GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
STARRED QUESTION NO. 82
TO BE ANSWERED ON 29.07.2024

Pollution in Smaller Cities

*82. SHRI CHANDRA PRAKASH JOSHI:
    SHRI RODMAL NAGAR:

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

(a)   the details of the efforts made/proposed to be made by the Government to check pollution in smaller cities in the country along with the guidelines issued in this regard;
(b)   the details of the efforts made/proposed to be made by the Government to make the environment clean and to check pollution;
(c)   the details of the criteria fixed to check air, water and soil pollution; and
(d)   the details of the efforts made/proposed to be made by the Government to check pollution in industrial areas?

<u>ANSWER</u>

MINISTER FOR ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI BHUPENDER YADAV)

(a) to (d): A Statement is laid on the Table of the House.

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STATEMENT REFERRED TO IN REPLY TO PARAS (a) to (d) OF THE LOK SABHA STARRED QUESTION No. 82 DUE FOR REPLY ON 29.07.2024 REGARDING POLLUTION IN SMALLER CITIES BY SHRI CHANDRA PRAKASH JOSHI & SHRI RODMAL NAGAR, HON'BLE MEMBERS OF PARLIAMENT.

(a) to (d):

1. The Government of India has launched National Clean Air Programme (NCAP) as a national level strategy to reduce air pollution levels across the country. Under NCAP City Specific Action Plans are prepared covering all aspects of mitigation measures for the identified 131 non-attainment cities.

   The Central Pollution Control Board (CPCB) has identified Non-attainment cities (NAC) based on ambient air quality data levels exceeding National Ambient Air Quality Standards with respect to any one of the notified parameters consecutively for five years. These 131 cities included 48 cities with population above 10 Lakhs, 43 cities with population between 3-10 lakhs and 40 cities with population below 3 lakhs The list of 131 NACs is enclosed in **Annexure-I**.

   "PRANA" – Portal for Regulation of Air-pollution in Non-Attainment cities, has been developed as a portal for monitoring implementation of National Clean Air Programme (NCAP) and is available on www.prana.cpcb.gov.in. PRANA endeavours to track physical as well as financial progress of cities under NCAP and disseminate information about the programme to public. Comprehensive information related to NCAP such as programme details, implementation updates by city/state/national level agencies, air quality data and trends, support from multilateral organizations, reference documents, events, best practices and citizen's corner, etc., are available in public domain of PRANA.

   Steering, Monitoring and Implementation committees have been constituted at central, state and city level for overseeing implementation of NCAP. Air Quality Management Cells have been constituted in ULBs of all 131 cities for ground level implementation of air quality management measures. To attain the fixed targets under NCAP, performance based funds / grants are being released under NCAP/XVFC from FY 2019-20 to FY 2025-26. Further, steps taken by Govt. to improve the air quality are enclosed as **Annexure-II**.

2. Under Sub-section 2 (h) of Section 16 of the Air (Prevention and Control of Pollution) Act, 1981 National Ambient Air Quality Standard (NAAQS) has been notified on November 18, 2009 as a policy guideline that regulates the effect of human activity on the environment. CPCB along with State Pollution Control Boards (SPCB) and Pollution Control Committees (PCC) are monitoring ambient air quality at 963 manual stations in 419 cities covering 28 States and 7 UTs across the country under National Ambient Air Quality Monitoring Programme (NAMP).

   Under National Ambient Air Quality Monitoring Programme (NAMP), three criteria pollutants i. e. Particulate Matter (PM_{10}), Sulphur Dioxide (SO_2) and Nitrogen Dioxide (NO_2), along with Carbon Monoxide (CO), Ammonia (NH_3), Ozone (O_3), $PM_{2.5}$, Benzo(a)pyrene {B(a)P}, Lead (Pb) and Nickel (Ni) are being monitored at selected locations.
   Major Objectives of National Ambient Air Quality Monitoring Programme:
   - To determine the status and trends of ambient air quality;
   - To ascertain whether the prescribed ambient air quality standards are violated;
   - To identify non-attainment cities with respect to national standards and;

- To obtain the knowledge and understanding necessary for developing preventive and corrective measures.

