IN HON"BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH NEW DELHI

O.A. No: 687 OF 2023

IN MATTER OF:

In Re:

Air Quality Index in Various Cities

NDOH: 23-10-2024

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Place: Delhi

Date: 22-10-2024

Adv Pratyaksh Gupta

Counsel For MoEF&Cc

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BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION NO. 687 OF 2023

IN THE MATTER OF:

IN RE: AIR QUALITY INDEX IN VARIOUS CITIES

ACTION TAKEN REPORT ON BEHALF OF THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (RESPONDENT NO. 4).

I, Nallamolu Subrahmanyam, S/o Shri Narasimha Rao, aged about 37 Years, presently working as Scientist E in the Ministry of Environment, Forest and Climate Change (hereinafter referred to as MoEFCC) having office at Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi- 110003, do hereby solemnly affirm and state as hereunder:

1. That, I am well acquainted with the facts and circumstances of the case and competent to swear this affidavit on behalf of MoEFCC being the Respondent No. 4 in the present Original Application.

That the present affidavit is filed in respectful compliance of the order of this Hon'ble Tribunal dated 14.08.2024, vide which this Hon'ble Tribunal was pleased to inter-alia direct as follows:

"1. The Tribunal by order dated 03.05.2024 had directed the Counsel for MoEF&CC to download the copies of the report from the website of the NGT filed by different States and also to the States to share their

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report and summarize the factual position in the tabulated chart form and place it before the Tribunal.

2. The report of the MoEF&CC reveals that the reports from Rajasthan, Haryana, Meghalaya, Jharkhand, Delhi and Uttar Pradesh have only been obtained by the Counsel for MoEF&CC and the report as directed by the Tribunal in the previous order has not been prepared. Learned Counsel for the MoEF&CC submits that now he will download /obtain the reports of other States also and will prepare a comprehensive tabulated chart summarizing the position therein along with the remarks of MoEF&CC. He submits that the same will be filed within a period of two weeks."

3. **In reply to point no.2, it is humbly submitted that out of 53 cities** mentioned in the Orders of Hon'ble NGT vide dated 10.11.2023, 19 cities are covered under National Clean Air Programme (NCAP). Clean air action plans have been prepared by all 19 cities. Out of these 19 cities, 11 cities (Patna, Delhi, Baddi, Dhanbad, Bhopal, Gwalior, Navi Mumbai, Mandi Gobindgarh, Ludhiana, Ghaziabad, and Lucknow) have completed Source Apportionment Studies to assess the contribution of various sources of pollution for prioritizing air pollution control measures. Cities have been provided with annual air pollution reduction targets for PM10 levels to achieve an overall reduction of up to 40% by 2025-26 or to achieve National Ambient Air Quality Standards (NAAQS)

4. **It is humbly submitted** that all State Governments in their reports filed before Hon'ble NGT mentioned that City action plans have been prepared by 19 cities covered under NCAP and committees at various levels, viz. Steering Committee under the Chief Secretary, Air Quality Monitoring Committee under the Additional Chief Secretary or Principal Secretary, Environment Dept., and District/City-level Monitoring and

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Implementation Committee under the District Collector or Municipal Commissioner, have been constituted for regular monitoring and implementation of action plans.

5. For these 19 cities, an amount of Rs. 1701.54 Crore has been provided under NCAP during 2019-20 till 2023-24 and an amount of Rs. 1500.58 Crore has been reported to be utilized by these cities. Further, Rs. 600.01 Crore has been allocated for FY 2024-25 to implement annual action plans for reduction of air pollution. The cities under NCAP are using NCAP funds for implementing city action plan and air quality improvement measures.

6. It is respectfully submitted that 17 out of 19 cities have shown improvement in air quality in 2023-24 with respect to 2017-18. Details of the Air quality of 19 cities under NCAP are submitted at **Annexure-A**.

7. The remaining 34 cities are not identified as non-attainment cities (NACs) and are not covered under NCAP, concerned State Governments have reported various activities and measures taken to control air pollution in these cities. Details of city-wise activities are submitted at **Annexure-B**.

8. **It is humbly submitted that Bihar** has filed a report for air quality management measures for 3 Cities namely, Patna, Purnia and Rajgir. Patna city is funded under NCAP for implementing air quality improvement measures through City Action Plans. Further, State of Bihar has prepared 'Graded Response Action Plan' (GRAP) for prevention and control of air pollution and enforces the GRAP when air quality index falls to 'poor' 'Very Poor' or 'Severe' levels. GRAP is being implemented in all three cities.

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9. Source apportionment (SA) study of Patna indicates 30-57% of the PM10 levels are contributed from soil, road dust & construction activities. Secondary aerosols and industries account for 9-24% and 11-13%, respectively. SA study of Patna shows 22-38% of the PM2.5 levels are contributed from seconday aerosols and 5-29% of the PM2.5 levels are contributed from soil, road dust & construction activities. The air quality improvement measures undertaken in 3 cities of Bihar are namely, road dust control measures, waste management, remediation of legacy waste, greening, electric crematoria, CNG buses and awareness activities.

10. **It is humbly submitted that Delhi** has filed its report detailing air quality improvement measures undertaken in Delhi for the funds provided under NCAP. Source apportionment study for Delhi reveals that 17.5-30.6% of PM10 levels are contributed from soil, road dust & construction activities whereas 12-37% are contributed from coal and fly ash. Delhi's air quality improvement measures taken using NCAP funds mainly include road dust control measures using mechanical road sweepers, water sprinklers/anti-smog guns, pothole repair, etc.

11. **It is humbly submitted that State of Gujarat** has filed its report with respect to air quality improvement measures in Vapi and Ankleshwar. Further, Vapi and Ankleshwar Region has several industrial areas. Industrial activity, road construction and vehicles are the major contributors of air pollution. Gujarat Pollution Control Board issued directions to concerned authorities of notified areas, industries and common facilities to take extra precautionary measures to control air pollution during winter months.

It is humbly submitted that State of Haryana has filed its report detailing air quality improvement measures taken for its cities. Out of 18 cities of Haryana mentioned in the Orders of Hon'ble NGT, one city

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namely Faridabad is covered under NCAP. Faridabad's air quality improvement measures taken using NCAP funds mainly include end to end paving of roads, procurement of water sprinklers, construction and demolition waste collection centres, development of green spaces, etc.

13. **Further, it is humbly submitted** that Central Pollution Control Board vide its letter dated 13.6.2023 as **Annexure C** instructed 12 cities of Haryana state which are part of Delhi NCR to prepare City action plans to control air pollution, including 9 cities namely, Dharuhera, Gurugram, Sonipat, Panipat, Charki Dadri, Bhadurgarh, Bhiwani, Narnaul and Karnal which are mentioned in the Orders of Hon'ble NGT vide dated 10.11.2023. Draft city action plans have been prepared by these 9 cities. Further, State of Haryana has filed the details of common air pollution prevention and control measures taken across the State. Haryana State Govt. has prepared District Environmental Plans covering all districts of the State and 14 Districts have been reported to be complying with GRAP enforcement.

14. **It is humbly submitted that State of Himachal Pradesh** has filed its report detailing air quality improvement measures taken for its city namely Baddi, covered under NCAP. Source apportionment study for Baddi reveals that contribution of PM10 levels from road dust is 17-24% followed by industrial pollution which is about 22%. Baddi's activities included the construction of roads providing and laying interlocking pavers, repair and maintenance of roads to address soil and road dust emissions.

