

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

Principal Bench, New Delhi

Original Application No. 638 of 2023

In the matter of

In re: News item appearing in Times of India dated 10.10.2023 titled "Feeling anxious?
Toxic air could be to blame"

WITH

Original Application No. 658/2023

In re: News item appearing in Times of India dated 10.10.2023 titled "Delhi, Chennai
studies hint at pollution link to diabetes"

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1.	Report on Utilization of EPC and EC Funds on behalf of the Respondent No. 2 Central Pollution Control Board (CPCB) in compliance to Hon'ble order dated 02.04.2024.	
2.	Annexure- I A copy of affidavit dated 25.01.2027 filed by CPCB in W.P (C) 13029 of 1985 titled as M. C. Mehta Vs. UOI & Ors. Before Hon'ble Supreme Court of India.	
3.	Annexure- II copy of office orders issued by CPCB, regarding 'Committee for Appraisal and Approval of project proposals for utilization of EPC Funds'. AND A copy of order issued by MoEF & CC dated 31.08.2017 and other communications regarding Steering Committee to guide and review the utilization of Environment Protection Charge (EPC) Fund.	
4.	Annexure- III A copy of minutes of the 22 nd meeting of Project Appraisal & Approval Committee (PAAC-EPC) dated 24.08.2021.	
5.	Annexure- IV A copy of minutes of the meeting of Steering Committee on Utilization of EPC Fund held on 22.04.2022.	

6.	Annexure- V A copy of minutes of the steering committee meeting held on 03.10.2022, to review the EPC Fund.	
7.	Annexure- VI A copy of letter dated 19.09.2022, issued by CAQM regarding proposals from ULBs on projects for utilization of Environment Protection Charge (EPC) Fund.	
8.	Annexure- VII A copy of minutes of the 24 th meeting of Project Appraisal & Approval Committee (PAAC-EPC) held on 06.10.2022.	
9.	Annexure- VIII A copy of letter dated 16.11.2022, issued by Ghaziabad Nagar Nigam to CPCB regarding road construction work in Ghaziabad.	
10.	Annexure- IX A copy of letter dated 10.05.2023, issued by CPCB to Ghaziabad Municipal Corporation, regarding sanction of EPC funds for road construction projects.	
11.	Annexure- X A copy of direction dated 11.06.2021, issued by CAQM regarding setting up of a "Dust Control & Management Cell" by Road Owning/maintaining/construction agencies.	
12.	Annexure- XI A copy of photographs of road stretches in Ghaziabad, before and after construction work.	
13.	Annexure- XII A copy of project wise expenditure made under EPC Funds (as on 31.03.2024)	
14.	Annexure- XIII A copy of guidelines on gap funding support for NCR cities for implementation of clean air city action plan.	
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	of action plan for utilization of Environmental Compensation (EC) Funds.	
21.	Annexure- XIX A copy of list of potential projects under various thematic areas having relevance to the directions of Hon'ble NGT in various matters proposed to be funded.	
22.	Annexure- XX A copy of The Gazette of India notification dated 18.11.2009 regarding National Ambient Air Quality Standards (NAAQS).	
23.	Annexure- XXI A copy of details of health effects of 12 notified parameters under NAAQS.	
24.	Annexure- XXII A copy of steps taken for improvement of air quality and reduction in 12 notified parameters under NAAQS.	
25.	Annexure- XXIII List of cities wherein NH3 monitoring conducted (Prior & Post Hon'ble NGT order 02.04.2024.)	
26.	Annexure- XXIV List of cities wherein Ni, Pb, As & B(a)P monitoring conducted (Prior & Post to Hon'ble NGT order 02.04.2024)	
27.	Annexure- XXV List of cities exceeding the prescribed NAAQS-2009 standards (24 hours/Annual) monitored in April-June, 2024 for consecutively two days	
28.	Annexure- XXVI A copy of letter dated 08.07.2024, issued by CPCB to SPCBs and PCCs regarding regular monitoring of parameters like, Pb, As, Ni and BaP.	
29.	Annexure- XXVII A copy of Guidelines For Environmental Research and Development Programme.	
30.	Annexure- XXVIII copy Hon'ble NGT order dated 02.04.2024.	

Pankaj Agarwal

(Pankaj Agarwal)
Scientist 'F'

Central Pollution Control Board
Delhi- 110032

Place: Delhi

Dated: 09.07.2024

Report on Utilization of EPC and EC Funds in Original Application No. O.A. No. 638/2023 titled 'News item titled "Feeling anxious? Toxic air could be to blame" appearing in Times of India dated 10.10.2023'

Hon'ble NGT in OA no. 638/2023 and OA no. 658/2023 vide order dated 02.04.2024 directed this respondent to submit a report. Excerpts from the order is reproduced below:

5. From the record, Learned Counsel for CPCB could not point out the approval accorded to such activity and the criteria/guideline which has been adopted and the reason which prompted the CPCB to release the fund for construction/repair of road to the local bodies.

7. The CPCB is also required to disclose the manner it has prioritized utilization of environmental compensation (EC) funds (received in compliance of Hon'ble Supreme Court Order in WP(C) No. 13029/1985: MC Mehta V. Union of India & Ors. dated 12.08.2016 and different orders of Tribunal, the priorities assigned to different heads for the utilization and the proposed plan for utilization of fund in next one year to achieve the object of improving the air quality as well as other environmental issues.

8. We also find that (from table 1, page 152) no monitoring is done with respect to NH₃, Ni, Pb, As and B(a) P and no reasons are given for this huge gap and no supporting data provided. The next report should give added monitoring results on these left out parameters also.

12. The report of CPCB will also cover following specific issues: -

A. Details of approval permitting release of EC funds for road construction.

B. Comprehensive plan on utilization of EC&EPC funds on each environmental component including air.

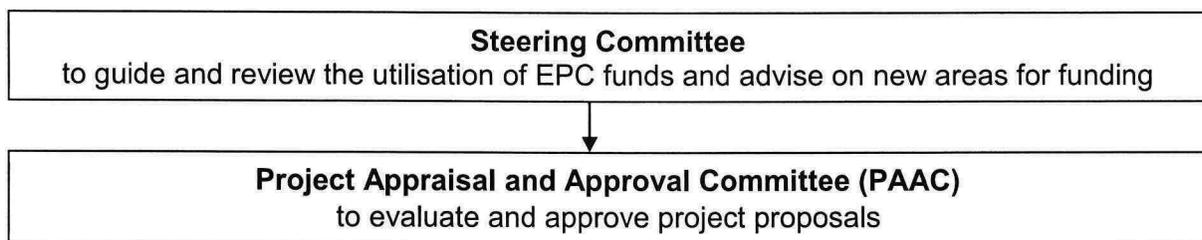
C. Response on relationship between pollutants and human health in view of ambient air quality standards not meeting.

In compliance to the order of Hon'ble NGT, following is submitted:

(1) EPC fund and its mechanism for utilisation

- i. Central Pollution Control Board (CPCB) is utilising Environment Protection Charge (EPC) funds collected in compliance of Hon'ble Supreme Court order for various projects related to air quality improvement in Delhi-NCR and the broad thrust areas for EPC funds utilisation as per the Concept Note submitted to the Hon'ble Court by CPCB (annexed as **Annexure-I**) are given as under:

- a. Capacity building with regard to infrastructure enhancement (monitoring and laboratory)
 - b. Mass awareness on air pollution
 - c. R&D activities w.r.t. air quality management & vehicular pollution control
 - d. Health impact studies vis-à-vis air pollution in Delhi-NCR
 - e. Specific projects to control pollution in Delhi-NCR & Punjab
- ii. In line with the concept note submitted, two committees have been constituted with respect to utilisation of EPC funds i.e. a Steering Committee under the Chairmanship of Secretary, MoEF&CC, and a Project Appraisal and Approval Committee (PAAC) under the Chairmanship of Chairman, CPCB, and are depicted below:



Details of the said committees and their terms of reference is annexed as **Annexure – II**.

(2) Details of approval for road construction projects of ₹15.79 crores sanctioned to Ghaziabad Municipal Corporation

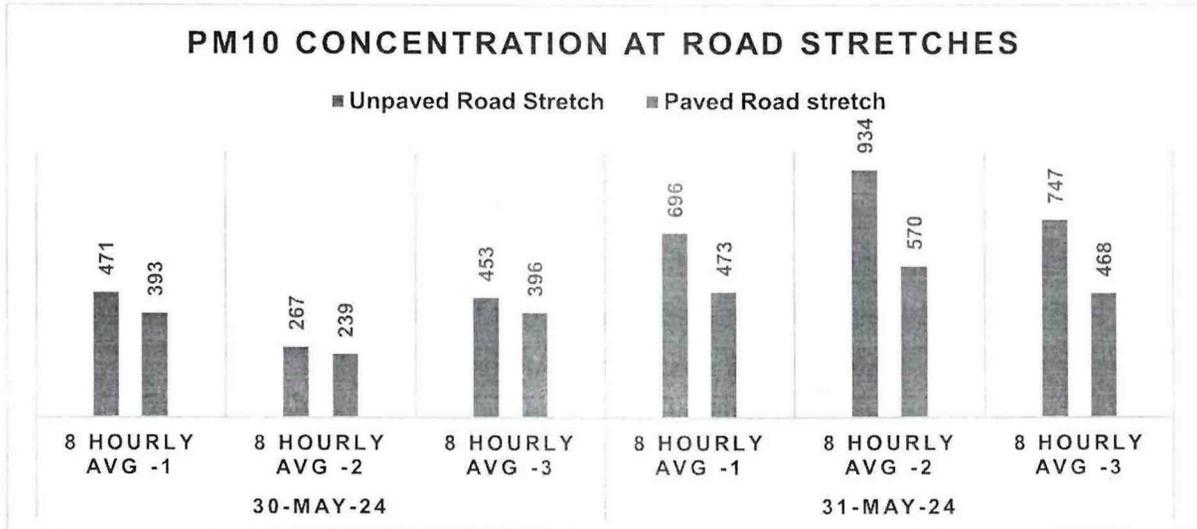
- i. The concept of providing financial support to Urban Local Bodies (ULBs) for on ground activities for control of air pollution from various sources including road dust has been adopted in National Clean Air Programme (NCAP), launched in 2019, under the convergence model having support from various central government schemes such as Sustainable Alternative Towards Affordable Transportation (SATAT), Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles (FAME), Swachh Bharat Mission (SBM), Atal Mission for Rejuvenation and Urban Transformation (AMRUT) and state government resources etc.
- ii. The matter of supporting projects intended for on-ground mitigation and management of air pollution was discussed by the PAAC during its meeting held on August 24, 2021, wherein it observed that majority of proposals received for consideration are related to research work and a number of scientific studies have been already conducted, and, thus there is a need of considering such on-ground measures (annexed as **Annexure-III**). Further, the Steering Committee in its meeting held on 22.04.2022 decided that EPC funds needs to be used through a mix of measures including on-ground mitigation measures and asked CAQM to seek proposals from ULBs and other land-owning agencies in Delhi-NCR for greening/plantation drives and paving on roadsides, to

reduce dust emissions, which is a major source of air pollution (annexed as **Annexure-IV**).

- iii. Subsequently, the Steering Committee in its meeting held on 03.10.2022 approved Greening and paving and other pollution mitigation activities (anti-smog guns. greening/paving, mechanical dust sweepers, road works, etc.) not covered under any other scheme, as one of the new thrust areas that can be considered for funding (annexed as **Annexure-V**). Besides this, funding support for other activities for on-ground impact on air quality such as setting up of pelletisation and Torrefaction plants to promote utilisation of paddy straw and retrofitment of DG sets was also considered in the meeting.
- iv. Proposals for Greening and paving and other pollution mitigation activities (anti-smog guns. greening/paving, mechanical dust sweepers, road works, etc.) received for consideration are examined by Commission for Air Quality Management in National Capital Region and Adjoining Areas (CAQM) and those recommended by CAQM are only further considered for funding from EPC funds.
- v. With regard to the proposal of Ghaziabad Municipal Corporation (GMC) for road construction, it is to mention that proposal of Construction/maintenance works for 37 nos. of roads was submitted by GMC and the same was examined by CAQM and CAQM recommended that construction/ maintenance works of 09 roads may be considered (annexed as **Annexure-VI**). The proposal along with CAQM recommendations were placed before consideration of PAAC and PAAC reviewed the same during its 24th meeting held on 6.10.2022. Considering the aspect of limited traffic volume and dust emissions in case of one road, PAAC sanctioned 8 nos. of road works (instead of proposed 09 roads) with the condition that these specific works are not being funded under any other scheme (annexed as **Annexure-VII**). PAAC sanctioned the work of 08 roads at an estimated cost of ₹15.79 crores.
- vi. Subsequently, on receipt of confirmation from GMC that these specific works are not being funded under any other scheme (annexed as **Annexure-VIII**), CPCB issued sanction letter on 10.05.2023 to GMC, with conditions such as expenditure shall be made as per provisions of General Financial Rules (GFR), funds are not to be utilized for meeting other expenditure and proper maintenance of the roads shall be ensured by GMC (annexed as **Annexure-IX**)
- vii. It is humbly submitted that unpaved roads are a source of PM₁₀ emissions, which remain suspended for a long time and impact air quality of a large area. As per Source apportionment study of Delhi-NCR, Dust is reported to have contribution of 19-52% to PM₁₀ levels. Further, CAQM has issued directions dated 11.06.2021 to State Government of U.P. and other NCR states for monitoring and effective implementation

of dust control measures in NCR, including proper maintenance and repair of roads, considering road dust as a significant source contributing to the generation and release of Particulate Matter posing a major challenge in tackling and abating air pollution in Delhi-NCR (**Annexure X**).

- viii. A study was also conducted by CPCB during May 30-31, 2024 which indicated up to 38% higher PM₁₀ emissions at an unpaved road stretch than the paved road stretch. The PM₁₀ concentration observed during the CPCB study is presented as under:



Note: All concentration in µg/m³

- ix. The images of the road stretches in Ghaziabad, before and after the road construction works, awarded under EPC funds, are annexed at **Annexure-XI**.

(3) Status of EPC Funds and Utilization Priorities

- i. Details of EPC funds utilisation as on 31 March 2024 are given as under:

Table 1 - Details of EPC funds utilisation as on 31 March 2024

EPC Funds (As on March 31, 2024)	
1. Amount accrued in EPC account, including interest amount	₹ 401.06 crore
2. Committed liabilities for sanctioned projects	₹ 161 crore (estimated)
3. Amount Disbursed	₹ 98.97 crore
4. Proposals for road construction/repair & paving works and procurement of MRSMs and ASGs, received from 08 agencies in Delhi-NCR, but kept in abeyance in view of Hon'ble NGT order dated 19.12.2023 in the matter under reference, i.e. OA no. 638/2023 with OA no. 658/2023.	₹ 73.06 crore
5. Balance/available funds for utilization (1-2-4)	₹ 167 crore

- ii. The types of projects funded under EPC funds are presented below:

Table 2 - Types of projects funded under EPC funds

Type of Projects	No. of Projects	Amount released till 31.03.2024 (Rs. Crores)
New Technology trials for air pollution control	6	39.51 (39.9%)
CAAQMS projects and Central Control Room	3	22.23 (22.5%)
Research studies	10	10.48 (10.6%)
On-ground mitigation measures related to ULB	1	6.68 (6.7%)
Funding of pellet plants under CPCB guidelines	6	6.21 (6.3%)
Laboratory infrastructure projects	4	5.85 (5.9%)
Activities related to Field visits and Mass awareness	2	2.91 (2.9%)
Health Impact Studies	4	2.89 (2.9%)
Other expenditure (stipend, refund, office infrastructure, bank charges, etc.)	-	2.21 (2.2%)
Total		Rs. 98.9 crore

The list of above projects and other expenses is placed at **Annexure-XII**.

(4) Comprehensive plan for utilisation of EPC funds and proposed plan for fund utilisation in next one year to achieve the objective of improvement for air quality in Delhi-NCR

- i. In line with the concept note, EPC funds would continue to be utilised under different thrust areas. However, focus would be on implementation of on-ground measures for mitigation of air pollution.
- ii. CPCB proposes to use EPC funds for improvement of air quality in 18 National Capital Region (NCR) cities by providing gap funding support for implementation of clean air city action plans based on the model adopted under National Clean Air Programme (NCAP). At present, 06 NCR cities (Delhi, Ghaziabad, Noida, Meerut, Faridabad and Alwar) are provided financial support under NCAP or by Fifteenth Finance Commission program for Million Plus Cities for implementation of city action plans for air quality improvement. City action plans would be prepared for 18 NCR cities in line with the NCAP model, wherein actions addressing major sources of air pollution such as road dust, transport sector, industrial sector, C&D activities, etc. in these cities with timelines and concerned agencies are specified. Detailed guidelines to provide gap funding support from EPC funds, to these 18 cities/towns in NCR for implementation of Clean Air City Action Plan (CAP), is annexed as **Annexure-XIII**.
- iii. Corpus of Rs. 150 crore is proposed to be allocated from EPC funds during FY 2024-25 for 18 cities. In subsequent years, 3/4th of the yearly accrued EPC amount, i.e.

around Rs. 40-45 crore is proposed to be allocated every year. Funding for implementation of CAPs is also to be mobilized through convergence of resources from various schemes of Central Government such as SBM (Urban), AMRUT, Smart City Mission, SATAT, FAME-II etc. and resources from State/UT Governments and its agencies such as Municipal Corporation, Urban Development authorities and Industrial development authorities etc.

- iv a. The funds will be released to cities for implementation of Clean Air City Action Plan through SPCBs in two phases as indicated above, hence, avoiding the issue of parking of funds.
- iv b. With the implementation of these guidelines, out of the currently available Rs. 167 crore under EPC fund, Rs. 150 crore is expected to be utilised in FY 2024-25.
- iv c. The remaining Rs. 17 crore out of Rs 167 crore would be used for activities as per the thrust areas under the guidance of the Steering Committee and with recommendation of PAAC.
- v. During the next one year (F.Y. 2024-25), out of the estimated committed expenditure of Rs. 62.03 Crores (given in table 01 above), an estimated amount of Rs. 43.28 Crores is expected to be utilized for ongoing projects including projects sanctioned to ULBs/agencies, projects on setting up pelletisation and torrefaction plants and other administrative expenses. The details are placed at **Annexure-XIV A**. The balance amount of Rs. 18.75 crores out of Rs. 62.03 Crores would also be majorly utilised for payment of works of ULBs/ agencies during the subsequent year (F.Y. 2025-26).
- vi. In addition to above, the proposals received from 08 ULBs/ agencies of Delhi-NCR for on-ground mitigation of air pollution, such as road construction/repair & paving works and procurement of MRSMs and ASGs, having estimated cost of Rs 73 crores (given in table 01 above) are presently kept in abeyance. If these are permitted by Hon'ble NGT, 50% of the total estimated project cost i.e. Rs. 36.53 crore is expected to be utilised during F.Y. 2024-25 and the balance 50% amount would be released subsequently on completion of works. The details are placed at **Annexure-XIV B**. Besides, EPC funds received during F.Y. 2024-25 would be considered for utilization for activities as per the thrust areas under the guidance of the Steering Committee and with recommendation of PAAC.

(5) UTILIZATION OF ENVIRONMENTAL COMPENSATION (EC) FUNDS, ONE-YEAR ACTION PLAN AND COMPREHENSIVE ACTION PLAN

Hon'ble NGT vide order dated April 02, 2024 has ordered to disclose prioritization of utilization of EC funds received under different orders of Hon'ble NGT, preparation of a one-

year and a comprehensive action plan for utilization of Environmental Compensation (EC) Funds (hereafter referred as 'NGT EC Funds').

In pursuant to the order, following is placed in subsequent sections,

- I. Status of NGT EC funds and utilization prioritization
- II. One-year action plan for utilization of NGT EC Funds
- III. Comprehensive Action Plan for utilization of NGT EC funds

I. Status of NGT EC Funds and Utilization Prioritization

The status of NGT EC funds as on March 31, 2024 is as below,

Table 3: Status of NGT EC Funds as on March 31, 2024 (Rs. Crores)

	NGT EC 25% Account	NGT EC 75% Account	Total
Total Amount Received in account (including interest)	126.76	276.96	403.72
Expenditure	46.25	15.69	61.94
Bank Balance as on 31.03.2024	80.51	261.27	341.78

CPCB has received a deposit of total amount of ₹126.76 Crores in the NGT EC 25% account and ₹276.96 Crores in the NGT EC 75% account inclusive of bank interest till March 31, 2024 of which ₹46.25 Crores and ₹15.69 Crores have been released till March 31, 2024, respectively. The balance as on March 31, 2024 in NGT EC 25% account is ₹80.51 Crores and in NGT EC 75% account is ₹261.27 Crores.

The Hon'ble NGT had directed to disclose the manner CPCB has prioritized utilization of EC funds and the priorities assigned to different heads for the utilization. In this regard, it is humbly submitted that the expenditure is done in line with the 11 specific activities accepted by the Hon'ble NGT through its order dated January 22, 2019, in the matter O.A. No. 101/2019 titled 'CPCB Vs Assam SPCB & Others'.

The guidelines for the utilization of EC funds were developed by CPCB in April 2019 which outlines a framework for screening, evaluating, and recommending projects for financial assistance under EC funds within the aforementioned 11 specific activities. The same is being referred since then. The guidelines were circulated to all SPCBs & PCCs vide letter dated April

18, 2019 seeking project proposals. Based on the merit of the proposals received, the projects are funded under NGT EC funds. The details are as presented below,

Table 4: Utilization of NGT EC funds

S.No.	Type of Project	No. of Projects	Total Sanctioned Cost (Rs. Crores)	Amount released till 31.03.24 (Rs. Crores)
1	Lab strengthening	12	105.57398 (47%)	23.5994
2	NGT Assignments	18	46.5763 (20%)	11.5296
3	Monitoring infrastructure and Infrastructure for surveillance	6	42.3507 (19%)	9.0929
4	Research	14	19.4297 (9%)	7.7817
5	Investigation	9	7.7094 (3 %)	3.7414
6	Capacity building	5	1.6691 (1%)	0.6152
7	IEC	3	1.3002 (1%)	1.0902
	Total	67	224.6094 (100%)	Rs. 57.4504 Cr.*

*Out of total expenditure of Rs. 61.94 Crores (Table 3), Rs. 57.4504 Crores is utilized for the above referred projects and remaining amount towards TA/DA, Honorarium & Consultancy Fee in accordance with the Hon'ble NGT order dated April 20, 2017 in OA No. 24/2011 titled as "Samir Mehta Vs Union of India & Ors".

The list of the above mentioned 67 projects is placed at **Annexure XV**. Out of these 67 projects, 22 projects are ongoing and are covered in the one-year action plan for utilization of NGT EC funds placed in the subsequent section.

Further, in pursuant to the orders of the Hon'ble NGT in specific cases, 23 specific purpose accounts have been opened. The balance as on March 31, 2024 is Rs. 193.17 Crores including interest. The details of funds available in 23 Specific Purpose Bank Accounts is placed at **Annexure XVI**.

II. One- Year Action Plan for Utilization of NGT EC Funds (April 01, 2024 – March 31, 2025)

There are 22 ongoing projects under NGT EC Funds with a total committed cost of Rs. 126.90 Crores. Of this amount, Rs. 18.89 Crores has already been released, and an estimated amount of Rs. 70.00 Crores is planned to be utilized during April 01, 2024 – March 31, 2025

from NGT EC Funds. The details are placed at **Annexure XVII**. In addition, new project proposals for restoration of environment will also be considered for financial assistance under NGT EC funds. A comprehensive plan in this regard is placed in subsequent section.

III. Comprehensive Action Plan for Utilization of NGT EC Funds

As of March 31, 2024, the total funds in the NGT EC 25% and NGT EC 75% accounts is Rs. 341.78 Crores. Out of this, estimated Rs. 108 Crores are committed to 22 ongoing projects and are yet to be released, leaving a remaining balance of Rs. 233.78 Crores^[1].

In order to develop a comprehensive plan for utilization of NGT EC funds, an in-house Committee was constituted in CPCB (office order placed at **Annexure – XVIII**). The matter was deliberated in detail in the meetings dated April 30, 2024, May 10, 2024, May 30, 2024 and June 27, 2024. The Committee discussed on the potential thematic areas for utilization of NGT EC funds. It was agreed that the comprehensive plan should encompass specific activities approved by Hon'ble NGT vide order dated January 22, 2019 in the O.A. No 101/2019 and may also include broad thematic areas of model District Environmental Plan (DEP) developed by CPCB, in compliance to the Hon'ble NGT order dated September 26, 2019, in the matter of O.A. No. 360/2018.

The approved 11 specific activities and thematic areas of model DEP have been consolidated into twelve thematic areas for utilization of NGT EC funds as given in Table – 5 below. The detailed scope of activities, executing agency and indicative cost weightage for utilization of NGT EC funds in a Financial Year, under each thematic area are also given therein.

^[1] It is submitted that in pursuant to Hon'ble Supreme Court order dated 25.01.2024 in the matter Civil Appeal No. 4069/2019 titled as Skoda Auto Volkswagen India Private Limited vs. Satvinderjeet Singh Sodhi and Civil Appeal No. 4086 of 2019 titled as Skoda Auto Volkswagen India Private Limited vs Saloni Ailawadi, Rs. 100 Crores has been moved from the above referred accounts to a Fixed Deposit Receipt on April 18, 2024 for a period of one year on auto renewal clause.

Table 5: Detailed Scope of Activities, Executing Agency & Indicative Cost Weightage under each thematic area identified for utilization of NGT EC funds

	Thematic Areas	Types of projects / activities	Executing Agency	Indicative Cost Weightage for Utilization of NGT EC Funds in a FY*
	Control of Pollution			
1.	Air Quality Management	1. Source apportionment studies and emission inventory for cities/towns other than 131 cities already funded through NCAP/15th Finance commission funds	CPCB, SPCBs/PCCs, Govt. research/academic institutes	45%
		2. Air quality monitoring manual stations in all districts (excluding districts already covered under NAMP) of the country for a period of two year through data purchase	SPCBs/PCCs, CPCB	
		3. Air quality monitoring manual stations in atleast one rural area in all districts for a period of two years through data purchase	SPCBs/PCCs, CPCB	
		4. Purchase of air quality modelling / forecasting software and training of officials	CPCB, SPCBs/PCCs	
		5. Airshed delineation especially in Indo-Gangetic plains	CPCB, Govt. research/academic institutes, SPCBs/PCCs	
2.	Waste Management	1. Development of monitoring, analysis and testing facilities (solid waste, hazardous waste material, etc.)	CPCB, SPCBs/PCCs, Govt. research/academic institutes, Govt. laboratories	
		2. Scheme to promote eco-friendly schools with composting, vermiculture, garbage management, rain water harvesting, plantation, etc. (annual plan only)	DMs, State Environment Department, CPCB, SPCBs/PCCs	

		3. Research & development on eco-alternatives to plastics, greener electronics and other materials	CPCB, SPCBs/PCCs, Govt. research/academic institutes
		4. Mapping of hazardous waste management sites, contaminated sites, isolated storage sites and MSW dumpsites in the State/UT	CPCB, SPCBs/PCCs
		5. Training/Capacity building of ULBs, stakeholders, informal sector, etc.	DMs, SPCBs/PCCs, CPCB
3.	Water Quality Management	1. Mapping and demonstrative research projects for restoration of stagnant water bodies	CPCB, SPCBs/PCCs, Govt. research/academic institutes
		2. Demonstrative research projects on low cost decentralized sewage treatment for smaller municipalities	DMs, Govt. research/academic institutes, CPCB, SPCBs/PCCs
		3. GIS based inventORIZATION of polluted river stretch and non-point sources; hotspot mapping; sewage disposal points near river stretch	CPCB, SPCBs/PCCs
		4. Assessment of assimilative capacity of selected river systems	CPCB, SPCBs/PCCs, Govt. research/academic institutes
4.	Noise Pollution Management	1. Expansion of noise monitoring network / development of noise monitoring capabilities	CPCB, SPCBs/PCCs
		2. Noise mapping studies	CPCB, SPCBs/PCCs, Govt. research/academic institutes
		3. Studies on noise attenuation techniques	CPCB, SPCBs/PCCs, Govt. research/academic institutes

5.	Assessment of contaminated sites	1. Identification & assessment of contaminated sites other than already identified sites	SPCBs/PCCs, CPCB	
		2. Research study and demonstrative projects for remediation of degraded lands/ecosystems	SPCBs/PCCs, CPCB	
		3. Assessment of groundwater quality near contaminated sites, dumping areas	SPCBs/PCCs, CPCB	
Development of Laboratory and Monitoring Infrastructure				
6.	Strengthening of laboratories	1. Strengthening & upgradation of laboratories of CPCB, SPCBs and PCCs	CPCB, SPCBs/PCCs	25%
		2. Mobile surveillance laboratories (air/water/hybrid) for RDs of CPCB	CPCB, SPCBs/PCCs	
		3. Developing monitoring & analyzing capacities for emerging/specialized pollutants such as PM ₁ , microplastics, dioxin & furan, pesticides, PAHs, PCBs, residual antibiotics, etc.	CPCB, SPCBs/PCCs	
		4. Developing calibration & QA/QC laboratories for environmental monitoring equipment and analyzer	CPCB, SPCBs/PCCs, Govt. research/academic institutes	
		5. Auditing of Environmental Laboratories	CPCB	
7.	Strengthening of environmental information management systems	1. Developing in-house computing and data analytics capabilities; short-term engagement of specialists/consultants on project basis	CPCB, SPCBs/PCCs	
		2. Development of repository of scientific reports & data, and creating supporting IT system	CPCB, SPCBs/PCCs	

		3. Laboratory information management system in SPCBs/ PCCs	SPCBs/PCCs, CPCB	
		4. Procurement of in-house environmental modelling and forecasting software and capacity building	CPCB, SPCBs/PCCs	
Awareness Activities & Capacity Building				
8.	Capacity building, and Information, Education & Communication (IEC) activities	1. Environmental awareness among Students (funding to govt. school, colleges, academic institutes) through competitions, rallies, hands-on activities, problem solving tasks, learning from sustainable sites/ green infrastructures (annual plans only)	DMs State Environment Department, CPCB, SPCBs/PCCs	5%
		2. Training of officials, promoting quality research, conducting workshops/ seminars /symposium/ conferences, mass awareness activities (annual plans only)	CPCB, SPCBs/PCCs	
		3. Development of Environmental awareness materials such as short films, posters, etc. (annual plans only)	CPCB, SPCBs/PCCs, State Environment Department	
Research & Development				
9.	Specialized studies and research & development projects	1. Indigenous studies on health impact of notified and emerging pollutants of concern (excluding any desktop study)	Govt. research/academic institutes, CPCB	10%
		2. Research studies on emerging pollutants of concern	Govt. research/academic institutes, CPCB	
		3. Carrying Capacity, Source Apportionment studies, case studies or any other study	CPCB, SPCBs/PCCs, Govt. Research/Academic institutes	
		4. Studies related to implementation of District Environment Plans	District Environment Committees	

		5. Developing and encouraging innovative solutions	CPCB, SPCBs/PCCs, Govt. Research/Academic institutes	
Compliance of Hon'ble NGT and Court Orders				
10.	Specific investigations in pursuance of Hon'ble Court/Tribunal orders, special investigations by regulatory bodies	Investigation, surveys, enforcement activities, coordination, etc.	CPCB, SPCBs/PCCs, MoEF&CC, DMs	As per actual
11.	Any other exigency Scientific & Technical matter related to control of pollution and environmental quality management	--	CPCB, SPCBs/PCCs, Govt. research/academic institutes	
12.	Hon'ble NGT and court assignments including meeting of the Committees & related expenses, CPCB's institutional charges, etc.	<ol style="list-style-type: none"> 1. As directed by Hon'ble NGT and courts from time to time 2. Levying of 15% institutional charges by CPCB for carrying out assignments/ studies in compliance of statutory directions of Hon'ble NGT. The charges are towards use of infrastructure and manpower deployment. (Annexure- XXVII) 3. Conducting inspections, studies, preparation of reports, travel expenses, etc. 4. Development of NGT EC Fund monitoring cell in CPCB 	CPCB	

The weightage allotted for utilization of NGT EC funds as given in Table 5, under each thematic area is indicative & subject to vary. Funds allocated to one thematic area can be reallocated to other area, if needed. The amount is not strictly earmarked under each theme so as to effectively address the dynamic needs. The weightage may increase or decrease depending upon proposals received and amount as available. It is also submitted that the flow of NGT EC funds is not steady, hence indicative cost weightages have been assigned.

In addition to above, NGT EC funds are also proposed to be utilized for development of laboratories in CPCB's new extension building at Parivesh Bhawan for hazardous and other waste testing, and Artificial Intelligence/ Machine Learning (AI/ML)/ Data analytics.

A list of potential projects under various thematic areas having relevance to the directions of Hon'ble NGT in various matters proposed to be funded from NGT EC funds is attached at **Annexure XIX**.

It is submitted that following expenses are excluded from utilization of NGT EC funds,

- a) Creation of physical assets (except equipment and instruments) such as direct purchase of land/built-up place including construction of building
- b) Development or maintenance of infrastructure, which is already the mandate of the State/Central government agencies/departments at Local/ State/ Central level, except where CPCB is enticed to intervene in cases where environmental quality has deteriorated or is deteriorating severely, to provide immediate/direct relief to affected or potentially affected citizen.
- c) Recurring liability other than warranty period in case of funding to development of laboratories. Funds towards strengthening of laboratories to be given only in case the proponent organization assures AMC and O&M of the laboratories after its development.
- d) Salary component or hiring of staff except engagement of specialized consultants/ professionals/ research staff for short term, limited to project period.
- e) Purchase of staff vehicle.
- f) Expenses towards promoting or testing products that have already been introduced in the market or are commercially available.

