

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
UN-STARRED QUESTION NO. 2115
TO BE ANSWERED ON 21.12.2023

Allocation to combat air pollution

2115. SHRI DEEPENDER SINGH HOODA

Will the Minister of ENVIRONMENT, FORESTS AND CLIMATE CHANGE be pleased to state;

- (a) the action taken/ proposed by Government to control and mitigate the problem of air pollution in the Delhi-NCR along with other affected cities;
- (b) the budgetary provisions made for this since 2017 and the quantum of funds allocated and utilised each year including 2023; and
- (c) the details thereof?

ANSWER

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

(a) to (c):

For air pollution abatement and control in Delhi / NCR, the Commission for Air Quality Management in NCR and Adjoining Areas, constituted in 2021, has devised a comprehensive policy for air pollution abatement in NCR in July 2022, stipulating sector-specific action points quantifying targets along with timelines and implementation plan by various agencies in NCR States. The policy framework details sector-wise interventions, quantified targets and timelines for various sectors contributing to air pollution.

Since its inception, the Commission has so far issued 78 directions and 11 advisories, besides executive orders to various agencies concerned in the NCR including State Governments of Punjab, GNCTD, and various bodies of the Central and State Governments in the region.

Besides, to address the issue of generally adverse Air quality witnessed in the winter, actions under 'Graded Response Action Plan' are also invoked based on AQI. The GRAP calls for a set of emergent preventive/restrictive actions depending on air pollution levels, to be implemented by the identified agencies for combating the adverse air quality scenario generally prevailing in Delhi-NCR owing to unfavourable climatic and meteorological conditions during the winter months.

The Commission has also constituted a statutory sub-Committee on Safeguarding and Enforcement represented by senior level functionaries of the NCR State Governments towards effective implementation and monitoring of field-level actions envisaged in the policy and various statutory Directions/ orders of the Commission.

The Government has also launched National Clean Air Programme (NCAP) in 2019 as a national level strategy to reduce air pollution levels across the country. Taking into account the available international experiences and national studies, the tentative national level target under NCAP is 20%–30% reduction of particulate matter concentration by 2024.

131 million plus/non-attainment cities (cities exceeding National Ambient Air Quality Standards (NAAQS), consecutively for five years) have been identified, including six cities of Delhi-NCR (Faridabad, Alwar, Meerut, Ghaziabad, Noida and Delhi). Accordingly, City Specific Clean Air Action Plans have been prepared and rolled out for implementation in 131 non-attainment/million plus cities to improve the air quality. These action plans have short, medium and long term actions for city-specific air polluting sources like soil & road dust, vehicles, domestic fuel, MSW burning, construction material and industries along with the responsible agencies.

An amount of ~Rs 9650 Cr has been released to the identified 131 cities from FY 2019-20 till FY 2023-24 (till 15th Dec) under NCAP. Out of ~ Rs 9650 Cr, an amount of Rs 1292.50 Cr has been released to cities which are funded under NCAP, out of which Rs 480.92 Cr has been utilised (till 15th Dec) and Rs 8357.51 Cr has been released to the cities that are funded under Fifteenth Finance Commission (XV-FC), out of which Rs5835.03 Cr (till 15th Dec) has been utilised for improvement in air quality.

The details of release and utilisation of funds in 131 cities under National Clean Air Programme, including the cities falling in Delhi NCR, for FY 2019-20 to 2023-24 are enclosed as **Annexure I**.

Further, steps taken for improvement of air quality in India from different sources is enclosed at **Annexure-II**.

Annexure-I

Details of release and utilisation of funds in 131 cities under National Clean Air Programme including the cities falling in Delhi NCR (FY 2019-20 to 2023-24)

(₹ in Crores)

S. No	City	Total Fund Released	Total Fund Utilised
1.	Delhi	38.22	10.77
2.	Noida	26.42	0.95
3.	Alwar	15.00	0.04
4.	Meerut*	139.19	81.93
5.	Faridabad*	73.53	-
6.	Ghaziabad*	136.25	76.89
Total		428.61	170.58

*The cities are funded under 15th Finance Air Quality Performance Grant.