3. Efforts / measures taken by the government for prevention and control of water pollution are given below:
   - Govt. of India enacted The Water (Prevention and Control of Pollution) Act, 1974 and various provisions under The Environment (Protection) Act, 1986 for protection of water bodies and The Central & State Pollution Control Boards are implementing the provisions of both The Water (Prevention and Control of Pollution) Act, 1974 & The Environment (Protection) Act, 1986 to prevent and control pollution of aquatic resources.
   - SPCBs/PCCs have been directed under Section 18(1) (b) of The Water (Prevention & Control of Pollution) Act, 1974 vide order dated 21.04.2015 to direct concerned agencies in the State/UT to develop infrastructure for sewage treatment.
   - Government of India notified General discharge standards and industry specific effluent discharge standards under Environment (Protection) Rules, 1986 with an aim to prevent pollution in the water bodies.

   Also, CPCB in collaboration with State Pollution Control Boards (SPCBs) in the States and Pollution Control Committees (PCCs) in Union Territories has established a National Water Quality Monitoring Network (NWMP) in order to assess status of water quality of water resources and to facilitate for prevention and control of pollution in water bodies. Presently under NWMP water quality of aquatic resources is monitored at 4736 locations in the country in association with the SPCBs/PCCs. State-wise details of water quality monitoring network are provided in **Annexure-III.**

4. Cleaning/rejuvenation of rivers and lakes is an ongoing activity. It is the responsibility of the States/UTs and local bodies to ensure required treatment of sewage and industrial effluents to the prescribed norms before discharging into rivers and other water bodies, coastal waters or land to prevent and control of pollution therein. For conservation of rivers, Ministry of Jal Shakti supplements efforts of the States/UTs by providing financial and technical assistance for abatement of pollution in identified stretches of rivers in the country through the Central Sector Scheme of Namami Gange for rivers in Ganga basin and the Centrally Sponsored Scheme of National River Conservation Plan (NRCP) for other rivers.

   Further, as per the Provisions of Environment (Protection) Act, 1986 and Water (Prevention & Control of Pollution), Act 1974, industrial units are required to install effluent treatment plants (ETPs) and treat their effluents to comply with stipulated environmental standards before discharging into rivers and water bodies. Accordingly, CPCB, State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs) monitor industries with respect to effluent discharge standards and take action for non-compliance under provisions of these Acts.

5. Ministry of Environment Forest and Climate Change has notified Solid Waste Management Rules on 8th April, 2016 under E(P) Act, 1986.Duties and responsibility of various agencies have been stipulated in the said rules for proper and scientific management of Solid Waste. These rules shall apply to every urban local body, outgrowths in urban agglomerations, census & towns. CPCB has prepared various guidelines under SWM Rules,2016:
   I. Guidelines for management of Sanitary Wastes
   II. Guidelines for disposal of legacy waste (Old Municipal Solid Waste)

III.   Guidelines on the provision of buffer zone around waste processing and disposal facilities
IV.   Guidelines for carcass disposal
V.   Guidelines for disposal of cigarette/Bidi butts

CPCB, as mandated under the Solid Waste Management Rules, 2016, coordinates with the SPCBs/PCCs regarding implementation of the Solid Wastes Management Rules. The received information from SPCBs /PCC is compiled and Annual report has been prepared by CPCB for FY 2021-22.