15. **It is humbly submitted that State of Jharkhand** has filed its report detailing air quality improvement measures taken for Dhanbad. The city is funded under NCAP. Source apportionment study reveals that 8-12% of PM10 levels are contributed from soil, road dust & construction

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activities and 16-23% from transportation. SA study for Dhanbad reveals that contribution of PM2.5 levels from transport is 21-30 % followed by domestic pollution which is in the range of 23-28%. City has implemented air pollution reduction measures in road sector (end-to-end pavements, mechanical road sweeping, laying of bituminous roads, water sprinkling), greening of urban spaces, construction of electric crematorium.

16. **It is humbly submitted that State of Madhya Pradesh** has filed its report detailing air quality improvement measures taken for its cities namely Bhopal and Gwalior. These cities are funded under NCAP for implementing city action plans. Source apportionment study conducted for these two cities reveals that 62.2-88% of PM10 levels are contributed from road dust. SA study conducted for these two cities reveals that 22-29.3% of PM2.5 levels are contributed from vehicles. Cities have undertaken activities in road and transport sector (end-to-end pavement, creation of footpaths, mechanical road sweeping and waster sprinkling measures), solid waste and Construction & Demolition waste management, e-mobility and greening of urban spaces.

17. **It is humbly submitted that State of Maharashtra** has filed its report detailing air quality improvement measures taken for its cities namely Navi Mumbai and Thane. These cities are funded under NCAP for implementing city action plans. Source apportionment study conducted for Navi Mumbai reveals that 28% of PM10 levels are contributed from road dust and 16% from transport. SA study shows that 23% of PM2.5 levels are contributed from road dust and 19% from transport. Both cities have taken air pollution reduction measures in road sector (mechanical sweeping and water sprinkling measures), greening of urban spaces, e-mobility (procurement of e-buses) and creation of public awareness.

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18. **It is humbly submitted that State of Meghalaya** has filed its report detailing air quality improvement measures taken for its city namely Byrnihat which is funded under NCAP. The city has undertaken activities such as end-to-end pavement of roads, water sprinkling measures, greening of urban spaces, monitoring of fuel adulteration in petrol pumps, and creation of public awareness.

19. **It is humbly submitted that State of Punjab** has filed its report detailing air quality improvement measures taken for four cities namely, Amritsar, Mandi Gobindgarh, Ludhiana and Bathinda. Out of these Amritsar, Mandi Gobindagarh and Bathinda are covered under NCAP. Source Apportionment Study has been conducted for Mandi Gobindgarh and Ludhiana and reveals that the contribution of road dust for PM10 levels is 60% and 24%, respectively. SA study for cities of Mandi Gobindgarh and Ludhiana reveals that contribution of road dust for PM2.5 is 37% and 13%, respectively. Cities of Punjab have focused their actions majorly on end-to-end pavement of roads, mechanical sweeping of roads, water sprinkling measures, collection of Construction & demolition waste and greening of urban spaces.

20. **It is humbly submitted that State of Rajasthan** has filed its report detailing air quality improvement measures taken for Kota city which is covered under NCAP. Out of 11 cities mentioned in orders of Hon'ble NGT, only one city is part of NCAP. However, Central Pollution Control Board vide its letter dated 13.6.2023 as part of air quality improvement measures in NCR, instructed Bhiwadi and Bharatpur to prepare City Action Plans for reducing air pollution in their cities.

21. Rajasthan Govt. mentioned that weather phenomena, temperature inversion, parali/stubble burning and Diwali festival have been identified as major contributing sources for deteriorating air quality during winter in

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all cities. In Bhiwadi, 352 out of 386 industrial units have switched to cleaner/approved fuels and the remaining units have been closed. PNG supply is available for all industrial areas of Bhiwadi. Rajasthan Pollution Control Board has launched RAJ-CONESS (web portal) for self-audit of dust control measures by C&D projects having plot area equal or more than 500 sq. meters on fortnight basis.

22. **It is humbly submitted that State of Uttar Pradesh** has filed its report detailing air quality improvement measures taken for seven cities namely, Ghaziabad, Jhansi, Khurja, Lucknow, Noida, Greater Noida and Bulandshahr. Out of these 5 cities (Ghaziabad, Jhansi, Khurja, Lucknow, Noida) are covered under NCAP. It has been informed that City action plans for Greater Noida and Bulandshahr have been prepared recently for controlling the air pollution based on the instruction of Central Pollution Control Board vide its letter dated 13.6.2023.

23. Source apportionment studies completed for Ghaziabad and Lucknow reveal that 49.2-85.7% of contributions are from road dust for PM10 levels and transport sector accounts for 7% and 6%, respectively. SA study for cities of Ghaziabad and Lucknow reveals that contribution of road dust for PM2.5 is 23.9% and 72.2%, respectively. Studies for Jhansi, Khurja, and Noida are in progress and studies have not been initiated for Greater Noida and Bulandshahr.

24. That, road dust is a major source of PM10 and also contribute to PM2.5. Air pollution mitigation measures for PM10 also results in PM2.5 reduction. In addition to road dust, other significant sources of PM2.5 are vehicular emissions, industrial emissions, biomass burning, etc. which are also included in the city action plans. Further, measures such as implementation of BS-VI norms, Swachh Bharat Mission, and Extended

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Producer Responsibility for plastic and other wastes also contribute to the reduction of PM2.5 levels.

25. **In reply to Para No.2**, it is humbly submitted that a comprehensive tabulated chart summarizing the position of status report of 53 cities containing details of the city action plan, status of source apportionment study & sources of pollution, funds provided for city action plan, activities & measures taken for reduction of air pollution, PM10, PM2.5 and AQI levels, details of implementation of GRAP are submitted and annexed at **Annexure-B.**

26. That, the Answering Respondent reserves its right to file additional information before the Hon'ble Tribunal, if required, till Pendente-Lite.

27. That, in view of the foregoing submissions, this Hon'ble Tribunal may be pleased to pass such or further orders as it may deem fit in the given circumstances of the case.

N. Subrahmanyam

I identify the Deponent who has signed in My Presence.

DEPONENT

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VERIFICATION:

Verified at New Delhi on the 22 OCT 2024 of October , 2024 that the contents of the above affidavit are true and correct to the best of my knowledge and belief and nothing material has been suppressed or concealed therein.

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CERTIFIED THAT THE DEPONENT
Shri/Smt./Km. N. Subrahmanyam
S/o,W/o,D/o,Sh. ....
R/o ....
Identified by Shri/Smt. Dr. Prashant Gupta
has solemnly affirmed before me at Delhi
on 22 OCT 2024 at Sl. No. 1524/Adv
that the contents of the affidavit which have been read & explained to him are true and correct to his knowledge

Oath Commissioner Delhi

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Annexure-A

Overall improvement in PM10 concentrations of Cities in FY 2023-24 w.r.t. FY 2017-18

S.No.	State	City	2017-2018 Base Year Average PM10 concentration (µg/m3)	2023-24 Current Year Average PM10 concentration (µg/m3)	Improvement in PM10 concentrations with respect to base year 2017-18 (%)
1	Jharkhand	Dhanbad	315	130	59%
2	Uttar Pradesh	Khurja	195	97	50%
3	Uttar Pradesh	Lucknow	253	134	47%
4	Uttar Pradesh	Ghaziabad	285	163	43%
5	Meghalaya	Byrnihat	175	104	41%
6	Punjab	Amritsar	189	117	38%
7	Himachal Pradesh	Baddi	174	111	36%
8	Uttar Pradesh	Noida	229	172	25%
9	Haryana	Faridabad	229	174	24%
10	Uttar Pradesh	Jhansi	109	87	20%
11	Maharashtra	Thane	138	111	20%
12	Delhi	Delhi	241	194	20%
13	Punjab	Gobindgarh	148	121	18%
14	Rajasthan	Kota	139	118	15%
15	Punjab	Ludhiana	168	157	7%
16	Bihar	Patna	172	167	3%
17	Madhya Pradesh	Bhopal	112	110	2%
18	Madhya Pradesh	Gwalior	126	130	-3%
19	Maharashtra	Navi Mumbai	88	98	-11%