(₹ in Crores)

S.No	City	Total Fund released	Total fund utilised
1	Anantapuramu	8.765	2.16
2	Chittoor	4.905	3.61
3	Eluru	4.625	3.42
4	Guntur	11.55	4.53
5	Kadapa	5.77	2.49
6	Kurnool	5.272	2.95
7	Nellore	14.855	7.36
8	Ongole	6.105	4.1
9	Rajamahendravaram	6.345	4.32
10	Srikakulam	3.59	3.19
11	Vijayawada	130.35	33.67
12	Visakhapatnam	129.37	0
13	Vizianagaram	4.6855	2.7
14	Guwahati	29.39	12.09
15	Nagaon	4.91	1.97
16	Nalbari	2.92	1.21
17	Silchar	3.92	2.48

18	Sibsagar	4.14	1.78
19	Patna	298.57	157.72
20	Gaya	9.4185	6.47
21	Muzaffarpur	14.01	5.39
22	Chandigarh	28.783	12.96
23	Korba	3.846	1.06
24	Bhilai Nagar	118.35	28.45
25	Raipur	125.35	51.86
26	Delhi	38.2185	10.77
27	Ahmedabad	365.54	261.93
28	Rajkot	83.1	64.61
29	Surat	261.15	254.23
30	Vadodara	98.15	81.98
31	Faridabad (NCR)	73.53	0.78
32	Baddi	2.7725	2.6
33	Damtal	1.5725	1.05
34	Kala Amb	3.5625	3.33
35	Nalagarh	1.925509	1.8
36	Paonta Sahib	1.7225	1.47
37	Parwanoo	1.6225	1.33
38	Sunder Nagar	1.9315	1.71
39	Jammu	19.9215	11.93
40	Srinagar	60.93	4
41	Dhanbad	69.09	57.39
42	Jamshedpur	116.85	31.9
43	Ranchi	93.5	48.09
44	Bengaluru	541.1	5.47
45	Devanagere	10.05	4.78
46	Gulburga	15.8965	1.29
47	Hubli-Dharwad	16.7245	0.8
48	Bhopal	183.85	166.44
49	Dewas	6.6415	5.31
50	Gwalior	102.64	65.08
51	Indore	191.95	166.64
52	Jabalpur	112.25	104.18
53	Sagar	8.9935	2.58
54	Ujjain	12.61	3.22
55	Aurangabad	68.3	51.54
56	Akola	8.66	3.95
57	Amravati	25.005	12.87
58	Badlapur	2	0.15
59	Chandrapur	5.595	3.88
60	Greater Mumbai	938.59	680.32
61	Jalgaon	4.58	1.07
62	Jalna	5.415	3.09
63	Kolhapur	17.2	0.33

64	Latur	12.9965	5
65	Nagpur	142.05	6.32
66	Nashik	91.55	0
67	Navi Mumbai	9.45	26.43
68	Pune	271.3	70.48
69	Sangli	10.5	2.54
70	Solapur	31.725	7.18
71	Thane	0	41.49
72	Ulhasnagar	2.1	18.15
73	Vasai virar	72.35	13.46
74	Byrnihat	6.151	2.84
75	Dimapur	7.05	0.47
76	Kohima	6.65	1.15
77	Angul	0.3375	0.95
78	Balasore	3.741	1.16
79	Bhubaneswar	4.6237	20.53
80	Cuttack	40.23	14.23
81	Kalinga Nagar	4.6875	1.82
82	Rourkela	12.0575	6.55
83	Talcher	3.87	1.15
84	Amritsar	73.25	65.86
85	Pathankot/Dera Baba	4.73	1.66
86	DeraBassi	1.115	0.42
87	Jalandhar	30.045	2.63
88	Khanna	5.18	2.04
89	Ludhiana	97.75	56.48
90	Gobindgarh	5.269	2.8
91	NayaNangal	2.718	0.67
92	Patiala	14.86	2.96
93	Jaipur	325.85	260.71
94	Alwar	15	1.69
95	Jodhpur	80.34	55.99
96	Kota	101.2	63.34
97	Udaipur	14.7265	9.39
98	Chennai	367	367.51
99	Madurai	72.44	49.8
100	Trichy	50.35	46.36
101	Tuticorin	12.64	7.15
102	Hyderabad	454.3	365.6
103	Nalgonda	4.3965	1.62
104	Patencheru	0.48	0.39
105	Sangareddy	3.3575	2.03
106	Agra	175.92	128.63
107	Allahabad	180.78	141.72
108	Ghaziabad	136.25	97.08
109	Kanpur	249.34	209.47

110	Lucknow	385.83	199.5
111	Meerut (NCR)	139.19	86.84
112	Varanasi	229.17	83.49
113	Anpara	2.185	1.53
114	Bareilly	49.24	11.68
115	Firozabad	34.355	17.9
116	Gajraula	4.04	0.89
117	Gorakhpur	52.19	19.56
118	Jhansi	9.06	4.74
119	Khurja	13.665	3.8
120	Moradabad	57.195	15.23
121	Noida	26.42	1.19
122	Raebareli	11.3685	5.5
123	Dehradun	38.24	10.11
124	Kashipur	6.772	2.76
125	Rishikesh	8.6715	3.9
126	Asansol/Raniganj	67.6	42.55
127	Barrackpore	2	1.94
128	Durgapur	44.58	5.87
129	Haldia	10.325	4.43
130	Howrah	5	7.71
131	Kolkata	687.25	636.18
Total		9649.99	5835.03