As per the Annual report of CPCB 2021-22 total quantity of solid waste generated in the country is 1,70,338 TPD, waste collected is 1,56,449 TPD (92%), waste processed or treated is 91,511 TPD (54%) and 41,455 TPD (24%) of the generated wastes are disposed through sanitary landfills. The gap in solid waste management is estimated to be 37,386 TPD, which is 22% of the total waste generated. State wise details is given as **Annexure IV.**

Further, following Directions under Section 5 of the E(P) Act, 1986 has been issued by CPCB to all SPCBs/PCCs for Solid waste management.
I.   For enforcement of Solid Waste Management Rules, 2016 regarding bio-mining of legacy waste vide dated 27.1.2021
II.   For fire incidents at MSW dumpsites vide dated 26.5.2022

6.   Ministry of Environment, Forest and Climate Change through amendments/notifications has introduced market based Extended Producer Responsibility (EPR) regulations for five categories of wastes i.e. plastic packaging (notified on 16.02.2022), waste tyre (notified on 21.07.2022), battery waste (notified on 24.08.2022), e-waste (notified on 02.11.2022) and used oil (notified on 18.09.2023).

EPR is one of the important tools to create a sustainable ecosystem for the environmentally sound management of waste products which provides additional revenues and promotes integration of informal recycling sector. Through the EPR regulations, the producer, importer or brand owner (PIBOs) who introduces the product in the market becomes obligated under law for its environmentally sound management. EPR regulations mandate recycling/ refurbishing and use of recycled content. Recyclers sell EPR certificates to producers, enabling them to fulfil EPR targets.

Introduction of market based EPR regulation by MoEFCC since 2022 in different waste streams has positively contributed to growth of recycling sector. So far, 35,547 Producers, Importers and Brand Owners (PIBOs) and 2,391 recyclers under plastic packaging waste, 5088 producers and 217 recyclers under e-waste, 2512 producers and 198 recyclers under battery waste, 153 producers and 332 recyclers under waste tyres have been registered on EPR portals of respective waste streams. These EPR portals have facilitated the recycling and generation of EPR certificates for 63 lakh tons of plastic packaging waste, 2.9 lakh tons of metals from e-waste, 3 lakh tons of metals from battery waste, and 31.5 lakh tons of waste tyres during FY 2022-23 and 2023-24.

7.   The following initiatives has been taken by the Government of India to check the industrial pollution in the country, including smaller cities:

i. The Ministry of Environment Forest and Climate Change (MoEF&CC), notified "Standards for Emission or Discharge of Environmental Pollutants from various Industries" under Schedule-I of Environment Protection Rules, 1986. So far, 79 industrial specific environmental standards have been notified. The industrial sectors, for which specific standards are not available, general standards as notified under Schedule-VI of Environment Protection Rules, 1986 are applicable.

ii. The SPCBs/PCCs issue consent to establish / consent to operate and authorization to the industries in the States. SPCBs / PCCs monitor the compliance of industrial effluent according to the prescribed norms. In case of non-compliance, action against industry is taken under provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 and the Environment (Protection) Act, 1986.

iii. CPCB has directed SPCBs / PCCs to inspect Red, Orange, and Green categories of industries at a minimum inspection frequency of 6 months, 1 year and 2 years respectively for verification of compliance of environmental norms. In addition, common waste management /treatment facilities such as Sewage Treatment Plants (STPs), Common Effluent Treatment Plants (CETPs), Common Bio-Medical Waste Treatment Facility (CBMWTFs) etc., and 17 categories of high pollution potential industries are to be inspected on quarterly basis by SPCBs / PCCs.

iv. Further, CPCB has directed all 17 categories of high pollution potential industries, Grossly Polluting Industries (GPIs) of Ganga basin and common waste treatment facilities to install Online Continuous Effluent / Emission Monitoring Systems (OCEMS) for strengthening monitoring mechanism and effective compliance through self-regulatory mechanism and constant vigil on pollution levels. Real-time values of environmental pollutants of trade effluent and emissions generated through OCEMS are transmitted online to CPCB and concerned SPCB / PCC on 24x7 basis. Central software processes the data and in case of value of pollutant parameter exceeds prescribed environmental norms, an automatic SMS alert is generated and sent to industrial unit, SPCB and CPCB, so that corrective measures can be taken by the industry immediately and appropriate action can be taken by concerned SPCB/PCC/CPCB.