Regarding the utilization of NGT EC funds available in 23 specific purpose accounts, it is proposed that, in cases wherein general directions for the restoration and restitution of the environment (11 cases), and no directions for the utilization of EC funds (05 cases) have been issued, the EC funds may be utilized in accordance with the Comprehensive Action Plan detailed above.

In another case (O. A No. 20/2017, titled 'Babubhai Ramubhai Saini Vs. Gujarat Pollution Control Board & Ors.'), Rs. 1.33 Cr has been utilized out of Rs. 2.18 Cr deposited as EC

amount (including interest) and an estimated Rs. 74.63 Lacs is committed to be released during FY 2024 – 25. The remaining unspent amount is proposed to be utilized in accordance with the Comprehensive Action Plan detailed above.

In remaining 06 cases where specific directions on the utilization of EC levied have been issued by the Hon'ble NGT for remedying the situation and improving environmental quality in a specific area, and where the matter is not sub-judice, it is proposed to use the funds for implementation of directed actions through preparation of action plan and its implementation, by the concerned SPCB. It is proposed that the funds in such cases be transferred to the respective SPCBs for this purpose.

(6) Response on relationship between pollutants and human health in view of ambient air quality standards not meeting

It is humbly submitted that Ministry of Environment, Forest and Climate Change (MoEF&CC) notified National Ambient Air Quality Standards (NAAQS) for 12 pollutants in 2009 to protect public health and environment from air pollution. The standards are health based but with acceptable risk considering various factors like current levels of air quality in the country, socio- economic factors etc. NAAQS, 2009 takes into account long term exposure to air pollution based on annual norms or brief exposure through 01/08/24 hourly standards so that it has minimum effect on maximum population. Copy of standards annexed herewith as **Annexure – XX**.

The final report submitted by the IIT- Kanpur on revision of National Ambient Air Quality Standards in 2009 indicates the health effects of 12 notified parameters, and consolidated table in this regard is placed at **Annexure – XXI**.

Detailed steps taken for improvement of air quality and reduction in 12 notified pollutants is placed at **Annexure – XXII**.

(7) Monitoring with respect to NH₃, Ni, Pb, As and B(a) P

NH₃ is regularly monitored parameter in various cities. Monitoring of NH₃ was conducted in 228 cities and 282 cities during year 2022 and 2023 respectively. No exceedance reported w.r.t. NH₃ in any of the city monitored in 2022 & 2023. List of cities monitored is attached at **Annexure-XXIII**.

It is humbly submitted that in continuation to monitoring results presented earlier for 12 to 23 cities w.r.to parameters Ni, As, B(a)P, Pb, the CPCB has conducted monitoring of these parameters in 347 to 413 cities (347 cities for B(a)P, 410 cities for Pb and As, and 413 cities

for Ni) in the country with the help of State Pollution Control Boards/Pollution Control Committees during April, May and June, 2024 for consecutive two days every fortnightly. The list of cities monitored with respect to parameters (Ni, Pb, As, and B(a)P) pre & post Hon'ble NGT order dated 02.04.2024 are attached at **Annexure-XXIV**.

It is humbly submitted that the National Ambient Air Quality Standards (NAAQS-2009) states that, "Whenever and wherever monitoring results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered adequate reason to institute regular or continuous monitoring and further investigation".

It is humbly submitted that prescribed annual standards for these parameters (Ni, Pb, As and B(a)P) were compared except for Pb (Compared for 24Hrly standards) where both annual and 24 hrly standards are prescribed. Exceedances observed for these parameters during the monitoring period is presented in Table 6.

Table 6. Summary of monitoring conducted and exceedances observed

No. of Cities	Parameters			
	Ni	Pb	As	B(a)P
No. of cities where monitored	413	410	410	347
No. of cities exceeding Annual/24Hrly standards consecutively for two days.	05	03	10	14

The monitoring data reveals that 05 cities out of 413 cities w.r.t. to Ni, 03 cities out of 410 cities w.r.t. to Pb, 10 cities out of 410 cities w.r.t. to As, and 14 cities out of 347 cities w.r.t. to B(a)P have the exceedances consecutively for two days. It may be observed that the overall scenario indicates exceedance of these pollutants is limited to very few cities consecutively for two days. The list of cities exceeding the standards of respective parameters is enclosed at **Annexure-XXV**.

It is submitted that the preliminary enquiry with State Pollution Control Boards suggests Automobile exhausts, DG Sets, Industries, Garbage burning, Road construction etc. as the probable sources of these pollutants in different cities.

It is humbly submitted that CPCB asked respective SPCBs/PCCs vide letter dated 08.07.2024 (copy enclosed as annexure at **Annexure-XXVI**) to conduct further investigation about the sources of the said parameters (Ni, Pb, As and B(a)P) and institute regular monitoring in the cities where exceedances have been observed.

PRAYER

In view of the facts and circumstances as narrated herein above, it is therefore, the answering respondent humbly pray to the Hon'ble Tribunal to kindly accept the submissions of the answering respondent and may kindly pass the following orders to protect and improve the environment, as under:-

A. To permit for utilization of environment compensation funds imposed by the Hon'ble NGT as per comprehensive action plan developed in accordance with the order dated January 22, 2019 of Hon'ble NGT passed in O.A. No 101/2019 titled "CPCB Vs Assam SPCB & Ors", and order dated 20 Apr 2017 passed in OA No. 24/2011 titled "Samir Mehta Vs Union of India & Ors" respectively, and order dated September 26, 2019, passed in O.A. No. 360/2018 titled "Shree Nath Sharma versus Union of India & Ors" and also submission made under Para (5)- II & III above,

B. To permit to continue utilizing Environment Protection Charge (EPC) fund in view of concept note submitted to the Hon'ble supreme court of India in WP(C) 13029/1985 titled as "MC Mehta Vs Uol & Others" in the areas where the ibid fund is being utilised, including utilization for on-ground mitigation of air pollution such as procurement of mechanical road sweeping machines, anti-smog guns, road construction/repair, paving works, etc., which are part of city micro action plan for air pollution control in Delhi- NCR, **in the circumstances where these specific works/procurement are not considered under any other scheme of Central/State government or no matching funds are available.**

C. To permit utilization of Environment Protection Charge (EPC) fund, {received under the orders of the Hon'ble Supreme Court}, as per the guidelines for providing gap funding support for implementation of clean air city action plans in 18 National Capital Region (NCR) cities, not funded under NCAP or Fifteenth Finance Commission program for Million Plus Cities, indicated under the comprehensive action plan for EPC utilisation and other submission made under Para (4) above.

D. To permit to continue utilizing Environmental Compensation (EC) funds in the areas where the ibid funds are currently being utilised.

OR

pass any other further order as this Hon'ble Tribunal may deem fit and proper in the facts and circumstances of the case


(Pankaj Agarwal)
Scientist 'F'

SECTION- PIL

IN THE SUPREME COURT OF INDIA

CIVIL ORIGINAL JURISDICTION

I.A NO. 345

WRIT PETITION (CIVIL) NO. 13029 of 1985

IN THE MATTER

M.C.MEHTA

...Petitioner

VERSUS

UNION OF INDIA & ORS.

...Respondent

I N D E X

SN.	PARTICULARS	COPIES	COURT FEES
1	Affidavit	1-5	
2	Concept Note on Utilization of (EPC) fund by CPCB - (ANNEXURE-A)	6-12	

[G S Makkar]

Advocate-on-record
For Petitioner
Central Agency Section
Supreme Court Compound
New Delhi.
Ph.23381225,

New Delhi
Dated 25.01.2017

IN THE SUPREME COURT OF INDIA
CIVIL ORIGINAL JURISDICTION

I.A. NO. 345

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WRIT PETITION (CIVIL) NO.13029/1985

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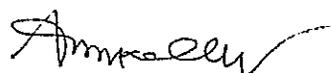
UNION OF INDIA & ORS.

RESPONDENTS

AFFIDAVIT ON BEHALF OF CENTRAL POLLUTION CONTROL BOARD, IN
FURTHERANCE OF ORDERS DATED 16.12.2015 AND 12.08.2016 OF
THIS HON'BLE COURT IN THE AFORESAID MATTER

I, Dr Avinash Balachandra Akolkar, Member Secretary in the,
Central Pollution Control Board (CPCB), Parivesh Bhawan, East Arjun
Nagar, Delhi-110032, do hereby solemnly affirm and declare as under:

1. That I am Member Secretary in the Central Pollution Control Board (CPCB), fully conversant with the facts and circumstances of the case and competent to swear this affidavit on behalf of Central Pollution Control Board.
2. That in above mentioned I.A. filed by Ld. Amicus-Curie, this Hon'ble Court has been considering the issue relating to diesel vehicles registered in Delhi in order to check the vehicular pollution in NCR. Their Lordships were pleased to pass orders from time to time in this respect. When the matter was listed on 16.12.2015 their Lordships after hearing all the parties passed the following directions:-



cars of the capacity of 2000 CC and above using diesel as fuel shall stand banned in the NCR upto 31st March, 2016."

3. Thereafter the matter was heard on several dates and when the matter was listed on 12.08.2016 this Hon'ble Court after hearing all the parties passed the following directions:-

"Mr. Gopal Subramanian and Mr. Mohan Parasaran today appear to submit that Mercedes Benz shall have no objection and would indeed be willing without demur to deposit environment protection charge mentioned above equivalent to 1 % of the ex-show room price of the diesel vehicles manufactured by that company as a condition precedent for registration of such vehicles by the jurisdictional Registration Officers. They submit that the said amount could be used by the Government or by such other agency as this court may identify for such purpose as the court may direct.

A similar offer has been made even by Toyota Kirloskar Private Limited who is also manufacturing diesel cars with the engine capacity of 2000 cc and above. Mr. P.V. Shetty, Learned Senior Counsel appearing on behalf off Galaxy Automobiles Private Company who happens to be a dealer in cars manufactured by Toyota Kirloskar Private Limited also makes a similar offer. Dr. A.M. Singhvi, Learned Senior appearing for the Society of Indian Automobile Manufacturers (SIAM) however argued that while some of the members of the association may also be similarly willing to deposit Environment Protection Charge mentioned above, the benefit of registration of their cars on payment of the charge @1% of the EX-show room price should be available to such manufacturers and dealers also.

Mr. Harish N. Salve, learned Amicus Curie argues that while the order passed by this Court could be suitably modified to permit registration of diesel cars/SUVs of 2000 cc capacity and above upon deposit of 1% of the Ex-show

Amal

room price towards Environment Protection Charge, the said requirement should be extended even to diesel cars with less than 2000 cc capacity. He argued that the deposit could be directed to be made in an account to be opened by the Central Pollution Control Board (CPCB) with a direction that the Registration Officers concerned shall register the vehicles offered for registration only upon satisfying himself about the deposit of the amount and not otherwise.

Insofar as the deposit to be made with the CPCB is concerned, we see no reason to decline the prayer. We accordingly direct that the CPCB shall open a separate account in a Scheduled public sector bank to receive the amount representing 1% of the Ex-show room price of every diesel car that is sold by any manufacturer/dealer in Delhi and NCR region. The deposit of the amount alone shall entitle the manufacturer/dealer or the purchaser of the car to have the car registered within Delhi or NCR region. Our order dated 16.12.2015 shall to that extent stand modified. We, however, leave open the question whether cars less than the capacity of 2000 cc using diesel fuel should also be subjected to a similar charge. So also the question whether the rate of the charge ought to be limited 1% or raised is left open to be determined at an appropriate stage. We all the same make it clear that any such enhancement in the charge if so directed by the court would not have any retrospective effect".

4. It is submitted that in compliance of the above mentioned directs of this Hon'ble Court, the Central Pollution Control Board (CPCB) has taken all actions and has accordingly opened the bank account in Scheduled Bank for depositing Environment Protection Charge (EPC). It is further submitted that by as on 18th January, 2017 an amount of

Rs 17,85,77,644.53 has been accrued in this account.



5. It is submitted that for the purpose of utilization of the said amount for improvement of the ambient in NCR the Central Pollution Control Board has prepared a Concept Note for kind consideration of this Hon'ble Court, so that timely action may be taken and the amount so received is spent in justifiable manner. It is humbly submitted that this Hon'ble Court may be pleased to pass appropriate order. The copy of the Concept Note on Utilization of Environment Protection Charges is enclosed herewith and marked as **Annexure-A**.

6. That the facts stated in this affidavit are true and correct to the knowledge of the deponent derived from the record maintained by office of the deponent.

रविश भवन / Member Secretary
 केन्द्रीय प्रदूषण नियंत्रण बोर्ड
 Central Pollution Control Board
 पर्यावरण एवं वन मंत्रालय, भारत सरकार
 M/o. Environment & Forests, Govt. of India
 नरिवेश भवन, पूर्वी अर्जुन नगर
 Parivesh Bhavan, East Arjun Nagar
 दिल्ली/ Delhi-110032

VERIFICATION

I the above named deponent do hereby verify that the contents of this affidavit are true & correct to my knowledge based on record maintained by the office of the deponent and nothing material has been concealed therefrom.

Verified at New Delhi on this the _____ day of January 2017

Avinashi

DEPONENT

रविश भवन / AVINASHI
 रविश भवन / Member Secretary
 केन्द्रीय प्रदूषण नियंत्रण बोर्ड
 Central Pollution Control Board
 पर्यावरण एवं वन मंत्रालय, भारत सरकार
 M/o. Environment & Forests, Govt. of India
 नरिवेश भवन, पूर्वी अर्जुन नगर
 Parivesh Bhavan, East Arjun Nagar
 दिल्ली/ Delhi-110032

January, 2017

**Concept Note on Utilization of
Environment Protection Charge (EPC)
Funds by CPCB**



Central Pollution Control Board

(Ministry of Environment, Forest and Climate Change)

SUB: 'CONCEPT NOTE ON UTILIZATION OF ENVIRONMENT PROTECTION CHARGE (EPC) FUNDS BY CPCB'

1. Hon'ble Supreme Court bans sale / registration of diesel vehicles of engine capacity 2000cc and above in Delhi & NCR

In the matter of M.C. Mehta Vs UOI, CWP no. 13029 of 1985 vide order dated 16-12-2015 the Hon'ble Supreme Court directs the ban of registration of diesel private cars and SUVs of engine capacity of 2000cc and above in Delhi and NCR region. The ban was further extended till 31st March 2016 and continued to remain till 12.08.2016. The ban was effective from 16-12-2015 to 12.08.2016.

2. Hon'ble Supreme Court lifts ban on diesel vehicles of engine capacity 2000cc and above in Delhi & NCR – introduction of EPC

Vide order dated 12.08.2016 the Hon'ble Supreme Court lifts the ban of registration of diesel private cars and SUVs of engine capacity of 2000cc and above in Delhi and NCR region. The Hon'ble Supreme Court directs all dealers / manufacturers to deposit 1% levy of ex showroom price of for every diesel vehicles sold in Delhi and NCR to deposit as Environment Protection Charge (EPC).

The deposit of EPC alone shall entitle the dealer / manufacturer or purchaser to have the vehicle registered within Delhi or NCR region.

3. Compliance of Hon'ble Supreme Court directions by CPCB : *Separate bank account opened for EPC deposits*

3.1 Hon'ble SC directions : 'CPCB to open a separate bank account with a scheduled Public Sector Bank to receive EPC'

The compliance of Hon'ble SC directions by CPCB are as follows :

- i. Bank account opened with : **Union Bank of India (UBI)**
- ii. Date on which account opened : **August 17, 2016**
- iii. Account Name : **CPCB-EPC**
- iv. Account No. : **532702010008813**
- v. IFSC code : **UBIN0553271**
- vi. Area jurisdiction for registration in **Delhi – NCR**
- vii. Applicable to : **manufacturers /dealers or purchaser**

3.2 Facilitate EPC deposits for manufacturers /dealers or purchaser:

Options to facilitate collection of EPC deposits:

- i. Manual deposition of EPC
- ii. On-line portal for EPC deposit (an additional facility)

(A) Manual deposition of EPC (an immediate measure) :

- i. Manual deposits w.e.f August 20, 2016
- ii. As an immediate measure to receive EPC deposits, a step-by-step a **Procedure** was prepared as a guidance measure to streamline EPC collections by cash or DD.
- iii. FAQs for dealers / manufacturers: Several queries were being raised by the dealers, hence to facilitate EPC deposition responses to the queries was made and displayed as FAQs for dealers / manufacturers in CPCB's website.

(B) Portal for on-line deposition of EPC (additional facility)

- i. Several consultations were held in CPCB between and the stakeholders i.e. SIAM representatives , dealers , manufacturers , transport departments and Union Bank of India (their software development team) to facilitate on-line deposit of EPC to further enable compliance of the Hon'ble SC directions.
- ii. *EPC payment gateway* : Union Bank of India (UBI) has developed a dedicated portal to receive EPC deposits. CPCB's *EPC payment gateway* in CPCB's website, it is a portal for on-line deposit of EPC w.e.f.: September 2nd 2016,
- iii. Log-in IDs by UBI: UBI has provided log-in facilities to CPCB to access transaction details, this will assist in preparing MIS reports.
- iv. Facilitate Road Transport Offices (RTOs) & dealers: Keeping in view the requirements of the RTOs for the pre-verification prior to registration of diesel vehicle, UBI has developed viewing & receipt downloading facility for the RTOs. A RTO has to enter a VIN number (vehicle identification number) of the vehicle proposed to be registered in Delhi - NCR.

(C) The above actions / initiatives measures have been communicated to the stakeholders via CPCB's website :

- i. Society for Automobiles Manufacturers Association of India (SIAM), to forward the same to its concerned members / dealers.

- ii. Besides there are car manufacturers (like Rolls Royce) who have no dealers, they are directly dealing with customer.
- iii. Transport Dept , Delhi NCT and NCR (UP, Haryana, Rajasthan) : so that all Road Transport Offices (RTOs) are informed on EPC process

4. Domain for execution of EPC funds - Delhi and NCR region.

Vide order dated 12.08.2016 the Hon'ble Supreme Court lifts the ban of registration of diesel private cars and SUVs of engine capacity of 2000cc and above in **Delhi and NCR region**. The 1% levy of ex showroom price of for every diesel vehicles sold in **Delhi and NCR** shall be deposited towards Environment Protection Charge (EPC).

As the domain for execution of EPC funded projects shall be **Delhi and NCR**

Table : Jurisdiction of utilisation of EPC funds : Delhi and NCR

NCR & NCT	Region	No. of Districts	Sub-regions in Districts / towns	Area sqkm (%)
Haryana	NCR	9 + 4	Faridabad, Gurgaon, Mewat, Rohtak, Sonapat, Rewari, Jhajjar, Panipat Palwal + and (Mahendragarh , Bhiwani, Jind , Karnal)	13,428 sq. km (39.3%)
Uttar Pradesh		5 + 2	Meerut, Ghaziabad, Gautam Budha Nagar, Bulandshahr, and Baghpat (Muzzafarnagar & Hapur)	10,853 sq. km. (31.8%)
Rajasthan		1 + 1	Alwar (Bharatpur)	8,380 sq. km. (24.5%)
TOTAL		15 + 7	= 22	
Delhi	NCT	-	-	1,483 sq. km (4.4%)
TOTAL				33,500 sqkm (100%)

5. Utilization of EPC funds shall encourage integrated approach - participating institutions

Besides Central Pollution Control Board (CPCB) and Delhi Pollution Control Committee (DPCC) representatives of the State Government and State Pollution Control Boards (SPCBs) in NCR i.e. Haryana, Uttar Pradesh and Rajasthan shall be associated. Reputed research organisations like CSIR, CRRI, NPL Delhi, NEERI, academic organizations like IIT, NITs, ICMR, AIIMS, MCI etc. and NGOs will also be involved.

6. Management of EPC funds as per GFR Rules

- a. This fund is created as per the direction of the Hon'ble Supreme Court
- b. All expenditure will be incurred in accordance with General Financial Rules (GFR).
- c. The revenue generated and expenditure incurred under EPC funds is subject to statutory audit of CPCB / CAG audit of CPCB.
- d. On completion of the audit every year CPCB shall present audited Annual Final Statements of Accounts before the '*Steering Committee to review progress of utilization of EPC funds*'

7. Proposed thrust areas for project proposals for utilisation of EPC funds

- a) Utilization of EPC funds to sponsor projects addressing reduction air pollution.
- b) The project proposals submitted by various organisations / institutions that shall be identified for financing under EPC funds shall be broadly classified under the following FIVE broad categories:
 - i. Capacity building w.r.t. infrastructure enhancement
 - ii. Monitoring of environmental pollutants (ambient air & noise) :
Besides impact from vehicular emissions it was also observed that due to increase in vehicular traffic there has been significant increase in ambient 'noise levels' too. Hence a need to expand the continuous ambient air quality (CAAQM) network and continuous noise monitoring network particularly in 22 NCR towns.
 - iii. Mass awareness on air pollution : Talk shows and various electronic media - LED displays , TV , radio websites

- iv. R & D proposals: Specific Research proposals that shall focus on reduction in vehicular pollution.
- v. Health impact studies: To augment verifiable database on health impacts attributed to vehicular pollution (emission & noise) , various institutions ex. ICMR shall be involved.
- c) Identification and sanction of specific Projects to control pollution in Punjab, Delhi and NCR.

8. Committees to monitor utilisation of EPC funds

It is proposed to constitute **TWO** Committees:

I. 'Steering Committee to guide and review the utilization of EPC funds'

- a. The 'Steering Committee' shall be responsible for overall guidance for utilization of EPC funds and shall ensure that EPC utilization is in accordance with General Financial Rules (GFR). It is proposed that Member Secretary, CPCB shall be Member Convenor and the Committee shall be chaired by Secretary, MoEF&CC. Other members of the Committee will be drawn from Ministries concerned of the Central Government, Government of NCT of Delhi, professional organizations and experts. A detailed order regarding composition of the Steering Committee will be issued by MoEF&CC

b. Responsibilities of the Committee

- i. Shall guide and review the utilization of EPC funds
- ii. Shall ensure that EPC utilization is in accordance with General Financial Rules (GFR)
- iii. Advise on new areas for addressing projects for financing under EPC funds
- iv. To issue any other directions or orders to the Committee for Appraisal and approval of projects and to CPCB
- v. Preparation of annual accounts and audit of the accounts
- vi. To prepare the Annual Report on its activities

II. 'Committee for appraisal and approval of project proposals for utilization of EPC funds'

- a. As controlling vehicular pollution involves inter-ministerial action, it is proposed to constitute the 'Committee for appraisal and approval of project proposals for utilization of EPC funds' having members following organizations that are directly / indirectly associated with air pollution.

1. Chairman, CPCBChairperson
2. Representative from MoEF&CCMember
3. AS&FA or his nominee, MoEF&CCMember
4. Representative, MoRTH
5. Representative, MoPNG
6. Representative, DoHI
7. Representative, DPCC
8. Representative, Haryana SPCB
9. Representative, UP SPCB
10. Representative, Rajasthan SPCB
11. Representative, SIAM
12. Member Secretary, CPCB Member Convenor

Special invitees: Representatives from Punjab, Delhi & NCR Governments.

b. Proposed Terms of Reference (ToR) of the Committee

- i. The project proposals shall focus on improvement of ambient air quality. The Project area for implementation shall be Punjab, Delhi NCT & NCR.
- ii. CPCB shall forward project proposals to members of the Committee for their assessment. CPCB shall facilitate participating institutions to make presentations to the Committee members on their project proposals. The project proposals shall be evaluated based on technical content, project deliverables, budgetary justification and (power point) presentation.
- iii. Based on the above assessment the Committee shall approve project proposals (technical & budgetary) for financing for EPC funding.
- iv. Project proposals approved by the Committee shall be awarded subject to availability of EPC funds.
- v. Based on the projects recommended by the Committee, funds under EPC shall be released by CPCB for execution of the projects.
- vi. All equipments purchased by project executing institutions / agencies shall be in its ownership as part of capacity building initiative under EPC.
- vii. For public awareness and transparency, CPCB's website shall display project(s) that have been approved for utilizing EPC funds.

9. Detailed Procedure for inviting project proposals under EPC funding will be issued by CPCB separately.

10. Administrative charges for CPCB from EPC funds

Co-ordinating EPC activities shall be an additional responsibility for CPCB, to administer the funding, implementation and execution of the EPC funds. In addition expenses on audit charges to authorised Chartered Accounts of C & AG may have to be made. In view of the above an amount not exceeding of **Rs 15 lakhs per annum** (appointment of Research Associates and procurement of computer, printers, etc) may be made available from EPC funds.

OFFICE ORDER

June 9, 2017

F. No.: AQM/EPC/2016-17-4071-4080

Sub.: 'Committee for Appraisal and Approval of project proposals for utilization of EPC funds'

The Hon'ble Supreme Court in the matter of O.A.13029 of 1985, M.C. Mehta Vs UOI, vide its order dated August 12, 2016 has directed all dealers / manufacturers to deposit 1% levy of ex showroom price of for every diesel vehicles (2000cc and above) sold in Delhi and NCR as Environment Protection Charge (EPC) in the account of CPCB.

Subsequently, CPCB submitted a concept note on 'Utilization of EPC Funds' to the Hon'ble Supreme Court, which provides broad areas of project activities to be undertaken. Accordingly an 'Appraisal and Approval Committee' is constituted for evaluation and approval of projects to be undertaken under EPC funds.

The constitution of the committee & Terms of Reference (TOR) is as follows:

1. Chairman, CPCB	Chairman
2. Representation from MoEF&CC	Member
3. AS&FA or his nominee, MoEF&CC	Member
4. Representative from Ministry of Road Transport & Highways (MoRTH)	Member
5. Representative from Ministry of Petroleum & Natural Gas (MoPNG)	Member
6. Representative from Department of Heavy Industries (DoHI)	Member
7. Representative from Delhi Pollution Control Committee	Member
8. Representative from Haryana State Pollution Control Board	Member
9. Representative from Rajasthan State Pollution Control Board	Member
10. Representative from UP State Pollution Control Board	Member
11. Representative from Society of Indian Automobile Manufacturers	Member
12. Member Secretary, CPCB	Member Convener

* Special invitees may include subject experts, state govt. representatives, local administration, etc.

Terms of Reference

- The Committee shall evaluate and approve project proposals received under EPC funds for improving ambient air quality in Delhi, NCR and Punjab.
- The committee shall ensure that proposals are in line with thrust areas identified in the concept note on EPC utilization submitted to Hon'ble Supreme Court.
- Based on recommendations of the Committee, funds under EPC shall be released for execution of the projects.
- Appraisal and Approval Committee shall monitor progress of projects/ activities from time to time and communicate the same to the Steering Committee.
- The committee shall meet at least once in a quarter in a year.

Non-official members will be paid TA/DA expenses and sitting fee @ Rs. 3000/- per day for attending the meeting.

This is issued with approval of Chairman, Central pollution Control Board

SSK(CMP)
12/6/17

केंद्रीय प्रदूषण नियंत्रण बोर्ड
दिनांक 12/6/17

(Prashant Gargava)
Add. Director & Head, AQM Div.

OK

1. The Joint Secretary (CP Div.)
Ministry of Environment, Forest & Climate Change
Indira Paryavaran Bhawan
Jorbagh Road, New Delhi - 110 003
2. AS & FA
Ministry of Environment, Forest & Climate Change
Indira Paryavaran Bhawan
Jorbagh Road, New Delhi - 110 003
3. The Joint Secretary (Transport)
Ministry of Road Transport & Highways
Transport Bhawan, Sansad Marg,
New Delhi 110001
4. The Joint Secretary (coordination)
Department of Heavy Industries
Room No. 126-C, Udyog Bhawan, Rafi Marg
New Delhi- 110011
5. The Joint Secretary
Ministry of Petroleum & Natural Gas
Shastri Bhavan
New Delhi – 110001
6. The Chairman
Delhi Pollution Control Committee
4th Floor, ISBT Building
Kashmere Gate, Delhi – 110 006
7. The Chairman
U.P. State Pollution Control Board
3rd Floor, PICUP Bhawan
Vibhuti Khand, Gornti Nagar
Lucknow – 226 020
8. The Chairman
Haryana State Pollution Control Board
C-11, Sector – 6
Panchkula, Haryana
9. The Chairman
Rajasthan State Pollution Control Board
A-4, Jalane Dungri Institutional Area
Jaipur – 302 004
10. The Director
Society of Indian Automobiles Manufacturers
Indian Auto LPG Coalition
99 -D, HSIDC Industrial Estate,
Sector 31, Faridabad- 121 003,
Haryana

Copy for information:

1. PS to CCB
2. PS to MS

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

OFFICE ORDER

F. No.: AQM/EPC/2016-17

January 31, 2018

Sub.: Committee for Appraisal and Approval of project proposals (PAAC-EPC) for utilization of EPC funds

In continuation to CPCB office order no. F. No.: AQM/EPC/2016-17 dated June 09, 2017; following are incorporated as member of the PAAC-EPC:

- | | | |
|----|---|--------|
| 1. | Representative from Department of Science & Technology(DST) | Member |
| 2. | Representative from Ministry of Earth Sciences (MoES) | Member |

(Prashant Gargava)
Add. Director & Head, AQM Div.



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

Office Memorandum

July 25, 2022

F. No. B-33014/40/2018/AQM-EPC

Sub.: Committee for Appraisal and Approval of project proposals (PAAC) for utilization of EPC funds - Reg.

In continuation to CPCB office order no. F. No. AQM/EPC/2016-17 dated June 09, 2017 and January 31, 2018; following is incorporated as member of PAAC-EPC:

1. Director, Commission for Air Quality Management
in National Capital Region and Adjoining Areas (CAQM)

Member

PW

(P. K. Gupta)

Director and Divisional Head,
Air Quality Management

Copy to:

PA to CCB, CPCB : For information of CCB/Chairman, PAAC, please
AO to MS, CPCB : For information of MS, CPCB/Member Convener, PAAC, please
Members, PAAC : For information, please

Encl.: As above

List

1. The Joint Secretary (CP Div.)
Ministry of Environment, Forest & Climate Change,
Indira Paryavaran Bhawan,
Jorbagh Road, New Delhi - 110 003
2. The Director (IFD)
Ministry of Environment, Forest & Climate Change,
Indira Paryavaran Bhawan,
Jorbagh Road, New Delhi - 110 003
3. The Joint Secretary (Transport)
Room No. 324,
Ministry of Road Transport & Highways,
Transport Bhawan, Sansad Marg,
New Delhi - 110 001
4. The Joint Secretary
Room No. 183,
Department of Heavy Industries,
Udyog Bhawan, Rafi Marg,
New Delhi - 110 011
5. The Joint Secretary (Refineries)
Room No. 216-A,
Ministry of Petroleum & Natural Gas,
Shastri Bhawan, New Delhi - 110 001
6. The Member Secretary
Commission for Air Quality Management in National Capital Region
and Adjoining Areas,
17th Floor, Jawahar Vyapar Bhawan (STC Building),
Tolstoy Marg, New Delhi - 110 001
7. Dr. J. B. V. Reddy
Scientist 'E',
Department of Science & Technology,
Technology Bhawan,
New Mehrauli Road,
New Delhi - 110 016

8. Dr. V. K. Soni
Head, EMRC IMD,
Ministry of Earth Sciences,
Prithivi Bhawan, Lodhi Road,
opp. Indian Habitat Centre,
New Delhi - 110 003

9. The Member Secretary
Uttar Pradesh Pollution Control Board,
Building No. TC-12V,
Vibhuti Khand, Gomti Nagar,
Lucknow - 226 010,
Uttar Pradesh

10. The Member Secretary
Delhi Pollution Control Committee,
6th Floor, C wing,
Delhi Secretariat, I P Estate,
Delhi - 110 002

11. The Member Secretary
Haryana State Pollution Control Board,
C-11, Sector- 6, Panchkula - 134 109,
Haryana

12. The Member Secretary
Rajasthan Pollution Control Board,
4, Jhalana Institutional Area,
Jhalana Doongri, Jaipur - 302 004,
Rajasthan

13. The Director
Society of Indian Automobiles Manufacturers,
Core 4-B, 5th floor, India Habitat Centre,
Lodhi Road, New Delhi - 110 003

OFFICE ORDER

June 9, 2017

F. No.: AQM/EPC/2016-17-4071-4080

Sub.: 'Committee for Appraisal and Approval of project proposals for utilization of EPC funds'

The Hon'ble Supreme Court in the matter of O.A.13029 of 1985, M.C. Mehta Vs UOI, vide its order dated August 12, 2016 has directed all dealers / manufacturers to deposit 1% levy of ex showroom price of for every diesel vehicles (2000cc and above) sold in Delhi and NCR as Environment Protection Charge (EPC) in the account of CPCB.

Subsequently, CPCB submitted a concept note on 'Utilization of EPC Funds' to the Hon'ble Supreme Court, which provides broad areas of project activities to be undertaken. Accordingly an 'Appraisal and Approval Committee' is constituted for evaluation and approval of projects to be undertaken under EPC funds.

The constitution of the committee & Terms of Reference (TOR) is as follows:

- | | |
|--|-----------------|
| 1. Chairman, CPCB | Chairman |
| 2. Representation from MoEF&CC | Member |
| 3. AS&FA or his nominee, MoEF&CC | Member |
| 4. Representative from Ministry of Road Transport & Highways (MoRTH) | Member |
| 5. Representative from Ministry of Petroleum & Natural Gas (MoPNG) | Member |
| 6. Representative from Department of Heavy Industries (DoHI) | Member |
| 7. Representative from Delhi Pollution Control Committee | Member |
| 8. Representative from Haryana State Pollution Control Board | Member |
| 9. Representative from Rajasthan State Pollution Control Board | Member |
| 10. Representative from UP State Pollution Control Board | Member |
| 11. Representative from Society of Indian Automobile Manufacturers | Member |
| 12. Member Secretary, CPCB | Member Convener |

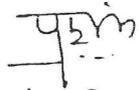
* Special invitees may include subject experts, state govt. representatives, local administration, etc.