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Details of City-wise Activities

ANNEXURE - B

S.No.	State	City	Status of source apportionment study	Sources of PM10	Status of Clean Air Action Plan	Release of funds and utilisation for implementation of action plan	Activities/measures taken to improve air quality	Status of GRAP	PM10 levels during FY 2023-24	PM2.5 during CY 2022	No. of Days where AQI is moderate (AQI<200) in CY 2023
1	Bihar	Patna (NCAP City)	Completed (2021)	**Sources of PM10 (Summer):** Road dust & construction soil: 57%; Transport: 4% Industry: 13% waste burning: 9% DG Sets:1% Refuse burning: 7% Secondary aerosol: 9% **Sources of PM10 (Winter):** Road dust & construction soil: 30%; Transport: 13% Industry: 11% waste burning: 14% DG Sets:3% Refuse burning: 6% Secondary aerosol: 24% **Sources of PM2.5 (Summer):** Road dust & construction soil: 29%; Transport: 7% Industry: 27% waste burning: 10% DG Sets:2% Refuse burning: 3% Secondary aerosol: 22% **Sources of PM2.5 (Winter):** Road dust & construction soil: 5%; Transport: 18% Industry: 10% waste burning: 21% DG Sets: 4% Refuse burning: 5% Secondary aerosol: 38%	Prepared	Rs.298.6 crores released during FY 2019-20 till FY 2023-24. Utilisation: Rs.232.83 crore (78%)	Procurement of 7 Water Sprinklers; Development of parks; Operation and Maintenance of 6 Sweeping Machines; Setting up of 150 KVA Electric Transformer for Legacy Waste at Ram Chak Bairiya Construction of Road and underground drain work in various wards; Desilting of drains; Commissioning of Electric Crematorium; Purchase of 9 units of 1000 Kgs waste composter and 3 units of 2000 Kgs Waste Composter; Renovation and Development of old parks; Infrastructure Development (AQM Cell). Procurement of CNG buses. Organization of training programs and other activities, Creation of Public Awareness;	Prepared	167	90	202
2		Purnia	Not initiated	-	Not prepared	-	water sprinkling on eight main roads through two water sprinkling vehicles; Tender is floated for procurement of mechanical sweeping machine.	Prepared	63	100	176

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Details of City-wise Activities

S.No.	State	City	Status of source apportionment study	Sources of PM10	Status of Clean Air Action Plan	Release of funds and utilisation for implementation of action plan	Activities/measures taken to improve air quality	Status of GRAP	PM10 levels during FY 2023-24	PM2.5 during CY 2022	No. of Days where AQI is moderate (AQI<200) in CY 2023
							manual sweeping of main roads is done. Plantation has been done near the Law college pond, Polytechnic pond and other places and around 750 trees has been planted.				
3		Rajgir	Not initiated	-	Not prepared	-	Dust suppression measures through (one sprinkler cum anti-smog machine and two small size water sprinklers) Tender is floated for procurement of mechanical sweeping machine. Manual sweeping of main roads is being done through more than 250 safai karamchari.	Prepared	132	70	197
4	Delhi	Delhi (NCAP City)	Completed (2016)	**Sources of PM10 (Summer):** Road dust & construction soil, re-suspended road dust: 30.6%; Transport: 6.42% Coal and flyash :37% Biomass and waste burning: 14.5% **Sources of PM10 (Winter):** Road dust & construction soil, re-suspended road dust: 17.49%; Transport: 19% Biomass and waste burning: 25.43% secondary particles:24.61% Coal and fly ash : 12%	Prepared	Rs.42.69 crores released during FY 2019-20 till FY 2023-24. Utilisation: Rs.13.56 crore (32%)	Mechanical road sweepers- 14 (procurement in progress) Water sprinklers/anti-smog guns-28 pothole repair machines-2 (procurement in progress)	Prepared	194	98	206
5	Gujarat	Ankleshwar	Not initiated	-	Not prepared	-	**Actions taken by Regional Office-Ankleshwar: -** - Issued instructions to Chief	-	121	59	277

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Details of City-wise Activities

S.No.	State	City	Status of source apportionment study	Sources of PM10	Status of Clean Air Action Plan	Release of funds and utilisation for implementation of action plan	Activities/measures taken to improve air quality	Status of GRAP	PM10 levels during FY 2023-24	PM2.5 during CY 2022	No. of Days where AQI is moderate (AQI<200) in CY 2023
							Officer of Notified Area, industries Associations, all industries and common facilities to take extra precaution during Winter Season • Regional Office Ankleshwar has already started night monitoring on regular basis. **Proposed Action by Regional Office-Ankleshwar: -** • Organize Environment clinic cum awareness program to aware public at large to control air pollution. • Rigorous monitoring & sampling of industries having coal fired utilities (that contribute in particulate matter). • Mandating Notified Area Authority-Ankleshwar & Ankleshwar Industries Association to carry out cleanliness drive and plantation drive.				
6		Vapi	Not initiated	-	Not prepared	-	• Regional Office Vapi had organized Environment clinic on "Winter Action Plan- Air Pollution Control during Winter Season". • All industrial and common spray dryer/incinerator operators were instructed not to operate spray dryer/incinerator in night time as far as possible; else it should be operated with utmost care, i.e. under the	-	119	69	232

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Details of City-wise Activities

S.No.	State	City	Status of source apportionment study	Sources of PM10	Status of Clean Air Action Plan	Release of funds and utilisation for implementation of action plan	Activities/measures taken to improve air quality	Status of GRAP	PM10 levels during FY 2023-24	PM2.5 during CY 2022	No. of Days where AQI is moderate (AQI<200) in CY 2023
							strict supervision and additional precautionary APCM. • All industries were instructed to take extra precautionary measures during Winter Season as part of Winter Action Plan and instructed to submit Winter Action Plan. • Chief Officer of Notified Area Authority and Vapi Nagarpalika have been asked to comply with Construction and Demolition Waste Management Rule-2016 and to take corrective measure to minimize generation of particulate matter as per relevant guidelines. • Regional Office Vapi has already started night monitoring on regular basis.				
7		Faridabad (NCAP City)	In progress	-	Prepared	Rs.73.53 crores released during FY 2019-20 till FY 2023-24. Utilisation: Rs.28.81 crore (39%)	End-to-end Paving of Roads - 4KM Procurement of 2 Water Sprinklers - 20KM/day C&D Waste Collection Centres - 5Nos. Development of Green spaces - 1 Lakh Plantation	Prepared	174	92	235
8	Haryana	Bahadurgarh	Not initiated	-	Draft prepared	-	1. Out of 5052 fuel based industries in NCR 4832 shifted to approved fuel & remaining 220 closed 2. 7314 Lakh MT of straw management 3. Incentive to farmers of Rs. 1000/- per acre for crop residue management.	-	157	83	249
9		Ballabgarh	Not initiated	-	It comes under Faridabad district (CAP Prepared under XVFC)	-		Prepared	162	68	243
10		Bhiwani	Not initiated	-	Draft prepared	-		Prepared	118	74	282
11		Charkhi Dadri	Not initiated	-	Draft prepared	-		Prepared	124	77	252
12		Dharuhera	Not initiated	-	Draft prepared	-		Prepared	184	87	174

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Details of City-wise Activities