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List of 131 cities under NCAP

List of Cities- Population above 10 Lakhs

S. No.	City/ Town	S. No.	City/ Town
1	Delhi	30	Ludhiana
2	Thane	31	Vishakhapatnam
3	Srinagar	32	Vijayawada
4	Howrah	33	Surat
5	Chandigarh	34	Ahmedabad
6	Bangalore	35	Rajkot
7	Ranchi	36	Vadodara
8	Jamshedpur	37	Trichy
9	Dhanbad	38	Chennai
10	Patna	39	Madurai
11	Gwalior	40	Asansol
12	Bhopal	41	Kolkata
13	Indore	42	Faridabad
14	Jabalpur	43	Durg Bhilai
15	Greater Mumbai	44	Raipur
16	Aurangabad	45	Jodhpur
17	Nashik	46	Jaipur
18	Pune	47	Kota
19	Nagpur	48	Navi Mumbai
20	Vasai Virar		
21	Varanasi		

22	Allahabad		
23	Kanpur		
24	Lucknow		
25	Meerut		
26	Agra		
27	Ghaziabad		
28	Hyderabad		
29	Amritsar		

List of cities- Population from 3 to 10 Lakhs

S. No.	City/ Town	S. No.	City/ Town
1	Bareily	24	Kadapa
2	Guwahati	25	Anantapur
3	Solapur	26	Alwar
4	Hubli-Dharwad	27	Chandrapur
5	Moradabad	28	Badlapur
6	Bhubaneswar	29	Patancheruvu
7	Jalandhar	30	Barrackpore
8	Gorakhpur	31	Korba
9	Guntur	32	Jammu
10	Cuttack	33	Amravati
11	Gulburga	34	Noida
12	Ujjain	35	Firozabad
13	Ulhasnagar	36	Durgapur
14	Sangli	37	Dehradun

15	Kurnool	38	Nellore
16	Udaipur	39	Kolhapur
17	Gaya	40	Rourkela
18	Jalgaon	41	Jhansi
19	Patiala	42	Rajahmundry
20	Devanagere	43	Sagar
21	Akola		
22	Muzaffarpur		
23	Latur		

List of cities- Population less than 3 Lakh

S. No.	City/ Town	S. No.	City/ Town
1.	Kohima	21	Dewas
2.	Gobindgarh	22	Jalna
3.	Sangareddy	23	Eluru
4.	Gajraula	24	Vizianagaram
5.	Sibsagar	25	Thoothukudi
6.	Kalinga Nagar	26	Ongole
7.	Naya Nangal	27	Haldia
8.	Angul	28	Raebareli
9.	Talcher	29	Chitoor
10.	Baddi	30	Silchar
11.	Nalbari	31	Pathankot/Dera Baba
12.	Dera Bassi	32	Nalgonda
13.	Paonta Sahib	33	Nagaon
14.	Sunder Nagar	34	Srikakulam

15.	Anpara	35	Balasore
16.	Nalagarh	36	Khurja
17.	Parwanoo	37	Khanna
18.	Damtal	38	Dimapur
19.	Byrnihat	39	Kashipur
20.	Kala Amb	40	Rishikesh

Steps for management of air quality in the Country

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 µg/m³) 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 these131 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 131cities for taking action in air emergencies

- Out of 131 identified cities, decrease in PM10 concentration has been observed in 95 cities during FY 2023-24 as compared to levels during FY 2017-18. Also, there are 16 cities (Gulburga, Nalgonda, Damtal, Ongole, Chittur, Nellore, Kurnool, Dera Baba Nanak, Naya Nangal, Silchar, Parwanoo, Sunder Nagar, Sivasagar, Kadapa, Trichy, Tuticorin) that are meeting National Ambient Air Quality Standards (NAAQS) of annual average PM10 concentration i.e. 60 µg/m3.