Terms of Reference

- The Committee shall evaluate and approve project proposals received under EPC funds for improving ambient air quality in Delhi, NCR and Punjab.
- The committee shall ensure that proposals are in line with thrust areas identified in the concept note on EPC utilization submitted to Hon'ble Supreme Court.
- Based on recommendations of the Committee, funds under EPC shall be released for execution of the projects.
- Appraisal and Approval Committee shall monitor progress of projects/ activities from time to time and communicate the same to the Steering Committee.
- The committee shall meet at least once in a quarter in a year.

Non-official members will be paid TA/DA expenses and sitting fee @ Rs. 3000/- per day for attending the meeting.

This is issued with approval of Chairman, Central pollution Control Board


(Prashant Gargava)
Add. Director & Head, AQM Div.



OFFICE ORDER

F. No.: AQM/EPC/2016-17

January 31, 2018

Sub.: Committee for Appraisal and Approval of project proposals (PAAC-EPC) for utilization of EPC funds

In continuation to CPCB office order no. F. No.: AQM/EPC/2016-17 dated June 09, 2017; following are incorporated as member of the PAAC-EPC:

- | | | |
|----|---|--------|
| 1. | Representative from Department of Science & Technology(DST) | Member |
| 2. | Representative from Ministry of Earth Sciences (MoES) | Member |

(Prashant Gargava)

Add. Director & Head, AQM Div.

Ministry of Environment, Forest & Climate Change
(CP Division)

Indira Paryavaran Bhavan
Jor Bagh Road,
New Delhi-110003

Dated the 31st August, 2017

ORDER

Sub: Constitution of the Steering Committee to guide and review the utilization of Environment Protection Charge (EPC) Fund - reg.

The Hon'ble Supreme Court in O.A. No. 13029 of 1985 in the matter of M.C. Mehta Vs Union of India vide its order dated 12.08.2016 directed all dealers / manufacturers to deposit 1% levy of ex showroom price for every diesel vehicles (2000cc and above) sold in Delhi and NCR as Environment Protection Charge (EPC) in the account of Central Pollution Control Board (CPCB). Subsequently, CPCB submitted a concept note on utilization of EPC funds to the Hon'ble Supreme Court, which provides broad areas of project activities to be undertaken. Accordingly a 'Steering Committee' headed by Secretary, Environment, Forest and Climate Change (MoEF&CC) is constituted to guide and review the utilization of EPC Fund with respect to projects to be undertaken under EPC funds.

2. The **composition** of the committee and Terms of Reference (TOR) shall include the following:

Sl. No.	Name / Designation and Organization	Role
1.	Secretary of MoEF&CC	Chairman
2.	Chairman, CPCB	Member
3.	JS / Advisor, MoEF&CC	Member
4.	AS & FA, MoEF&CC	Member
5.	Representative of Ministry of Road Transport & Highways (MoRTH), not below the rank of Joint Secretary	Member
6.	Representative of Ministry of Petroleum & Natural Gas (MoPNG), not below the rank of Joint Secretary	Member
7.	Representative of Department of Heavy Industries (DoHI), not below the rank of Joint Secretary	Member
8.	Member Secretary, Delhi Pollution Control Committee	Member
9.	Member Secretary, Haryana Pollution Control Board	Member
10.	Member Secretary, Rajasthan Pollution Control Board	Member
11.	Member Secretary, Uttar Pradesh Pollution Control Board	Member



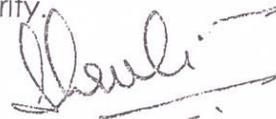
12.	Director, NEERI or his nominee	Member
13.	Representative, IIT, Delhi	Member
14.	Representative, TERI	Member
15.	Director / DS equivalent, MoEF&CC	Member
16.	Shri K.P Nyati, Ex-Head, Environment Management Division, CII	Expert Member
17.	Member Secretary, CPCB	Member Convener

3. The **terms of reference (ToR)** of the Committee will be as follows:

- i. Shall guide and review the utilization of EPC funds.
- ii. Shall ensure that EPC utilization is in accordance with General Financial Rules (GFR).
- iii. Advise on new areas for financing under EPC funds.
- iv. To issue any other directions or orders to the Committee for Appraisal and approval of projects and to CPCB.
- v. Preparation of annual accounts and audit of the accounts.
- vi. To prepare the Annual Report on its activities.

4. The TA/DA of non-official member (s) for attending the meeting of the Committee and sitting fee will be met by Ministry of Environment, Forest and Climate Change as per rules.

5. This issues with the concurrence of IFD vide Dy. No. 71399/US(IFD-I) dated 08.08.2017 and with the approval of the Competent Authority.



(Dr. Shruti Rai Bhardwaj)
Joint Director / Scientist 'D'

To,

- 1) Chairman and all the Members of the Steering Group
- 2) PPS to Secretary (EF&CC)
- 3) PPS to Additional Secretary (AKM), MoEF&CC
- 4) PS to Joint Secretary (CP), MoEF&CC
- 5) PS to Advisor (CP)

Copy for information to:

1. Website, MoEF&CC
2. DD (RNP)



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

Speed Post

F. No. B-33014/40/2018/AQM-EPC

July 25, 2022

The Director (CP Division),
Ministry of Environment, Forest & Climate Change,
Indira Paryavaran Bhawan,
Jorbagh Road, New Delhi - 110 003

Sub.: Inclusion of CAQM representative as member of steering Committee for utilization of EPC funds - Reg.

Sir,

This is in reference to minutes of 2nd meeting of Steering Committee for utilization of EPC funds held on dated 22.04.2022. In the meeting, Committee decided to include CAQM as a member of Steering Committee and Project Appraisal and Approval Committee (PAAC). Minutes of said meeting is enclosed for ready reference.

In this regard, Commission vide letter dated 28.06.2022 has nominated Shri Arvind Nautiyal, Member Secretary, CAQM as member of Steering Committee (copy enclosed).

Accordingly, it is kindly requested to issue office memorandum/order to include CAQM as member of Steering Committee.

Yours faithfully,

(P. K. Gupta)

Director and Divisional Head,
Air Quality Management

Encl.: As above



सत्यमेव जयते

राष्ट्रीय राजधानी क्षेत्र और विलंबवर्ती क्षेत्र
वायु गुणवत्ता प्रबंधन आयोग
Commission for Air Quality Management in
National Capital Region and
Adjoining Areas



F.No.-2020/1/2022-MERD-300 (NSB)

Dated: 28.06.2022

To,

Dr. Prashant Gargava
Member Secretary,
Central Pollution Control Board

Sub: Nomination of officials for Steering Committee and Project Appraisal and Approval Committee (PAAC) - reg.

Sir,

I am directed to refer to the CPCB letter dated 23.06.2022 on the subject cited above and to state that the Competent Authority in the Commission has nominated **Shri Arvind Nautiyal**, Member Secretary, CAQM as Member of the Steering Committee and **Shri Ram Kumar Agrawal**, Director (Technical), CAQM as Member of the PAAC.

Yours faithfully,

(N.S. Bisht)

Under Secretary, CAQM

nautiyal.singh@nic.in

011-23446814

Minutes of the meeting of Steering Committee on Utilization of EPC Fund held on 22.04.2022 at MoEF&CC

Second meeting of the Steering Committee for Utilization of Environment Protection Charge (EPC) funds was convened on April 22, 2022, under the chairpersonship of Ms. Leena Nandan, Secretary, MoEF&CC. The list of participants is enclosed at Annexure-I.

Member Convener welcomed the Chairperson and members of the committee. The committee was apprised about the thrust areas under which projects can be awarded for air quality management in Delhi-NCR. It was also informed that a total of 111 proposals have been received by CPCB out of which 109 proposals have already been considered and decided by PAAC in 23 meetings held so far and only 2 recently received proposals are to be considered/ decided. Out of 109 proposals, 28 proposals were approved while 75 were rejected and 06 proposals are under consideration. Further, as of April 19, 2022, Rs. 258.80 crore has been accrued in the EPC account, out of which approx. Rs 158.8 crore is available with CPCB for utilization, after considering the cost of sanctioned projects and associated committed expenditure. CPCB informed that it has made efforts for effective utilization of funds and has sought proposals for air quality management from SBCBs/PCC in Delhi-NCR along with ministries such as MoRTH, MoPNG and DHI.

Secretary, MoEF&CC expressed that utilization of EPC funds needs to be increased through amix of measures including on-ground mitigation measures.

Based on the discussions held, following decisions were taken in the meeting:

- Commission for Air Quality Management in National Capital Region and Adjoining Areas (CAQM) to seek proposals from ULBs and other land-owning agencies in Delhi-NCR, for greening/plantation drives and paving on roadsides, to reduce dust emissions, which is a major source of air pollution.
- CAQM to ask the concerned stakeholders, who had provided suggestions for air quality management during the recently conducted 'Dialogue towards Clean Air', to submit concrete proposals for air quality improvement in Delhi-NCR.

- MoPNG to consider execution of outreach cum awareness programme in Delhi-NCR and Punjab to inform farmers about the offtake of crop residue in CBG and 2-G Ethanol plants, and submit proposal in this regard to CPCB. Objective is to convey the message to the farmer that options are available for use of crop residue and its burning should be avoided.
- Delhi-NCR SPCBs/PCC to submit proposals for air quality improvement with specific outcomes to CPCB, on priority.
- CAQM to be included as a member of the Steering Committee & Project Appraisal and Approval Committee.

Meeting ended with vote of thanks to the Chair.



List:

1. Ms. Leena Nandan, Secretary, MoEF&CC
2. Sh. Tanmay Kumar, Chairman, CPCB
3. Sh. Naresh Pal Gangwar, Additional Secretary, MoEF&CC
4. Sh. Arvind Nautiyal, Member Secretary, CAQM
5. Sh. Sanjay Pandey, JS & FA, MoEF&CC
6. Dr. Prashant Gargava, Member Secretary, CPCB
7. Sh. Ved Prakash Mishra, Director, CP division, MoEF&CC
8. Sh. Kapil Verma, Director, MoPNG
9. Sh. RK Jaiswal, Development Officer, Ministry of Heavy Industries
10. Sh. PK Gupta, Scientist 'F', CPCB
11. Dr. SK Goyal, Chief Scientist & Head, CSIR-NEERI, Delhi
12. Dr. Dilip Ganguly, Associate Professor, IIT Delhi
13. Dr. Arindam Dutta, Senior Fellow, TERI
14. Sh. Satinder Pal, SFF, HSPCB
15. Sh. Utsav Sharma, Regional Officer, UPPCB
16. Sh. Ankush Tewani, Scientist 'D', CPCB

Minutes of the 22th meeting of Project Appraisal & Approval Committee (PAAC-EPC)

The 22nd meeting of the PAAC-EPC, chaired by Chairman, CPCB, was held on August 24, 2021 via video conferencing. List of participants is placed at Annexure - I.

02. Chairman, CPCB welcomed the members to the meeting. AQM division briefed the committee members about background and purpose of EPC funds, including core areas under which project and activities can be funded, committees constituted for its management, and their terms of reference (ToR). Subsequently, the committee was briefed about the status of EPC funds and proposals. Rs. 222.97 crore have been received in the EPC fund account as on 20.07.2021. A total of 109 proposals have been received, of which 85 proposals have been placed before the committee and have been evaluated, and 24 proposals are to be placed before the committee and that these will be placed for consideration in the present meeting. Out of the 85 proposals, the committee has sanctioned 28 projects and 32 proposals have been rejected. Out of the 25 balance proposals, 13 proposals are to be discussed and decided in the present meeting, 7 proposals will be placed before the PAAC in the next meeting and the remaining 5 proposals will be placed for discussion once inputs/comments are received from external department/proponent.

03. Subsequently, AQM division apprised the committee about the agenda of the meeting involving presentation on final findings of one project, consideration of one fresh proposal, two proposals referred to sub-committee and 23 proposals examined by the internal sub-committee and, 13 other proposals evaluated/examined earlier by PAAC and final decision to be taken on rejection/consideration of these proposals. The observations and decisions of the committee are summarized below:

A. Decision Support System for Early Warning, and Informed Actions in Delhi-NCR- Proposal of IIT Delhi received through CAQM

Dr. Harsh Kota, IIT Delhi presented the proposal before PAAC along with other co-investigators from NEERI, C-DAC, IITM and IMD. The aim of the project proposal is to develop an interactive, intelligent expert system for planning and implementing air pollution mitigation measures for policy and operational governance in Delhi-NCR. The cost of the proposal was informed to be ₹97.70 lakhs excluding GST and costs regarding operational computation cost and server requirement, for 1-year duration. There are four major components



of the proposal viz. Physical component (Emission Inventory), Chemical component (Primary and secondary pollutants using chemical transport model), Engineering component (Emphasize on Source specific interventions) and Interactive user interface and dissemination component. The committee expressed that the proposal has been forwarded by Commission for Air Quality Management in Delhi-NCR and Adjoining Areas (CAQM) and the system/tool developed in the project will be utilized by it for informed decision making regarding measures to be taken for Delhi-NCR, and thus it has to fulfill the requirements of CAQM and, enquired whether review of proposal has been done by CAQM. Further, since there are already tools and data available such as primary emission data, emission inventory, SAFAR EWS, etc., whether these will be utilized to eliminate duplication of work. PI informed that already available tools, data will be used and will be further updated for use in the DSS model, to get the best outcome. PI further briefed that the proposal has been reviewed by CAQM and accordingly recommended for consideration and funding to CPCB.

PAAC emphasized that the DSS should be developed under complete guidance of CAQM since it is to be operated on a daily basis by CAQM. The PAAC approved the project in-principle and advised the PI to submit the proposal along with the revised cost including server cost and recurring cost for operation of this tool for 3 years, to CAQM and, CAQM shall forward the revised proposal along with its recommendation. Subsequently, the funds will be sanctioned by PAAC and shall be transferred to CAQM for the project.

B. 25 old/new proposals discussed in sub-committee:

Recommendations of the CPCB sub-committee on 21 proposals were already shared with PAAC members for their consideration. The sub-committee had recommended rejection of these 21 proposals.

After discussions, following 21 proposals were rejected by the PAAC due to lack of details/lack of utility/non-conformity with EPC core areas/repetition or duplication of work:

- i. **To develop a device for pollution control by vehicular emission by Sh. Baldev Raj**
- ii. **TREE PLANTATION in different places Delhi NCR by Sh. Ghanshyam Datta Bhardwaj**
- iii. **Development of an Infrastructure for advanced air quality analytics for Delhi-NCR by IIT Bombay:** PAAC expressed that the aspect of improved AOD measurement as proposed by the PI i.e. by modification and corrections of artifacts in AOD data caused by surface reflectance values, may be considered in satellite based PM_{2.5} study already underway by Prof. Sagnik Dey, IIT Delhi.

- iv. Spatio-temporal Analysis of Air-pollution Data (Delhi) for decision making and improved lifestyle management by Pondicherry University
- v. Improving Air Quality using Decentralize Waste management by Shudh Sustainable Solutions
- vi. Scalable air pollution measurement in Delhi-NCR using vehicle mounted and wearable sensors management by IIIT Delhi
- vii. Feasibility of using Real-Time Low-Cost PM_{2.5} "Atoms" Monitor with CPCB Ambient Monitoring Network by IIT Kanpur
- viii. Assessment of Real World Vehicle Emission by Ms. Radhika
- ix. Air Pollution Reduction from Brick Kilns: Techno-socio-economic analysis of options by Integrated Research and Action for Development
- x. Development of Digital Application (App) for estimating disease burden benefits from adoption of improved technologies for Delhi by TERI
- xi. Development of traffic management plan for Ludhiana city by Punjab State Council for Science & Technology
- xii. Atmospheric Brown Carbon in Delhi: Identifier of different biomass burning sources, and its implication for radioactive forcing and visibility impairment by JNU Delhi
- xiii. Green Hack-a-thon: For innovative solutions to prevent and protect harm from air pollution by TERI
- xiv. Effect of air pollution on the health of workers at roadside eateries in Delhi & NCR area & its mitigation strategy by Amity University, Jaipur
- xv. Air pollution and inflammatory response: Airborne biological particle diversity and characterization in urban areas of North Indian Cities by NITK Surathkal
- xvi. Does poor ambient air quality adversely affect biomarkers in outdoor workers by TERI
- xvii. Performance and emission characteristics of a vehicle fueled with compressed biogas (CBG) by IIT Delhi
- xviii. Improve and maintain the overall Air Quality Index by reducing particulate pollutants like PM_{2.5} and PM₁₀ by minimum of 20% by Devic Earth Pvt. Ltd., Bangalore
- xix. Cost saving from implementation of tradable market permit market for PM_{2.5} in Industrial hotspot by TERI-SAS

- xx. **Development of integrated multi-functional electric pole for reduction of air pollutants emanating from automobiles on roads of metropolitan cities by NIT Warangal**
- xxi. **Design of low cost filters for separation of particulate matter and toxic gas from air by IIT Delhi**

04 projects were considered by PAAC for further examination and discussions on the same are summarized below:

- i. **Demonstration of utilizing high cetane Green Diesel (produced through hydro processing of vegetable oil by CSIR-IIP's patented technology) in stationary and vehicular engines by CSIR-IIP:** CPCB sub-committee had recommended to obtain comments from MoRTH, MoPNG, ARAI and SIAM. PAAC was informed that comments have been received from MoRTH, MoPNG and ARAI, and that these have recommended that the proposal may not be considered for funding in the present form. PAAC recommended that the comments received may be shared with the PI and the proposal may be rejected in the present form. PI may consider submission of fresh proposal considering the comments.
- ii. **PM Related Burden of Disease in India Study (PRELUDE) by IIT Delhi:** The proposal aims to study association between PM, mortality and multi-system morbidity, associated with respiratory, cardio-metabolic and neuro-psychiatric disorders, in Delhi and Mysore city (control site). PAAC observed that it had already approved in-principle, a cohort study proposal related with cardio-metabolic disorders, received from IIT Delhi. Since this new proposal is more comprehensive and covers additional health aspects related to PM, both the PIs can jointly submit an integrated proposal for consideration of PAAC.
- iii. **Spatial variation and diversity of airborne biological particles in Delhi city by NITK Surathkal:** The proposal aims to do measurement and characterization of biological components (bacterial and fungal) in airborne particulate matter (PM_{2.5} and PM₁₀) and assess relationship between inflammation and biological components besides source tracking of airborne biological particles. PAAC agreed with the views and recommendation of sub-committee that the proposal apparently may open a new arena of expanding knowledge on airborne bacterial and fungal presence and their in-vitro reactivity on inflammatory/ respiratory diseases and immune system. PAAC

accordingly recommended that the proponent may be invited in the next meeting for presenting the proposal before the PAAC.

- xxii. **Artificial Neural Network (ANN) Based Prediction System Integrated with SENSurAIR PM_{2.5} Sensor by IIT Delhi:** The proposal aims to do field calibration of sensors recently developed under DST funds and deploy these to generate PM_{2.5} data, and, further develop ML algorithm for PM_{2.5} concentration prediction using one year collected data. PAAC expressed that the proposal is a novel attempt at validating indigenously developed sensors on which funds have already been expended by DST. Accordingly, PAAC recommended that the proponent may be invited in the next meeting for further discussions on the project.

C. Proposals apprised previously and to be rejected by PAAC (based on external department/experts feedback):

12 proposals which were discussed previously in the sub-committee/PAAC, were deliberated upon in the meeting and were rejected by the PAAC on grounds of non-submission of revised proposal within prescribed timelines/ repetition or duplication of work/ non-recommendation from External departments or line ministries. List of the 12 proposals rejected by PAAC is given as under:

- i. **Monitoring and analyzing how buildings breathe an IoT and AI based solution for monitoring, analyzing and advising on indoor air pollution by CSIR-CIO**
- ii. **Conducting studies and making recommendations to the CPCB regarding the strengthening of its powers and streamlining of its functions in light of its perceived role among various stakeholders, thereby fulfilling its score objective of managing air quality in Delhi-NCR by VIDHI Centre for Legal Policy**
- iii. **Investigations into mass and chemical characterization of fugitive dusts and setting up environmental guidelines for control of these emissions in Delhi-NCR (In-principle approved) by IIT Kanpur**
- iv. **Study of vehicular noise emission and noise mapping over Delhi-NCR by CSIR-NPL**
- v. **Develop a mesh network of smart pollution detection, reporting and cleaning system by Bharti School of Telecommunication Technology and Management, IIT Delhi**



- vi. Development of Stabilized Zirconia-based Highly Sensitive and Selective Exhaust Gas Sensors for Implementation in Urea-SCR DeNOx Vehicular-Emission Control System by Pondicherry University
- vii. Carrying out assessment of source emission profile of various make of in use diesel engines of vehicles as well as DG equipment and Studying the effect of specific fuel additives for on-road engine performance for pollution level by Eeshan Biotech
- viii. The Development and Usage of Pyrotechnic Devices for Cloud Seeding to Fight Delhi-NCR Winter Smog M/s Sri Kaliswari Fireworks Pvt. Ltd.
- ix. Cleaner Technologies for Industrial Pollution Control in Delhi by National Institute of Industrial Engineering
- x. Measurement of performance and emission characteristics of biodiesel, alcohols and peroxide blends in diesel engines by IIT Roorkee
- xi. Cloud seeding in Delhi region for creating artificial rains (In-principle approved) by IIT Kanpur: The PAAC expressed that the project is not required at present, and as and when required, CPCB would contact the PI.
- xii. Micro scale air pollutant dispersion modeling for forecasting & management of air quality by Fluidyn Consultancy Private Limited

D. Air Quality Management through Big Data, Machine Learning and AQI Predictive Modelling approaches applied towards assessing, estimating and predicting pollution levels in Delhi-NCR (In-principle approved) by Kam Kanakdurga Education & Consultancy Services Pvt. Ltd.:

PAAC in its 21st meeting had made following observations regarding this proposal-

- Comparison with proposed DSS being developed by CAQM
- Conformity of award of projects to private agencies under GFR
- Response of M/s KKD on the project cost proposed by CPCB committee

PAAC was apprised that the projects by CAQM and M/s KKD are based on different approach, and that selection by direct negotiation/nomination, on the lines of single tender mode of procurement of goods, can be considered under exceptional circumstances mentioned under GFR Rule 194 but, M/s KKD has not agreed to the cost proposed by CPCB.

The PAAC further expressed that the DSS being considered for funding by PAAC is more comprehensive, and accordingly, this proposal may be rejected.



E. Does Poor Air Quality from Crop burning in close proximity to residential areas adversely affects Children's respiratory health:

The PAAC was informed that the project was awarded to TERI in November 2018 at a cost of ₹50.197 lakhs plus taxes, and was discussed in the 20th PAAC-EPC meeting, where it was recommended to forward the final report along with the findings and recommendations to DST for examination and comments. The same was discussed by a DST appointed expert panel in its meeting held on 04.11.2020 and the panel had suggested to incorporate certain points in the final report and submit a white paper highlighting the study outcomes and data that can be utilised by policy makers. The report and the whitepaper were subsequently submitted by the PI and the whitepaper was also shared with the PAAC members for consideration/concurrence. The study has been completed as per the MOU and the final instalment is to be released on acceptance of findings of the project by PAAC.

Dr. Meena Sehgal, the PI along with her colleagues presented the final findings of the project. The study, conducted with 3644 participants having age between 10-60 years, strengthens the evidence on association between PM_{2.5} exposure due to crop residue burning and poor respiratory health with increased respiratory symptoms and compromised lung function with the highest number of respiratory complaints reported by the elderly population (>40-60 y) and the lowest by the young population (>18-40 y) during crop burning period. The study observed 11-15% decline in lung function based on LFT parameters (FEV1, FVC and PEF) with increase in PM_{2.5} concentration (per 100 µg/m³) during crop residue burning period, and that the youngest age group (>10-18 y) has the highest risk of reduction in lung function as compared to the other age categories (>18-40y and >40-60 y) both for male and female groups.

After discussions, PAAC accepted the findings of the project and recommended to release the final instalment. PAAC asked the PI to submit a brief write-up on health implication of crop residue burning for considering including its dissemination through IEC activities conducted by state governments.

04. Chairman, CPCB expressed that most of the proposals submitted for consideration under EPC funds are in the nature of research work, a number of such studies have already been completed while only a few studies for on-ground implementation/demonstration of tangible interventions/measures have been received so far. Dr. P.K. Banerjee, SIAM agreed to



the same. Submission of proposals seeking to encourage micro-level air quality management may be encouraged, such as development of a small model zone/area in Delhi where on-ground measures may be undertaken to reduce dust, traffic congestion, management of municipal solid waste, etc., which could subsequently be replicated by MCDs and other local bodies. PAAC recommended that proposals, intended for on-ground mitigation and management of air pollution, should be invited from SPCBs, ULBs, technical institutions, etc.

Meeting ended with vote of thanks to the chair.



List of Participants (through VC):

1. Sh. Naresh Pal Gangwar, Chairman, Central Pollution Control Board
2. Dr. Prashant Gargava, Member Secretary, Central Pollution Control Board
3. Sh. Sunil Kumar, Joint Secretary (Ref.), MoPNG
4. Dr. V.K. Soni, Head EMRC, IMD
5. Sh. R. K. Jaiswal, Development officer, DHI
6. Sh. M. P. George, Scientist 'D', DPCC
7. Dr. Kiran Kumar, Scientist 'C', DST
8. Sh. P. K. Banerjee, Executive Director, SIAM
9. Dr. Rashid Hasan, Advisor, SIAM
10. Sh. Vivek Goyal, RO- Bhiwadi, RSPCB
11. Sh. Praveen Kumar, RO- Noida, UPPCB
12. Representative, RO- Greater Noida, UPPCB
13. Representative, RO- Ghaziabad, UPPCB
14. Representative, RO- Gurugram, HSPCB

List of Proponents (through VC):

1. Dr. Harsha Kota, IIT Delhi
2. Sh. Sunil Gulia, NEERI
3. Dr. Manoj Khare, C-DAC
4. Dr. Sachin Ghude, IITM
5. Dr. Meena Sehgal, Fellow, TERI
6. Dr. Kanhaiya Lal, TERI
7. Ms. Mahima Uttreja, TERI

CPCB Officials:

1. Sh. P. K. Gupta, Sc. 'E' and Head, AQM Division
2. Sh. Abhijit Pathak, Scientist 'D', Air Lab
3. Sh. Sharandeep Singh, Scientist 'D', AQM Division
4. Sh. AnkushTewani, Scientist 'D', AQM Division
5. Sh. Gautam Kumar Sharma, Scientist 'B', AQM Division
6. Sh. Toshesh Bhargava, SRF, AQM Division
7. Sh. Rajendra, SA, IT Division

Minutes of the meeting of Steering Committee on Utilization of EPC Fund held on 22.04.2022 at MoEF&CC

Second meeting of the Steering Committee for Utilization of Environment Protection Charge (EPC) funds was convened on April 22, 2022, under the chairpersonship of Ms. Leena Nandan, Secretary, MoEF&CC. The list of participants is enclosed at Annexure-I.

Member Convener welcomed the Chairperson and members of the committee. The committee was apprised about the thrust areas under which projects can be awarded for air quality management in Delhi-NCR. It was also informed that a total of 111 proposals have been received by CPCB out of which 109 proposals have already been considered and decided by PAAC in 23 meetings held so far and only 2 recently received proposals are to be considered/ decided. Out of 109 proposals, 28 proposals were approved while 75 were rejected and 06 proposals are under consideration. Further, as of April 19, 2022, Rs. 258.80 crore has been accrued in the EPC account, out of which approx. Rs 158.8 crore is available with CPCB for utilization, after considering the cost of sanctioned projects and associated committed expenditure. CPCB informed that it has made efforts for effective utilization of funds and has sought proposals for air quality management from SBCBs/PCC in Delhi-NCR along with ministries such as MoRTH, MoPNG and DHI.

Secretary, MoEF&CC expressed that utilization of EPC funds needs to be increased through a mix of measures including on-ground mitigation measures.

Based on the discussions held, following decisions were taken in the meeting:

- Commission for Air Quality Management in National Capital Region and Adjoining Areas (CAQM) to seek proposals from ULBs and other land-owning agencies in Delhi-NCR, for greening/plantation drives and paving on roadsides, to reduce dust emissions, which is a major source of air pollution.
- CAQM to ask the concerned stakeholders, who had provided suggestions for air quality management during the recently conducted 'Dialogue towards Clean Air', to submit concrete proposals for air quality improvement in Delhi-NCR.



- MoPNG to consider execution of outreach cum awareness programme in Delhi-NCR and Punjab to inform farmers about the offtake of crop residue in CBG and 2-G Ethanol plants, and submit proposal in this regard to CPCB. Objective is to convey the message to the farmer that options are available for use of crop residue and its burning should be avoided.
- Delhi-NCR SPCBs/PCC to submit proposals for air quality improvement with specific outcomes to CPCB, on priority.
- CAQM to be included as a member of the Steering Committee & Project Appraisal and Approval Committee.

Meeting ended with vote of thanks to the Chair.



List:

1. Ms. Leena Nandan, Secretary, MoEF&CC
2. Sh. Tanmay Kumar, Chairman, CPCB
3. Sh. Naresh Pal Gangwar, Additional Secretary, MoEF&CC
4. Sh. Arvind Nautiyal, Member Secretary, CAQM
5. Sh. Sanjay Pandey, JS & FA, MoEF&CC
6. Dr. Prashant Gargava, Member Secretary, CPCB
7. Sh. Ved Prakash Mishra, Director, CP division, MoEF&CC
8. Sh. Kapil Verma, Director, MoPNG
9. Sh. RK Jaiswal, Development Officer, Ministry of Heavy Industries
10. Sh. PK Gupta, Scientist 'F', CPCB
11. Dr. SK Goyal, Chief Scientist & Head, CSIR-NEERI, Delhi
12. Dr. Dilip Ganguly, Associate Professor, IIT Delhi
13. Dr. Arindam Dutta, Senior Fellow, TERI
14. Sh. Satinder Pal, SEE, HSPCB
15. Sh. Utsav Sharma, Regional Officer, UPPCB
16. Sh. Ankush Tewani, Scientist 'D', CPCB

Minutes of the steering committee meeting held on 03-10-2022 chaired by Secretary, EF&CC to review the EPC Fund.

Ms. Leena Nandan, Secretary (EF&CC) chaired the Steering Committee meeting on utilization of Environment Protection Charges (EPC) funds on **03.10.2022 at 05:00 PM** in Kaveri Hall, Indira Paryavaran Bhawan, Ministry of Environment and Climate Change: List of participants is at Annexure.

- i. Action taken on the decisions taken in the last meeting of the Steering Committee held on 22.04.2022.**
- ii. Progress on the proposals received from various Urban Local Bodies (ULBs) after the meeting held on 02.08.2022 under the Chairmanship of Shri Naresh Pal Gangwar, Addl. Secretary, MoEF&CC.**
- iii. Consideration of proposed scheme for the use of Environment Protection Charge (EPC) fund for capital subsidy grant to palletization/ torrefication plants.**
- iv. Other proposals for utilisation of the EPC Fund.**

2. Dr. Prashant Gargava, Member Secretary, CPCB made a detailed presentation on the actions taken by the CPCB with respect to **the decisions taken in the last meeting of the steering committee held on 22.04.2022 and progress on the proposals received from various Urban Local Bodies (ULBs) after the meeting held on 02.08.2022 under the Chairmanship of Shri Naresh Pal Gangwar, Addl. Secretary, MoEF&CC.** The following points were highlighted:

- i. About Rs. 113 cr are available in EPC fund after taking into consideration the disbursed and committed amounts .**
- ii. Eol and format for submission of proposals was placed in public domain and circulated to Academic Institutions, SPCBs/ULBs of NCR.**
- iii. CPCB conducted meeting with SPCBs/PCCs of Delhi NCR for inviting proposals for on-ground mitigation of air pollution to be funded from the EPC fund. CPCB also invited proposals from the concerned Ministries (MoRTH, MoPNG and DHI) apart from ULBs of NCR.**
- iv. CPCB informed that air pollution mitigation proposals submitted by Municipal Corporation, Ghaziabad, Municipal Corporation Delhi and UPPCB would be considered by PAAC on 06-10-2022.**
- v. CPCB presented its proposal for the use of EPC funds for one time capital subsidy grant to palletisation/torrefication units. The project is for those units which will use stubble generated in the NCT of Delhi, States of Punjab & Haryana, and NCR districts of Rajasthan & Uttar Pradesh**
- vi. A project work flow was also presented by the CPCB :**
 - a. Applicant submits application to SPCB/PCC with necessary documentation (CTE, Land possession letter/lease agreement, agreement with farmers, etc.)**

- b. SPCB/PCC examines the application and if recommended, forwards the application to CPCB within 15 days.
 - c. Application evaluated by a committee, constituted by CPCB, within 15 days
 - d. If recommended by committee, funds released by CPCB to SPCB/PCC within 15 days
 - e. Applicant submits Bank Guarantee to SPCB/PCC and SPCB/PCC to release the funds to the applicant within 15 days
 - f. Applicant to make the plant operational within three months of transfer of fund.
 - viii. **Grant to Municipal corporations/councils located in NCR districts of Haryana nearby Delhi was also discussed for implementation of air pollution mitigation measures.**
3. **Upon deliberation, the following decisions were taken:**
- a. **Greening and paving and other pollution mitigation activities (anti-smog guns, greening/paving, mechanical dust sweepers, road works etc) not covered under any other scheme may be considered for sanction under EPC fund. The identified hot spots may be accorded priority while sanctioning funds from EPC fund.**
 - b. **Fund be provided for Installation of Retro-fitted Emission Control Devices (RECD) in DG sets used in Government hospitals in Delhi-NCR .**
 - c. **The guidelines for grant of capital subsidy to palletization/torrefication units as proposed by CPCB were approved. Rs. 50 cr would be earmarked for this purpose.**

The meeting ended with a vote of thanks.