S.No.	State	City	Status of source apportionment study	Sources of PM10	Status of Clean Air Action Plan	Release of funds and utilisation for implementation of action plan	Activities/measures taken to improve air quality	Status of GRAP	PM10 levels during FY 2023-24	PM2.5 during CY 2022	No. of Days where AQI is moderate (AQI<200) in CY 2023
13		Fatehabad	Not initiated	-	Not prepared	-	4. Rs 7000/- per acre for crop diversification 5. Rs 4000/- per acre for direct seeding of rice 6. Rs 500/- per acre for transport to Gaushalas 7. Incentive for Panchayat for no fire cases 8. Regular IEC activities 9. 39% reduction in active fire location from 2022 to 2023. 10. ITMS is operational in the state 11. Incentives to promote EV 12. 1765 PUC centres in the state 13. Phase out to diesel rickshaw in NCR district of Haryana by 2026. 14. Use of ASG, dust suppressants and water mist for C&D management 15. Transport of C&D material in covered material 16. CTE/CTO policy & EC charges are active in state 17. 18 no. of DCMC cell in the state 18. 49 MRS machines 19. Swachhta app complaint reddressal system 20. 58.67% legacy waste treated out of 101 Lakh MT. 21. Source segregation in 1259 ward out of 1259 wards 22. Total 86 material recovery facilities with the capacity of 2589 TPD 23. 175 TPD waste to compost plant in Rohtak, 150 TPD in Karnal & 50 TPD in Sirsa.	-	131	73	221
14		Gurugram	Under progress	-	Draft prepared	-		Prepared	138	90	220
15		Hisar	Not initiated	-	Not prepared	-		-	122	79	176
16		Kaithal	Not initiated	-	Not prepared	-		-	122	67	269
17		Karnal	Not initiated	-	Draft prepared	-		Prepared	96	55	306
18		Kurukshetra	Not initiated	-	Draft prepared	-		-	109	74	254
19		Manesar	Not initiated	-	Not prepared	-		-	119	91	240
20		Narnaul	Not initiated	-	Draft prepared	-		Prepared	120	55	254
21		Panipat	under progess	-	Draft prepared	-		Prepared	124	50	284
22		Rohtak	Not initiated	-	Not Prepared	-		-	NM	82	269
23		Sirsa	Not initiated	-	Not Prepared	-		-	97	50	264
24		Sonipat	Under progress	-	Draft prepared	-		Prepared	162	48	147

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Details of City-wise Activities

S.No.	State	City	Status of source apportionment study	Sources of PM10	Status of Clean Air Action Plan	Release of funds and utilisation for implementation of action plan	Activities/measures taken to improve air quality	Status of GRAP	PM10 levels during FY 2023-24	PM2.5 during CY 2022	No. of Days where AQI is moderate (AQI<200) in CY 2023
							24. Door to door collection in 45 ULBs. 25. 13 Clusters for integrated solid waste management are working on PPP model covering 33 ULBs. 26. Comply on directions of DG set. 27. Green belt target is achieved by 71% 28. 14 districts of NCR are complying GRAP.				
25	Himachal Pradesh	Baddi (NCAP City)	Completed (2022)	**Sources of PM10 (Winter):** Road dust & construction soil, re-suspended road dust;17-24%; Transport: 12-15% Industry: 21-22% waste burning: 14-17% Secondary aerosols: 13-14% **Sources of PM2.5 (Winter):** Road dust & construction soil, re-suspended road dust: 14%; Transport: 14% Industry: 22% waste burning: 30% Coal combustion/fly ash: 8% Secondary aerosol: 12%	Prepared	Rs.3.11 crores released during FY 2019-20 till FY 2023-24. Utilisation. Rs.2.86 crore (86%)	Installation of CAAQMS - 1 nos. Construction of Pucca Roads	Prepared	111	46	263
26	Jharkhand	Dhanbad (NCAP City)	Completed (2022)	**Sources of PM10 (Summer):** Road dust & construction soil, re-suspended road dust: 12%; Transport: 23% Industry: 12% waste burning: 5% Mining- 8%; Residential/ Domestic-17%; Agriculture-5%; Secondary aerosol: 8% , other-10% **Sources of PM10 (Winter):** Road dust & construction soil, re-suspended road dust. 8%, Transport: 16% Industry: 11%	Prepared	Rs.69.09 crores released during FY 2019-20 till FY 2023-24. Utilisation: Rs.64.98 crore (94%)	End-to-end Paving - 135428 Sqm. Road Sweeping Machines – 300 km/day (10 mechanical sweepers) Installation of CAAQMS - 10 Nos. Bituminous Road - 16 Km Water Sprinkling Machines – 300 Km/day (10 sprinkler machines) Construction of Electric Crematoria - 2 nos. Development of green patches - 2260 sqm.	Prepared	130	NM	143

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Details of City-wise Activities

S.No.	State	City	Status of source apportionment study	Sources of PM10	Status of Clean Air Action Plan	Release of funds and utilisation for implementation of action plan	Activities/measures taken to improve air quality	Status of GRAP	PM10 levels during FY 2023-24	PM2.5 during CY 2022	No. of Days where AQI is moderate (AQI<200) in CY 2023
				waste burning: 6% Mining- 6%; Residential/ Domestic-22%; Agriculture-3%; Secondary aerosol: 13% ; other-15% **Sources of PM2.5 (Summer):** Transport: 30% Industry: 11% waste burning: 5% Mining- 7%; Residential/ Domestic-23%; Agriculture-2%; Secondary aerosol: 16% ; other-6% **Sources of PM2.5 (Winter):** Transport: 21% Industry: 17% waste burning: 2% Mining- 5%; Residential/ Domestic-28%; Agriculture-2%; Secondary aerosol: 15% ; other-10%			Construction of playground at various locations - 4nos. C&D waste processing plant-under construction				
27	Madhya Pradesh	Bhopal (NCAP City)	Completed (ARAI, Pune)	**Sources of PM10**: Dust-62.2%; Transport -13%; Construction - 12.1%; waste burning -2.9% **Sources of PM2.5**: Dust-37.7%; Transport -29.3%; Construction - 7.6%; waste burning -6.7%	Prepared	Rs.193.79 crores released during FY 2019-20 till FY 2023-24. Utilisation: Rs.185.07 crore (96%)	End-to-end Paving - 29.8 KM Mechanical Sweeping - 200 Km/Day Water Sprinkling - 440 Km/Day Creation of Footpath - 18 Km Municipal Waste Processing Plant - 1092 TPD Construction and Demolition Procession Plant - 100 TPD Legacy Waste - 7.23 Lakh MT remediated Green Belt/ Road Side Greening/ Dividers - 15 Km Vertical Garden/ Parks/ Urban Forest - 24.6 Ha No. of events for public awareness - 180	Prepared	110	52	328
28		Gwalior (NCAP City)	Completed (IIT, Kanpur)	**Sources of PM10:**	Prepared	Rs.102.64 crores released during FY 2019-20 till FY	End-to-end Paving - 18 Km Water Sprinkling - 320 Km/day C&D Waste Processing Plant -	Prepared	130	64	276

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Details of City-wise Activities