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.
- 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.
- 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 to control vehicular refuelling emissions.
- Environment Compensation Charges introduced for commercial vehicles entering Delhi in compliance of Hon'ble Supreme Court order
- Operationalization of Eastern and Western Peripheral Expressways to divert non-destined traffic from entering Delhi
- Directions issued by CAQM to Government of NCT of Delhi and State Governments of Haryana, Rajasthan and Uttar Pradesh for migration of public transport services, especially buses in NCR to cleaner modes. All state govt. bus services between Delhi and any city/town in the states of Haryana, Rajasthan and Uttar Pradesh to be operated only through EV /CNG/BS-VI diesel w.e.f. 01.11.2023.
- Ban on 15-year-old petrol and 10-year-old diesel vehicles as per Hon'ble Supreme Court and Hon'ble NGT orders.
- 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.

- 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.
- Installation of Online Continuous Emission Monitoring System (OCEMS) in red category air polluting industries in Delhi-NCR
- 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.
- 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.
- Ban on use of pet coke and furnace oil as fuel in NCR States since October 24, 2017 with exception for use in permitted processes.
- An approved fuel list is in force in Delhi-NCR w.e.f. 01.01.2023. Industries operating on only PNG or biomass are permitted in NCR, except for specific requirement of other fuels by specific industries owing to technical, technological and process requirements. Out of 7759 fuel based industries in NCR, 7449 have been shifted to approved fuels, with the balance 310 industries under closure.
- Stringent PM emission norms for biomass based boilers have been prescribed for compliance in NCR.

4.0 Measures for control of emissions from Stubble Burning in Delhi-NCR:

- MoA&FW in 2018 launched scheme for providing subsidy for purchase of crop residue management machinery and establishment of custom hiring centres (CHCs) in NCT of Delhi and the States of Punjab, Haryana and Uttar Pradesh. Under the said scheme, financial assistance is provided to the farmers for purchase of crop residue management machinery and establishment of custom hiring centres. 50% subsidy on the cost of crop residue management machinery is provided to the individual farmers and 80% subsidy is provided for establishment of Custom Hiring Centres (CHCs) of crop residue management machinery. During 2018-2024, total fund released to Delhi and other states under the said scheme is Rs. 3398.56 crores using which, over 2.7 lakh crop residue machineries have been delivered to individual farmers and CHCs, and over 39,000 CHCs have been established. Further, MoA&FW in 2023 revised guidelines under the scheme to support establishment of crop residue/paddy straw supply chain, by providing financial assistance on the capital cost of

machinery and equipment required for Establishment of crop residue/paddy straw supply chain.

- CAQM has issued directions permitting use of PNG or biomass as industrial fuel in NCR except Delhi where only PNG is permitted as industrial fuel. CAQM has also 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.
- Directions issued by CAQM to State governments of Punjab, Haryana and Uttar Pradesh to strictly and effectively implement revised action plan to eliminate and control 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. Under this scheme, 06 plants (Mansa- 03, Patiala- 01, Hoshiarpur- 01, Amritsar- 01) are operational with cumulative capacity of 28 TPH.

5.0 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 1504 ambient air quality monitoring stations (541 continuous and 963 manual) covering 519 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.

6.0 C&D Waste :

- CPCB published following guidelines
  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.

- Directions issued to DPCC and NCR SPCBs to enforce installation of anti-smog guns and other dust control measures at C&D sites.
- Directions issued for setting up of a "Dust Control and Management Cell" by road owning/ maintaining/ construction agencies for monitoring and effective implementation of dust control measures in the NCR.
- Online monitoring mechanism (through web portal) introduced for monitoring compliance of dust mitigation measures for construction sites.

7.0 Technical Interventions in Delhi-NCR:

- 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.