राष्ट्रीय राजधानी क्षेत्र और निकटवर्ती क्षेत्र
वायु गुणवत्ता प्रबंधन आयोग
Commission for Air Quality Management in
National Capital Region and
Adjoining Areas



F.No.-2020/1/2022-MERD/309(DT)

Dated: 19.09.2022

To

The Member Secretary, CPCB
Parivesh Bhawan, East Arjun Nagar,
Delhi-110032

Subject: Proposals from ULBs on projects for utilization of Environment Protection Charge (EPC) fund- reg.

Sir,

This refers to the meeting of the Steering Committee held on 22nd April, 2022 under the chairpersonship of Secretary EFCC regarding the utilization of EPC funds, whereby the said funds with CPCB may also be utilized for field level implementation of projects for the abatement of air pollution in NCR and the MoEFCC letter dated 15th September, 2022 regarding the meeting held on 02.08.2022 at Indira Paryawaran Bhawan under the chairmanship of Sh. Naresh Pal Gangwar, Additional Secretary, MoEFCC, wherein it was decided that CAQM will scrutinize all the proposals of ULBs received and recommend them to Project Appraisal and Approval Committee (PAAC) Committee of CPCB.

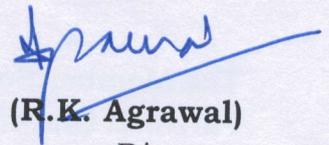
2. The Commission has so far received proposals only from Municipal Corporation of Ghaziabad including proposals for a) Kavi Nagar Zone, Bulandshahr Road and Loha Mandi b) Vasundhara Zone, Sahibabad c) Amrita Steel, City Zone d) Vijay Nagar Zone, South Side e) Mohan Nagar Zone, totaling to 37 proposals vide their letter dated 18.08.2022.

3. The proposals received are mainly for paving/tiling of roads, road repair/construction and drainage improvement. On examination of the proposals, 9 nos. of road maintenance/construction proposals (details of

which are enclosed at **Annexure I**) under the aforesaid zones, directed towards infrastructure upgrade could better lead to open areas and road dust management and Air Quality improvement and may be considered for grant under the EPC fund scheme of CPCB.

Enclosed: as above

Yours faithfully,



(R.K. Agrawal)

Director

Tel 011-23701207

rk.agrawal69@gov.in

Copy To:

Additional Secretary, CP Division, MoEFCC, for information.

परियोजनाओं का संक्षिप्त विवरण

क्रम सं०	जोन	कार्य का नाम	सड़क की लम्बाई	आगणन धनराशि (लाख में)
1	कविनगर	वार्ड 24, बुलंदशहर रोड एण्ड० एरिया में रोड नं०-02 पर सी०-219 व सी०-216 के सामने आर० सी० सी० द्वारा पैच का कार्य।	120.00	61.61
2	विजय नगर	विजय नगर जोन के अन्तर्गत वार्ड -25 इंडस्ट्रियल एरिया में राठी रोड से सारा एकसपोर्ट तक सड़क का चौड़ी करण कर डेंस द्वारा सड़क सुधार कार्य तथा साइड पटरी का इंटरलॉकिंग टाइल्स लगाने का कार्य।	1210.00	199.32
3	विजय नगर	वार्ड-25 इंडस्ट्रियल एरिया में एन . एच -०9 से (राठी रोड) शराब ठेका कोटगांव फाटक के पास तक क्षतिग्रस्त सड़क का डेंस द्वारा सुधार का कार्य।	795	59.96
4	वसुन्धरा	वसुन्धरा जोन के अन्तर्गत साहिबाबाद औद्योगिक क्षेत्र साईट 4 में प्लॉट सं० डी-32 से सी-18 तक क्षतिग्रस्त सड़क का आर.सी.सी. एवं साईट पटरी का इंटरलॉकिंग टाइल्स द्वारा सुधार कार्य।	650.00 मी.	302.73
5	वसुन्धरा	वसुन्धरा जोन के अन्तर्गत साहिबाबाद औद्योगिक क्षेत्र साईट 4 में प्लॉट सं० सी-18 से यदु गैस एजेन्सी तक क्षतिग्रस्त सड़क का आर.सी.सी. एवं साईट पटरी का इंटरलॉकिंग टाइल्स द्वारा सुधार कार्य।	240.00 मी.	111.77
6	वसुन्धरा	वसुन्धरा जोन के अन्तर्गत साहिबाबाद औद्योगिक क्षेत्र साईट 4 में प्लॉट सं० 46/3 से 51/2 (एस. आर.बी.सी. मशीन कम्पनी से अमृता स्टील) तक क्षतिग्रस्त सड़क का आर.सी.सी. एवं साईट पटरी का इंटरलॉकिंग टाइल्स द्वारा सुधार कार्य।	1005.00 मी.	468.06
7	वसुन्धरा	वसुन्धरा जोन के अन्तर्गत साहिबाबाद औद्योगिक क्षेत्र साईट 4 में प्लॉट सं० 35ए /2 से 40ए/1 (आर.एम.सी.प्लॉट से सम्पल लेजिस्टिक कम्पौंड नं०-52, दिल्ली प्रेस रास्ता) तक क्षतिग्रस्त सड़क का आर.सी.सी. एवं साईट पटरी का इंटरलॉकिंग टाइल द्वारा सुधार कार्य।	535.00 मी.	249.17
8	वसुन्धरा	वसुन्धरा जोन के अन्तर्गत साहिबाबाद औद्योगिक क्षेत्र साईट 4 में प्लॉट सं०-52 से 37 (अपट्रान पावर ट्रोनिक्स लिमिटेड वाले मार्ग)तक क्षतिग्रस्त सड़क का	280.00 मी.	167.67

		आर.सी.सी. एवं साईट पटरी का इंटरलॉकिंग टाइल द्वारा सुधार कार्य।		
9	वसुन्धरा	वसुन्धरा जोन के अन्तर्गत साहिबाबाद औद्योगिक क्षेत्र साईट 4 में प्लॉट सं० सी-5 से सी-13 (श्रीट्रान पावर ट्रोनिक्स लिमिटेड वाला मार्ग)तक क्षतिग्रस्त सड़क का आर.सी.सी. एवं साईट पटरी का इंटरलॉकिंग टाइल द्वारा सुधार कार्य।	360.00 मी.	158.34
योग			लाख	1,778.63

Minutes of the 24th meeting of Project Appraisal & Approval Committee (PAAC-EPC) and 9th meeting of the Advisory Committee, constituted for Smog Tower project

The 24th meeting of the PAAC-EPC and the 9th meeting of the advisory committee for the smog tower project, chaired by Chairman, CPCB, was jointly held on October 06, 2022 via video conferencing. List of participants is placed at Annexure - I.

02. MS, CPCB welcomed the members of the PAAC and the advisory committee, along with the invitees to the meeting. Members of the technical group also participated in the meeting. AQM division briefed the committee about background and purpose of EPC funds, including thrust areas under which project and activities are funded. Subsequently, the committee was briefed about the status of EPC funds and proposals received for consideration at CPCB under said funds. Rs. 283.39 crore has been received in the EPC fund account as on 01.10.2022, out of which Rs. 71.36 crore has been expended with a total committed expenditure of around Rs. 100 crore.

03. A total of 130 proposals have been received, out of which 109 proposals have been placed before the committee. Out of 109 proposals, 28 projects have been sanctioned by the committee and 75 proposals have been rejected, while 5 proposals are under consideration of TG and 1 proposal is to be placed before the PAAC for taking a decision. Out of remaining 21 proposals, 8 proposals have recently been discussed in Technical Group (TG), 8 proposals are to be placed before Technical Group after comments are received from concerned ministries/departments, 1 proposal is ready to be placed before TG on which comments have been received and 4 proposals on which views of CAQM have been received are to be placed before the PAAC for taking a decision.

04. Subsequently, AQM division apprised the committee about the agenda of the meeting, involving deliberations and taking decision on 2 proposals having recommendations of TG, 4 proposals from ULBs/SPCC which have been examined by CAQM and recommendations shared with CPCB and, CPCB guidelines for grant of one-time financial support for setting up of pelletisation and torrefaction plants to promote utilization of paddy straw. The agenda also included a detailed presentation on the Smog Tower project and results of the one-year performance evaluation study conducted by IIT Bombay. The observation and decisions of the committee are summarized below:

A. 04 infrastructure upgrade/maintenance proposals from ULBs/SPCB:

PAAC members were briefed that in the 2nd meeting of the Steering Committee on EPC funds held on 22.04.2022, it was expressed that CAQM may seek proposals from ULBs and other land-owning agencies in Delhi-NCR, for greening/plantation drives and paving on roadsides to reduce dust emissions which may be considered for funding under EPC funds. Subsequently, it was also decided that CAQM will scrutinise the proposals received and recommend them to PAAC for funding under EPC funds, on basis of priority. In this regards, recommendations on 04 proposals have been received from CAQM. Deliberations on the proposals are summarised below:

- i. **Proposal for road maintenance/construction submitted by Ghaziabad Municipal Corporation (GMC):** GMC had submitted proposal for 37 nos. of roads for construction/maintenance out of which CAQM has recommended 9 nos. of roads, at a cost of Rs. 17.78 crore. Proposal was further discussed and it was decided that the road stretch from Rathi road to Sara export in Vijay Nagar zone (ward-25) may not be considered in the present case, as there are other more important roads in terms of traffic volume and dust emissions. PAAC member enquired if road construction activities can be funded under EPC funds. Chairman, PAAC expressed that this funding is a one-time measure and is not to be construed as budgetary support. For regular maintenance of roads, municipal bodies must look at developing their own revenue sources by involving other stakeholders including industries. CPCB further informed that EPC funds are meant to be utilised for improvement of air quality in Delhi-NCR and road dust is one of the major contributors to air pollution in Delhi-NCR, and, that the Steering Committee had also granted its approval to seek proposals from ULBs and road-owning agencies, for reducing dust emissions. **Activities not considered under any other scheme may be considered for sanction under EPC fund.**

PAAC in-principle approved the works for 8 nos. of roads at a cost of Rs. 15.79 crore. PAAC also expressed that GMC may submit its proposal to CAQM for other road stretches which are to be taken up on priority. Further, Ghaziabad Municipal Corporation will give a certificate that there is no separate scheme for funding construction/maintenance of industrial area roads. It was decided that funds will be released in two instalments: 50% would be released after issue of work order and remaining 50% after completion of works. GMC would submit documentation clearly indicating before and after scenarios of the road stretch, for release of final instalment.

Ghaziabad Municipal Commissioner would ensure that the sanctioned funds are not used for salaries or regular maintenance work or other such revenue expenditure. The work should be awarded following due tendering process and Municipal Corporation to ensure compliance of construction quality norms.

- ii. **Proposal for reducing road dust emission in NCR-UP submitted by UPPCB:** UPPCB submitted proposal for funding for road Works (Ghaziabad district), road dust control (anti-smog gun, mechanized sweeping machines for all districts including Loni) studies and capacity building, after consolidating requirements from ULBs of NCR districts of U.P. CAQM has recommended 37 nos. of machines (16 Mechanical Road Sweeping Machines (MRSM), 11 Truck Mounted Water Sprinklers and 10 Anti-smog Guns) for funding. PAAC expressed that Truck Mounted Water Sprinklers would not be considered for funding, due to limited effectiveness. PAAC in-principle approved procurement of 16 nos. of MRSM and 10 nos. of anti-smog guns, recommended by CAQM, at a capital cost of Rs. 14.33 crore. Further, UPPCB will give a certificate that there is no separate scheme for funding mechanical sweepers and anti-smog guns to avoid funding for the same items from multiple sources. PAAC suggested that equipment should be procured along with O&M for 5 years and O&M cost to be borne by State Govt.
- iii. **Proposal for road maintenance/construction submitted by Municipal Corporation of Delhi (MCD):** Proposal was submitted by MCD to CAQM for maintenance/construction/tiling/paving of 308 nos. of roads, out of which CAQM has recommended funding for 82 nos. of roads, at a cost of Rs. 32.67 crore. PAAC suggested that proposal may again be examined by CAQM for considering the priority roads. PAAC enquired about source of funding road construction/ maintenance works being executed by Municipal Corporation. MCD representative informed that their primary source of funding for road construction/ maintenance is from non-plan funds and Urban Development Fund of Central Government. A number of proposals were submitted for funding under UDF and only few proposals got approved. Chief Engineer, MCD mentioned that these roads may be funded in view of the shortage of funds. PAAC expressed that this may be examined by CAQM and would be considered after their recommendations.



- iv. **Proposal for greenery in parks and municipal schools submitted by Municipal Corporation of Delhi (MCD):** A proposal was submitted by MCD for development of urban forests in 7 areas and plantation in Municipal schools. CAQM has not recommended the proposal, stating that greening/plantation could be better funded through the enabling provisions under various bodies/agencies of GNCTD for a comprehensive plantation programme. In view of CAQM's recommendation, PAAC decided that the proposal may be rejected.

B. 02 proposals discussed in Technical Group under PAAC:

Observations made by the Technical Group on 02 proposals examined by it were discussed during the meeting and deliberations of PAAC are summarised below:

- i. **Heavy Duty vehicle fuel consumption calculation and validation through vehicle simulation tool by ARAI:** PAAC was briefed that project was already approved in-principle in the 23rd meeting and it was suggested to forward the proposal to the technical group for examination w.r.t cost and technical part. DST had also approved the proposal earlier. The technical group examined the proposal and had recommended the cost of the proposal may be reduced by 40% and same has been agreed by ARAI. The cost of project has come down from Rs. 4.25 crore (+ GST) to Rs. 2.55 crore (+GST). Further, ARAI has added a new element in the project about development of specific drive cycles for bus, LCV and ICV/MCV for Delhi-NCR besides development of simulation based FC calculation methodology.

ARAI mentioned that the cost reduction has no impact on the project scope, activities and deliverables. SIAM suggested that ARAI can consider handholding of OEMs, and it is willing to support ARAI efforts in the proposal. PAAC expressed that ARAI, OEMs and SIAM should work together on this project. PAAC approved the final proposal and sanction of Rs. 2.55 crore plus GST from EPC funds for the project to ARAI.

- ii. **Development of Personalized Face Mask with Highly Efficient Functionalized & Replaceable Filter Media submitted by NIFT, Kolkata:** PAAC was informed that the proponent aims to develop a face mask to not only capture Particulate Matter but also gaseous pollutants. The proposal was discussed in the 2nd meeting of the Technical

Group, and the TG had recommended rejection of the proposal in view of lack of clarity on certain critical aspects for face mask development such as pressure drop, breathability, CO2 expiration, replacement time, dead space, fit testing, etc. PAAC also suggested that EPC funds are primarily meant for improvement of ambient air quality and it may not be appropriate to fund this proposal.

In view of the above, PAAC decided that the proposal may not be considered.

- C. Guidelines for grant of one-time aid for setting up of pelletisation and torrefaction plants to promote utilization of paddy straw:** CPCB briefed PAAC members that taking cognizance of the issue of paddy straw burning largely in the states of Punjab and Haryana, CPCB has prepared guidelines for one-time capital funding of paddy straw based pelletisation and torrefaction plants. These guidelines were discussed in Steering Committee meeting and were duly considered by the said committee. CPCB further briefed PAAC about the applicability, funding structure and other features of the guidelines. CPCB informed that Individuals, entrepreneurs and companies setting up units, after issuance of these guidelines, using only paddy straw generated from Punjab, Haryana, NCT of Delhi, NCR districts of Rajasthan and Uttar Pradesh, would be eligible for one-time financial grant towards capital investment done towards the plant and machinery under the guidelines. A corpus of Rs. 50 crores has been proposed from EPC funds, out of which Rs. 40 crore would be utilized for pelletisation units and Rs. 10 crore for torrefaction units. It was also informed that 40% of capital outlay of plant (i.e. excluding civil cost, land cost etc.), subject to a maximum grant of Rs. 14 lakh per Ton/hr for non-torrefied pellet plant and Rs. 28 lakh per Ton/hr for a torrefied pellet plant would be provided under the guidelines, with an overall cap of Rs. 70 lakhs for the former and Rs. 1.4 crore for the latter. Assuming complete utilisation of the corpus, ~1.1 million MT of paddy straw pellets are expected to produce in a year. There are provisions in the guidelines for guaranteeing setting up of plants and assured production of pellets, such as submission of bank guarantee, monitoring of project progress and paddy straw utilization in the plants by SPCB, independent third party audit to ascertain effective utilisation of the funds given to the Unit, etc. Application received for availing the grant would be examined by SPCB and if recommended, it would be further forwarded to a committee chaired by MS-CPCB.

Dr. Hasan, SIAM appreciated the initiative, however, expressed that the cost seems to be on the higher side. CPCB responded that the cost has been finalized after discussed

with market players and seeking inputs of National Mission on Biomass Utilization in Power Plants and that cost is actually on conservative side. Further, funds will be released on the basis of invoice and against bank guarantee. Chairman, PAAC further suggested that Make in India equipment may be encouraged under the guidelines and preference may be given to them during sanctioning.

PAAC approved the sanction of Rs. 50 crore of EPC funds towards the guidelines and authorised Chairman, CPCB to sanction release of funds to concerned SPCB/PCC for pelletisation/torrefaction plants, based on the recommendation of the committee to be chaired by MS-CPCB for scrutiny of applications.

- D. Performance evaluation results of Anand Vihar Smog Tower project:** PAAC was briefed that the smog tower project was approved in the 17th meeting. Subsequently, the smog tower was commissioned in September 2021, and is in operation. IIT Bombay was asked to make a presentation on the technical details, principle of operation, preliminary results and the strategy for tower operation this year, considering past experience.

Dr. Sahu, IITB presented the design aspects, post commissioning operational experience, measurement based performance evaluation results, CFD (Computational Fluid Dynamics) modelling results and the way forward. Dr. Sahu apprised the PAAC about the issues encountered such as filter dislodging, leak identification, additional emission load due to RRTS project, etc. He informed that with different type of challenges faced during operation, reduction of up to 21% in PM_{10} levels has been observed at a distance of 300m from the tower. For $PM_{2.5}$, reduction at a distance of 80m from the tower ranged between 24-49%.

Dr. Sahu expressed that efforts are being made to keep the system at its best working condition during the upcoming winter season, as the data would be crucial to draw meaningful inferences regarding viability of such air cleaning systems (ACS) in Indian scenario. With measured data and modelling capability, IITB may be able suggest design improvement for better performance of a zonal outdoor ACS. Further, the next phase of the study includes determining range of ACS including data of night time measurements.



PAAC appreciated the efforts of IIT Bombay and other project partners. Dr. Hasan, SIAM sought to know IIT's view on overall level of performance of the tower. IIT Bombay expressed that the present tower is the first of its kind in the world and hence is not a technology demonstration project but is in fact a R&D project. Any technology takes time to mature and studies are still ongoing to understand the capacity of this technology, so, it is too early to judge it. Owing to its unique nature and being a pilot project, very little information was available and most of the present knowledge and capacity has been developed in the course of the tower operation. Issues which arose during operation and other factors such as activities in the vicinity and meteorology provided a learning opportunity and have played a significant role in affecting the performance of the tower. Dr. Hasan further added that CPCB may come out with a report on the performance of the two smog towers. MS-CPCB expressed that experiments are being conducted on the pilot project and another year of operation is left. Once completed, report would be submitted by IIT Bombay, which would be duly reviewed by air quality experts, and the results would be disseminated.

Dr. Joshi enquired if such smog towers can be indigenously developed. IIT Bombay expressed that there is now a significant level of understanding from the operation of this tower, and significant modification in the design suited to Indian conditions is possible.

Dr. Shankar Aggarwal, NPL expressed that natural decay is required for CADR calculation and for such ambient air purifier, there are many other standards/methods and terminology that can be used. He also suggested using Particle loading vs pressure drop plots and isokinetic sampling for obtaining meaningful insights on the tower efficiency.

MS-CPCB welcomed the suggestions and requested Dr. Shankar to provide his suggestions/comments in writing along with relevant literature/standards, so that these can be shared with IITB for examination and suitable incorporation in future activities.

Meeting ended with vote of thanks to the chair.



List of PAAC members

1. Sh. Tanmay Kumar, Additional Secretary and Chairman, CPCB
2. Dr. Prashant Gargava, Member Secretary, CPCB
3. Sh. Manoj Shrivastava, Director, MoEF&CC
4. Dr. J.B.V. Reddy, Scientist F, DST
5. Sh. V.K. Soni, Head-EMRC, IMD
6. Sh. R.K. Agrawal, Director, CAQM
7. Sh. R.K. Jaiswal, Development Officer, Ministry of Heavy Industries
8. Sh. Utsav Sharma, RO- Ghaziabad, UPPCB
9. Sh. Praveen Kumar, RO- Noida, UPPCB
10. Representative from HSPCB
11. Representative from RSPCB
12. Representative from DPCC
13. Dr. Rashid Hasan, Advisor, SIAM
14. Dr. Sandeep Garg, SIAM

List of Technical Group members

1. Dr. T.K. Joshi, Health Expert
2. Dr. Shankar Aggarwal, Senior Principal Scientist, CSIR-NPL
3. Dr. Abhijit Pathak, Scientist D, CPCB
4. Sh. Ankush Tewani, Scientist D, CPCB

List of Advisory Committee members

1. Sh. P.K. Gupta, Director, CPCB
2. Sh. Ravi Kant Gupta, SGM, EIL
3. Sh. R.P. Singh, GM, NBCC

Invitees

1. Sh. Nitin Gaur, Municipal Commissioner, Ghaziabad
2. Sh. N.K. Chaudhary, Chief Engineer, Ghaziabad Municipal Corporation
3. Sh. M.D. Gupta, Chief Engineer, Municipal Corporation of Delhi
4. Sh. R.K. Taneja, Chief Engineer, Municipal Corporation of Delhi
5. Sh. Sudhir Mehta, Chief Engineer, Municipal Corporation of Delhi
6. Sh. Upkar Goswami, JE (civil), Municipal Corporation of Delhi
7. Dr. S. Juttu, General Manger, ARAI
8. Sh. Rairikar Sandeep, Dy. General Manager, ARAI
9. Dr. S.S. Thipse, Senior Deputy Director, ARAI
10. Dr. M.R. Sahu, Asst. Professor, IIT Bombay
11. Dr. Prashant Nawale, IIT Bombay
12. Dr. Veerendra Sahu, IIT Bombay
13. Dr. Aditya Sharma, IIT Bombay
14. Ms. Riya Parikh, IIT Bombay
15. Ms. Labhini Pagarware, IIT Bombay
16. Sh. Rajendra Inani, Business Unit Head, Tata Projects Limited
17. Sh. Prakash Kumar, Tata Projects Limited

CPCB Officials

1. Sh. Gautam Kumar Sharma, Scientist B, CPCB
2. Sh. Toshesh Bhargava, SRF, CPCB
3. Sh. Amit, IT division, CPCB



गाजियाबाद नगर निगम, गाजियाबाद

(I.S.O. 9001, 14001 व 18001 प्रमाणित संस्था)

पत्रांक 1644 / न0आ0/2022-23

दिनांक 16/11/2022

प्रेषक,

नगर आयुक्त

गाजियाबाद नगर निगम।

सेवा में,

निदेशक एवं प्रमुख,

वायु गुणवत्ता प्रबन्ध डिविजन,

केन्द्रीय प्रदूषण नियंत्रण बोर्ड,

परिवेश भवन पूर्वी अर्जुन नगर दिल्ली 110032।

विषय :- ई.पी.सी. फण्ड से प्राप्त धनराशि के अन्तर्गत औद्योगिक क्षेत्रों में कराये जाने वाले स्वीकृति निर्माण कार्यों के सम्बन्ध में।

महोदय,

कृपया उपरोक्त विषयक अपने कार्यालय पत्रांक बी-33014/40/2018-ए.क्यू.एम. दिनांक 14.10.2022 का सन्दर्भ ग्रहण करने का कष्ट करें, जिसमें आपके द्वारा दिनांक 06.10.2022 को केन्द्रीय प्रदूषण नियंत्रण बोर्ड, दिल्ली में ई.पी.सी. फण्ड से प्राप्त धनराशि के अन्तर्गत गाजियाबाद नगर निगम द्वारा औद्योगिक क्षेत्रों में कराये जाने वाले निर्माण कार्यों की आहूत समीक्षा बैठक के कार्यवृत्त को संलग्न कर आवश्यक कार्यवाही किये जाने के निर्देश प्रदान किये गये हैं।

उपरोक्त के क्रम में अवगत कराना है कि गाजियाबाद नगर निगम द्वारा पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार, नई दिल्ली की PAAC की समिति द्वारा पर्यावरण संरक्षण प्रभार (ईपीसी) के अन्तर्गत कराये जाने हेतु अंकन 15.79 करोड रू0 के चयनित 08 निर्माण कार्यों को सम्पादित कराये जाने हेतु निविदा आमंत्रण की कार्यवाही की जा रही है, गाजियाबाद नगर निगम को समिति द्वारा चयनित उक्त 08 कार्यों हेतु किसी भी अन्य मदों से कोई धनराशि प्राप्त नहीं हुई है। गाजियाबाद नगर निगम द्वारा ई.पी.सी. फण्ड से प्राप्त धनराशि अन्तर्गत कराये जाने वाले कार्यों की प्रगति आख्या से आपको अवगत करा दिया जायेगा।

कृपया उपरोक्तानुसार अवगत होने का कष्ट करें।

भवदीय
16.11.22
(नितिन गौड़)
आई.ए.एस.

नगर आयुक्त
गाजियाबाद नगर निगम।



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

Speed Post/ E-mail

B-33014/40/2018/AQM-EPC

May 10, 2023

✓ The Commissioner
Ghaziabad Municipal Corporation,
Navyug Market, Opp. Old Bus Stand,
Ghaziabad - 201001, Uttar Pradesh
Email: gzb.nagar.nigam@gmail.com

Sub: Sanction of EPC funds for road construction projects to Ghaziabad Municipal Corporation (GMC) - Reg.

Ref.: Ghaziabad Nagar Nigam letter No. 1914/N.Aa./2023-24 dated 07.04.2023

Sir,

This is in reference to above cited Ghaziabad Municipal Corporation letter dated 07.04.2023 vide which it was requested CPCB for release of ₹ 15.70 crore for construction works of 7 roads out of the 8 road duly approved by PAAC in 24th meeting.

In this regard, it is to inform that out of 7 roads funds would be released for only construction of 04 roads (s. no. 1, 2, 6 and 7 of your above referred letter) at present as in other 03 cases the possibility of blacklisting of successful bidder is yet to be ruled out as observed from case of construction of road "Repairing work of RCC road and interlocking tiles of side patri from plot no. 35A/2 to 40A/1 in Sahibabad Industrial Area site 4 under Vasundhra zone". Further, instead of 100% funds release, 50% funds would be released as already decided by PAAC. Accordingly, it is to inform that funds release of ₹ 2,68,45,845/- is under process, utilization of same by GMC shall be subject to compliance of following sanction conditions:

1. The work should be awarded following due tendering process.
2. The sanction funds will be released in two installments.
3. 1st installment of 50% would be released after issue of work order.
4. Remaining 2nd installment of 50% would be released after completion of work.
5. GMC would submit documentation clearly indicating before and after scenarios of the road stretch for release of final/2nd installment.
6. GMC would ensure compliance of construction quality norms.

‘परिवेश भवन’ पर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, Delhi-110032

दूरभाष/Tel : 43102030, 22305792, वेबसाइट/Website : www.cpcb.nic.in

7. GMC would ensure that sanctioned funds are used only for 8 road construction project duly approved by PAAC and not for meeting etc. expenditure including salaries or regular maintenance work.
8. Work of road construction shall be completed as per the timelines mentioned in the work order issued by GMC. Proper maintenance of these roads to be ensured by GMC.
9. Next installment of funds shall be released after furnishing of utilization certificate (UC) in the prescribed format (Form GFR-12A).
10. Expenditure is to be made as per provisions of General Financial Rules (GFR-2017) and State Financial Rules.
11. The project may be terminated at any stage, if the progress of the project is not found satisfactory. In such a case, entire funds released shall be refunded with interest to CPCB.
12. A separate interest earning bank account shall be opened for the purpose by GMC and interest earned shall be refunded to the CPCB in terms of GFR 230 (8).
13. Accounts of the GMC shall be open to Audit.
14. For monitoring of funds, payments are to be made by bank transfer and no cash payment is allowed.
15. If the GMC does not utilize the funds for the said purpose/remaining funds (if any), the funds are to be refunded to the CPCB with interest earned thereon.
16. There should not be any overlapping of activities under the project with the activities of ongoing scheme under Central/State Government scheme.
17. Quarterly progress report of the project shall be submitted to CPCB.
18. Final UC, completion report shall be submitted to CPCB on completion of project/work.

Yours faithfully,



(P. K. Gupta)
Director and Head,
AQM Division

Copy to:

The Member Secretary
Uttar Pradesh Pollution Control Board
Building No. TC-12V,
Vibhuti Khand, Gomti Nagar,
Lucknow - 226 020, Uttar Pradesh

: For information, please

/
(P. K. Gupta)

**COMMISSION FOR AIR QUALITY MANAGEMENT
IN NATIONAL CAPITAL REGION AND ADJOINING AREAS**

3rd Floor, Indian Oil Bhawan
1, Sri Aurobindo Marg, Yusuf Sarai,
New Delhi-110016

F.No.A-110012/08/2020/CAQM – RD/ 425-427

Dated: 11.06.2021

Subject: Setting up of a “Dust Control & Management Cell” by Road Owning/ maintaining / construction Agencies for monitoring and effective implementation of dust control measures in the National Capital Region.

Whereas, the Commission for Air Quality Management in National Capital Region and Adjoining Areas, Ordinance, 2021 has been published on 13th April 2021 (hereinafter referred to as Ordinance);

Whereas, Ministry of Environment, Forest and Climate Change, Government of India, in exercise of the powers conferred under section 3 of the Ordinance has constituted the Commission for Air Quality Management in National Capital Region and Adjoining Areas (hereinafter referred to as the Commission);

Whereas, Section 30 of the Ordinance 2021 provides that anything done or any action taken under the erstwhile Ordinance 2020 shall be deemed to have been done or taken under the corresponding provisions of the Ordinance 2021;

WHEREAS, under Section 12 (1) of the Ordinance, the Commission have power to take all such measures, issue directions, etc., as it deems necessary or expedient for the purpose of protecting and improving the quality of the air in the National Capital Region and Adjoining Areas;

WHEREAS, Section 12 (2) (xi) of the Ordinance, empowers the Commission to issue directions in writing to any person, officer, or any authority and such person, officer or authority shall be bound to comply with such directions;

WHEREAS, road dust is a significant source contributing to the generation and release of PM₁₀ and PM_{2.5} particulates posing a major challenge in tackling and abating Air Pollution in NCR;

WHEREAS, road dust has serious adverse consequences on air quality and has associated health hazards;

WHEREAS, non-adherence of the road dust mitigation measures, leads to situations where the dust, from the road construction/ maintenance work and unpaved roads/ Right of Way, disperse in the air and mixes with the vehicular and industrial polluting particles, thus making the air more polluted;

WHEREAS, the Commission is of the view that to tackle the problem of road dust resulting from road construction, remodeling, repair and unpaved roads etc., such activities are required to be regularly monitored and inspected, *inter-alia*, for compliance of various dust control measures;

WHEREAS, the road owning/ maintaining and road construction agencies have to play a greater role in the effective monitoring and implementation of various dust control measures;

WHEREAS, the Commission has reviewed the problem of road dust including in the meetings of the Commission and its sub-committees;

WHEREAS, an advisory was issued to the State Governments of Haryana, Rajasthan, Uttar Pradesh and Government of NCT of Delhi on 12th February 2021 to implement the measures suggested therein for abatement of dust pollution from roads, open areas of Right of Way etc. in the National Capital Region;

WHEREAS, another advisory to set-up "**Dust Control & Management Cell**" with the special task of monitoring and implementation of dust control measures, in the National Capital Region was issued on 22nd February 2021, to the Government of NCT of Delhi, State Governments of Haryana, Rajasthan, Uttar Pradesh, National Highway Authority of India and Delhi Development Authority.

WHEREAS, the Commission is yet to receive either Action Taken Report or

confirmation of implementation of the above referred advisories, despite reminders and lapse of considerable time;

AND NOW THEREFORE the Commission in exercise of the powers conferred under the provisions of "Commission for Air Quality Management in National Capital Region and Adjoining Areas Ordinance, 2021", hereby issues the following directions:

1. To set up "Dust Control & Management Cell" by all road owning / maintaining/ road construction agencies of the Central / State Governments/ GNCTD with the specific mandate of effective monitoring and implementation of road dust control measures in respect of roads maintained/ owned and road related projects being implemented / undertaken by them, in the National Capital Region.
2. Dust Control & Management Cell so set up shall regularly monitor the progress of Dust control measures undertaken and prepare reports on a monthly basis.
3. The indicative, but not exhaustive list of measures to be implemented for abatement of dust pollution from roads/Right of Way in NCR by all road owning / maintaining/ road construction agencies and also to be monitored by the "Dust Control & Management Cell" set up for the purpose, is as under:
 - i Optimum utilization of road sweeping machines.
 - ii Scientific disposal of dust collected in designated sites / landfills.
 - iii Sprinkling of water on roads/ROW to suppress dust especially after mechanized sweeping.
 - iv Augmentation of capacity of mechanized sweeping and sprinkling.
 - v Maintaining of roads properly and regularly to keep the roads pot hole free.
 - vi Laying / repairing of roads in a manner which fully supports mechanized sweeping.