S.No.	State	City	Status of source apportionment study	Sources of PM10	Status of Clean Air Action Plan	Release of funds and utilisation for implementation of action plan	Activities/measures taken to improve air quality	Status of GRAP	PM10 levels during FY 2023-24	PM2.5 during CY 2022	No. of Days where AQI is moderate (AQI<200) in CY 2023
				Road Dust-88%; vehicle-7%; Brick kiln-2% **Sources of PM2.5:** Road Dust-6% Vehicle-22%; Brick kiln-4%		2023-24. Utilisation: Rs.82.53 crore (80%)	50 TPD Vertical Garden/ Parks/ Urban Forests - 6 Ha E-Vehicle Charging Stations - 7				
29	Maharashtra	Navi Mumbai (NCAP City)	Completed (2021)	**Sources of PM10:** Road dust- 28%; Transport: 16% Industry: 16%; Waste burning-15%; Coal and fly ash-13%; Secondary aerosol: 12% **Sources of PM2.5 (Nov 2019):** Road dust- 23%, Transport: 19% Industry 13%; Coal and fly ash-12%; sea salt-11%; Secondary aerosol: 22%	Prepared	Rs.9.45 crores released during FY 2019-20 till FY 2023-24. Utilisation: Rs.8.72 crore (92%)	Mechanical Road Sweeping - 113.8 KM Water Sprinkling - 60Km Greenbelt/ Road side greening/ dividers - 33 KM Procurement of E-buses - 35 Nos. No. of events for Public awareness - 7 Nos.	Prepared	98	50	278
30		Thane (NCAP City)	Ongoing (Completed by Dec. 2024)	-	Prepared	-	Water Sprinkling - 80 Km/day Urban Forest - 0.01 Ha No. of E-buses - 123 Nos. No. of events - 209 Nos.	Prepared	111	58	260
31	Meghalaya	Byrnihat (NCAP City)	Ongoing (Completed by Dec. 2024)	-	Prepared	Rs.7.95 crores released during FY 2019-20 till FY 2023-24. Utilisation: Rs.3.17crore (40%)	End-to-end Paving - 8.6 Km Water Sprinking - 40 Km/day Greenbelt/ road side greening/ divider - 1 Km Urban Forest - 0.5 Hectare No. of events for public awareness - 10 nos. EI&SA Study - 1 No. Manual AQ Station - 1 No. Instrument for monitoring of stack emission - 1 No. Monitoring of fuel adulteration through inspection of petrol pump etc.	Prepared	104	60	90
32	Punjab	Amritsar (NCAP City)	Final Source Apportionment (SA) study of Amritsar is awaited from Indian Institute of Technology, Delhi	-	Prepared	Rs.73.25 crores released during FY 2019-20 till FY 2023-24. Utilisation:	End-to-end pavement of roads- 85 km Greening of Urban spaces- 12 ha Mechanical road sweeping –	Prepared	117	51	293

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Details of City-wise Activities

S.No.	State	City	Status of source apportionment study	Sources of PM10	Status of Clean Air Action Plan	Release of funds and utilisation for implementation of action plan	Activities/measures taken to improve air quality	Status of GRAP	PM10 levels during FY 2023-24	PM2.5 during CY 2022	No. of Days where AQI is moderate (AQI<200) in CY 2023
						Rs.72.66 crore (99%)	175 km/day Water Sprinkling on road- 20 km/day Anti-smog gun- 0.2 km/day Collection of C&D waste- 60 TPD				
33		Mandi Gobindgarh (NCAP City)	The Source Apportionment study of Mandi Gobindgarh is completed and submitted to CPCB	**Sources of PM10:** Road Dust-60%, Industries-24%, Vehicular-14%, Other-2% **Sources of PM2.5:** Road Dust-37%, Vehicular-35%, Industries-26%, Other-2%	Prepared	Rs.5.64 crores released during FY 2019-20 till FY 2023-24. Utilisation: Rs.3.7 crore (66%)	End-to-end pavement of roads- 1.267 km Greening of Urban spaces- 1 ha Mechanical road sweeping-- 25 km/day Water Sprinkling on road- 28 km/day Anti-Smog Gun Fogger- 0.1 km Collection of MSW waste- 37 TPD	Prepared	121	72	271
34		Ludhiana (NCAP City)	Completed (2020)	**Sources of PM10 (Summer):** Road dust & construction soil, re-suspended road dust: 23%; Transport: 14% Industry:33% waste burning: 14% Secondary aerosol: 12%; Other-4% **Sources of PM10 (post-monsoon):** Road dust & construction soil, re-suspended road dust: 22%; Transport: 13% Industry: 32% waste burning: 18% Secondary aerosol: 11% ; other-4% **Sources of PM10 (winter):** Road dust & construction soil, re-	Prepared	Rs.97.75 crores released during FY 2019-20 till FY 2023-24. Utilisation: Rs.88.81 crore (90%)	End-to-end pavement of roads- 114 km Greening of Urban spaces- 26.5 ha Mechanical road sweeping- 60 km/day Water Sprinkling on road- 40 km/day Collection of C&D waste- 25 TPD Anti-smog gun- 0.5 km/day	Prepared	157	59	291

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Details of City-wise Activities

S.No.	State	City	Status of source apportionment study	Sources of PM10	Status of Clean Air Action Plan	Release of funds and utilisation for implementation of action plan	Activities/measures taken to improve air quality	Status of GRAP	PM10 levels during FY 2023-24	PM2.5 during CY 2022	No. of Days where AQI is moderate (AQI<200) in CY 2023
				suspended road dust: 24%; Transport: 16% Industry:30% waste burning: 11% Secondary aerosol: 16%; Other-3% **Sources of PM2.5 (Summer):** Road dust & construction soil, re-suspended road dust: 13%; Transport: 15% Industry:40% waste burning: 17% Secondary aerosol: 12%; Other-3% **Sources of PM2.5 (post-monsoon):** Road dust & construction soil, re-suspended road dust: 13%; Transport: 15% Industry: 34% waste burning: 22% Secondary aerosol: 11% ; other-5% **Sources of PM2.5 (winter):** Road dust & construction soil, re-suspended road dust: 9%; Transport: 23% Industry:34% waste burning: 13% Secondary aerosol: 18%; Other-3%							
35		Bathinda	Not initiated	-	Not prepared	Fund not received under NCAP/XVFC	Most of the Major roads are and -to-end paved. 6 no. of Mechanical road sweeping machines are working daily Urban Green belt is developed in the city. Door to door collection of waste and segregation in tipper. Mechanized Solid	-	103	38	283

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Details of City-wise Activities

S.No.	State	City	Status of source apportionment study	Sources of PM10	Status of Clean Air Action Plan	Release of funds and utilisation for implementation of action plan	Activities/measures taken to improve air quality	Status of GRAP	PM10 levels during FY 2023-24	PM2.5 during CY 2022	No. of Days where AQI is moderate (AQI<200) in CY 2023
							waste management system is operating and all efforts are being made for scientific management of legacy waste.				
36	Rajasthan	Kota (NCAP City)	Final report has been received from IIT Jodhpur and same shall be reviewed by expert committee constituted by the State Board	-	Prepared	Rs.107.47 crores released during FY 2019-20 till FY 2023-24. Utilisation: Rs.93 crore (87%)	1. End to end paving, black-topping of roads and footpath work (60 Km) 2. Widening of roads (55.36 Km) 3. Green area development (186197 Sqm) 4. Greening of traffic corridors, open areas, garden, community places, schools & housing societies (45.5 Sqm) 5. Enforcement units (2 Nos.) 6. Removal of dust/silt by using mechanical sweepers (4 Nos.; 30 Km/day) 7. Cleaning of roads by spraying of water (05 Anti smog procured) 8. Development of transfer stations (Fully mechanized) 9. Identification of road stretch with high dust generation (3.5 Km) 10. C&D waste plant (100 TPD) 11. Green area development under Nagar Van Yojna-32 Ha. 12. EV Buses- 100 nos. & EV Charging Stations- 30 Nos under (To be procured & DPR is under progress)	Prepared	118	60	296

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Details of City-wise Activities