**List of Steps taken for improvement of air quality
ACTIONS TAKEN BY THE CENTRAL GOVERNMENT**

1.0 National Clean Air Programme:

- National Clean Air Programme (NCAP) has been launched by Ministry of Environment, Forest and Climate Change (MoEFCC) in January 2019 with an aim to improve air quality in 131 cities (non-attainment cities and Million Plus Cities) in 24 States by engaging all stakeholders.
- NCAP envisages reduction by 20-30% in PM concentration over baseline in year 2017 by 2024. Target has been revised to achieve reduction in PM10 level up to 40% or achievement of national standards ($60 \mu\text{g}/\text{m}^3$) by 2025-26.
- City Action Plans (CAPs) have been prepared by all 131 cities and being implemented by Urban Local Bodies.
- The city specific clean air action plans target city specific air polluting sources like Soil & Road Dust, Vehicles, Domestic Fuel, MSW Burning, Construction Material and **Industries**
- Performance based financial support is being provided to these 131 cities for implementation of activities of City Action Plan.
- Further, funding for implementation of CAPs is being mobilised through convergence of resources from various schemes of Central Government such as Swachh Bharat Mission SBM (Urban), Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Smart City Mission, Sustainable Alternative towards Affordable Transportation (SATAT), Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME-II), Nagar Van Yojna, etc. and resources from State/UT Governments and its agencies such as Municipal Corporation, Urban Development authorities and Industrial development authorities etc.
- Public Grievance Redressal Portal (PGRP)/helpline have been developed by all 131 cities to address public complaints of air pollution in timely manner.
- Emergency Response System (ERS/ GRAP) have been developed by all 131 cities for taking action in air emergencies
- 90 cities out of 131 cities have shown improvement in air quality in terms of annual PM10 concentrations in FY 2022-23 with respect to the baseline of FY 2017-18.

2.0 Measures for control of vehicular emissions:

- **Leapfrogging from BS-IV to BS-VI fuel standards** since 1st April, 2018 in NCT of Delhi and from 1st April, 2020 for the rest of the country.
- **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.
- Introduction of **BS VI compliant vehicles** across the country since April, 2020.
- Department of Heavy Industry is providing subsidy on e-vehicles under **Faster Adoption and Manufacture of (Hybrid &) Electric Vehicles in India (FAME -II India)** scheme.
- **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.
- Operationalization of Expressways & Highways to divert non-destined traffic

3.0 Measures for control of industrial emission:

- **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.

4.0 Measures for control of emissions from Stubble Burning:

- 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. In 2022, the Scheme has been merged with Sub-Mission on Agricultural Mechanization (SMAM) and SMAM has been merged with RashtriyaKrishiVikasYojana (RKVY).
- 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%).
- Coal based captive Thermal Power Plants in NCR and adjoining areas directed to co-fire at least 5% biomass pellets by 30.09.2023 and at least 10% biomass pellets by 31.12.2023.
- Directions issued by CAQM to State governments of Punjab, Haryana and Uttar Pradesh to strictly and effectively implement framework and revised action plan to eliminate and control stubble burning.

Actions taken by Central Pollution Control Board (CPCB)

1.0 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 1447 ambient air quality monitoring stations (516 continuous and 931 manual) covering 516 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.

2.0 Measures for control of vehicular refueling emissions

- Installation of Vapour 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.
- Installation of VRS system at 3256 petrol pumps in Delhi-NCR in compliance with orders of Hon'ble Supreme Court and Hon'ble NGT.

3.0 Measures for control of industrial emission

- For strengthening monitoring mechanism and effective compliance through self-regulatory mechanism, CPCB directed all 17 categories of highly polluting industries to install

OCEMS. There are 4,315 units under 17 categories of industries, out of which 3,734 units have installed OCEMS and closure directions are still in-force for 581 units.

- 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.
- Installation of Online Continuous Emission Monitoring System (OCEMS) in red category air polluting industries in Delhi-NCR & 17 category of highly polluting industries at national level
- Industrial units in Delhi have shifted to PNG/cleaner fuels and, operational units in NCR have shifted to PNG/Biomass.
- Directions issued for conversion of brick kilns to zig-zag technology in Delhi and NCR. A total of 3003 out of 4608 brick kilns have converted to zig-zag technology including 1762 kilns in Haryana, 1024 kilns in U.P. and 217 kilns in Rajasthan. Brick kilns not converted to zig-zag technology are not permitted to operate.
- 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 order to control DG set emissions, CPCB is also funding retrofitment/ upgradation of DG sets in Govt. hospitals in Delhi-NCR and guidelines have been issued in this regard.