8.0 Close Monitoring & Ground level implementation in Delhi-NCR:

- 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 17824 units/ entities/ projects have been inspected as on June 14, 2024. Based on these inspections, CAQM has issued Closure Directions in 977 cases and out of these resumption orders have been issued in 774 cases while 111 cases are still under closure and cases of 92 balance units have been transferred to SPCBs / DPCC for final decision.
- 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.

9.0 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.
- 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.

10.0 Regulatory Actions in Delhi-NCR:

- 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.
- For air pollution abatement and control in Delhi / NCR, the Commission for Air Quality Management in NCR and Adjoining Areas 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.
- 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.

National Water Quality Monitoring Network

States/UTs	River	Lake	Pond	Tank	Wet land	Reserv oir	Canal	Beach	Marine	Coastal	Creek	Sea	Drain	STP	Water treatment plant (raw water)	Ground water	grand total
Andhra Pradesh	45	16	-	3	21	5	5	9	7	-	1	10	4	1	-	33	**160**
Arunachal Pradesh	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-		**17**
Assam	110	34	24	-	2	-	-	-	-	-	-	-	-	-	-	67	**237**
Bihar	95	3	2	-	-	-	-	-	-	-	-	-	-	-	-	70	**170**
Chandigarh	-	1	-	-	-	-	-	-	-	-	-	-	3	-	-	7	**11**
Chhattisgarh	29	-	1	-	-	1	-	-	-	-	-	-	-	-	-	8	**39**
CPCB, Delhi	14	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	**16**
Daman and Diu, Dadra and Nagar Haveli	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	**24**
Delhi	7	3	-	-	-	-	2	-	-	-	-	-	26	-	6	44	**88**
Goa	32	44	-	-	-	2	3	20	-	-	4	-	-	1	-	9	**115**
Gujarat	60	17	2	-	3	4	3	-	-	-	3	-	-	2	-	88	**182**
Haryana	12	4	1	-	1	-	14	-	-	-	-	-	1	-	3	29	**65**
Himachal Pradesh	149	5	1	-	-	1	-	-	-	-	-	-	32	-	-	55	**243**
Jammu & Kashmir	58	33	-	-	9	-	-	-	-	-	-	-	1	-	-	23	**124**
Jharkhand	63	4	4	-	-	-	-	-	-	-	-	-	-	-	-	3	**74**
Karnataka	118	126	1	67	-	6	-	-	-	-	-	5	-	-	-	2	**325**
Kerala	130	29	7	-	-	-	3	3	-	-	-	2	1	1	-	35	**211**
Ladakh	4	3	-	-	1	-	-	-	-	-	-	-	1	-	-	-	**9**
Lakshadweep	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	42	**45**

Madhya Pradesh	160	20	11	1	-	8	-	-	-	-	-	-	-	-	-	54	**254**
Maharashtra	156	1	-	-	-	-	-	-	-	-	20	15	10	-	-	50	**252**
Manipur	44	5	14	-	-	-	2	-	-	-	-	-	-	-	-	10	**75**
Meghalaya	64	7	-	-	-	-	-	-	-	-	-	-	-	-	-	13	**84**
Mizoram	67	6	13	-	-	9	-	-	-	-	-	-	-	-	-	26	**121**
Nagaland	16	2	-	-	-	-	-	-	-	-	-	-	-	-	-	10	**28**
Odisha	135	7	8	-	-	1	9	-	89	-	1	-	3	3	-	90	**346**
Puducherry	6	3	-	-	-	-	-	-	-	3	-	-	-	-	-	22	**34**
Punjab	58	17	6	-	-	-	2	-	-	-	-	-	10	8	-	46	**147**
Rajasthan	28	27	2	-	-	7	4	-	-	-	-	-	-	-	-	131	**199**
RD_Bengaluru	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**7**
RD_Bhopal	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**4**
RD_Chandigarh	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**24**
RD_Kolkata	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**9**
RD_Lucknow	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**19**
RD_Pune	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**6**
RD_Shillong	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**5**
RD_Vadodara	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**6**
Sikkim	28	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**30**
Tamil Nadu	71	8	-	1	13	-	2	2	-	-	1	31	4	16	-	22	**171**
Telangana	49	100	29	30	-	7	-	-	-	-	-	-	2	8	-	48	**273**
Tripura	38	8	10	-	-	-	7	-	-	-	-	-	-	-	-	57	**120**
Uttar Pradesh	108	7	2	-	3	1	1	-	-	-	-	-	-	-	2	39	**163**
Uttarakhand	36	2	-	-	1	-	3	-	-	-	-	-	-	-	-	19	**61**
West Bengal	56	14	-	-	2	-	2	-	1	-	-	-	-	-	-	68	**143**
Grand Total	**2155**	**558**	**141**	**102**	**56**	**52**	**63**	**34**	**97**	**3**	**30**	**63**	**98**	**40**	**11**	**1233**	**4736**