S.No.	State	City	Status of source apportionment study	Sources of PM10	Status of Clean Air Action Plan	Release of funds and utilisation for implementation of action plan	Activities/measures taken to improve air quality	Status of GRAP	PM10 levels during FY 2023-24	PM2.5 during CY 2022	No. of Days where AQI is moderate (AQI<200) in CY 2023
							13. Creation of public awareness on pollution source and control measures (73 Nos.) 14. CAAQMS- 2 Nos.				
37		Bharatpur	Not Initiated	-	City Action Plan is under progress and District Environment Plan is prepared	-	-	-	166	102	233
38		Bhiwadi	Not Initiated	-	Not Prepared	-	501 industrial units were inspected and 11 industries were issued closure directions. 352 out of 386 industrial units switched over to cleaner fuels/approved fuels. Remaining 34 units were closed. PNG supply was made available in all industrial areas. 445 inspections of C&D sites have been carried out and an environmental compensation of Rs.3,82,000/- was levied over 80 C&D sites for non-conformities. Mechanical sweeping of roads: 15.5 km Water sprinkling with 15 tankers: 75 km/day 04 anti-smog guns were set up at hospital and 3 C&D sites to suppress road dust.	-	193	94	220
39		Bikaner	Not Initiated	-	Not Prepared	-	-	-	188	NA	222
40		Bundi	Not Initiated	-	Not Prepared	-	-	-	137	NA	182
41		Churu	Not Initiated	-	Not Prepared	-	-	-	119	NA	231

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Details of City-wise Activities

S.No.	State	City	Status of source apportionment study	Sources of PM10	Status of Clean Air Action Plan	Release of funds and utilisation for implementation of action plan	Activities/measures taken to improve air quality	Status of GRAP	PM10 levels during FY 2023-24	PM2.5 during CY 2022	No. of Days where AQI is moderate (AQI<200) in CY 2023
42		Dausa	Not Initiated	-	Not Prepared	-	-	-	166	NA	245
43		Hanumangarh	Not Initiated	-	Not Prepared	-	-	-	217	NA	187
44		Jhunjhunu	Not Initiated	-	Not Prepared	-	-	-	137	NA	187
45		Sri Ganganagar	Not Initiated	-	Not Prepared	-	-	-	236	NA	167
46		Tonk	Not Initiated	-	Not Prepared	-	-	-	162	NA	219
47	Uttar Pradesh	Ghaziabad (NCAP City)	Completed (2022)	**PM10:** Mixed combustion (23.6%), Resuspended Dust I (24.4%), Resuspended Dust II (24.8%), Secondary formation (11.9%), Vehicular (6.9%), Copper smelter (4.7%), Brick processing (3.5%), Mixed metal processing (0.9%) **PM2.5:** Mixed combustion (17.62%), Resuspended Dust I (13.63%), Resuspended Dust II (10.35%), Secondary formation (20.57%), Vehicular (21.99%), Copper smelter (3.85%), Brick processing (9.29%), Mixed metal processing (4.70%)	Prepared	Rs.153.42 crores released during FY 2019-20 till FY 2023-24. Utilisation: Rs.136.71 crore (89%)	End-to-end paving of roads - 335.33 KM Greening of traffic corridors, open areas, etc. - 1.66 sq.km. Regular collection, segregation and scientific disposal of waste - 1723 TPD Immediate lifting of solid waste generated from desilting and cleaning of municipal drains	Prepared	163	87	232
48		Jhansi (NCAP City)	Ongoing (To be completed by March, 2025). Report on "Rapid Study of Source Apportionment and Carrying Capacity" received	**PM10:** Construction and Demolition (1.8%), Hotels, Restaurants , GHs & BHs (1.3%), MSW Burning (0.5%), Road Dust (71.7%), Domestic (3.1%), Industries (3.0%), Industrial DG Sets (0.0%), Hospitals (0.0%), Vehicular (18.5%), Brick kilns (0.0%), Power plant (0.0%), Unauthorized Industries (0.0%), Open area (0.0%), Hot Mix Plants (0.0%) **PM2.5:** Construction and Demolition (1.1%), Hotels, Restaurants, GHs & BHs (1.8%), MSW Burning (0.9%), Road	Prepared	Rs.11.08 crores released during FY 2019-20 till FY 2023-24. Utilisation: Rs.10.86 crore (98%)	CAAQMS - 1 No. Enforcement Units - 1 No. Creation of public awareness on pollution source and control measures - 20 No. End-to-end paving of roads - 9.73 KM Regular cleaning of street surfaces and spraying of water to suppress dust - 20KM/day. Greening of traffic corridors, open areas, etc. - 2.02 Ha Crematorium (Installation work of cyclone separator) - 1 No.	Prepared	87	47	338

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Details of City-wise Activities

S.No.	State	City	Status of source apportionment study	Sources of PM10	Status of Clean Air Action Plan	Release of funds and utilisation for implementation of action plan	Activities/measures taken to improve air quality	Status of GRAP	PM10 levels during FY 2023-24	PM2.5 during CY 2022	No. of Days where AQI is moderate (AQI<200) in CY 2023
				Dust (43.6%), Domestic (6.4%), Industries (1.9%), Industrial DG Sets (0.0%), Hospitals (0.0%), Vehicular (44.3%), Brick kilns (0.0%), Power plant (0.0%), Unauthorized Industries (0.0%), Open area (0.0%), Hot Mix Plants (0.0%)							
49		Khurja (NCAP City)	Ongoing (to be completed by March, 2025); Report on "Rapid Study of Source Apportionment and Carrying Capacity" received	**PM10:** Construction and Demolition (5.6%), Hotels, Restaurants , GHs & BHs (0.7%), MSW Burning (0.7%), Road Dust (77.8%), Domestic (7.2%), Industries (3.9%), Industrial DG Sets (0.0%), Hospitals (0.0%), Vehicular (4.2%), Brick kilns (0.0%), Power plant (0.0%), Unauthorized Industries (0.0%), Open area (0.0%), Hot Mix Plants (0.0%) **PM2.5:** Construction and Demolition (3.9%), Hotels, Restaurants, GHs & BHs (1.0%), MSW Burning (1.4%), Road Dust (54.7%), Domestic (16.5%), Industries (10.8%), Industrial DG Sets (0.1%), Hospitals (0.0%), Vehicular (11.6%), Brick kilns (0.0%), Power plant (0.0%), Unauthorized Industries (0.0%), Open area (0.0%), Hot Mix Plants (0.0%)	Prepared	Rs.18.37 crores released during FY 2019-20 till FY 2023-24. Utilisation: Rs.12.83 crore (70%)	CAAQMS - 1 No. Enforcement Units - 1 No. Remove road dust/silt regularly by using mechanical sweepers - 10KM/Day Regular cleaning of street surfaces and spraying of water to suppress dust. End-to-end paving of roads - 10 Km/Day Providing organic waste compost machines, decentralization of processing of waste, etc. - 19 Units Creation of public awareness on pollution source and control measures - 20 Nos Synchronize traffic movements/Introduce intelligent traffic system (ITS) for lane-driving - 4 Nos.	Prepared	97	62	293
50		Lucknow (NCAP City)	Completed (under Peer Review)	**PM10:** Transport (5.9%), Road Dust Re-suspension (85.7%), DG sets (0.04%), Residential sector (0.04%), Refuse Burning (0.01%), Hotels & Restaurants (0.02%), Crematoria (0.2%), Construction (5.5%), Landfills (0.10%), Aviation (0.02%), Industry (2.6%) **PM2.5:** Transport (19.8%), Road Dust Re-	Prepared	Rs.402.82 crores released during FY 2019-20 till FY 2023-24. Utilisation: Rs.329.87 crore (82%)	CAAQMS - 2 Nos. End-to-end paving of roads - 560 Km Greening of traffic corridors, open areas, etc. - 85.5 Ha Human Cremation - 4 Nos. Regular cleaning of street surfaces and spraying of water to suppress dust - 80 Km/day Remove road dust/silt	Prepared	134	63	316

