98		Madikeri	47
99		Mangalore	78
100	Mysore	58	
101	Raichur	106	
102	Ramanagara	75	
103	Shimoga	55	
104	Tumkuru	81	
105	Udupi	83	
106	Yadgir	73	
107	Kerala	Eloor	121
108		Kannur	70
109		Kochi	80
110		Kollam	80
111		Thiruvananthapuram	43
112		Thrissur	58
113	Madhya Pradesh	Damoh	152
114		Katni	145
115		Maihar	62
116		Mandideep	161
117		Pithampur	121

S.No.	State / Union Territory	City / town	Avg AQI for the month of October 2023
118		Ratlam	122
119		Satna	177
120		Singrauli	93
121		Bhopal	119
122		Dewas	132
123		Gwalior	149
124		Indore	136
125		Madhya Pradesh	Jabalpur
126	Sagar		121
127	Ujjain		129
128	Maharashtra	Ahmednagar	134
129		Belapur	120
130		Boisar	130
131		Bhiwandi	123
132		Dhule	128
133		Dombivali / Kalyan	141
134		Mahad	111
135		Malegao	111
136		Mira-Bhayander	176
137		Nanded	151
138		Parbhani	134
139		Pimpri-Chinchwad	142
140		Akola	169
141		Amravati	122
142		Aurangabad	117
143		Badlapur	163
144		Chandrapur	109
145		Jalgaon	120
146		Jalna	134
147		Kolhapur	124
148		Latur	87
149		Mumbai	145
150		Nagpur	125
151		Nashik	115
152		Navi Mumbai	173
153		Pune	142
154		Sangli	98
155		Solapur	120
156	Thane	140	
157	Ulhasnagar	168	
158	Vasai-virar	168	

S.No.	State / Union Territory	City / town	Avg AQI for the month of October 2023
159	Meghalaya	Shillong	46
160	Manipur	Imphal	75
161	Mizoram	Aizwal	39
162	Nagaland	Kohima	53
163	Odisha	Angul	188
164		Baripada	117
165		Bileipada	135
166		Brajrajnagar	60
167		Balasore	117
168	Odisha	Bhubaneswar	190
169		Byasanagar	121
170		Barbil	131
171		Keonjhar	101
172		Nayagarh	87
173		Rairangpur	116
174		Rourkela	87
175		Suakati	118
176		Talcher	74
177		Tensa	84
178	Pondicherry (UT)	Pondicherry	61
179	Punjab	Amritsar	105
180		Bhatinda	139
181		Gobindgarh	126
182		Jalandhar	109
183		Khanna	95
184		Ludhiana	115
185		Patiala	107
186		Rupnagar	140
187	Rajasthan	Ajmer	89
188		Alwar	88
189		Banswara	107
190		Baran	138
191		Barmer	96
192		Bharatpur	186
193		Bhilwara	108
194		Bhiwadi	208
195		Bikaner	160
196		Bundi	163
197		Churu	106
198		Chittorgargh	135
199		Dausa	153

S.No.	State / Union Territory	City / town	Avg AQI for the month of October 2023
200		Dholpur	133
201		Dungerpur	94
202		Hanumangarh	213
203		Jaipur	138
204		Jaisalmer	129
205		Jalor	140
206		Jhalawar	121
207		Jhunjhunu	140
208		Jodhpur	122
209		Karauli	67
210		Kota	146
211	Rajasthan	Nagaur	133
212		Pali	82
213		Pratapgarh	112
214		Rajsamand	84
215		Sawai madhopur	103
216		Sirohi	96
217		Sikar	124
218		Sri Ganganagar	181
219		Tonk	147
220		Udaipur	99
221	Sikkim	Gangtok	57
222	Tamilnadu	Ariyalur	45
223		Chengalpattu	78
224		Chennai	80
225		Cuddalore	55
226		Gummidipoondi	129
227		Hosur	87
228		Kanchipuram	54
229		Ooty	56
230		Palkalaiperur	33
231		Ramanathapuram	42
232		Salem	73
233		Thoothukudi	50
234		Tirupur	87
235	Telangana	Hyderabad	90
236	Tripura	Agartala	151
237	Uttar Pradesh	Agra	108
238		Baghpat	170
239		Bareilly	96
240		Bulandshahr	155
241		Firozabad	105