- vii Conversion of Non-paved road sides into paved one or into green area.
 - viii Greening of central verges.
 - ix Preference to cemented roads over the bituminous roads especially in industrial areas.
 - x Identification of Hot Spots of road dust and implement target specific road dust control measures.
4. Further, CPCB, the State PCBs / DPCC and other concerned agencies shall continue to monitor and enforce the dust mitigation/ control measures.
 5. Confirmation of setting up of "Dust Control & Management Cell" shall be submitted to the Commission, **latest by 15th July 2021**.
 6. Action Taken Reports on other action points contained in this direction shall be sent by the government of Haryana, Rajasthan, Uttar Pradesh and GNCTD periodically, as part of the bi-monthly reports.

It is reiterated that, under the provisions of the Ordinance, if direction is issued to any person, officer, or any authority such person, officer or authority shall be bound to comply with the directions.

— sd —
(Arvind Kumar Nautiyal)
Member Secretary
Tel No.: 011-20861974
Email: arvind.nautiyal@gov.in

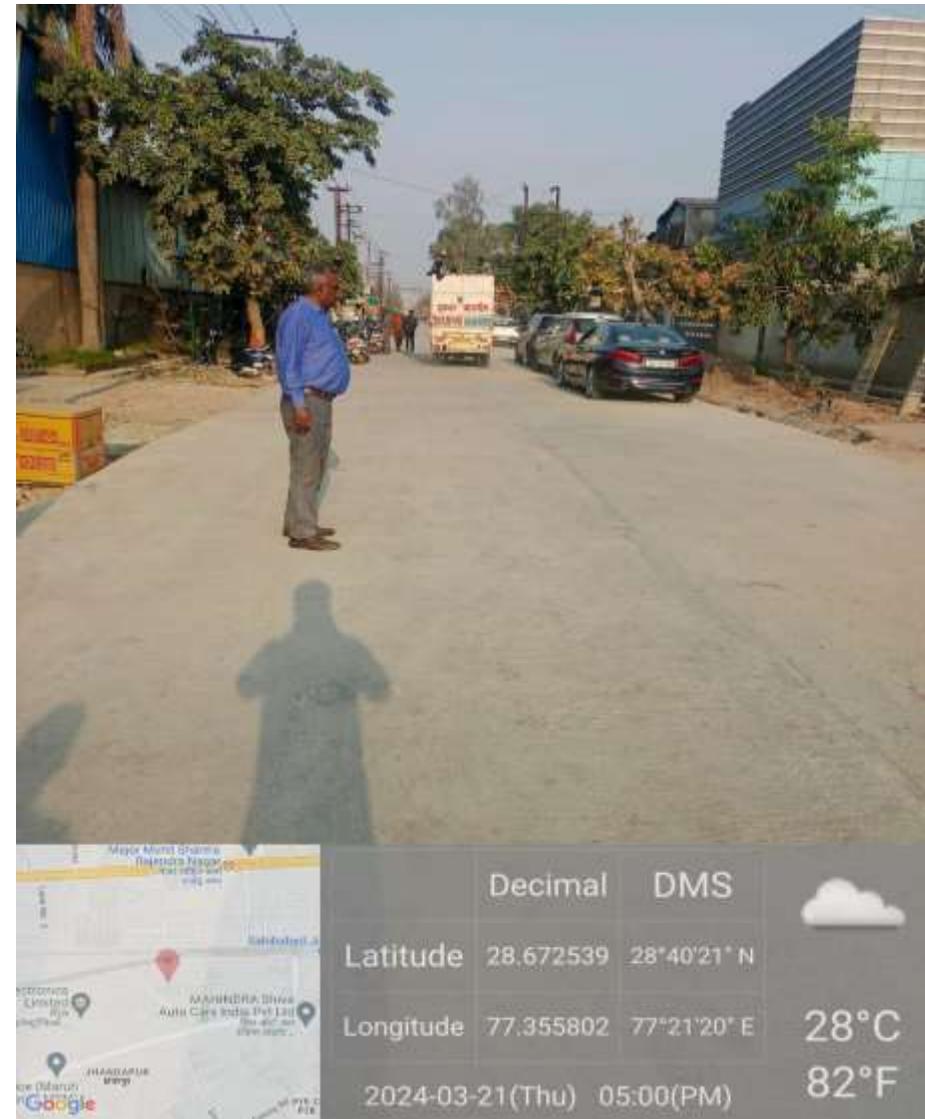
To:

The Chief Secretary, Government of Uttar Pradesh

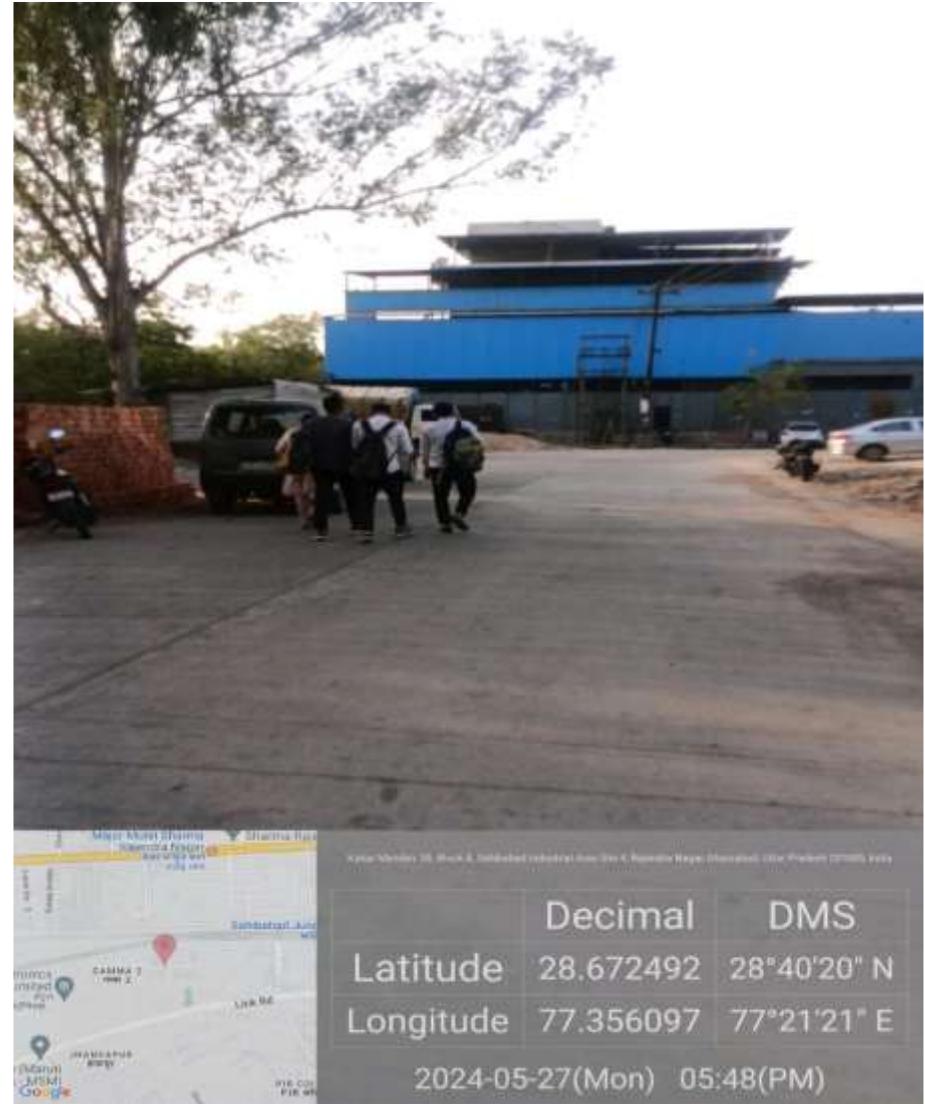
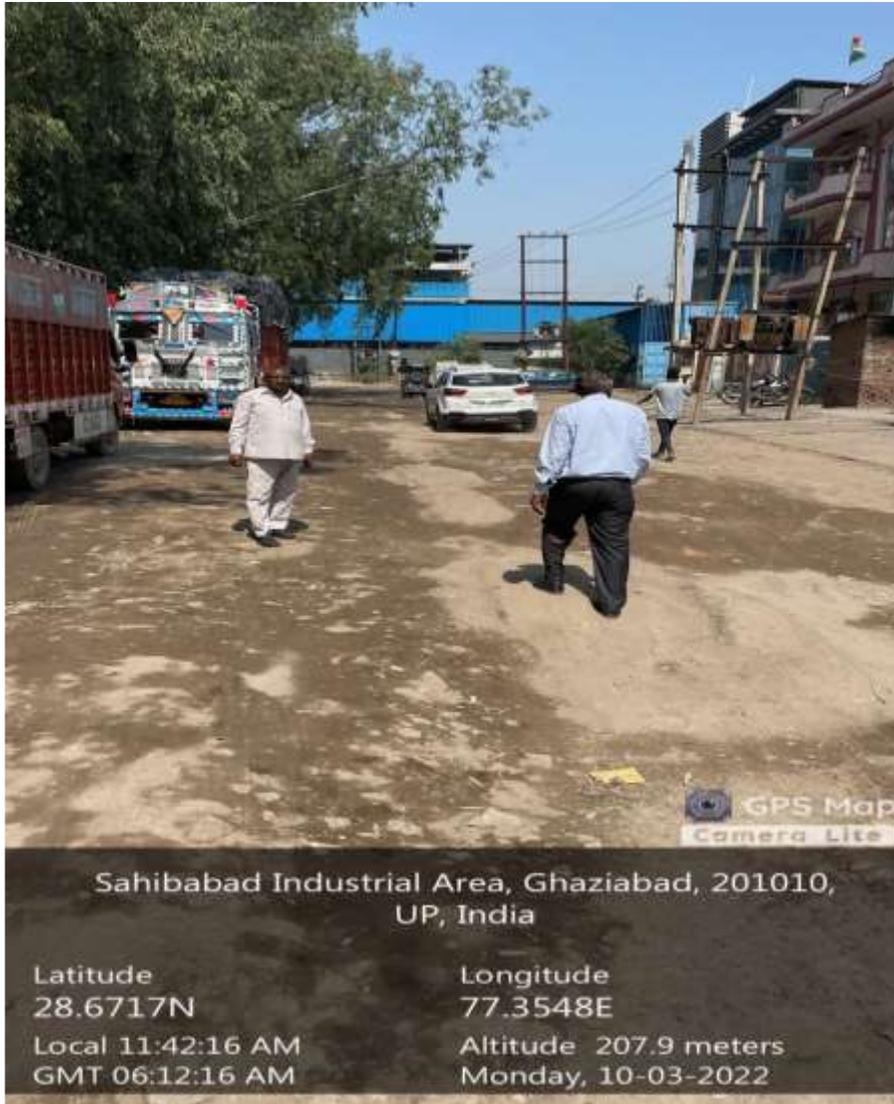
Copy to:

1. The Principal Secretary, Department of Environment and Climate Change, Government of Uttar Pradesh
2. The Chairman, Central Pollution Control Board
3. The Member Secretary, Uttar Pradesh Pollution Control Board

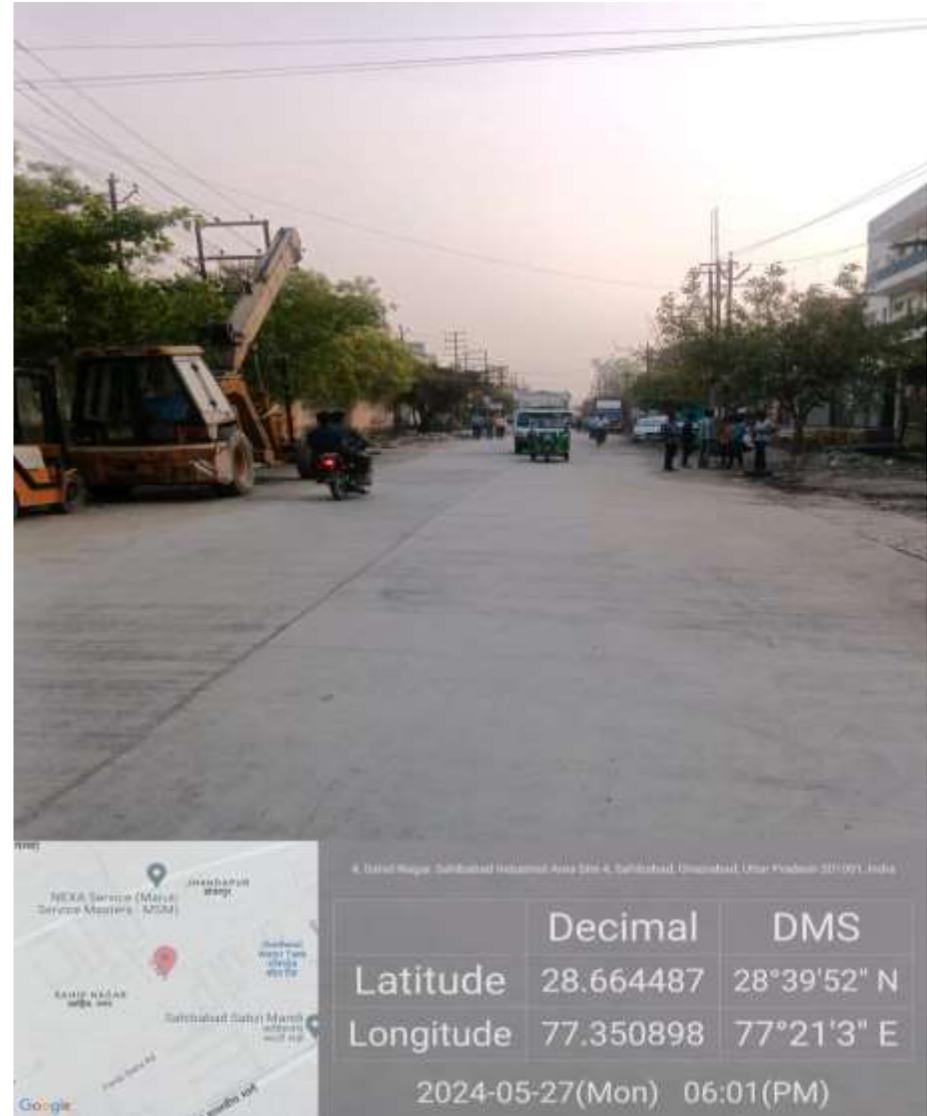
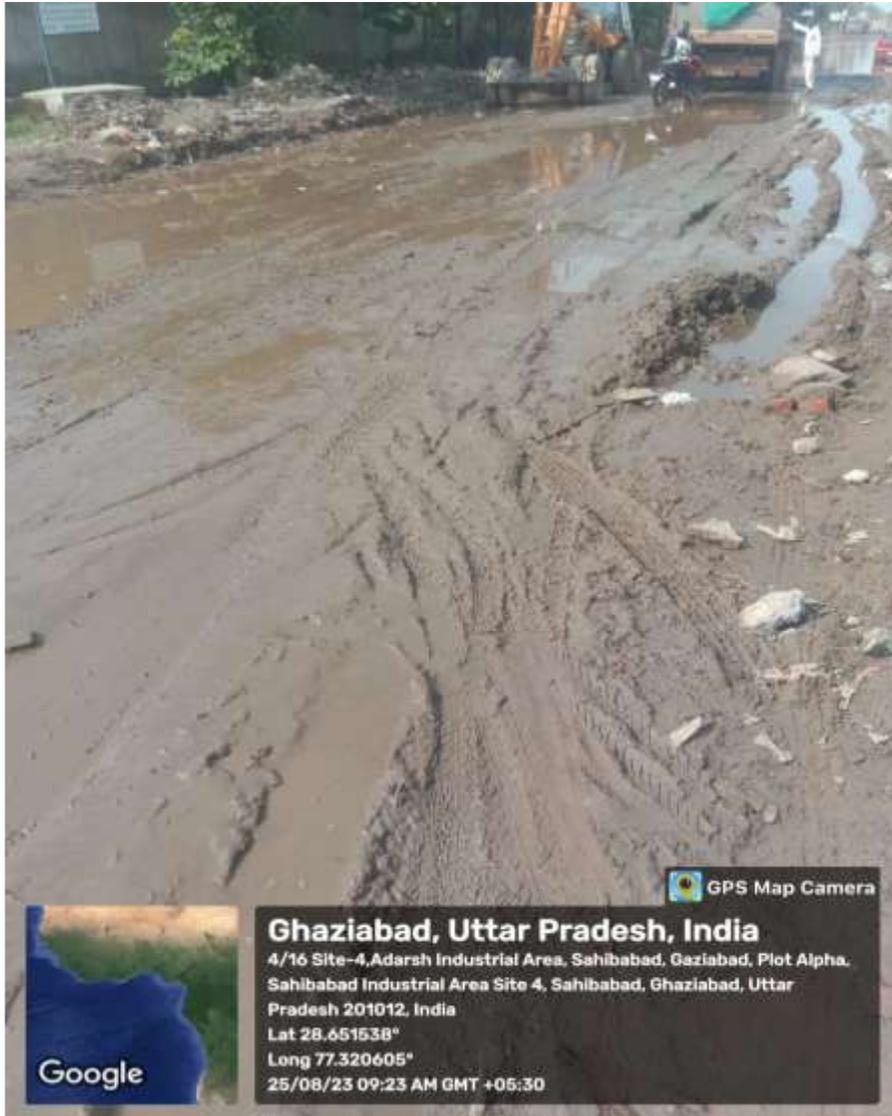
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(Arvind Kumar Nautiyal)



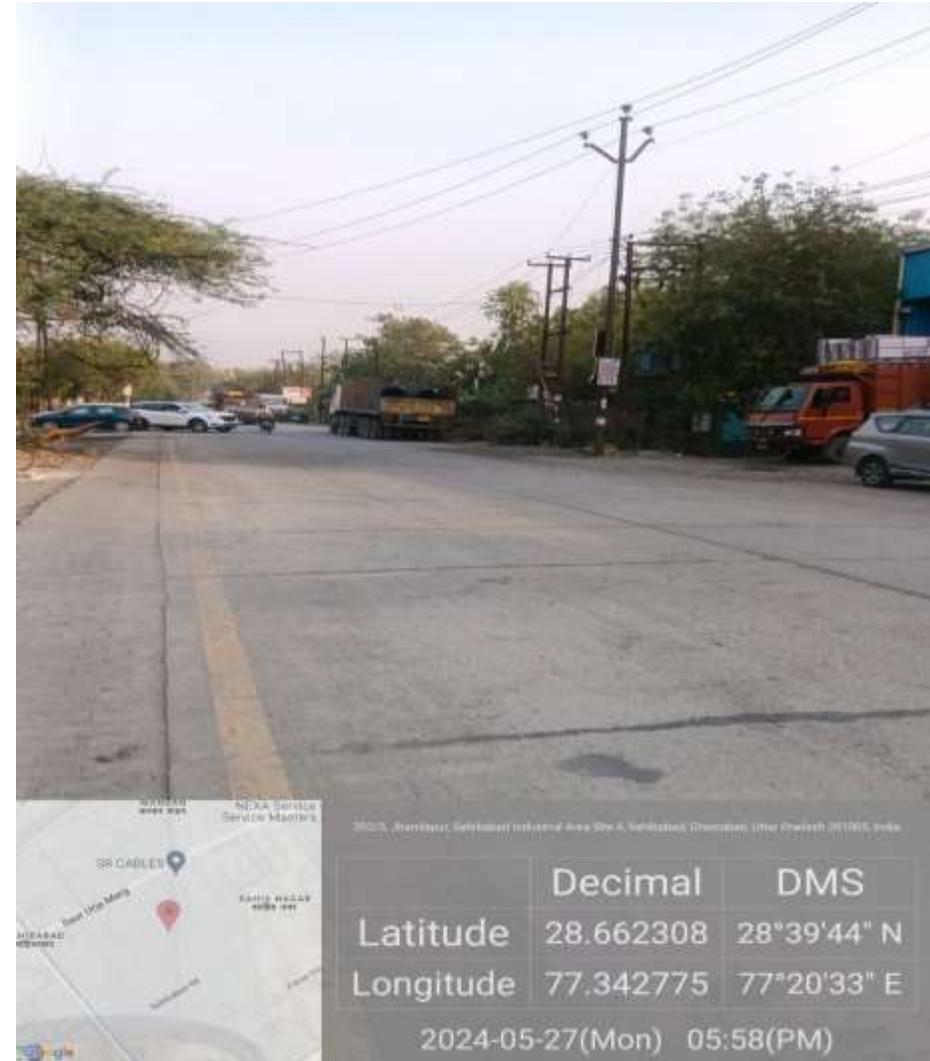
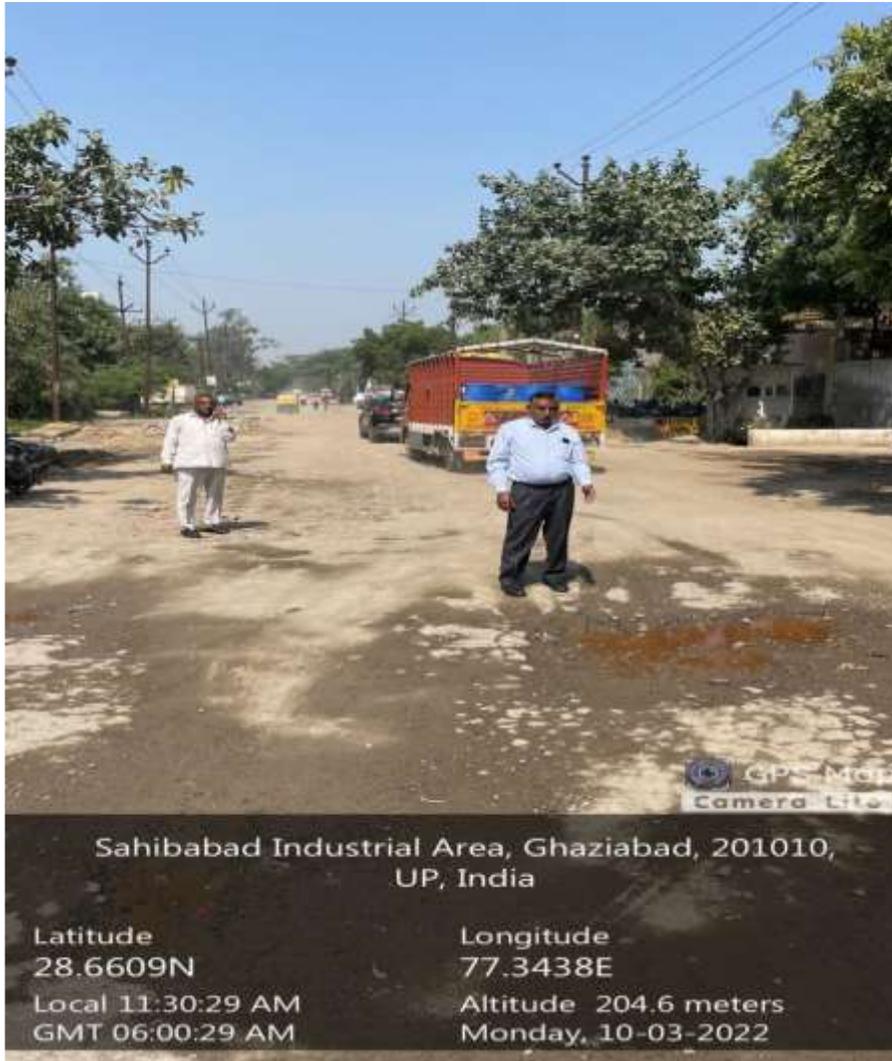
वसुंधरा जोन के अंतर्गत साहिबाबाद औद्योगिक क्षेत्र साईट 4 में प्लॉट सं० डी-32 से सी-18 तक



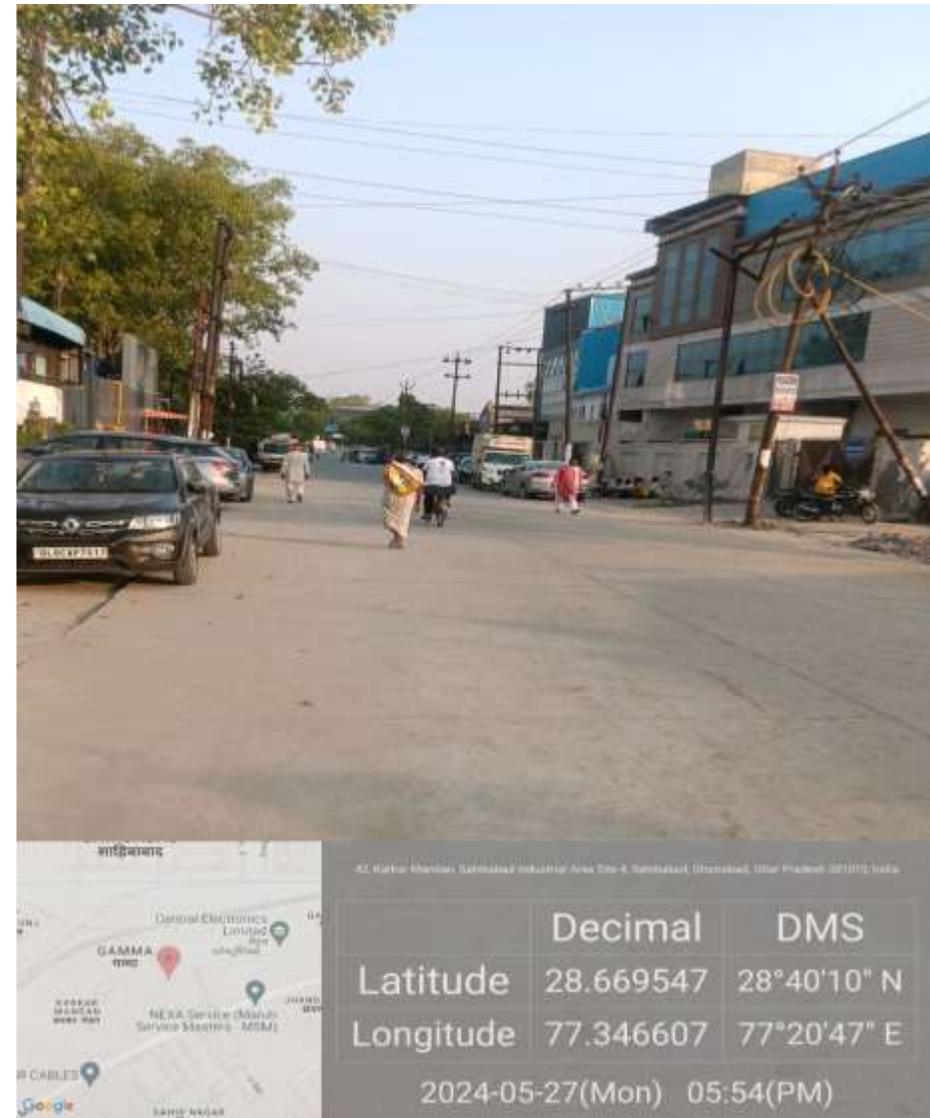
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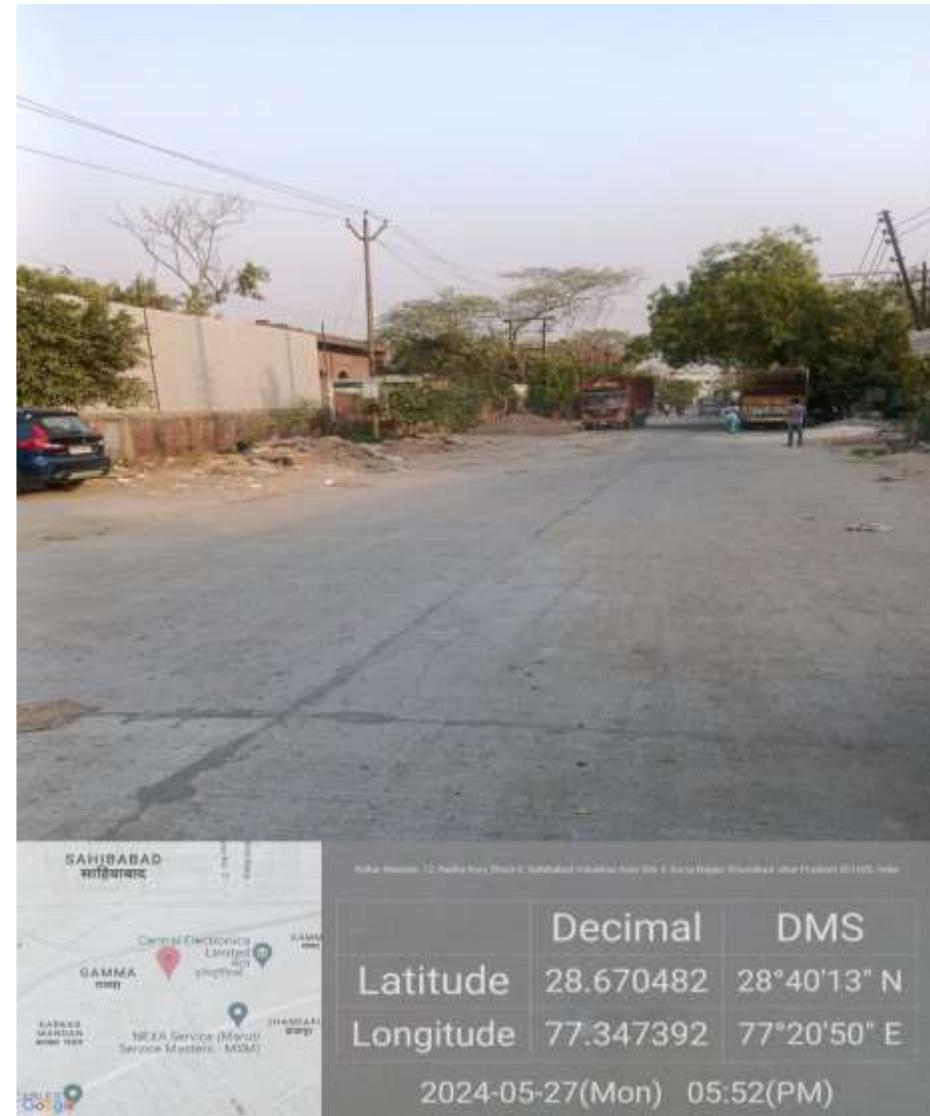
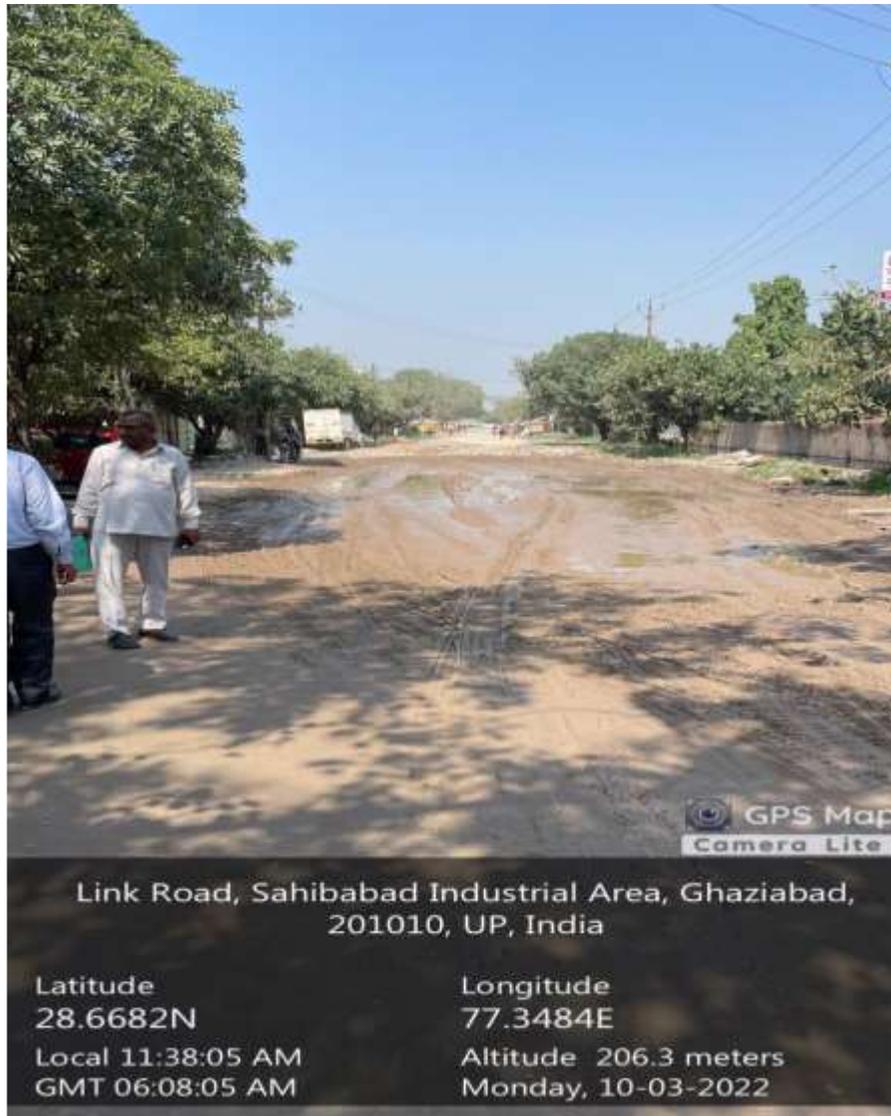
वसुंधरा जोन के अंतर्गत साहिबाबाद औद्योगिक क्षेत्र साईट 4 में प्लाट सं० 46/3 से 51/2 (एस.आर.बी.सी. मशीन कंपनी से अमृता स्टील) तक