Table 1: Overall Solid Waste Management Status:

Sl. No.	State	Waste generated (TPD)	Waste Collected (TPD)	Waste Processed / Treated	Waste Landfilled (TPD)**	Gap (TPD)
1	Andhra Pradesh	6,890	6,890	1,558	Not provided	5,332
2	Andaman and Nicobar	79	78	74	2	2
3	Arunachal Pradesh	228	199	9	Not provided	220
4	Assam	1,589	1,333	575	744	271
5	Bihar	4,975	Not provided	Not	Not	4,975
6	Chandigarh	540	540	83	486	0
7	Chhattisgarh	1,820	1,820	1,790	30	0
8	DNH&DD	267	267	246	21	0
9	Delhi	11,108	11,108	5,280	5,828	0
10	Goa	211	207	197	10	4
11	Gujarat	10,095	10,095	8,682	1,003	410
12	Haryana	8,766	6,691	4,297	2,218	2,250
13	Himachal Pradesh	383	349	269	80	34
14	Jammu & Kashmir	1,550	1,540	606	390	554
15	Jharkhand	2,404	1,969	843	930	631
16	Karnataka	13,034	11,655	5,440	4,198	3,396
17	Kerala	3,472	1,283 and 1,048 decentralize	2,691	-	781
18	Ladakh	52	42	20	15	17
19	Lakshadwee	18	18	18	0	0
20	Madhya Pradesh	7,115	6,132	6,059	76	980
21	Maharashtra	23,531	23,044	19,980	2,067	1,484
22	Manipur	282	199	133	66	83
23	Meghalaya	165	137	27	119	19

Sl. No.	State	Waste generated (TPD)	Waste Collected (TPD)	Waste Processed / Treated	Waste Landfilled (TPD)**	Gap (TPD)
24	Mizoram	374	313	234	8	132
25	Nagaland	664	306	116	299	248
26	Odisha	2,103	2,020	1,356	738	9
27	Puducherry	383	383	58	325	0
28	Punjab	4,222	4,207	1,471	2,736	0
29	Rajasthan	7,973	7,859	1,926	5,525	522
30	Sikkim	66	66	18	48	0
31	Tamil Nadu	14,586	14,471	7,206	6,776	604
32	Telangana	11,057	11,057	8,611	1,011	1,435
33	Tripura	333	322	220	15	98
34	Uttar	14,710	14,710	7,321	4,389	3,000
35	Uttarakhand	1,585	1,452	1,050	115	420
36	West Bengal	13,709	13,687	3,047	1,187	9,475
	TOTAL	1,70,338	1,56,449	91,511	41,455	37,386

* Includes information only on processing and treatment of waste. Disposal through sanitary landfill is not included in the column.

** Includes information on disposal of waste through sanitary landfill only; does not include disposal of waste in dumpsites.

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