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Details of City-wise Activities

S.No.	State	City	Status of source apportionment study	Sources of PM10	Status of Clean Air Action Plan	Release of funds and utilisation for implementation of action plan	Activities/measures taken to improve air quality	Status of GRAP	PM10 levels during FY 2023-24	PM2.5 during CY 2022	No. of Days where AQI is moderate (AQI<200) in CY 2023
				suspension (72.2%), DG sets (0.1%), Residential sector (0.0%), Refuse Burning (0.0%), Hotels & Restaurants (0.0%), Crematoria (0.4%), Construction (3.3%), Landfills (0.2%), Aviation (0.0%), Industry (4.0%)			regularly by using mechanical sweepers - 130 Km/day				
51		Noida (NCAP City)	Ongoing (to be completed by December, 2025); Report on "Rapid Study of Source Apportionment and Carrying Capacity" received	**PM10:** Construction and Demolition (6.6%), Hotels, Restaurants, GHs & BHs (2.3%), MSW Burning (0.4%), Road Dust (62.2%), Domestic (1.9%), Industries (1.0%), Industrial DG Sets (0.1%), Hospitals (0.0%), Vehicular (25.6%), Brick kilns (0.0%), Power plant (0.0%), Unauthorized Industries (0.0%), Open area (0.0%), Hot Mix Plants (0.0%) **PM2.5:** Construction and Demolition (3.5%), Hotels, Restaurants, GHs & BHs (2.9%), MSW Burning (0.6%), Road Dust (33.1%), Domestic (3.8%), Industries (2.1%), Industrial DG Sets (0.2%), Hospitals (0.0%), Vehicular (53.7%), Brick kilns (0.0%), Power plant (0.0%), Unauthorized Industries (0.0%), Open area (0.0%), Hot Mix Plants (0.0%)	Prepared	Rs.30.89 crores released during FY 2019-20 till FY 2023-24. Utilisation: Rs.3.4 crore (11%)	4 Nos. of Mechanical Road sweepers deployed - 340 Km/day 10 Nos. of water sprinklers deployed - 20 Km/day	Prepared	172	80	226
52		Bulandshahr	Not initiated	-	City Action Plan has been prepared as per directions of CPCB	-	-	Prepared	226	73	283
53		Greater Noida	Not initiated	-	City Action Plan has been prepared as per directions of CPCB	-	-	Prepared	162	80	187

N. Subrahmanyam

Annexure-C

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भरत कुमार शर्मा
सदस्य सचिव
Bharat Kumar Sharma
Member Secretary

सत्यमेव जयते

LiFE Lifestyle for Environment

G20

केन्द्रीय प्रदूषण नियंत्रण बोर्ड
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
CENTRAL POLLUTION CONTROL BOARD
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

D.O. No. EQ-11/1/2024-AQM-HO-CPCB-HO
June 13, 2024

Dear Sir,

You are aware that ambient air quality in Delhi NCR has been a major cause of concern especially with respect to PM_{10} and $PM_{2.5}$ levels. In order to address the same, various mitigation measures have been taken at both Central and State level. These included actions for control of pollution from industrial sectors, construction & demolition activities and transportation sector. As a result of these actions, overall reduction of 26% & 29% in annual $PM_{2.5}$ and PM_{10} concentration respectively have been observed in Delhi for the period from 2016 to 2023.

In order to further work in the direction of improvement of air quality levels, there is a need to adopt the approach of development and implementation of clean air city action plans in other key cities/urban areas of NCR which are not covered under NCAP or XVFC programmes for Million Plus Cities. An approach similar to that adopted for non-attainment cities under National Clean Air Programme (NCAP) as well as for Million plus Cities is proposed to be adopted in respect of the aforementioned category of cities/urban areas.

Accordingly, considering the issue of air quality in Delhi – NCR, Haryana State Pollution Control Board (HSPCB) is hereby requested to get the clean air city action plans developed for Dharuhera, Gurugram, Sonipat, Panipat, Charki dadri, Bahadurgarh, Bhiwani, Jind, Narnaul, Karnal, Palwal and Nuh and to get the same duly approved by Air Quality Monitoring Committee (AQMC) headed by the Principal Secretary, Department of Environment, Govt. of Haryana. Template for preparation of clean air city action plan is enclosed for kind reference. HSPCB should regularly review the progress of development of these plans with the concerned ULBs and all efforts should be made to get the same approved for implementation before onset of winter season.

Yours sincerely,

(Bharat Kumar Sharma)

Sh. Pardeep Kumar, IAS
Member Secretary,
Haryana State Pollution Control Board,
C-11, Sector-6, Panchkula, Haryana – 134109

Encl: As above

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SUGGESTIVE TEMPLATE FOR ACTION PLAN FOR CONTROL OF AIR POLLUTION IN NCR CITIES

1. Name of the city: .....
2. Air Pollution concerns: ..... (PM_{10}, $PM_{2.5}$, NO_2)
3. Air pollution levels: (provide range of 24-hourly average concentration values; annual average for past five years; No. days in various AQI categories)
4. Months with high air pollution levels
5. Action plan:

A. For preparing Clean Air City Action Plan (to be implemented from 2024-25 to 2028-29), following format to be used:

Sr. No.	Source Group*	Activities	Current Status	Overall Target	Timeline to achieve overall target	Fund Implications (Yes/No)	Fund Requirement to achieve overall target (in cr.)	Source of Funds#	Responsible Agency	Remarks

*Suggestive activities for each source group are attached as Annexure-I.
Possible Source of Funds: EPC Funds, SBM (Urban), AMRUT, SATAT, FAME II, Smart City Mission, Resources from State Government/Municipal Corporation/UDD, etc.

B. For preparing Annual Action Plan (for each Financial Year from FY 2024-25 onwards), please refer format as per Annexure II

C. For sharing of Annual Progress of Annual Plan (To be shared along with UC on an annual basis by ULBs), please use below format:

Sr. No.	Activities*	Annual Target for the FY	Progress Achieved against Annual Target in the FY	Fund Planned for the activity (as per annual plan)	Actual Funds sanctioned/released for the activity	Fund Utilized during the FY	Remarks

Annexure-I

Suggestive action points (37) for each source group

S. No.	Source Group	Activities
1	Capacity Building	Installation of CAAQMS
2		Installation of Manual air quality Monitoring Stations
3		Emission Inventory/Source Apportionment study
4		Training and skill development of public officials
1	Public Outreach	Installation of Daily Air Quality Public Information Dissemination System
2		Creation of public awareness on pollution source and control measures
3		Public Grievances Redressal System (IT enabled) - App
4		Helpline Number
1	Road Dust	Identifying road stretches with high dust generation
2		End-to-end paving of roads along with black-topping and maintaining potholes free roads
3		Remove road dust/silt regularly by using mechanical sweepers
4		Spraying of water to suppress dust through anti-smog guns
5		Creating Proper Pedestrian Infrastructure
6		Greening and landscaping of major arterial roads