वसुंधरा जोन के अंतर्गत साहिबाबाद औद्योगिक क्षेत्र साईट 4 में प्लॉट सं० 35ए/2 से 40ए/1 (आर.एम.सी. प्लॉट से सम्पल लोजिस्टिक कम्पाउन्ड नं०-52, दिल्ली प्रेस रास्ता) तक



वसुंधरा जोन के अंतर्गत साहिबाबाद औद्योगिक क्षेत्र साईट 4 में प्लॉट सं० 52 से 37 (अपट्रान पावर ट्रॉनिक्स लिमिटेड वाले मार्ग) तक



वसुंधरा जोन के अंतर्गत साहिबाबाद औद्योगिक क्षेत्र साईट 4 में प्लॉट सं० सी-5 से सी-13 (श्रीट्रान पावर ट्रोनिक्स लिमिटेड वाला मार्ग) तक



कविनगर जोन के अंतर्गत वार्ड 24, बुलंदशहर रोड इण्डस्ट्रियल एरिया में रोड नं०-02 पर सी०-219 व सी०-216 के सामने आर.सी.सी. द्वारा पैच का कार्य



विजय नगर जोन के अंतर्गत वार्ड 25, इण्डस्ट्रियल एरिया में एन. एच.-09 से (राठी रोड) शराब ठेका कोटगावं फाटक के पास तक क्षतिग्रस्त सड़क का डैस द्वारा सुधार का कार्य

PROJECT WISE EXPENDITURE MADE UNDER EPC FUNDS (as on 31.03.2024)

S. No.	Head	Amount disbursed (in Rs.)
New Technology trials for air pollution control		
1	Pilot project to demonstrate the effectiveness of air pollution mitigation by Pariyayantra filtration- MRIIRS	11,84,400
2	Deployment and Evaluation of air purification units for traffic junction pollution abatement in Delhi- NEERI	2,50,74,528
3	Control of Dust Emissions using dust Suppressant- EPRI	3,54,026
4	Multiple antenna high density ion generator for pollution control in New Delhi - STP Pune	10,80,000
5	Monitoring and Evaluation of Ionization based Air Purifying Technology- IIT Delhi	1,12,14,720
6	Pilot study for assessment of reducing air pollution in urban areas by using outdoor cleaning system (sometimes called as Smog Tower)- IITB, TPL	35,61,62,835
Research studies		
1	Bi-weekly action plan for effective and efficient management of PM2.5 concentrations in the Delhi city- IIT Delhi	3,02,400
2	Ambient air quality monitoring in Meerut and Faridabad by M/s Shriram Institute of Industrial Research - Air Lab	1,06,29,594
3	Evaluation of Modelling techniques for air quality management in - TERI	46,92,726
4	Estimation of Fuel Losses and Assessment of Air Quality at selected traffic-CRRI	16,02,720
5	Proxy relationship of ultrafine particles number concentration, new particle formation and its growth rate in transport microenvironment in Delhi- DTU	78,23,407
6	Delhi air quality experiment: A paradigm shift in source apportionment- IIT Kanpur	4,74,38,590
7	Delineation of Air Shed for Air Quality Management in Delhi-NCR- NEERI	2,08,00,000
8	Assessment of contribution of stubble burning in Punjab & Haryana states on air quality- NEERI	63,00,000
9	Air quality impact on travel choice (A-Quit)- TERI SAS	26,85,487
10	Near-real time fire emission estimation and fire forecasting system for Delhi Air Quality- CDAC	24,95,000
Health Impact Studies		
1	Impact of Traffic on Asthma amongst School Children in Delhi- IIHMR	47,39,636
2	Health impact assessment of fire cracker bursting on Diwali & Dusshera- MAMC	7,05,000
3	Does Poor Air Quality from Crop burning in close proximity to residential areas adversely affects respiratory health- TERI	50,19,725
4	Health impact of firecrackers bursting during Diwali in National Capital of Delhi - MAMC (5 year)	1,84,41,500
Activities related to Field visits and Mass awareness		
1	Clean Air for Delhi Campaign	2,91,04,239
2	CPCB field visits for feedback on air polluting activities in Delhi	
Laboratory infrastructure projects		
1	Up gradation of existing SODAR at CPCB - NPL	28,96,000
2	Energy Dispersive X-Ray Fluorescence Spectrometer (EDXRF) for Instrumentation Laboratory, CPCB	3,50,00,000
3	Procurement of Instruments/ equipment for Instrumentation Laboratory, CPCB	74,25,000
4	Strengthening of Lab Infrastructure- Air Laboratory, CPCB	1,32,11,520
On-ground mitigation measures related to ULB/agency or retrofitment of DG sets		
1	Proposal of GMC for road maintenance/construction	6,68,36,661
CAAQMS projects and Central Control Room		

1	Commissioning of Central Control Room(CCR), Social Media Platform, Sameer App – IT, CPCB	2,60,66,406
2	Strengthening of Air Quality Monitoring network in Delhi- Air Laboratory, CPCB	1,36,63,166
3	Expansion of CAAQMS in Haryana and Uttar Pradesh- HSPCB and UPPCB	18,26,37,501
Funding of pellet plants under CPCB guidelines		
1	Grant for Pellet plant	6,21,06,590
Other expenditure		
1	Stipend, infrastructure for office such as desktops, expenditure for meetings/workshops, etc.	1,79,17,458
2	Refund	37,56,032
3	Bank Charges	3,97,810
Total		98,97,64,677

**GUIDELINES ON GAP FUNDING SUPPORT FOR NCR CITIES FOR IMPLEMENTATION
OF CLEAN AIR CITY ACTION PLAN**

A. Background

CPCB is maintaining Environment Protection Charge (EPC) funds in compliance with the orders of the Hon'ble Supreme Court, and the same are meant to be utilized for improvement in air quality of Delhi-NCR cities.

While a number of scientific studies/research projects on air quality and new technologies for air pollution control in ambient air have been funded under EPC funds, it was felt that there is a need to support actions for implementation of on-ground measures for control of air pollution. NCR cities are required to prepare Clean Air City Action Plan (CAP) and in order to support implementation of the same, gap funding support has been considered under these guidelines.

B. Introduction

City Action Plan – A city specific clean air action plan is a plan that focuses on seven thematic areas for control/abatement/prevention of air pollution with a target for overall improvement in air quality. The thematic areas include Air Quality Data, Capacity Building, Public Outreach, Road Dust and Construction & Demolition waste, Vehicles, Industries, Waste and Biomass dumping with short-term priority actions as well as those to be implemented in a medium to longer time frame by the responsible agencies such as Urban Local Bodies, Traffic department, Transport Department, SPCB/PCC etc.

Current knowledge on urban sources of air pollution provide a basis to initiate actions in different sectors and further refinement of air quality management plans may be done on the basis of contribution of various sources identified through city-specific source apportionment studies.

Further, Micro Planning of actions on seven thematic areas under City Action Plan is essential for effective implementation of city plans in a time bound manner. It will help in prioritizing actions where funds are to be utilized as well as in assessment of financial support required for implementing the sector specific interventions.

C. **Applicability**

Under these guidelines, gap funding support will be provided preferably for implementation of activities listed in Section D of these guidelines, that are also part of city action plan. Funds will be provided to ULBs/ Municipal Council/ Local Authorities of NCR cities other than those availing financial support under NCAP or Fifteenth Finance Commission program.

D. **Activities considered for funding support**

The overall objective of guidelines is to provide gap funding support from EPC funds towards capital expenditure for implementation of City Action Plan for improvement of air quality. The financial support shall be provided to ULBs preferably for taking up the following activities:

- Road construction/repair & paving works
- Procurement of mechanical road sweeping machines (MRSMs)
- Procurement of Anti-smog guns (ASGs)
- Setting up of EV Charging Stations
- Setting up of Gas/ Biomass based Crematorium
- Creation of Non- Motorized Track (Cycle track)
- Setting up of Intelligent Traffic Management System
- Setting up of Decentralized Solid waste composting plant
- Setting up of Material Recovery Facility
- Setting up of C&D waste collection center/ transfer points

Besides, funding proposal for other actions (excluding above activities) may be considered on case to case basis.

Further, the support is being provided as a one-time measure and is not to be construed as a budgetary support. Besides funding of above activities by CPCB, funding for implementation of CAP must be mobilized through convergence of resources from various schemes of Central Government such as SBM (Urban), AMRUT, Smart City Mission, SATAT, FAME-II etc. and resources from State/UT Governments and its agencies such as Municipal Corporation, Urban Development authorities and Industrial development authorities etc.

E. **Funding mechanism and pre-requisites**

1. The Urban Local Body (ULB) seeking financial assistance shall prepare a city action plan in consultation with concerned SPCB. A sample city action plan is enclosed for

ready reference **(Annexure I)** The prepared City Action Plan shall be got approved from the Air Quality Monitoring Committee (AQMC) and further submitted to CPCB within 04 months from the date of issue of these guidelines.

2. Activities to be executed during each year based on micro planning under City Action Plan shall be decided in due consultation with concerned stakeholders and details of same needs to be submitted to CPCB. Detailed report on activities taken up for improvement in air quality from CPCB funds shall be submitted on annual basis for release of funds.
3. Initial funding during FY 2024-25 for the city would be done on the basis of fund allocation ratio calculated considering population and PM₁₀ concentration of FY 23-24 **(Annexure II)** and the same shall be utilized preferably for activities listed in Section D of these guidelines and the city action plan. For deciding actions/ targets for required activities, guidance document given at **Annexure III** may be referred.
4. The city-wise financial allocation for each financial year will depend on the basis of amount of EPC accrued in that financial year and fund allocation ratio **(Annexure II)**.
5. 50% of the funds shall be released on submission of plan by the concerned ULB, and balance 50% on completion of works. Funds shall be released to concerned SPCB/PCC for onward release to the concerned ULB.
6. From FY 2025-26, fund release would be done depending upon the performance of the city and the same will be assessed in terms of reduction achieved (annual/cumulative) in PM₁₀ concentration levels as against the assigned target. This assessment will be done by CPCB. Annual PM₁₀ concentration data will be used for the purpose of performance evaluation and 75% data should be available for each Quarter. Further, for performance assessment, integrated PM10 data for both years shall be considered for comparison. The city-wise calculated targets are annexed at **Annexure IV**.

The performance factor P for a given assessment year would be calculated as follows:

$$P = 100 \times R(A) / R(T)$$

where, Performance factor (On total score of 100) – P

Actual/Cumulative reduction in PM₁₀ for the assessment year – R (A)

Targeted/Cumulative reduction of PM₁₀ for the assessment year – R(T)

Based on the performance factor, fund allocation shall be done as per the following criteria:

Table 1 – Fund Allocation to Cities (Performance based)
--

Performance factor P	Percentage of Fund allocation from 2024-25 onwards
>80	100
>60 but less than 80	75
>50 but less than 60	50
> 40 but less than 50	25
Below 40	NIL

Sample Calculation -For city of Gurugram

PM₁₀ concentration during FY 2023-24: 185 µg/m³

Target PM₁₀ reduction for FY 2024-25: 12 µg/m³

Actual reduction achieved in FY 2024-25: 11 µg/m³

Performance factor of city would be calculated as

$$P = 100 \times R(A) / R(T)$$

$$P = 100 \times 11 / 12$$

$$P = 91.6\%$$

Therefore, Fund Allocation (Performance based) to Gurugram will be 100% as per the criteria given in Table 1.

4. In case of negative performance (increase in PM 10 concentration), the performance will be considered as 0. In case PM₁₀ concentration is meeting the National Air Quality standards, performance will be considered as equivalent to 100.
5. Once the overall expected PM₁₀ target is achieved, the matter would be reviewed by CPCB.
6. Special allocation of funds will be decided by CPCB on case to case basis.
7. Utilization Certificate (UC) of at least 50% of the fund released is to be submitted for seeking release of eligible fund for the next FY. Further, the UC should clearly indicate the activities for which funds were utilized (Format enclosed at **Annexure V**).
8. The funding for implementation of CAPs is also to be mobilized through convergence of resources from various schemes of Central Government such as SBM (Urban), AMRUT, Smart City Mission, SATAT, FAME-II etc. and resources from State/UT Governments and its agencies such as Municipal Corporation, Urban Development authorities and Industrial development authorities etc. CAP related activities for which funds have been utilized through Convergence are mandated to be shared with CPCB every year. In case, no fund utilization has been shown under Convergence scheme, no fund will be released by CPCB.

9. An undertaking is required to be submitted to CPCB that the specific activities for which CPCB funds would be utilized are those which are not considered under any other central or state govt. scheme and for which no matching source of funds is available.

For accessing funds, State/UT Governments and their agencies will have to commit themselves to implement CAPs and take all necessary measures for improving air quality in the targeted cities.

F. General Conditions

1. Work for carrying out the activities shall be awarded by ULBs following due tendering process as per General Financial Rules (GFR-2017).
2. Sanctioned funds shall only be used for the approved activity (procurement, establishment, or construction as the case may be) and shall not be used for salaries or regular maintenance work or other such revenue expenditure.
3. Expenditure is to be made as per provisions of GFR-2017 or State Financial Rules.
4. Tasks planned to be executed from CPCB funds shall be completed in a time bound manner. Fund sanction may be terminated at any stage, if the progress is not found satisfactory. In such case, entire funds released by CPCB shall be refunded with interest to CPCB.
5. A separate interest earning bank account shall be opened by ULB for the purpose and interest shall be refunded to CPCB in terms of GFR 230(8).
6. Accounts of ULB shall be open to audit.
7. For monitoring of funds, payments are to be made by bank transfer and no cash payment is allowed.
8. Funds should be utilised for the specific purpose/activity for which they are allocated. If the ULB does not utilize the funds for the said purpose/remaining funds (if any), the funds are to be refunded to CPCB with interest earned thereon.
9. ULB shall ensure that there should not be any overlapping of activities under the project with the activities of ongoing scheme(s) under Central/State Government.

G. General aspects for consideration under various activities

1. Road construction/repair and paving works

- Road stretches where construction/repair is to be carried out should have a minimum width of 3 meters and a minimum stretch length of 100 meters. In other words, only carriageways related works are to be considered from CPCB funds.

- For pavement construction works, minimum pavement length of 100 meter should be there to avoid patchwork.
- Proper maintenance of roads is to be ensured by the ULB.
- ULB shall ensure compliance of construction quality norms.

2. **Procurement of mechanical road sweeping machines (MRSMs)**

- Prime locations/roads with major traffic movement may be identified for mechanical sweeping, with focus on arterial roads.
- GPS enabled mechanical sweepers to be preferred.
- Procurement of additional mechanical sweeping and sprinkling machines (@ one MRSM for every 40 km identified roads to be cleaned / sprinkled per day).

3. **Procurement of Anti-smog guns (ASGs)**

- Funds shall not be used for procurement of Stationary Anti-smog guns and truck mounted anti-smog guns to be preferred.

4. **Setting up of EV Charging Stations**

- One charging infrastructure to be provided for every grid area of 3*3 km.
- Adequate space for Charging and smooth entry/exit of vehicle to be ensured.
- Introduction of EV charging stations may be prioritized in commercial areas, central business districts etc. having high vehicle load.

Further, Charging Infrastructure for Electric Vehicles – Guidelines & Standards issued by Ministry of Power (MoP) may be referred for developing EV Charging Infrastructure.

5. **Setting up Gas/ biomass based Crematorium**

Considering the policy of CAQM for promoting cleaner fuels, setting up of Gas/ biomass based Crematorium is promoted. Construction of pyres may be required in case biomass based crematoriums are to be setup.

6. **Creation of Non- Motorized Track (Cycle track)**

- Non-Motorized Vehicles (NMV) include cycles, tri-cycles, cycle rickshaws, pushcarts, and any other form of mobility that is powered by humans.

- Prepare and implement zonal plans for developing NMT network which requires expediting ward-wise network plans and not as small stretches of corridors. These projects require a network approach and targeted pedestrianization and low emissions zones approach.
- There is also a need for continuous footpath, safe crossing, access to public transport, earmarking Multi-Utility Zone (MUZ) of 1.8 mts minimum width on all collector and arterial roads.
- Cycle tracks will have at least 2 m of clear space per direction for one-way movement and 3 m for two-way movement, and have a smooth surface asphalt or concrete. Paver blocks will be avoided.
- A buffer of 0.5 m between the cycle track and parking areas or the carriageway shall be constructed.
- In compliance with IRC: 11-2015, cycle tracks shall be provided on streets that have more than 100 motor vehicles and 400 cyclists during peak hour.

Further, Guidance Document & IRC guidelines may be referred for developing NMT.

7. Setting up of Intelligent Traffic Management System

- The Intelligent Transportation System has emerged as an effective traffic management tool, based on a combination of information and communication technologies. The information technologies allow components within the transportation system (vehicles, roads, traffic lights, message signs, etc) to become intelligent by embedding them with microchips and sensors and empowering them to communicate with one another through wireless technologies.

Further, Guidance Document & IRC guidelines on Application of Intelligent Transport System for Urban Roads may be referred for setting up ITMS.

8. Setting up of Decentralized Solid waste composting plant

- Decentralized waste management systems or community level waste management systems may be introduced to reduce the burden of handling large volumes of MSW at a centralized location, with corresponding reduction in costs of transportation and intermediate storage.
- Proper segregation of organic waste to be ensured for optimum performance of composting plant. Odor management to be ensured.

Further, Municipal Solid Waste Management Manual, Ministry of Urban Development may be referred for detailed understanding.

9. Setting up of Material Recovery Facility

- MRFs should have sufficient storage spaces to enable informal or authorized waste pickers and waste collectors to separate recyclables from the waste and to facilitate temporary storage of sorted recyclables which can be made available to recyclers in bulk for improved resale value.
- Non-biodegradable waste (other than recyclable waste) to be sent to concerned processing facility.

Further for details on Stages of MRF, Types of MRF, Unit Processes in Material Recovery Facility to be adopted, Municipal Solid Waste Management Manual of Ministry of Urban Development can be referred.

10. Setting up of C&D waste collection center/ transfer points

- Identification of sites for collection center and Infrastructure design will require proper estimation of waste generation.
- Collection points be provided so that small quantity generator of C&D waste is not required to transport the debris to longer distances for disposal/ treatment of C&D waste.
- Encourage sharing of these facilities by a cluster of towns to maximize asset utilization and to make investments more efficient.
- Further, for Site Selection for Storage and Collection and other requirements, Municipal Solid Waste Management Manual, Ministry of Urban Development and Guidelines on Environmental Management of Construction & Demolition (C&D) wastes by CPCB can be referred.

H. Right to Amend

CPCB reserves the rights to change, modify or amend this guideline.

Annexure I
sample city action plan (attached)

Annexure II

City wise fund allocation ratio of NCR Cities

S No	City/Town	Fund Allocation Ratio
1	Greater Noida	3.5
2	Dharuhera	3.0
3	Gurugram	24.3
4	Sonipat	6.8
5	Bharatpur	6.1
6	Muzaffarnagar	10.1
7	Bulandshahr	5.6
8	Panipat	5.6
9	Charki dadri	3.0
10	Bahadurgarh	4.0

11	Baghpat	3.0
12	Hapur	5.6
13	Bhiwani	3.5
14	Jind	3.0
15	Narnaul	3.0
16	Karnal	3.9
17	Palwal	3.0
18	Nuh	3.0
	Total	100.00

Annexure III**Guidance Document**

S. No	Actions	Guidance
Road Dust and C&D		
1	Remove road dust/silt regularly by using mechanical sweepers	Number of MRS required = (Total Length of Road to be Swept (km)) / (MRS Capacity (km/hr) × 8 (hr/day) × 7 days)
2	Identify road stretches with high dust generation	Prepare plan for identified roads along with timelines.
3	C&D waste processing facility capacity (TPD) that can process all waste	Civic bodies wherein current waste generation > 2000 TPD, to set up more than 1 plants for recycling of C & D waste. Projects generating 1 lac tonne or more C&D waste may set up in-situ processing plant as per CPCB guidelines 2017
4	To create multiple separate space/zones to handle C&D waste in the city and specify waste collection capacity in TPD)	C&D waste generated calculation: = (50* number of constructions + 400* number of demolitions + 45* number of renovations) per sq m Number of Collection points to be provided as per CPCB Guidelines
5	Prepare and implement zonal plans to develop an NMT network	Zonal plan should be provided in respect of number of zones identified for NMT, number of cycle tracks established to achieve at least level of service 3 as per MoUD service level benchmarks for NMT.
6	Road Length paved/maintained/blacktopped (km)	As it is a regular activity, annual target should be worked out in (Kms).
Capacity building		

7	Installation & Commissioning of air quality Monitoring Stations	CAAQMS stations to be installed as per CPCB network design criteria.
8	Emission Inventory and Source Apportionment Study	SA/EI study to be conducted as per the CPCB guidelines.
9	Development of Air Quality Management Cell	Cell to be developed to carry out activities on ground level.
10	Training & Skill development of public officials.	Training and workshops on air quality management aspects to be provided through Institute of Reputes.
11	Emergency Response Plan	Graded Response Action Plan to be implemented.
Public Outreach		
12	Daily Air Quality Public Information Dissemination System	Air quality data to be available on ULBs website.
13	Public awareness on pollution source and control measures	Workshop and activities to be conducted frequency to spread awareness about air pollution.
14	Public Grievances Redressal System	IT enabled grievance redressal system to be implemented.
Vehicles		
15	Number of PUC Centres	4 - 8 PUC Centers per 1,00,000 vehicles
16	Assess and introduce a city bus system of appropriate fleet size of small buses and desirable bus type.	Public Transport - 0.2-0.4 buses /1000 population
17	Charging Infrastructure for E vehicle	Develop charging infrastructure for E-vehicles as per the growth of E-vehicles and MoP guidelines.
18	Phase out old vehicles and vehicle scrappage policy	Infrastructure to be provided for scrapping of older vehicles and same shall be created considering future projections.
Domestic Fuel		
19	Ensure easy availability of affordable cleaner cooking fuels (LPG/PNG/biogas) for all	Plan for expansion of PNG network for areas not covered presently under the network. Ideally, target should be 100%. LPG/PNG connection to all households and commercial units. Ideally, target should be 100%.
Municipal Waste & Biomass		
20	Total waste to be collected (TPD)	Number of households covered in the city/town, waste collected and waste segregated should be 100% and waste recovered should be 80% as per MoUD, Handbook of Service Delivery Benchmarking. Ideally total waste treated/processed should be equal to generated waste and action to be taken to avoid waste disposal in dumpsites.
	Quantity of waste to be segregated (TPD)	
	Quantity of waste to be processed using composting (TPD)	
	Quantity of waste to be processed using Biomethanation (TPD)	
	Quantity of waste to be processed as Waste to Energy (TPD)	
	Quantity of solid waste to be disposed through Landfills	
	Number and quantity of Legacy Waste dumpsites to be remediated	

Annexure IVCity wise targeted reduction in PM₁₀ concentrationfrom FY 2024-25 to FY 2028-29 for NCR cities

S No	City/Town	An. A vg. P M ₁₀ C on. (μ g/m ³) FY 20 23-24	Annual (FY) targeted reduction in PM ₁₀ conc. (μg/m ³)					Expected r eduction fr om 22-23 t o 28-29	Expected l evel of PM ₁₀ in 2028- 29
			2024-25	2025-26	2026-27	2027-28	2028-2 9		
1	Greater Noida	226	22	20	21	18	15	96	130
2	Dharuhera	183	15	14	15	14	11	69	114
3	Gurugram	185	15	14	15	14	12	70	115
4	Sonipat	164	12	11	13	11	9	56	108
5	Bharatpur	162	12	11	13	11	8	55	107
6	Muzaffarnagar	172	13	12	14	12	9	60	112
7	Bulandshahr	167	13	12	13	12	9	59	108
8	Panipat	126	8	8	9	8	6	39	87
9	Charki dadri	125	8	8	9	8	6	39	86
10	Bahadurgarh	158	12	11	12	10	9	54	104
11	Baghpat	143	10	10	11	10	8	49	94
12	Hapur	143	10	10	11	10	8	49	94
13	Bhiwani	118	7	7	8	7	6	35	83
14	Jind	108	7	6	7	6	5	31	77
15	Narnaul	120	8	7	8	7	6	36	84
16	Karnal	91	5	5	5	5	4	24	67
17	Palwal	89	5	4	5	5	4	23	66
18	Nuh	102	6	6	6	6	5	29	73

Annexure V

<u>Work/Activity List</u>										
City					Financial Year.....					
EPC grant for ambient air quality Improvement (in cr.)										
Sl. No.	Name of Department Responsible	Work/sanction order No.	Work/Sanction order date	Work Details (Name, Location & Quantity) as per activities in City Action Plan	Sanctioned Amount	Expenditure Incurred	Financial Status (% utilisation of funds)	Physical status (% completion of work)	Remarks	Please attach Photos of the work before & after
Total										

EPC funds estimated utilisation during April 01 2024- March 31 2025			
S. No.	Projects/ Head	Institutes/ Agencies	Estimated Amount (in Rs.)
Sanctioned Projects/studies			
1	Pilot project to demonstrate the effectiveness of air pollution mitigation by Pariyayantra filtration	MRIIRS	789600
2	Deployment and Evaluation of air purification units for traffic junction pollution abatement in Delhi	NEERI	6221432
3	Multiple antenna high density ion generator for pollution control in New Delhi	STP Pune	1044000
4	Impact of Traffic on Asthma amongst School Children in Delhi	IIHMR	1184364
5	Proxy relationship of ultrafine particles number concentration, new particle formation and its growth rate in transport microenvironment in Delhi	DTU	1608286
6	Delhi air quality experiment: A paradigm shift in source apportionment	IIT Kanpur	5292393
7	Air quality impact on travel choice (A-Quit)	TERI SAS	1162493
8	Pilot study for assessment of reducing air pollution in urban areas by using outdoor cleaning system (sometimes called as Smog Tower)	IITB, TPL	9438361
9	Health impact of firecrackers bursting during Diwali in National Capital of Delhi (5 year)	MAMC	7903500
10	Near-real time fire emission estimation and fire forecasting system for Delhi Air Quality	C-DAC	2495000
11	CPCB field visits for feedback on air polluting activities in Delhi	CPCB	4850706
12	Up gradation of existing SODAR at CPCB	NPL	54000
13	Commissioning of Central Control Room(CCR), Social Media Platform, Sameer App – IT, CPCB	CPCB	2123999
14	Expansion of CAAQMS in Haryana and Uttar Pradesh	HSPCB & UPPCB	81662499
15	Expenditure for paddy straw based pellet plants	PPCB and HSPCB for 06 plants in Punjab and 01 in Haryana	69471920
Sub-total 1			195402553
On-ground mitigation measures related to ULB/agency			
1	Proposal of GMC for road maintenance/construction	GMC	66836661
2	Proposal of UPPCB for reducing road dust emission in NCR-UP	UPPCB	44690000
3	Sanction of 18 road/paving works of MCD	MCD	53050000

4	Proposal for procurement of MRSMs and Truck Mounted Anti-Smog Guns, Construction of city roads and interlocking paving works	GMC	21250000
5	Proposal for procurement of MRSM and vehicle mounted Anti-Smog Guns	MCF	20125000
6	Proposal for procurement of MRSMs and vehicle mounted Anti-Smog Guns and paving of non-paved roads	NOIDA Authority	28025000
Sub-total 2			233976661
Sub-total 3 (Sub-total 1 + Sub-total 2)			429379214
Other expenditure			
1	Stipend	CPCB	1350000
2	Refund	Dealers	2128574
Sub-total 4			3478574
Grand Total (Sub-total 3 + Sub-total 4)			432857788

EPC funds estimated utilisation during April 01 2024- March 31 2025 (if permitted)			
S. No.	Projects/ Head	Institutes/ Agencies	Estimated Amount (in Rs.)
On-ground mitigation projects related to ULB/agency kept in abeyance, in view of NGT order in the present matter			
1	Proposal for procurement of ASGs	GMC	11250000
2	Proposal for procurement of MRSMs and ASGs, and road construction/repair and paving works	Municipal Corporation Faridabad	155625000
3	Proposal for road construction/repair works	Meerut Municipal Corporation	100000000
4	Proposal for procurement of MRSMs	New Delhi Municipal Council	71500000
5	Proposal for procurement of MRSMs and ASGs	UPPCB	26960000
Total			365335000

**List of Projects/ Studies/ Laboratory Equipment Procurement funded under NGT EC Funds
as on March 31, 2024**

	Title	Type of Activity	Status (Completed/ ongoing)	Expected/ Sanctioned Expenditure (Rs. in Lacs)	Expenditure till 31.03.2024 (Rs. in Lacs)
1.	Review of National Ambient Air Quality Standards	Research	Ongoing	24.662	14.79
2.	Preparation of guidelines for setting up of Biodiversity Parks in the floodplains of rivers of India	Research	Completed	2.3	2.3
3.	Scientific study to review the deep sea discharge norm at Kantiajal, Gujarat with respect to increase in concentration of COD in discharge effluent	Research	Ongoing	197	78.8
4.	Source Apportionment / Carrying Capacity study for 25 Non-Attainment Cities (NACs)	Research	Ongoing	1417.18	600.5
5.	Machine learning and Artificial Intelligence (AI) tool development for analysis of air quality data	Research	Ongoing	59.45	23.78
6.	Emission Inventories, Source Apportionment and Carrying Capacity studies in the Indo Gangetic Plain (IGP) region	Research	Completed	1.65	1.65
7.	Installation and commissioning of Indigenous items for ring test and static injection system and replacing island tables in wet chemical laboratory	Laboratory strengthening	Completed	160.12	160.12
8.	Random verification of annual inventory report on hazardous waste management submitted by SPCBs/PCCs	Investigation	Completed	200	113

	Title	Type of Activity	Status (Completed/ ongoing)	Expected/ Sanctioned Expenditure (Rs. in Lacs)	Expenditure till 31.03.2024 (Rs. in Lacs)
9.	Assessment of Air, Water, and Soil Quality in Baghjan Oil Blow out site & its Vicinity, Tinsukia, Assam	Investigation	Completed	81.4	52.01
10.	Strengthening of Computer Network in CPCB	IEC	Completed	127	106
11.	Setting up Continuous Ambient Air Quality Monitoring Stations (CAAQMS) in Non-Attainment Cities (NAC) in the country	Monitoring infrastructure	Completed	2500	500
12.	Development of National Hazardous Waste Tracking (NHWTS) Software	Investigation, capacity building	Ongoing	200	0
13.	Design, Development & Implementation of OCEMS* Data Acquisition and Management System (ODAMS) for direct data transfer for the Control of Pollution from Industries in India <i>*OCEMS (Online Continuous Effluent/Emission Monitoring System)</i>	Monitoring infrastructure	Ongoing	410	0
14.	Development of comprehensive Extended Producer Responsibility (EPR) & Circular Economy Portal	Infrastructure for surveillance	Ongoing	300	14.27
15.	Upgradation of Laboratories with IT enabled services including laboratory information management system	Laboratory strengthening	Ongoing	313	208
16.	Development of E-learning module under Mission Karmayogi	Capacity building	Ongoing	40	0
17.	Implementation of centralized barcode system for tracking of biomedical waste	Research	Ongoing	160.9	0

	Title	Type of Activity	Status (Completed/ ongoing)	Expected/ Sanctioned Expenditure (Rs. in Lacs)	Expenditure till 31.03.2024 (Rs. in Lacs)
18.	Strengthening and upgradation of laboratories of CPCB	Laboratory strengthening	Ongoing	8136.67	451.57
19.	Inspection of 389 Grossly Polluting Industries (GPIs) discharging in Hindon Sub basin through third party by seven technical institutes along with concerned SPCBs (Phase I)	Investigation	Completed	27	12.74
20.	Satellite based ambient air quality monitoring at national scale (SAANS): Phase II - Maintenance and Improvement	Monitoring infrastructure	Ongoing	140.07	20.02
21.	Assessment of Environmental Carrying Capacity of Eco-Sensitive Zones: Sanjay Gandhi National Park Mumbai	Research	Completed	6.84	6.84
22.	Setting up of Continuous Ambient Air Quality Monitoring Stations (CAAQMS) in Charkhi Dadri and Mohendergarh in Haryana	Monitoring infrastructure	Ongoing	510	0
23.	Noise Mapping, Hot Spot Identification and Mitigation Plan for Noise Pollution Control in Delhi – I (85 L)	Investigation, Research	Ongoing	112.37	33.71
24.	Inventory management system for laboratories and strengthening of infrastructure	Laboratory strengthening	Completed	373.818	373.818
25.	Conducting 2-day workshops at Central Institute of Petrochemicals Engineering & Technology (CIPET) centers on plastic waste management in India	Capacity building	Completed	66.37	33.75

	Title	Type of Activity	Status (Completed/ ongoing)	Expected/ Sanctioned Expenditure (Rs. in Lacs)	Expenditure till 31.03.2024 (Rs. in Lacs)
26.	Sampling & analysis charges, purchase of equipment/ consumables, etc. for NGT assignments conducted by Regional Directorates of CPCB	NGT assignments, Laboratory strengthening	Ongoing	As per requirement	91.5
27.	Demonstration of Effluent Treatment Plant (ETP) for Environmental Laboratory wastewater treatment	Research	Ongoing	9	8.35
28.	NABL accreditation and strengthening of laboratory at CPCB Regional Directorate Bhopal	Laboratory strengthening	Ongoing	56.58	5.33
29.	Inventorization of salt generated from Common Effluent Treatment Plants (CETPs) of Textile & Tannery sector and status of management in the state of Tamil Nadu	Investigation	Ongoing	12	9
30.	Status of Secured Land-Fills (SLF) maintained by individual industries and CETPs in Tamil Nadu and assessment of ground water quality around SLF	Research	Ongoing	6	3
31.	Study on flood plain identification & demarcation of River Mahanadi in the identified stretches	Research	Completed	6.3	6.3
32.	Development of state of the art laboratory infrastructure at CPCB Regional Directorate Bhopal	Laboratory strengthening	Ongoing	46	23.15
33.	Strengthening & upgradation of laboratory of CPCB Regional Directorate Vadodara	Laboratory strengthening	Ongoing	150.5	0