4.0 Measures for Control of Emissions from Stubble Burning

- CPCB has framed guidelines for providing one-time financial assistance for setting up of paddy straw based pelletization and Torrefaction plants which may help in addressing the supply chain issues and the issue of open burning of paddy straw in agriculture fields in Northern Region. A corpus of Rs. 50 crores have been earmarked for utilisation through the guidelines. A total of 10 plants have been approved so far.
- CPCB has also issued an addendum to the guidelines under which one-time financial assistance is provided to Municipal Corporations, Municipal Councils and Zilla Parishads 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 briquettes for cremation purpose only.
- From 10.11.2023 onwards, 33 scientists of CPCB were deployed as flying squads for assisting the Commission for Air Quality Management in National Capital Region and Adjoining Areas (CAQM) for intensifying monitoring and enforcement actions towards prevention of paddy stubble burning incidents in 22 districts of Punjab and 11 districts of Haryana. The flying squads are coordinating with the state Government/ nodal officers/ officers from respective Pollution Control Boards towards prevention and control of stubble burning in their respective districts and sending their daily reports to CAQM. All teams have been recalled in view of paddy harvesting season coming to an end.

5.0 MSW and C&D Waste:

- CPCB published guidelines (available on

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
- 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.
 - CPCB has issued directions under Section 5 of E(P) Act to all SPCBs/PCCs for implementation of SWM Rules, 2016 with reference to fire incidents at MSW dumpsites.

6.0 Technical Interventions

- Trial study of various new technologies for control of air pollution have been got conducted by CPCB out of which encouraging results were observed in case of Dust Suppressant for control of emissions at construction sites and road dust. Advisory have been issued for use of dust suppressant by road owning and construction agencies in Delhi-NCR.
- CPCB issues a daily report comprising of AQI of Delhi and NCR towns, comparative AQI status, year-wise trends of PM concentration, hotspots for the day, AFE counts, contribution of stubble burning and meteorological forecast. This report is prepared based on the inputs available from various sources such as IMD, SAFAR, IARI, etc., and disseminated through CPCB website.

7.0 Close Monitoring & Ground level implementation

- Central Pollution Control Board has been deploying dedicated CPCB's teams on the field during the winter season from 2017 onwards to check on-ground scenario of air pollution related activities and refer these to implementing agencies for necessary action.
- 40 teams have been deputed by CPCB since December 2021, to assist CAQM, for conducting incognito inspections of air polluting industries, C&D sites, DG sets in Delhi-NCR to check implementation status of pollution control measures and compliance of other provisions of the Air (P&CP) Act,1981. A total of 16200 units/ entities/ projects have been inspected as on December 08, 2023. Based on these inspections, CAQM has issued Closure Directions in 899 cases and out of these resumption orders have been issued in 722 cases while 118 cases are still under closure and cases of 59 balance units have been transferred to SPCBs / DPCC for final decision.
- Additionally, 40 teams are also checking the implementation of actions invoked under GRAP so far, such as incidences of biomass and waste burning, illegal dumping of industrial waste, ban on operation of stone crushers, mining activities & construction works etc.
- Another 15 teams (other than the 33 teams for Punjab and Haryana) were provided to CAQM as Flying Squads for carrying out incognito inspections of units/activities in various sectors contributing to air pollution such as Industrial activities, Construction and Demolition projects, Unpaved roads, DG Sets etc. These have also been recalled and the original 40 teams are conducting inspections.

8.0 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.

9.0 Regulatory Actions

- Graded Response Action Plan (GRAP) was formulated for Delhi-NCR to tackle the issue of sudden rise in air pollution levels which was notified by MoEF&CC in January 2017 on recommendation of CPCB for implementation. A comprehensive review of actions listed under GRAP was carried out by CPCB in 2020 based on actions taken and improvement observed in air quality in recent years. Based on the inputs given by CPCB, the revised GRAP was published by Commission for Air Quality Management in NCR and adjoining areas (CAQM) and further directions were issued for its implementation. Actions listed for different AQI levels under GRAP are invoked from time to time by a sub-committee constituted by CAQM, having CPCB as a member.
- Directions prescribing measures for control of pollution from various sources such as implementation of RECD system/ dual fuel kits in DG sets, use of cleaner fuels in industries, shift to EV/ CNG/ BS VI diesel fuel in transport sector, implementation of dust control measures at C&D sites etc., have been issued by CAQM, wherein CPCB is also a member and provided technical inputs to CAQM. Further, policy to curb air pollution in NCR has also been formulated.
- CPCB on November 03, 2023 issued Directions under Section 5 of the Environment (Protection) Act, 1986 to Delhi-NCR SPCBs/ PCCs for strict implementation of actions prescribed under stages of GRAP invoked from time to time, in view of the deteriorated air quality situation in Delhi-NCR.

10.0 Other actions

In order to control road dust emissions, CPCB is funding NCR ULBs for construction/ repair of roads and procurement of anti-s