S.No.	State / Union Territory	City / town	Avg AQI for the month of October 2023	
242		Ghaziabad	195	
243		Gorakhpur	110	
244		Greater Noida	258	
245		Hapur	176	
246		Jhansi	119	
247		Kanpur	119	
248		Khurja	130	
249		Lucknow	119	
250		Meerut	198	
251		Moradabad	118	
252		Muzaffarnagar	227	
253		Noida	202	
254		Uttar Pradesh	Prayagraj	136
255			Varanasi	60
256	Vrindavan		96	
257	Uttarakhand	Dehradun	92	
258		Kashipur	123	
259		Rishikesh	48	
260	West Bengal	Durgapur	82	
261		Haldia	86	
262		Kolkata	102	
263		Asansol	121	
264		Howrah	104	
265		Silliguri	54	

## Annexure II

### Steps taken by the Government to prevent the hazardous chemicals and pollutants being released from different sources, including industries

#### I. Vehicular Emissions:

- (i) Leapfrogging from BS-IV to BS-VI norms for fuel and vehicles since April, 2018 in NCT of Delhi and from 1st April, 2020 for rest of the country.
- (ii) Network of metro rails for public transport are enhanced and more cities are covered.
- (iii) Development of Expressways and Highways are also reducing the fuel consumption and pollution.
- (iv) Eastern Peripheral Expressway & Western Peripheral Expressway has been operationalized to divert non destined traffic from Delhi.
- (v) Ban on all diesel vehicles older than 10 years and all petrol vehicles older than 15 years, in Delhi and NCR. (Hon'ble SC order dated 29.10.2018).
- (vi) Environment protection charges (EPC) have been imposed on diesel vehicles with engine capacity of 2000cc and above in Delhi NCR.
- (vii) Introduction of cleaner/alternate fuels like CNG, LPG, ethanol blending in petrol.
- (viii) Permit requirement for electric vehicles has been exempted.
- (ix) Promotion of public transport and improvements in roads and building of more bridges to ease congestion on roads.
- (x) RFID (radio-frequency identity) system implemented by South Delhi Municipal Corporation (SDMC) for collection of toll and Environment Compensation Charges from commercial vehicles entering Delhi.
- (xi) Introduction of BS VI compliant vehicles across the country since April, 2020.
- (xii) 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.
- (xiii) Subsidy on e-vehicles under Faster Adoption and Manufacture of (Hybrid &) Electric Vehicles in India (FAME -II India) scheme of Ministry of Heavy Industries is provided.
- (xiv) Installation of Vapour Recovery System (VRS) in new and existing petrol pumps
- (xv) 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.

#### II. Industrial Emissions:

- (i) Notification regarding SO<sub>2</sub> and NO<sub>x</sub> emission standards have been issued for Thermal Power Plants
- (ii) Ban on use of pet coke and furnace oil as fuel in NCR States since October 24, 2017 and ban on use of imported pet coke in the country since July 26, 2018, with exception for use in permitted processes (processes in cement plants, lime kilns and calcium carbide manufacturing units).
- (iii) Shifting of industrial units to PNG.
- (iv) Installation of online continuous emission monitoring devices in highly polluting industries.
- (v) Brick kilns shifting to zig-zag technology or vertical shaft or use Piped Natural Gas as fuel in brick making to reduce pollution.

- (vi) System and Procedure for Emission Compliance Testing of Retro-fit Emission
- (vii) Control Devices (RECD) for Diesel Power Generating Set Engines up to Gross
- (viii) Mechanical Power 800 kW developed.
- (ix) Development of low carbon strategies across sectors such as phasing out older coal-based power plants, compliance of standards, City Gas Distribution (CGD) network, emphasis on improved power reliability in urban areas, etc.
- (x) Developing an eco-system for processing biomass/agriculture residue as fuel in industrial applications in Delhi-NCR.
- (xi) Uniform and affordable PNG pricing policy for aggravating use PNG as fuel in industrial applications in Delhi-NCR.