	Title	Type of Activity	Status (Completed/ ongoing)	Expected/ Sanctioned Expenditure (Rs. in Lacs)	Expenditure till 31.03.2024 (Rs. in Lacs)
34.	Upgradation of the central laboratory of Pollution Control Board, Assam	Laboratory strengthening	Ongoing	492	344.4
35.	Information, Education & Communication Activities in Arunachal Pradesh	Capacity building	Completed	27.69	24.92
36.	Inventorization of Seven types of wastes in Arunachal Pradesh	Investigation	Completed	100	90
37.	Setting up of laboratory at Namsai, Arunachal Pradesh by APPCB	Laboratory strengthening	Completed	95	59.85
38.	Procurement of Video Conferencing Equipment for Nagaland Pollution Control Board	Capacity building, IEC	Completed	2.85	2.85
39.	Inventorization of Hazardous waste in Nagaland	Investigation	Completed	15.67	41.18
40.	Information, Education & Communication Activities in Nagaland	Capacity building	Completed	30	
41.	Construction of 1 km road using plastic waste (polymer bitumen road) at Signal point, Dimapur, Nagaland* <i>*The project was undertaken by Nagaland Pollution Control Board to demonstrate utilization of plastic waste in road making.</i>	Research	Completed	30.34	27.31
42.	Inventorization and awareness of E-waste in the state of Nagaland	Investigation	Completed	22.5	22.5
43.	Installation of Real Time Water Quality Monitoring Stations (RTWQMS) by Punjab SPCB	Monitoring infrastructure	Completed	375	375
44.	Laboratory Upgradation of Punjab SPCB	Laboratory strengthening	Completed	540	540

	Title	Type of Activity	Status (Completed/ ongoing)	Expected/ Sanctioned Expenditure (Rs. in Lacs)	Expenditure till 31.03.2024 (Rs. in Lacs)
45.	VOC emission spray painting and control technologies	Research	Completed	4.55	4.55
46.	Manipur Pollution Control board – Assistance for urgent needs of the laboratory of the board (procurement of equipment, consumables, etc.)	Laboratory strengthening	Completed	86.91	86.91
47.	Waste to wealth hackathon under Mission Life	IEC	Completed	1.8	1.8
48.	Conference cum training program on environmental pollution and remediation conducted at Delhi Judicial Academy	IEC	Completed	1.22	1.22
49.	Upgradation of monitoring capabilities of Air Laboratory in CPCB through procurement of HPLC system & accessories and PM _{2.5} Samplers	Laboratory strengthening	Completed	106.8	106.8
50.	Restoration of Phuldera drain	NGT assignment	Ongoing	125	62.5
51.	Study to establish whether existing batch processes and advanced batch automated process are able to meet environmental concerns vis-a vis- continuous process in tyre pyrolysis Industry	NGT assignment	Completed	3.84	3.84
52.	Assessment of environmental damage and preparation of restoration plan for air, water and soil environment due to styrene gas leakage at Visakhapatnam	NGT assignment	Completed	54.51	25.73
53.	Bioremediation of contaminated soils and surface water bodies and ground water (aquifer) of the De-sludged and refilled Lagoon of Distillery Spent wash of M/s	NGT assignment	Ongoing	16.95	6.78

	Title	Type of Activity	Status (Completed/ ongoing)	Expected/ Sanctioned Expenditure (Rs. in Lacs)	Expenditure till 31.03.2024 (Rs. in Lacs)
	Godavari Bio-refineries Ltd. at Sakarwadi, Maharashtra				
54.	Environmental and health studies in Malegaon in pursuant to Hon'ble NGT matter in OA No. 359 of 2019-PB	NGT assignment	Ongoing	59	35.4
55.	Project for reporting built up area with all floor plan drawings and measurements of A wing & B Wing of Project at CTS No. 628 A & 629 C, Village Kandivali Mumbai in pursuant to the Hon'ble NGT matter in OA no. 77/2019 (PB)	NGT assignment	Completed	2.26	2.26
56.	Ambient Air Quality Monitoring at Charkhi Dadri	NGT assignment	Completed	1.35	1.35
57.	Monitoring of Tadgam, Tithal and Jampore beaches in Valsad, Gujarat and Daman	NGT assignment	Completed	10	10
58.	Sampling of Cigarettes & Bidi Butts through IITR-Lucknow	NGT assignment	Completed	48	48
59.	Compensation to the concerned students by Delhi Legal Service Authority	NGT assignment	Completed	51	51
60.	General Framework For Imposing Environmental Damage Compensation - Meta-analysis study for Environmental Damage Assessment	NGT assignment	Completed	6.37	6.29
61.	Restoration plan for environment, public health and ground water around Panipat refinery	NGT assignment	Ongoing	4251	780
62.	Testing of vegetables, edible products, soil & water on the bank of river Yamuna in Delhi	NGT assignment	Completed	2.5	2.46

	Title	Type of Activity	Status (Completed/ ongoing)	Expected/ Sanctioned Expenditure (Rs. in Lacs)	Expenditure till 31.03.2024 (Rs. in Lacs)
63.	Damage Cost Assessment for MSW Landfill site at Bandhwari Village Gurugram	NGT assignment	Completed	8.74	8.74
64.	Validation of Right Biotic System for carrying out quick hygienic survey of rivers	NGT assignment	Completed	10.27	10.27
65.	Report on impact of operation of kiln on air pollution in NCR in pursuant to Hon'ble SC civil appeal 18213/2023	Hon'ble court assignment	Completed	1.65	1.65
66.	Report on extent of damage in & around MIDC Tarapur; restoration measures, environmental damage cost & cost of restoration, and individual accountability of CETP and polluting units in pursuant to Hon'ble NGT OA no.64/2016 (WZ)	NGT assignment	Completed	5.19	5.19
67.	Value added use of Bottom Ash of thermal power plant as partial replacement of natural sand in concrete	Research	Ongoing	16.80	0

Status of Funds Available in 23 Specific Purpose Bank Accounts as on March 31, 2024

	Bank A/C Title	Case No. & Case Title	Account No.	Amount Deposited	Expense s	Interest	Balance
1	CPCB SP DPCC 1039/18	OA No. 1039/2018, Aali Vihar Vikas Manch Vs. State of GNCT of Delhi & Ors. 28.02.2019	532702050000179	500,000	-	45,030	545,030
2	CPCB SP SEAL Containers 234/18	Appeal No. 234/2018, Charudatt Pandurang Koli & Ors. Vs. Maharashtra SPCB & Ors.21.12.2018	532702050000180	10,000,000	-	1,105,879	11,105,879
3	CPCB SP Delhi M Corpn 46/18	OA No. 46/2018, Nuggehalli Jayasimha Vs. GNCT of Delhi01.04.2019	532702050000181	4,000,000	-	154,646	4,154,646
4	CPCB SP FARIDABAD MC 627/18	O.A No. 627/2018, Awasiya Jan Kalyan Samiti Vs. State of Haryana	532702050000185	17,553,347	-	942,975	18,496,322
5	CPCB SP CENTURY PLYWOOD 90/17	OA No. 90/2017, Safal Bharat Guru Parampara & Ors. Vs. State of Punjab & Ors.31.10.2018	1849101100000027	500,000	-	43,085	543,085
6	CPCB SP SCHOOLS 217/16	O.A No. 217/2016, Mahesh Chandra Saxena Vs. MoUD & Ors.16.11.2017	1849101100000036	8,000,000	-	703,449	8,703,449
7	CPCB SP GRASIM INDS 164/18	OA No. 164/2018, Ashwani Kumar Dubey Vs. UOI & Ors.19.07.2019	1849101100000018	10,000,000	-	883,702	10,883,702
8	CPCB SP GAMMON INDIA 295/16	EA No. 32/2016, in O.A No. 295/2016, Amresh Singh Vs. UOI & Ors.12.02.2019	1849101100000054	30,000,000	-	2,619,940	32,619,940
9	CPCB OA 20/2017Morbi Gujarat	O.A No. 20/2017, NGT, WZ, Babubhai Ramubhai Saini Vs. Gujarat Pollution Control Board & Ors	0268104000155908	21,416,041	13,324,940	393,221	8,484,322
10	CPCB SP LDA 214/14	O.A No. 214/2017, We the People, Th. Gen. Secretary Vs. UOI & Ors. 01.11.2018	0268104000152518	50,000,000	-	4,864,766	54,864,766
11	CPCB SP DELHI GOVT 159/13	O.A No. 159/2013, All India Lokadhikar - Ashok Vihar Vs. GNCT of Delhi & Ors. 16.10.2018	0268104000152525	150,000,000	-	15,284,070	165,284,070
12	CPCB SP VAPI GREEN ENVIRO 95/18	OA No. 95/2018, Aryavart Foundation Vs. M/s Vapi Green Enviro Ltd. & Ors. 11.01.2019	0268104000152556	252,016,000	-	25,938,614	277,954,614
13	CPCB SP RAJASTHAN GOVT 202/16	OA No. 202/2016, Balotra Textile Hand Processors Vs. Rajasthan SPCB & Ors. 10.12.2018, 06.03.2019	0268104000152563	300,000,000	-	30,968,530	330,968,530
14	CPCB SP KARNATAKA GOVT 125/17	OA No. 125/2017, Court on its own Motion Vs. State of Karnataka , 06.12.2018	0268104000152570	500,000,000	-	51,751,628	551,751,628
15	CPCB SP WB GOVT 200/14	O.A No. 200/2014, M C Mehta Vs. UOI & Ors.	110045363940	2,582,257	-	200,361	2,782,618
16	CPCB SP WB GOVT 23/17	O.A No. 23/2017, NGT Bar Association Vs. Sunil Deshukh	0268104000152617	-	-	-	-
17	CPCB SP GOA GOVT 77-86/18	O.A No. 77-86/2018/WZ, Goa Paryavaran Vs. Dy. Collector/ SMD, Pernem & Ors.15.10.2019 & 26.11.2019	0268104000152624	-	-	-	-
18	CPCB SP DPCC 519/16	OA No. 519/2016, Hardeep Singh & Ors. Vs. SDMC & Ors.12.02.2019	110045404883	500,000	-	43,507	543,507
19	CPCB SP BBMP 711/18	O.A No. 711/2018, Venkatesh & Ors. Vs. UOI & Ors.22.10.2018	0268104000152662	50,000,000	-	4,864,766	54,864,766
20	CPCB SP DPCC 56 57/13	O.A No. 56-57/2013, Satish Kumar Vs. UOI & Ors.03.12.2018	0268104000152679	250,500,000	-	25,755,468	276,255,468
21	CPCB SP SL CONTAINERS 40/14	EA No. 05/2018 in OA No. 40/2014, Charudatt Koli Vs. M/s Sea Lord Containers Ltd.07.03.2019	0268104000152686	50,000,000	-	4,864,766	54,864,766
22	CPCB SP RINL 117/14	O.A No. 117/2014, Shantanu Sharma Vs. UOI & Ors.20.11.2018	110045884570	10,338,643	-	846,092	11,184,735
23	CPCB SP UPCL 578/18	O.A No. 578/2018, Jan Jagriti Samiti Vs. UOI & Ors.	0268104000152716	50,000,000	-	4,874,017	54,874,017
TOTAL				1,767,906,288	13,324,940	177,148,512	1,931,729,860

List of ongoing projects and estimated amount planned to be released during FY 2024 – 25

	Title	Type of Activity	Sanctioned Cost (Rs. Lacs)	Expenditure till 31.03.2024 (Rs. Lacs)	Estimated Amount to be released during April 01, 2024 – March 31, 2025 (Rs. Lacs)	Balance amount committed to be released in subsequent years (Rs. Lacs)
1	Review of National Ambient Air Quality Standards	Research	24.662	14.79	9.872	0
2	Scientific study to review the deep sea discharge norm at Kantiajal, Gujarat with respect to increase in concentration of COD in discharge effluent	Research	197	78.8	118.2	0
3	Source Apportionment / Carrying Capacity study for 25 Non-Attainment Cities (NACs)	Research	1417.18	600.5	816.68	0
4	Machine learning and Artificial Intelligence (AI) tool development for analysis of air quality data	Research	59.45	23.78	29.72	5.95 (10% of project cost will be released after acceptance of final report)
5	Development of National Hazardous Waste Tracking (NHWTS) Software	Investigation, capacity building	200	0	200	0

	Title	Type of Activity	Sanctioned Cost (Rs. Lacs)	Expenditure till 31.03.2024 (Rs. Lacs)	Estimated Amount to be released during April 01, 2024 – March 31, 2025 (Rs. Lacs)	Balance amount committed to be released in subsequent years (Rs. Lacs)
6	Design, Development & Implementation of OCEMS* Data Acquisition and Management System (ODAMS) for direct data transfer for the Control of Pollution from Industries in India *OCEMS (Online Continuous Effluent/Emission Monitoring System)	Monitoring infrastructure	410	0	246	164 (phase II – AMC, implementation of tools developed, AI application, etc.)
7	Development of E-learning module under Mission Karamyogi	Capacity building	40	0	40	0
8	Implementation of centralized barcode system for tracking of biomedical waste	Research	160.9	0	160.9	0
9	Strengthening and upgradation of laboratories of CPCB	Laboratory strengthening	8136.67	429	4191	3516.67 (procurement of equipment & instruments in phase III with focus on strengthening laboratories in Regional Directorates)
10	Satellite based ambient air quality monitoring at national scale (SAANS)	Monitoring infrastructure	140.07	20.02	30.04	90.01 (Phase II FY 2026 Rs. 42.88 L; Phase III FY 2027 Rs. 44.78 L)

	Title	Type of Activity	Sanctioned Cost (Rs. Lacs)	Expenditure till 31.03.2024 (Rs. Lacs)	Estimated Amount to be released during April 01, 2024 – March 31, 2025 (Rs. Lacs)	Balance amount committed to be released in subsequent years (Rs. Lacs)
11	Setting up of Continuous Ambient Air Quality Monitoring Stations (CAAQMS) in Charkhi Dadri and Mohendergarh in Haryana	Monitoring infrastructure	510	0	510	0
12	Noise Mapping, Hot Spot Identification and Mitigation Plan for Noise Pollution Control in Delhi	Investigation, Research	112.37	33.71	78.66	0
13	NABL accreditation and strengthening of laboratory at CPCB Regional Directorate Bhopal	Laboratory strengthening	56.58	5.33	26.89	24.36 (procurement of stack monitoring kit, gaseous monitoring assemblies, spectrophotometer, TKN analyzer, incubator, handy flue gas analyzers, etc. FY 2025-26)
14	Status of Secured Land-Fills (SLF) maintained by individual industries and CETPs in Tamil Nadu and assessment of ground water quality around SLF	Research	6	3	3	0

	Title	Type of Activity	Sanctioned Cost (Rs. Lacs)	Expenditure till 31.03.2024 (Rs. Lacs)	Estimated Amount to be released during April 01, 2024 – March 31, 2025 (Rs. Lacs)	Balance amount committed to be released in subsequent years (Rs. Lacs)
15	Development of state of the art laboratory infrastructure at CPCB Regional Directorate Bhopal	Laboratory strengthening	46	23.15	22.85 (analytical facilities, water purification system, chemical storage facility, etc.)	0
16	Strengthening & upgradation of laboratory of CPCB Regional Directorate Vadodara	Laboratory strengthening	150.5	0	150.5	0
17	Upgradation of the central laboratory of Pollution Control Board, Assam	Laboratory strengthening	492	344.4	147.6	0
18	Upgradation of Laboratories with IT enabled services including Laboratory Information Management System	Laboratory strengthening	313	208	105	0
19	Restoration of Phuldera drain	NGT assignment	125	62.5	62.5	0
20	Bioremediation of contaminated soils and surface water bodies and ground water (aquifer) of the De-sludged and refilled Lagoon of Distillery Spent wash of M/s Godavari Bio-	NGT assignment	16.95	6.78	10.17	0

	Title	Type of Activity	Sanctioned Cost (Rs. Lacs)	Expenditure till 31.03.2024 (Rs. Lacs)	Estimated Amount to be released during April 01, 2024 – March 31, 2025 (Rs. Lacs)	Balance amount committed to be released in subsequent years (Rs. Lacs)
	refineries Ltd. at Sakarwadi, Maharashtra					
21	Environmental and health studies in Malegaon in pursuant to Hon'ble NGT matter in OA No. 359 of 2019-PB	NGT assignment	59	35.4	23.6	0
22	Value added use of Bottom Ash of thermal power plant as partial replacement of natural sand in concrete	Research	16.80	0	16.80	0
TOTAL			Rs. 126.90 Crores	Rs. 18.89 Crores	Rs. 70.00 Crores	Rs. 38.01 Crores



CPCB
Central Pollution Control Board
Parivesh Bhawan, East Arjun Nagar,
Delhi 110032

F.no. CP/37/2024-RnD-HO-CPCB-HO

April 22, 2024

OFFICE ORDER

Sub.: Constitution of the in-house Committee for preparation of action plan for utilization of Environmental Compensation (EC) Funds – reg.

Hon'ble NGT vide order dated April 02, 2024 in the matter of O.A. No. 638/2023 titled 'News item titled "Feeling anxious? Toxic air could be to blame" appearing in Times of India dated 10.10.2023', has directed preparation of action plan (comprehensive and one-year) for utilization of Environmental Compensation (EC) funds and Environmental Protection Charges (EPC) funds. It is also directed to disclose prioritization of utilization of EC funds received under different orders of Hon'ble NGT and Environmental Protection Charges (EPC) funds received in compliance of Hon'ble Supreme Court Order in WP(C) No. 13029/1985: MC Mehta V. Union of India & Ors. dated 12.08.2016. A copy of the said order dated 02/4/2024 of the Hon'ble NGT is attached for ready reference.

In order to comply with the aforesaid order regarding preparation of action plan and prioritization of the utilization of the NGT EC funds, an in-house committee is hereby constituted comprising of the following members,

1.	Shri B Vinod Babu, DH WM II & IT	Chairperson
2.	Sh. Vishal Gandhi, Sc E, WQM I	Member
3.	Shri Pankaj Agrawal, DH AQM	Member
4.	Shri Aditya Sharma, DH AQMN	Member
5.	Shri S K Sharma, DH Air Lab	Member
6.	Smt. Garima Sharma, DH R & D	Member Convener

TERMS OF REFERENCE

1. The Committee shall prepare comprehensive and one-year action plan for utilization of the NGT EC funds (25%, 75%, 23 specific accounts). This action plan shall distinctly outline priority areas and funds earmarked for utilization within each priority area, in compliance to the directives of the Hon'ble NGT in the matter.
2. The Comprehensive plan on utilization of EC funds shall cover on each environmental component including air.
3. The proposed action plan for NGT EC funds shall be within the following 11 specific activities approved by Hon'ble NGT vide order dated January 22, 2019 in the matter of O.A. No 101/2019, titled CPCB Vs Assam SPCB & Ors.,
 - i. Development of infrastructure for Air and Water quality surveillance and monitoring for different areas/locations in Delhi NCR and other needed places.
 - ii. Remediation of contaminated sites- and for that to develop infrastructure, procurement of equipment etc. including hiring of Experts/Consultants for specific requirement for remediation of sites, etc.
 - iii. Specific investigations and studies with regard to environment and ecology.
 - iv. Carrying capacity assessment for ecologically and environmentally sensitive & critical areas, including hiring of Experts/Consultants for specific purpose and period.
 - v. R&D activities with regard to new technologies, clean technologies, etc.
 - vi. Capacity building of scientific and engineering personnel of CPCB and PCBs/PCCs to rejuvenate and protect the environment.
 - vii. Augmenting and strengthening of laboratory network in-terms of manpower and logistics.
 - viii. Payment of honorarium in compliance of Judicial Orders of the Courts and Tribunal.
 - ix. Specialized studies on accidental spill areas, health impact assessment, recalcitrant pollutants, etc.
 - x. IEC activities
 - xi. Any other scientific and technical matter which may arise as a contingent matter.

However, in case the committee recommends utilization of funds for activities other than the above, proper justification for the same be also provided.

4. The Committee shall convene its meetings as needed to fulfill its mandate and submit the action plan within timeline given by the Hon'ble NGT.

5. The Committee can invite experts or any other official necessary to provide insights, expertise, or relevant information towards fulfillment of the entrusted task.
6. The tenure of the Committee is until the completion of the assigned task.



(Bharat Kumar Sharma)
Member Secretary

To,

- All members of the Committee

Copy to:

- PS to CCB – For information to CCB
- PS to MS – For record please

**List of potential projects under various thematic areas having relevance to the directions of
Hon'ble NGT in various matters proposed to be funded**

	Potential Projects	Thematic Area	Executing Agency
1.	Performance evaluation of Sewage Treatment Plants covering observations of Hon'ble NGT in various orders in the matter OA 606/2018	Water quality management	CPCB, SPCB/ PCC, Research/ Academic institutes
2.	Assessment of sewage management in selected towns having population less than 10 lakh and suggestions for improvement	Water quality management	CPCB, SPCB/ PCC, Research/ Academic institutes
3.	Utilization of treated sewage	Water quality management	CPCB, Research/ Academic institutes as third party
4.	Assessment of sewage & solid waste management in identified hilly areas and suggestions for improvement	Water quality management and waste management	CPCB, SPCB/ PCC, Research/ Academic institutes
5.	Assessment of solid waste management in Union Territories and suggestions for improvement	Waste management	CPCB, SPCB/ PCC, Research/ Academic institutes
6.	Performance assessment in selected waste to energy plants & compost plants including reject management.	Waste management	CPCB, SPCB/ PCC, Research/ Academic institutes
7.	Utilization of plastics and RDF in Cement Plants; Utilization of HW as alternative fuel and raw material in Cement plants	Waste management	CPCB, SPCB/ PCC
8.	Adequacy study and performance evaluation of E waste management facilities in the country	Waste management	CPCB, SPCB/ PCC, Research/ Academic institutes
9.	Status update on authorization granted by State Pollution Control Boards under Hazardous and other Wastes (Management & Transboundary Movement) Rules, 2016	Waste management	CPCB
10.	Adequacy study and performance evaluation of Common Bio-Medical Waste Treatment Facility in the country	Waste management	CPCB, SPCB/ PCC, Research/ Academic institutes
11.	Investigation and preparation of Detailed Project Reports for selected priority bio-mining sites	Assessment of contaminated sites	CPCB, SPCB/ PCC, Research/ Academic institutes

	Potential Projects	Thematic Area	Executing Agency
12.	Status update on contaminated sites	Assessment of contaminated sites	CPCB, SPCB/ PCC
13.	Airshed approach to air quality management in Indo-Gangetic Plains	Air quality management	CPCB, Research/ Academic institutes
14.	Strengthening of monitoring network to include additional parameters in addition to existing PM ₁₀ , SO ₂ , NO ₂	Air quality management	CPCB, SPCB/ PCC
15.	Impact on air quality due to adoption of cleaner fuels in industrial cluster	Specialized studies and research & development projects	CPCB, SPCB/ PCC, Research/ Academic institutes
16.	Health studies and epidemiological surveys in hotspot areas, million plus cities, industrial clusters, etc.	Specialized studies and research & development projects	CPCB, SPCB/ PCC, Research/ Academic institutes
17.	Research study on sand mining in the country	Specialized studies and research & development projects	CPCB, SPCB/ PCC, Research/ Academic institutes
18.	Revision of Industrial Standards for 21 industrial sectors and development of Comprehensive Industrial Documents for 25 industrial sectors	Specialized studies and research & development projects	CPCB

भारत का राजपत्र

The Gazette of India

असाधारण

EXTRAORDINARY

भाग III—खण्ड 4

PART III—Section 4

प्राधिकार से प्रकाशित

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राष्ट्रीय परिवेशी वायु गुणवत्ता मानक

केन्द्रीय प्रदूषण नियंत्रण बोर्ड

अधिसूचना

नई दिल्ली, 18 नवम्बर, 2009

सं. सी-29016/20/90/पी.सी.आई.-1.—वायु (प्रदूषण निवारण एवं नियंत्रण) अधिनियम, 1981 (1981 का 14) की धारा 16 की उपधारा (2) (एच) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए तथा अधिसूचना संख्या का.आ. 384(ई), दिनांक 11 अप्रैल, 1994 और का.आ. 935 (ई) दिनांक 14 अक्टूबर, 1998 के अधिक्रमण में केन्द्रीय प्रदूषण नियंत्रण बोर्ड इसके द्वारा तत्काल प्रभाव से राष्ट्रीय परिवेशी वायु गुणवत्ता मानक अधिसूचित करता है, जो इस प्रकार है:-

राष्ट्रीय परिवेशी वायु गुणवत्ता मानक

क्र. सं.	प्रदूषक	समय आधारित औसत	परिवेशी वायु में सान्द्रण		
			औद्योगिक, रिहायशी, ग्रामीण और अन्य क्षेत्र	पारिस्थितिकीय संवेदनशील क्षेत्र (केन्द्र सरकार द्वारा अधिसूचित)	प्रबोधन की पद्धति
(1)	(2)	(3)	(4)	(5)	(6)
1	सल्फर डाई आक्साइड (SO ₂), µg/m ³	वार्षिक* 24 घंटे**	50 80	20 80	-उन्नत वेस्ट और गार्ड -परचैगनी परिदीप्ती
2	नाइट्रोजन डाई आक्साइड (NO ₂), µg/m ³	वार्षिक* 24 घंटे**	40 80	30 80	-उपांतरित जैकब और हॉवाइजर (सोडियम-आर्सेनाइट) -रासायनिक संदीप्ति
3	विशिष्ट पदार्थ (10माइक्रान से कम आकार)या PM ₁₀ . µg/m ³	वार्षिक* 24 घंटे**	60 100	60 100	-हरात्मक विश्लेषण -टोयम -बीटा तनुकरण पद्धति

4	विविक्त पदार्थ (2.5 माइक्रान से कम आकार या $PM_{2.5}$, $\mu g/m^3$)	वार्षिक* 24 घंटे**	40 60	40 60	-हरात्मक विश्लेषण -टोयम -बीटा तनुकरण पद्धति
5	ओजोन (O_3) $\mu g/m^3$	8 घंटे** 1 घंटा**	100 180	100 180	-पराबैगनी द्वीप्तिकाल -रासायनिक संदीप्ति -रासायनिक पद्धति
6	सीसा (Pb) $\mu g/m^3$	वार्षिक* 24 घंटे**	0.50 1.0	0.50 1.0	ई.पी.एम. 2000 या समरूप फिल्टर पेपर का प्रयोग करके AAS/ICP पद्धति -टेफ्लॉन फिल्टर पेपर का प्रयोग करते हुए ED-XRF
7	कार्बन मोनोक्साइड (CO) mg/m^3	8 घंटे** 1 घंटा**	02 04	02 04	-अविषेक्षी अवरक्त (NDIR) स्पेक्ट्रम मापन
8	अमोनिया (NH_3) $\mu g/m^3$	वार्षिक* 24 घंटे**	100 400	100 400	-रासायनिक संदीप्ति -इण्डोफिनॉल ब्ल्यू पद्धति
9	बैन्जीन (C_6H_6) $\mu g/m^3$	वार्षिक*	05	05	- गैस क्रोमेटोग्राफी आधारित सतत विश्लेषक -अधिशोषण तथा निशोषण के बाद गैस क्रोमेटोग्राफी
10	बैन्जो (ए) पाईरीन (BaP) केवल विविक्त कण, ng/m^3	वार्षिक*	01	01	-विलायक निष्कर्षण के बाद HPLC/GC द्वारा विश्लेषण
11	आर्सेनिक (As) ng/m^3	वार्षिक*	06	06	-असंवितरक अवरक्त स्पेक्ट्रोमिती ई.पी.एम. 2000 या समरूप फिल्टर पेपर का प्रयोग करके ICP/AAS पद्धति
12	निकिल (Ni) ng/m^3	वार्षिक*	20	20	ई.पी.एम. 2000 या समरूप फिल्टर पेपर का प्रयोग करके ICP/AAS पद्धति

* वर्ष में एक समान अंतरालों पर सप्ताह में दो बार प्रति 24 घंटे तक किसी एक स्थान विशेष पर लिये गये न्यूनतम 104 मापों का वार्षिक अंकगणीतीय औसत ।

** वर्ष में 98 प्रतिशत समय पर 24 घंटे या 8 घंटे या 1 घंटा के मानीटर मापमान, जो लागू हो, अनुपालन कये जाएंगे । दो प्रतिशत समय पर यह मापमान अधिक हो सकता है, किन्तु क्रमिक दो मानीटर करने के दिनों पर नहीं ।

टिप्पणी:

1. जब कभी और जहां भी किसी अपने-अपने प्रवर्ग के लिये दो क्रमिक प्रबोधन दिनों पर मापित मूल्य, उमर विनिर्दिष्ट सीमा से अधिक हो तो इसे नियमित या निरंतर प्रबोधन तथा अतिरिक्त अन्वेषण करवाने के लिये पर्याप्त कारण समझा जायेगा ।

संत प्रखर गौतम, अध्यक्ष

[विज्ञापन-III/4/184/09/अस.]

टिप्पणी: राष्ट्रीय परिवेशी वायु गुणवत्ता मानक संबंधी अधिसूचनाएँ, केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा भारत के राजपत्र आसाधरण में अधिसूचना संख्या का.आ. 384 (ई), दिनांक 11 अप्रैल, 1994 एवं का. आ. 935 (ई), दिनांक 14 अक्टूबर, 1998 द्वारा प्रकाशित की गयी थी ।

NATIONAL AMBIENT AIR QUALITY STANDARDS
CENTRAL POLLUTION CONTROL BOARD
NOTIFICATION

New Delhi, the 18th November, 2009

No. B-29016/20/90/PCI-I—In exercise of the powers conferred by Sub-section (2) (h) of section 16 of the Air (Prevention and Control of Pollution) Act, 1981 (Act No.14 of 1981), and in supersession of the Notification No(s). S.O. 384(E), dated 11th April, 1994 and S.O. 935(E), dated 14th October, 1998, the Central Pollution Control Board hereby notify the National Ambient Air Quality Standards with immediate effect, namely:-

NATIONAL AMBIENT AIR QUALITY STANDARDS

S. No.	Pollutant	Time Weighted Average	Concentration in Ambient Air		
			Industrial, Residential, Rural and Other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1	Sulphur Dioxide (SO ₂), µg/m ³	Annual* 24 hours**	50 80	20 80	- Improved West and Gaeke -Ultraviolet fluorescence
2	Nitrogen Dioxide (NO ₂), µg/m ³	Annual* 24 hours**	40 80	30 80	- Modified Jacob & Hochheiser (Na-Arsenite) - Chemiluminescence
3	Particulate Matter (size less than 10µm) or PM ₁₀ µg/m ³	Annual* 24 hours**	60 100	60 100	- Gravimetric - TOEM - Beta attenuation
4	Particulate Matter (size less than 2.5µm) or PM _{2.5} µg/m ³	Annual* 24 hours**	40 60	40 60	- Gravimetric - TOEM - Beta attenuation
5	Ozone (O ₃) µg/m ³	8 hours** 1 hour**	100 180	100 180	- UV photometric - Chemiluminescence - Chemical Method
6	Lead (Pb) µg/m ³	Annual* 24 hours**	0.50 1.0	0.50 1.0	- AAS /ICP method after sampling on EPM 2000 or equivalent filter paper - ED-XRF using Teflon filter
7	Carbon Monoxide (CO) mg/m ³	8 hours** 1 hour**	02 04	02 04	- Non Dispersive Infra Red (NDIR) spectroscopy
8	Ammonia (NH ₃) µg/m ³	Annual* 24 hours**	100 400	100 400	-Chemiluminescence -Indophenol blue method

(1)	(2)	(3)	(4)	(5)	(6)
9	Benzene (C ₆ H ₆) µg/m ³	Annual*	05	05	- Gas chromatography based continuous analyzer - Adsorption and Desorption followed by GC analysis
10	Benzo(a)Pyrene (BaP) - particulate phase only, ng/m ³	Annual*	01	01	- Solvent extraction followed by HPLC/GC analysis
11	Arsenic (As), ng/m ³	Annual*	06	06	- AAS /ICP method after sampling on EPM 2000 or equivalent filter paper
12	Nickel (Ni), ng/m ³	Annual*	20	20	- AAS /ICP method after sampling on EPM 2000 or equivalent filter paper

- * Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.
- ** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

Note. — Whenever and wherever monitoring results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered adequate reason to institute regular or continuous monitoring and further investigation.

SANT PRASAD GAUTAM, Chairman
[ADVT-III/4/184/09/Exty.]

Note: The notifications on National Ambient Air Quality Standards were published by the Central Pollution Control Board in the Gazette of India, Extraordinary vide notification No(s). S.O. 384(E), dated 11th April, 1994 and S.O. 935(E), dated 14th October, 1998.