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1	Construction & Demolition	Provide a network of decentralized C&D waste segregation, collection & management sites across the city.
2		Promote recycling of construction and demolition waste.
1	Vehicles	Installation of PUC Centres
2		Linking of PUC centres with remote server and elimination of manual intervention in PUC testing.
3		Check overloading of trucks
4		Prevent parking of vehicles in the non-designated areas
5		Introduction of new electric buses (with proper infrastructure facilities such as charging stations) and CNG buses and other vehicular fleet to augment public transport.
6		CNG infrastructure for auto gas supply in the city for transition of vehicles to CNG mode
7		Charging infrastructure for promoting use of E-vehicles
8		Synchronize traffic movements/Introduce intelligent traffic system (ITS) for lane-driving
9		Prepare plan for improvement of infrastructure for decongestion
10		Phase out old vehicles and implement vehicle scrappage policy
11		Prepare and implement zonal plans to develop an NMT network
1	Waste and Biomass - Dumping and Burning	Regular collection and segregation and scientific treatment/disposal of waste
2		Scientific treatment/disposal of waste
3		Proper management of dumpsites/ landfill sites to prevent spontaneous fire
4		Regular Check on Stubble Burning and provide machines for in-situ management and also encourage setting up plants to promote ex-situ management.
5		Promote Piped Natural Gas (PNG) /electric crematoria
6		Regular check and control of burning of municipal solid waste
1	Industries	To intensify monitoring of industries to check compliance with emission standards and use of approved fuels
2		Implement Continuous Emission Monitoring System (CEMS) across all targeted and applicable industrial sectors
3		Enforcement of zig-zag technology in Brick kilns
4		Proper ash disposal/ utilization

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Annexure II

Annual Action Plan Template:

S. No.	Activities	Annual Target Indicators	Unit	Annual Plan Data	Funds Required (in cr.)	Source of Funds#	Responsible Agency	Remarks
Capacity Building								
1	Installation of CAAQMS	No. of new CAAQMS planned to be established and connected to CCR	Number					
2	Installation of Manual air quality Monitoring Stations	No. of New Manual Air Quality Monitoring Stations planned to be established and data to be shared with CPCB	Number					
3	Emission Inventory/Source Apportionment study	EI/SA study planned to be commissioned	One time activity					
4	Training and skill development of public officials	No. of public officials planned to be trained/skilled	Number					
Public Outreach								
1	Installation of Daily Air Quality Public Information Dissemination System	No. of Daily Air Quality Public Information Dissemination System planned to be installed	Number					
2	Creation of public awareness on pollution source and control measures	No. of public awareness event planned	Number					
3	Public Grievances Redressal System (IT enabled) – App	PGRS IT enabled app to be made functional	(Yes/No)					
4	Helpline Number	Helpline Number to be made functional	(Yes/No)					
Road Dust								
1	Identifying road stretches with high dust generation	Name & Length of Road stretches with high dust generation identified	KM.					

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2	End-to-end paving of roads along with black-topping and maintaining potholes free roads	Length of road planned for end-to-end paving along with black-topping and maintaining potholes free roads	KM					
3	Remove road dust/silt regularly by using mechanical sweepers	No. of MRS planned to be procured	Number					
		Length of road planned to be covered by MRS	KM					
4	Spraying of water to suppress dust through anti-smog guns	No. of Anti-smog guns planned to be purchased	Number					
		Length of road planned to be covered by Anti-Smog Guns	KM.					
5	Creating Proper Pedestrian Infrastructure	Length of footpath planned to be constructed/repaired	KM.					
6	Greening and landscaping of major arterial roads	Length of arterial roads planned to be greened	KM.					
Construction & Demolition								
1	Provide a network of decentralized C&D waste segregation, collection & management sites across the city.	Number of new C&D waste collection centres planned to be established	Number					
		Capacity of new C&D waste collection centres planned to be established	Tonnes/day					
		Number of new C&D waste processing facilities planned to be established	Number					
		Capacity of new C&D waste processing facilities planned to be established	Tonnes/day					
2	Promote recycling of construction and demolition waste.	Quantity of C&D waste planned to be recycled	Tonnes					
Vehicles								
1	Installation of PUC Centres	Number of new PUC centres planned to be established	Number					
2	Linking of PUC centres with remote server and elimination of manual intervention in PUC testing.	Number of new PUC centres planned to be linked with remote server	Number					
3	Check overloading of trucks	Number of locations planned to be monitored for checking overloading of trucks	Number					

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		Number of locations planned to be provided with weigh in motion machine for checking overloading of trucks	Number					
4	Prevent parking of vehicles in the non-designated areas	Whether Parking policy notified	(Yes/No)					
		Number of locations planned to be provided with parking facility	Number					
5	Introduction of new electric buses (with proper infrastructure facilities such as charging stations) and CNG buses and other vehicular fleet to augment public transport.	Number of new electric buses planned to be procured and deployed	Number					
		Number of new CNG buses planned to be procured and deployed	Number					
6	CNG infrastructure for auto gas supply in the city for transition of vehicles to CNG mode	City gas distribution network planned to be established	KM					
		Number of CNG stations planned to be established	Number					
7	Charging infrastructure for promoting use of E-vehicles	Number of charging stations planned to be installed	Number					
8	Synchronize traffic movements/Introduce intelligent traffic system (ITS) for lane-driving	Number of ITS planned to be installed	Number					
9	Prepare plan for improvement of infrastructure for decongestion	Planning of Notification of decongestion plan	Yes/No					
		Number of identified traffic congestion points for intervention	Number					
10	Phase out old vehicles and implement vehicle scrappage policy	Whether Scrappage policy notified	Yes/No					
		Number of ATS planned to be established	Number					
		Number of scrapping facilities planned to be set up	Number					
		Number of vehicles planned to be deregistered/ scrapped	Number					
11	Prepare and implement zonal plans to develop an NMT network	Preparation of zonal plan to develop an NMT network	Yes/No					
		New cycle track planned to be established	Km					

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		New multi-utility zone planned to be established	Km					
Waste and Biomass - Dumping and Burning								
1	Regular collection and segregation of waste	Quantity of waste generated	Tonnes per day (TPD)					
		Quantity of waste planned to be collected	TPD					
		No. of waste collection machines planned to be procured	Number					
		No. of MRF planned to be established	Number					
		Quantity of waste planned to be segregated	TPD					
2	Scientific treatment/disposal of waste	Quantity of waste to be treated	TPD					
		Number of Waste to energy (WTE) plant planned to be established	Number					
		Capacity of waste to energy (WTE) plant planned to be established	Tonnes/day					
		Quantity of dry waste planned to be recycled	Tonnes					
		Number of wet waste composting unit planned to be established	Number					
		Capacity of wet waste composting unit planned to be established	Tonnes/day					
		Number of Biomethanation unit planned to be established	Number					
		Capacity of Biomethanation unit planned to be established	Tonnes/day					
3	Proper management of landfill/dumpsites sites to prevent spontaneous fire	No. of dumpsites planned to be remediated	Number					
		Quantity of legacy waste planned to be remediated	Tonnes					
4	Regular Check on Stubble Burning and provide machines for in-situ management and also encourage setting up plants to promote ex-situ management.	No. of machines planned to be purchased for in-situ management	Number					
		No. of plants planned for ex-site management	Number					
5	Promote Piped Natural Gas (PNG) /electric crematoria	No. of PNG crematoria planned to be established	Number					

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		No. of electric crematoria planned to be established	Number					
6	Regular check and control of burning of municipal solid waste (MSW)	Number of inspection squad planned for checking and controlling burning of MSW	Number					
Industries								
1	To intensify monitoring of industries to check compliance with emission standards and use of approved fuels	Number of red category industries planned to be inspected	Number					
		Number of orange category industries planned to be inspected	Number					
		Number of green category industries planned to be inspected	Number					
2	Implement Continuous Emission Monitoring System (CEMS) across all targeted and applicable industrial sectors	No. of industries targeted to install CEMS	Number					
3	Enforcement of zig-zag technology in Brick kilns	No. of Brick Klin inspection planned	Number					
4	Proper ash disposal/ utilization	No. of industries targeted to ensure 100% utilization of dry ash	Number					

Possible Source of Funds: EPC Funds, SBM (Urban), AMRUT, SATAT, FAME II, SMART CITY MISSION, Resources from State Government/Municipal Corporation/UDD