### **III. Air Pollution due to dust and burning of waste:**

- (i) Notification of eight waste management rules covering solid waste, plastic waste, e-waste, waste tyres, bio-medical waste, C&D waste, hazardous waste and battery waste.
- (ii) Setting up infrastructure such as waste processing plants.
- (iii) Extended Producer Responsibility (EPR) for plastic and e-waste management has been mandated on producers.
- (iv) Ban on burning of biomass/garbage.
- (v) Bio-mining of three dumpsites at Bhalswa, Okhla and Ghazipur is being carried out.
- (vi) Under Central Sector Scheme on 'Promotion of Agricultural Mechanization for in-situ management of Crop Residue in the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi', agricultural machines and equipment for in-situ crop residue management are promoted with 50% subsidy to the individual farmers and 80% subsidy for establishment of Custom Hiring Centers.
- (vii) The Commission for Air Quality Management in NCR and Adjoining Areas (CAQM) on 17.09.2021 directed the coal-based Thermal Power plants situated up to a radius of 300 Km of Delhi to co-fire biomass-based Pellets, Torrefied Pellets/Briquettes (with focus on paddy straw) with Coal (up to 5-10%).
- (viii) Guidelines prepared for providing one-time financial assistance for establishment of paddy straw based pelletisation and torrefaction plants, under which individuals/entrepreneurs / companies, interested in setting up pelletisation and torrefaction plants, using only paddy straw generated in the NCT of Delhi, States of Punjab & Haryana, and NCR districts of Rajasthan & Uttar Pradesh can submit an application for obtaining a one-time grant on capital investment.
- (ix) Guidelines issued for supporting Municipal Corporations of the states of Punjab, Haryana, NCT of Delhi and NCR districts of Uttar Pradesh and Rajasthan, for establishing paddy straw based briquetting plants, for use of paddy straw based briquettes for cremation purpose only.
- (x) Daily monitoring of Active Fire Events (AFEs) is done during stubble burning period and reports are shared with Commission on Air Quality Management in National Capital Region and Adjoining areas for suitable action.

### **IV. Monitoring of Ambient Air Quality:**

- (i) Expansion of air quality monitoring network in the country under National Air Monitoring Programme (NAMP).
- (ii) Initiated pilot projects to assess alternate ambient monitoring technologies such as satellite-based monitoring.

### **V. National Clean Air Programme:**

- (i) With the prime objective of abating Air Pollution, the Ministry, in 2019 launched a National Clean Air Programme (NCAP) as a National-level Strategy outlining the actions for reducing the levels of air pollution at city and regional scales in India.
- (ii) Activities in these cities include strengthening of ambient air quality network, source apportionment studies, dust mitigation measures, composting units, infrastructure for non-motorized transport, shifting to clean energy in unorganized sectors, etc.
- (iii) The NCAP focuses on multi-sectoral sources of pollution including power plants, industries, vehicles, open burning of waste, construction & demolition activities, etc.; inter-Ministerial coordination for convergence of actions and interventions; and partnership with Institutes of National repute and International Agencies as Knowledge Partners
- (iv) Public Grievances and Response System (PGRS) is developed under NCAP.
- (v) Emergency Response System (ERS) has been prepared in NCAP cities.
- (vi) Air quality monitoring cell has been constituted across the country in NCAP Cities.
- (vii) PRANA a portal for monitoring implementation of NCAP has been launched.
- (viii) Introduction of new modules within PRANA
  - Mission LiFE Module
  - Ranking Module
  - State Action Plan Module
  - IoR &NKN Module
  - International Agencies Module

#### **VI. Other Steps:**

- (i) Public Complaints regarding air pollution issues in Delhi NCR are taken through 'Sameer App', 'Emails' (Aircomplaints.cpcb@gov.in) and 'Social Media Networks' (Facebook and Twitter).
- (ii) Introduction of green crackers with low emission and noise levels. Green Crackers have 30% potential reduction of PM and gaseous emissions compared to conventional firework.