S.No.	Pollutant	Health Effects	Reference
1 & 2	Particulate Matter, (PM10 and PM2.5, $\mu\text{g}/\text{m}^3$)	<p>Major concerns for human health from exposure to PM10 include effects on breathing, respiratory symptoms, decrease in pulmonary function and damage to lung, tissue cancer, and premature death. An increase of 10 $\mu\text{g}/\text{m}^3$ of PM10 levels resulted in a 3-6 % increase in visits for asthma and a 1-3 % increase in visits for upper respiratory diseases, but not with asthma.</p> <p>The short-term health effects are generated due to deposition of the larger size fraction (PM2.5-10) in the upper respiratory tract, which induces excess secretion of mucus as self-cleaning mechanism and thereby altering the lung function.</p> <p>The fine particles impact the pulmonary region (lower respiratory system), which are known to cause long-term chronic effects.</p>	Gordian, M.E., Özkaynak, H., Xue, J., Morris, S.S., Spengler, J.D. (1996). "Particulate Air Pollution and Respiratory Disease in Anchorage, Alaska", Environ. Health. Perspect, 104, 290-297.
3	Benzene, $\mu\text{g}/\text{m}^3$	<p>Several clinical and epidemiological studies have shown that long-term exposure to benzene can lead to leukaemia, and benzene has been classified as a human carcinogen (Group 1) by International Agency for Research on Cancer (IARC, Lyon).</p> <p>In addition, a number of non-cancer health effects are associated with benzene exposure such as disorders of blood, harmful effects on bone marrow, anaemia and reduced abilities of blood to clot, damage to immune system and a reproductive and developmental toxicant.</p>	Air quality guidelines for Europe. Copenhagen, World Health Organization Regional Office for Europe, 2000 (WHO Regional Publications, European Series, No. 91).

4	Carbon Monoxide (CO), mg/m ³	<p>Carbon monoxide diffuses rapidly across alveolar, capillary and placental membranes. Approximately 80-90% of absorbed carbon monoxide binds with haemoglobin (Hb) to form carboxyhaemoglobin, which is a specific biomarker of exposure in blood. The affinity of Hb for CO is 200-250 times that of oxygen.</p> <p>The initial symptoms of CO poisoning may include headache, dizziness, drowsiness, and nausea. These initial symptoms may advance to vomiting, loss of consciousness, and collapse if prolonged or high exposures are encountered. Coma or death may occur if high exposures continue.</p>	<p>a. Air quality guidelines for Europe. Copenhagen, World Health Organization Regional Office for Europe, 2000 (WHO Regional Publications, European Series, No. 91).</p> <p>b. Air quality criteria for carbon monoxide. Washington, DC. US Environmental Protection Agency, Office of Research and Development, 1991 (Publication no. EPA-600/B-90/045F).</p>
5	Benzo (a) Pyrene (BaP) – ng/m ³	<p>The serious health effects, caused from acute and chronic human exposure. These health effects include carcinogenesis, localized skin effects, pulmonary and respiratory problems, genetic reproduction and development effects, and behavioural neurotoxic and other organ system effects</p>	<p>CPCB (2003) Parivesh, Polycyclic Aromatic Hydrocarbons (PAHs) In Air and their Effects on human health - November 2003. Newsletter from Central Pollution Control Board, Ministry of Environment and Forest.</p>
6	Arsenic (As), ng/m ³	<p>The clinical picture of chronic poisoning with arsenic varies widely. It is usually dominated by changes in the skin and mucous membranes and by neurological, vascular and hematological lesions. Involvement of the gastrointestinal tract, increased salivation, irregular dyspepsia, abdominal cramps and loss of weight may also occur. Reports of diminished sexual activity in persons with chronic arsenic exposure are frequent. Arsenic and its inorganic compounds have long been known to be neurotoxic.</p> <p>Chronic exposure to arsenic dust caused a decrease in peripheral nerve</p>	<p>a. Air quality guidelines for Europe. Copenhagen, World Health Organization Regional Office for Europe, 1987 (WHO Regional Publications, European Series, No. 23).</p> <p>b. Ishinishi et al., 1986. Arsenic. In: Friberg, L., Nordberg, G.F. & Vouk, B.V., ed. Handbook of the toxicology of metals, Vol. II. Amsterdam-New York-Oxford, Elsevier.</p>

		<p>conduction velocities. Increased mortality from cardiovascular diseases has been observed in epidemiological investigations of smelter workers exposed to high levels of airborne arsenic. A peripheral vascular disorder leading to gangrene of the extremities, known as blackfoot disease, has been observed.</p> <p>No deaths after acute Arsenic exposure have been reported via inhalation. Whereas, ingestion of large doses of As is reported to produce gastrointestinal problems, multiorgan failure, and death. Most of these symptoms have not been associated with acute inhalation of inorganic As.</p> <p>Arsenic dusts are reported to cause irritation of the respiratory system (mucus membranes in throat and nose), which can lead to laryngitis, bronchitis, or rhinitis</p>	
7	Lead (Pb), µg/m ³	<p>Lead affects several physiological processes including the blood-forming, reproductive, nervous and renal (kidney) systems. Even low levels of lead exposure can increase blood pressure and permanently lower children's IQ. Higher levels can make any of us anemic - damaging our red blood cells and sapping our energy.</p> <p>Long-term exposure of adults to lead at work has resulted in decreased performance in some tests that measure functions of the nervous system. Lead exposure may also cause weakness in fingers, wrists, or ankles.</p>	<p>a. US EPA, 1995. Research Triangle, Park, North Carolina, US Environmental Protection Agency, Office of Health and Environmental Assessment, Environmental Criteria and Assessment Office.</p> <p>b. Agency for Toxic Substances and Disease Registry (ATSDR), 1993. Update Toxicological Profile for Lead. US Department of Health and Human Services, Public Health Services, Agency for Toxic Substances and Disease Registry, Atlanta, Georgia 30333.</p>

8	Nickel (Ni), ng/m ³	<p>Minor inhalation of Nickel (Ni) may cause dry sore throat, cough, dizziness and headache.</p> <p>The critical organ following inhalation exposure is the respiratory tract. After short-term high-dose inhalation exposure, lung irritation and pneumonia are critical effects. Sore throat, cough, chest tightness and dyspnoea occur within minutes, often associated with dizziness, nausea, headache and muscle cramps. A chemical pneumonitis may develop in severe cases, sometimes after a latent period of a few days. Anorexia, abdominal pain, jaundice and diarrhoea are also reported and rarely myocarditis, delirium, convulsions or coma. Death may occur due to pulmonary haemorrhage, pulmonary or cerebral oedema or toxic myocarditis. Death is not immediate and often, happened after few days</p>	<p>a. (U.S.EPA) United States Environmental Protection Agency, 1985. Health assessment document for nickel. EPA/600/8-83/012F. Washington (DC): U.S.EPA; p. 3-3.</p> <p>b. WHO (2000). Air quality guidelines for Europe. Copenhagen, World Health Organization Regional Office for Europe, 2000 (WHO Regional Publications, European Series, No. 91).</p>
9	Nitrogen Dioxide (NO ₂), µg/m ³	<p>Nitrogen dioxide exposure can cause decrement in lung function (i.e. increased airway resistance), increased airway responsiveness to broncho-constrictions, change in lung volume, flow volume, characteristics of lung or airway resistance in healthy persons. It has been established that continuous exposure with as little as 0.1 ppm NO₂ over a period of one to three years, increases incidence of bronchitis, emphysema and have adverse effect on lung performance.</p> <p>Exposure to excessive NO₂, affect the defence mechanism leaving the host susceptible to respiratory illness. bronchiolar and alveolar epithelium, inflammation of epithelium and definite emphysema.</p>	<p>Air quality guidelines for Europe. Copenhagen, World Health Organization Regional Office for Europe, 2000 (WHO Regional Publications, European Series, No. 91).</p>

10	Ozone (O ₃), µg/m ³	<p>Repeated exposure to ozone pollution may cause permanent damage to the lungs. Even when ozone is present in low levels, inhaling it triggers a variety of health problems including chest pain, coughing, nausea, throat irritation and congestion. It also worsens bronchitis, heart disease, emphysema, asthma and reduces lung capacity. Ozone can irritate respiratory system, causing coughing, feel an irritation in throat and/or experience an uncomfortable sensation in chest. It can reduce lung function and make it more difficult to breathe as deeply and vigorously as one normally would.</p> <p>Ozone makes people more sensitive to allergens, which are the most common triggers for asthma attacks, thus it can aggravate asthma, when ambient ozone levels are high. Also, asthmatics are more severely affected by the reduced lung function and irritation in the respiratory system. Ozone can inflame and damage lung cells. Within few days of ozone exposure, the damaged cells are replaced and the old cells are shed. Ozone may aggravate chronic lung diseases such as emphysema and bronchitis and reduce the immune system's ability to fight off bacterial infections in the respiratory system.</p>	<p>a. Air quality guidelines for Europe. Copenhagen, World Health Organization Regional Office for Europe, 2000 (WHO Regional Publications, European Series, No. 91).</p> <p>b. Health Aspects of Air Pollution with Particulate Matter, Ozone and Nitrogen Dioxide Report on a WHO Working Group Bonn, Germany 13–15 January 2003, EUR/03/5042688.</p>
11	Sulphur Dioxide (SO ₂), g/m ³	<p>Sulphur dioxide causes its irritant effects by stimulating nerves in the lining of the nose, throat and the lung airways. This later affects the people suffering from asthma and chronic lung disease, whose airways get inflamed and easily irritated.</p> <p>For long-term exposure, assessments examined were on the prevalence of respiratory symptoms, respiratory illness frequencies, or differences in lung function values in localities with</p>	<p>a. Air quality guidelines for Europe. Copenhagen, WHO Regional Office for Europe, 1987(WHO Regional Publications, European Series, No. 23).</p> <p>b. Department of Health. Advisory Group on the Medical Aspects of Air Pollution Episodes. Second</p>

		contrasting concentrations of sulfur dioxide and particulate matter, largely in the coal-burning era.	report: Sulphur dioxide, acid aerosols and particulates. London, H.M. Stationery Office, 1992.
12	Ammonia (NH ₃), g/m ³	Ammonia vapour is an irritant to the eyes and the respiratory tract. Damage to the bronchial epithelium and the alveolar membrane have been documented at high concentrations while severe acute over-exposure can lead to death within minutes. Ammonia in high concentrations (liquid or gas) will kill most organisms	Ministry of the Environment (MoE) Ontario (2001). Ontario Air Quality Standard for Ammonia. Standards Development Branch Ontario Ministry of the Environment. Ont., Canada

Steps taken for improvement of air quality and reduction in 12 notified pollutants

S. No	Pollutants	Steps taken
1	Sulphur Dioxide (SO ₂), µg/m ³	<u>Emission Standards:</u> <ul style="list-style-type: none"> ● Setting and enforcing emission standards for industries and power plants, especially those burning fossil fuels. ● Encouraging the use of cleaner fuels and technologies to reduce sulphur content in emissions - Regulation on use of pet coke and furnace oil. ● Regulation for recovery of Sulphur in Oil refineries.
2	Nitrogen Dioxide (NO ₂), µg/m ³	<ul style="list-style-type: none"> ● Setting and enforcing emission standards for industries and Thermal power plants. ● Setting and enforcing emission standards for bio medical waste & solid waste incinerators
3 & 4	Particulate Matter (size less than 10 µm) or PM ₁₀ , µg/m ³ Particulate Matter (size less than 2.5µm) or PM _{2.5} , µg/m ³	<p>National Clean Air Programme (NCAP):</p> <ul style="list-style-type: none"> ● Focused actions in 131 Non-Attainment Cities to reduce Particulate Matter concentrations up to 40% by 2025-26 in comparison to levels of FY 2019-20 under National Clean Air Programme (NCAP) <p><u>Dust Control Measures:</u></p> <ul style="list-style-type: none"> ● Guidelines issued on dust mitigation measures in handling Construction material and Construction & Demolition (C&D) waste. ● Guidelines issued for Environmental management of C&D waste. ● Directions issued to SPCBs/ PCCs for ensuring dust control measures and use of anti-smog guns at construction sites. <p><u>Industrial Emission Standards:</u></p> <ul style="list-style-type: none"> ● Development and Enforcement of emission standards for industries, waste incinerators etc. prescribing particulate emissions standards also. ● Encouraging industries to adopt cleaner production technologies and improve efficiency.

		<p><u>Waste burning:</u></p> <ul style="list-style-type: none"> • Directions under Section 5 of the Environment (Protection) Act, 1986 have been issued to Chairpersons of all State Pollution Control Boards/PCCs on May 26, 2022 for management of fires at dumpsites. The direction lays down the onsite and off sites measures to be implemented for prevention and control of fires in dumpsites. Besides, ULBs are responsible for overall management of solid waste and Solid Waste Management Rules,2016 have already been notified. • Guidelines issued for disposal of legacy waste. • Notification of Rules on management of various wastes including introduction of Extended Producer Responsibility framework for waste streams such as plastic waste, e-waste, battery waste, waste tyre and used oil in order to effectively manage the waste in an environmentally sound manner. <p><u>Biomass burning</u> Financial support provided to Palletization/torrefaction units based on paddy straw through guidelines issued by CPCB, for addressing the issue of stubble burning in Northern Region, especially, Punjab, Haryana and NCR Districts of U.P. and Rajasthan and Delhi.</p> <p><u>DG Sets Retrofitment and revision of emission standards</u> CPCB has come out with a System and Procedure for Emission Compliance Testing of retrofit emission Control Devices (RECD) for Diesel Power Generating Set Engines up to Gross Mechanical Power 800 kW. RECD system shall have minimum PM reduction efficiency of 70%. Also, revised emissions standards have been notified for DG sets having capacity upto 800 KW.</p>
5	Ozone (O ₃), µg/m ³	<ul style="list-style-type: none"> • Controlling precursors of O₃ such as volatile organic compounds (VOCs) and nitrogen oxides (NO_x) through regulating industrial emissions for VOCs and NO_x.
6	Lead (Pb), µg/m ³	<ul style="list-style-type: none"> • Phasing out the use of leaded gasoline. • Regulating and monitoring emissions from industries - Emission standards of heavy metals (Pb) have been notified for various industrial sectors such as electroplating industry, Lead Acid Battery Manufacturing Industries etc. • Emission standards for heavy metals are notified for Common Hazardous waste incinerators.

		<ul style="list-style-type: none"> ● Guidelines issued for minimum required facilities, operating practices and standards for Lead recycling units. ● Battery Waste Management Rules, 2022 notified by MoEF&CC mandates Producers, Recyclers, and Refurbisher to carry out activities in accordance with the standards or guidelines prescribed by Central Pollution Control Board. ● Introduction of Concept of Extended Producers Responsibility (EPR): EPR places the responsibility on battery producers for recycling or refurbishment of batteries introduced in the market. Producer have the obligation to meet the EPR Targets as prescribed in the Rules. This incentivizes producers to establish and support battery recycling facilities and thereby reducing the likelihood of improper disposal and release of lead into the environment. ● Centralised Online EPR Portal – Producer, Recyclers and Refurbishers have to obtain registration through the Online EPR portal developed by CPCB. Producers/Recyclers/Refurbishers shall not deal with entity not having registration mandated under these rules. This will help in proper disposal of Waste Batteries through formal sector. Similar framework is also in place for management of e-waste.
7	Carbon Monoxide (CO), mg/m ³	<p><u>Industrial Regulations:</u></p> <ul style="list-style-type: none"> ● Setting and enforcing emission standards for industries – Oil refinery and petrochemical industries, waste incinerators. ● Encouraging the adoption of cleaner technologies in industries. ● Setting and enforcing emission standards for Solid waste incinerators <p><u>Waste burning</u></p> <ul style="list-style-type: none"> ● Directions under Section 5 of the Environment (Protection) Act, 1986 have been issued to Chairpersons of all State Pollution Control Boards on May 26, 2022 for management of fires at dumpsites. The direction lays down the onsite and off sites measures to be implemented for prevention and control of fires in dumpsites. Besides, ULBs are responsible for overall management of solid waste and MSW management rules have already been notified. ● Guidelines issued for disposal of legacy waste. <p><u>Biomass burning</u></p> <p>Financial support provided to Palletization/torrefaction units based on paddy straw through guidelines issued by CPCB, for addressing the issue of stubble burning in Northern Region, especially,</p>

		Punjab, Haryana and NCR Districts of U.P. and Rajasthan and Delhi.
8	Ammonia (NH ₃), µg/m ³	<ul style="list-style-type: none"> • The major source of Industrial Ammonia emission is fertilizers (urea) industries. Other sources include Dye and dye intermediate industries, pesticide industries, etc. Standards for ammonia emissions have been notified for these industries. • Untreated Sewage: Assessment of sewage generation and management conducted in the country. Further, standards have been notified and various guidelines/directions have been issued. Matter was also dealt by Hon'ble NGT and currently monitored by Central Monitoring Committee.
9	Benzene (C ₆ H ₆), µg/m ³	<ul style="list-style-type: none"> • The major source of Industrial Benzene emissions are petroleum oil refineries and Petrochemicals. For petroleum oil refineries and Petrochemical, storage Standards for volatile liquids, standards for controlling fugitive emissions and standards for equipment leaks have been notified. • 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 a population between 1 lakh to 1 million. • Directions issued to Oil Marketing Companies for installation of Vapor Recovery System as per above mentioned criteria
10	Benzo(a) Pyrene (BaP)- particulate phase only), ng/m ³	<ul style="list-style-type: none"> • Development and enforcement of stringent emission standards for industrial facilities, Coke ovens in Iron and steel plants, and other sources known to emit benzo[a]pyrene through upgraded Pollution Control Technologies
11	Arsenic (As), ng/m ³	<ul style="list-style-type: none"> • Implementation and enforcement of stringent particulate emission standards for industries and facilities (metal smelting, coal combustion, and certain manufacturing processes) that handle arsenic-containing materials. • Emission standards of heavy metals are notified for the Common Hazardous waste incinerators and Waste to Energy plants.
12	Nickel (Ni), ng/m ³	<ul style="list-style-type: none"> • Implementation and enforcement of stringent particulate emission standards for various industries activities (Iron and steel, Sulphur smelting, and petroleum refining, etc.) • Emission standards of heavy metals are notified for Common Hazardous waste incinerators and Waste to Energy plants.

Other Steps to Reduce Air Pollution

- Self-regulatory mechanism for strengthening monitoring and effective compliance has been introduced. CPCB has directed all 17 categories of highly polluting industries and common waste treatment/management facilities to install Online Continuous Emission Monitoring Systems (OCEMS) for constant vigil on pollution levels. Real-time data of emissions released from industrial units are transmitted online to respective industrial units, CPCB and concerned SPCB/PCC on 24x7 basis. Central software processes the data and in case of non-compliance of applicable standards/ 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.
- Ambient air quality monitoring network of the country comprises of 1500 stations (Manual and Continuous), covering 543 cities in 28 States and 7 Union Territories (UT). The manual network consists of 962 stations in 419 cities covering 28 States and 7 UTs and the continuous monitoring network consists of 538 stations in 279 cities covering 27 states and 4 UTs.
- Various directions under Section 5 of the Environment (Protection) Act 1986/ Section 18 (1) (b) of the Water (Prevention and Control of Pollution) Act, 1974/Section 18 (1) (b) of the Air (Prevention and Control of Pollution) Act, 1981, and, guidelines have been issued on management of various Wastes (Hazardous Waste, E-Waste, Plastic Waste, Municipal Solid Waste, Construction & Demolition Waste) and comprehensive management of paddy straw.

List of cities where NH3 monitoring conducted (prior to Hon'ble NGT order 02.04.2024)

Table 1: Number of cities monitored for the parameter NH3 (228 cities)

Sl. No.	State / Union Territory	City / town	Sl. No.	State / Union Territory	City / town
1	Andhra Pradesh	Amaravati	44	Bihar	Samastipur
2	Andhra Pradesh	Anantapur	45	Bihar	Sasaram
3	Andhra Pradesh	Chittor	46	Bihar	Siwan
4	Andhra Pradesh	Eluru	47	Chandigarh (UT)	Chandigarh
5	Andhra Pradesh	Guntur	48	Chattisgarh	Durg-BhillaiNMgar
6	Andhra Pradesh	Kadapa	49	DDNH (UT)	Baldevi (D & N Haveli)
7	Andhra Pradesh	Kakinada	50	DDNH (UT)	Patlara (Daman)
8	Andhra Pradesh	Kurnool	51	DDNH (UT)	Silvasa
9	Andhra Pradesh	Nellore	52	Delhi (UT)	Delhi
10	Andhra Pradesh	Ongole	53	Goa	Mapusa
11	Andhra Pradesh	Rajahmundry	54	Goa	Panaji
12	Andhra Pradesh	Srikakulam	55	Goa	Vasco
13	Andhra Pradesh	Tirupati	56	Gujarat	Ahmedabad
14	Andhra Pradesh	Vijayawada	57	Gujarat	Ankleshwar
15	Andhra Pradesh	Visakhapatnam	58	Gujarat	GandhiNMgar
16	Andhra Pradesh	ViziaNMgaram	59	Gujarat	Jamnagar
17	AruNMchal Pradesh	NMharlagun	60	Gujarat	Rajkot
18	Assam	Byrnihat	61	Gujarat	Surat
19	Assam	Guwahati	62	Gujarat	Vadodara
20	Assam	Nalbari	63	Gujarat	Vapi
21	Assam	Sivasagar	64	Gujarat	Vatva
22	Bihar	Araria	65	Haryana	Ambala
23	Bihar	Arrah	66	Haryana	Bahadurgarh
Sl. No.	State / Union Territory	City / town	Sl. No.	State / Union Territory	City / town
24	Bihar	Aurangabad	67	Haryana	Ballabgarh
25	Bihar	Begusarai	68	Haryana	Bhiwani
26	Bihar	Bettiah	69	Haryana	Charkhi Dadri
27	Bihar	Bhagalpur	70	Haryana	Dharuhera
28	Bihar	Bihar Sharif	71	Haryana	Faridabad
29	Bihar	Buxar	72	Haryana	Fatehabad
30	Bihar	Chhapra	73	Haryana	Gurgaon
31	Bihar	Darbhanga	74	Haryana	Hissar
32	Bihar	Gaya	75	Haryana	Jind
33	Bihar	Hajipur	76	Haryana	Kaithal
34	Bihar	Katihar	77	Haryana	Karnal
35	Bihar	Kishanganj	78	Haryana	Kurukshetra
36	Bihar	Manguraha	79	Haryana	Mandikhera
37	Bihar	Motihari	80	Haryana	Manesar
38	Bihar	Munger	81	Haryana	Narnaul
39	Bihar	Muzaffarpur	82	Haryana	Palwal
40	Bihar	PatNM	83	Haryana	Panipat
41	Bihar	Purnia	84	Haryana	Sirsa
42	Bihar	Rajgir	85	Haryana	Sonepat
43	Bihar	Saharsa	86	Haryana	Yamuna Nagar

87	Himachal Pradesh	Damtal	133	Madhya Pradesh	Sagar
88	Himachal Pradesh	Dharamshala	134	Madhya Pradesh	Singrauli
89	Himachal Pradesh	Kala Amb	135	Madhya Pradesh	Ujjain
90	Himachal Pradesh	Parwanoo	136	Maharashtra	Amravati
91	Himachal Pradesh	Poanta Sahib	137	Maharashtra	Aurangabad
92	Karnataka	Bangalore	138	Maharashtra	Chandrapur
93	Karnataka	Belgaum	139	Maharashtra	Dombivali / Kalyan
94	Karnataka	Bidar	140	Maharashtra	Mumbai
95	Karnataka	Bijapur / Vijayapura	141	Maharashtra	Nagpur
96	Karnataka	ChamarajaNMgar	142	Maharashtra	Nashik
97	Karnataka	Chikkaballapur	143	Maharashtra	Navi Mumbai
98	Karnataka	Chikkamagaluru	144	Maharashtra	Thane
99	Karnataka	Chitradurga	145	Manipur	Imphal
100	Karnataka	Gulbarga / Kalaburgi	146	Meghalaya	Shillong
101	Karnataka	Hassan	147	Mizoram	Aizwal
102	Karnataka	Haveri	148	NMgaland	Kohima
103	Karnataka	Hubli-Dharwad	149	Odisha	Angul
104	Karnataka	Kolar	150	Odisha	Balasore
105	Karnataka	Koppal	151	Odisha	Baripada
106	Karnataka	Madikeri	152	Odisha	Bileipada
107	Karnataka	Mandya	153	Odisha	Brajrajnagar
108	Karnataka	Mangalore	154	Odisha	Cuttack
109	Karnataka	Mysore	155	Odisha	Jharsuguda
110	Karnataka	Raichur	156	Odisha	Kalinga Nagar
111	Karnataka	RamaNMgara	157	Odisha	Keonjhar
112	Karnataka	Shimaga / Shivamogga	158	Odisha	Konark
113	Karnataka	Tumkuru	159	Odisha	Puri
114	Karnataka	Yadgir	160	Odisha	Rairangpur
115	Kerala	Alappuzha	161	Odisha	Rayagada
116	Kerala	Eloor	162	Odisha	Rourkela
117	Kerala	ErNMkulam	163	Odisha	Sambalpur
118	Kerala	Kannur	164	Odisha	Talcher
119	Kerala	Kochi	165	Odisha	Tensa
120	Kerala	Kollam	166	Pondicherry (UT)	Pondicherry
121	Kerala	Kozhikode	167	Punjab	Amritsar
122	Kerala	ThiruvanaMntapuram	168	Punjab	Mandi Gobindgarh
123	Kerala	Thrissur	169	Punjab	Jalandhar
124	Madhya Pradesh	Amlai	170	Punjab	Khanna
125	Madhya Pradesh	Bhopal	171	Punjab	Ludhiana
126	Madhya Pradesh	Dewas	172	Punjab	Patiala
127	Madhya Pradesh	Gwalior	173	Rajasthan	Ajmer
128	Madhya Pradesh	Indore	174	Rajasthan	Alwar
129	Madhya Pradesh	Jabalpur	175	Rajasthan	Bhiwadi
130	Madhya Pradesh	Katni	176	Rajasthan	Jaipur
131	Madhya Pradesh	Mandideep	177	Rajasthan	Kota
132	Madhya Pradesh	Pithampur	178	Rajasthan	Pali

Sl. No.	State / Union Territory	City / town	Sl. No.	State / Union Territory	City / town
179	Rajasthan	Udaipur	204	Uttar Pradesh	Allahabad
180	Sikkim	Gangtok	205	Uttar Pradesh	Bagpat
181	Tamilnadu	Chennai	206	Uttar Pradesh	Bareilly
182	Tamilnadu	Coimbatore	207	Uttar Pradesh	Bulandshahr
183	Tamilnadu	Dindigul	208	Uttar Pradesh	Firozabad
184	Tamilnadu	Gummidipoondi	209	Uttar Pradesh	Ghaziabad
185	Tamilnadu	Hosur	210	Uttar Pradesh	Gorakhpur
186	Tamilnadu	Kanchipuram	211	Uttar Pradesh	Greater Noida
187	Tamilnadu	Ooty	212	Uttar Pradesh	Hapur
188	Tamilnadu	RamaNMthapuram	213	Uttar Pradesh	Jhansi
189	Tamilnadu	Salem	214	Uttar Pradesh	Kanpur
190	Tamilnadu	Tiruvarur	215	Uttar Pradesh	Khurja
191	Tamilnadu	Vellore	216	Uttar Pradesh	Lucknow
192	Telangana	Hyderabad	217	Uttar Pradesh	Meerut
193	Telangana	KarimNMgar	218	Uttar Pradesh	Moradabad
194	Telangana	Khammam	219	Uttar Pradesh	MuzaffarNMgar
195	Telangana	Kothur	220	Uttar Pradesh	Noida
196	Telangana	NMIgonda	221	Uttar Pradesh	Varanasi
197	Telangana	Nizamabad	222	Uttar Pradesh	Vrindavan
198	Telangana	Patancheru	223	West Bengal	Asansol
199	Telangana	Ramagundum	224	West Bengal	Durgapur
200	Telangana	Sangareddy	225	West Bengal	Haldia
201	Telangana	Warangal	226	West Bengal	Howrah
202	Tripura	Agartala	227	West Bengal	Kolkata
203	Uttar Pradesh	Agra	228	West Bengal	Siliguri

List of cities where NH3 monitoring conducted (post Hon'ble NGT order 02.04.2024)

Table 2: Number of cities monitored for the parameter NH3 (282 cities)

SI.No	State	City	SI.No	State	City
1	Andhra Pradesh	Amaravati	24	Bihar	Araria
2	Andhra Pradesh	Anantapur	25	Bihar	Arrah
3	Andhra Pradesh	Chittoor	26	Bihar	Begusarai
4	Andhra Pradesh	Kadapa	27	Bihar	Bettiah
5	Andhra Pradesh	Rajamahendravaram	28	Bihar	Bhagalpur
6	Andhra Pradesh	Tirupati	29	Bihar	Bihar Sharif
7	Andhra Pradesh	Vijayawada	30	Bihar	Chhapra
8	Andhra Pradesh	Visakhapatnam	31	Bihar	Gaya
9	Andhra Pradesh	Anantapur	32	Bihar	Hajipur
10	Andhra Pradesh	Chittoor	33	Bihar	Katihar
11	Andhra Pradesh	Kadapa	34	Bihar	Kishanganj
12	Andhra Pradesh	Visakhapatnam	35	Bihar	Manguraha
13	Andhra Pradesh	Kurnool	36	Bihar	Motihari
14	Andhra Pradesh	Srikakulam	37	Bihar	Munger
15	Andhra Pradesh	Tirupathi	38	Bihar	Muzaffarpur
16	Andhra Pradesh	Vizianagaram	39	Bihar	Patna
17	Assam	Byrnihat	40	Bihar	Purnia
18	Assam	Guwahati	41	Bihar	Rajgir
19	Assam	Nagaon	42	Bihar	Saharsa
20	Assam	Nalbari	43	Bihar	Samastipur
21	Assam	Silchar	44	Bihar	Sasaram
22	Assam	Sivasagar	45	Bihar	Siwan
23	Assam	Talcher	46	Chandigarh	Chandigarh

Sl.No	State	City	Sl.No	State	City
47	Chhattisgarh	Bhilai	86	Karnataka	Bengaluru
48	Chhattisgarh	Chhal	87	Karnataka	Bidar
49	Chhattisgarh	Korba	88	Karnataka	Chamarajanagar
50	Chhattisgarh	Kunjemura	89	Karnataka	Chikkaballapur
51	Chhattisgarh	Milupara	90	Karnataka	Chikkamagaluru
52	Chhattisgarh	Raipur	91	Karnataka	Davanagere
53	Chhattisgarh	Tumidih	92	Karnataka	Dharwad
54	Delhi	Delhi	93	Karnataka	Gadag
55	Gujarat	Ahmedabad	94	Karnataka	Hassan
56	Gujarat	Ankleshwar	95	Karnataka	Haveri
57	Gujarat	Gandhinagar	96	Karnataka	Hubballi
58	Gujarat	Vatva	97	Karnataka	Kalaburagi
59	Gujarat	Ankleshwar	98	Karnataka	Kolar
60	Haryana	Ambala	99	Karnataka	Koppal
61	Haryana	Bahadurgarh	100	Karnataka	Madikeri
62	Haryana	Ballabgarh	101	Karnataka	Mangalore
63	Haryana	Bhiwani	102	Karnataka	Mysuru
64	Haryana	Charkhi Dadri	103	Karnataka	Raichur
65	Haryana	Dharuhera	104	Karnataka	Ramanagara
66	Haryana	Faridabad	105	Karnataka	Shivamogga
67	Haryana	Fatehabad	106	Karnataka	Tumakuru
68	Haryana	Gurugram	107	Karnataka	Udupi
69	Haryana	Hisar	108	Karnataka	Vijayapura
70	Haryana	Jind	109	Karnataka	Yadgir
71	Haryana	Kaithal	110	Karnataka	Bagalkote
72	Haryana	Karnal	111	Karnataka	Bidar
73	Haryana	Kuruksheetra	112	Karnataka	Bijapur
74	Haryana	Mandikhera	113	Karnataka	Hubli-Dharwad
75	Haryana	Manesar	114	Karnataka	Kalaburgi
76	Haryana	Narnaul	115	Karnataka	Kolar
77	Haryana	Palwal	116	Karnataka	Mandya
78	Haryana	Panipat	117	Karnataka	Mysore
79	Haryana	Sirsa	118	Karnataka	Raichur
80	Haryana	Sonipat	119	Karnataka	Tumkuru
81	Himachal Pradesh	Baddi	120	Kerala	Eloor
82	Himachal Pradesh	Manali	121	Kerala	Kannur
83	Jharkhand	Jorapokhar	122	Kerala	Kochi
84	Karnataka	Bagalkot	123	Kerala	Kollam
85	Karnataka	Belgaum	124	Kerala	Thiruvananthapuram

SI.No	State	City	SI.No	State	City
125	Kerala	Thrissur	165	Maharashtra	Ulhasnagar
126	Madhya Pradesh	Bhopal	166	Maharashtra	Virar
127	Madhya Pradesh	Dewas	167	Manipur	Imphal
128	Madhya Pradesh	Gwalior	168	Meghalaya	Shillong
129	Madhya Pradesh	Indore	169	Mizoram	Aizawl
130	Madhya Pradesh	Jabalpur	170	Nagaland	Kohima
131	Madhya Pradesh	Katni	171	Odisha	Baripada
132	Madhya Pradesh	Pithampur	172	Odisha	Bileipada
133	Madhya Pradesh	Sagar	173	Odisha	Brajrajnagar
134	Madhya Pradesh	Singrauli	174	Odisha	Keonjhar
135	Madhya Pradesh	Ujjain	175	Odisha	Mandideep
136	Maharashtra	Ahmednagar	176	Odisha	Nayagarh
137	Maharashtra	Akola	177	Odisha	Rairangpur
138	Maharashtra	Amravati	178	Odisha	Rourkela
139	Maharashtra	Aurangabad	179	Odisha	Suakati
140	Maharashtra	Badlapur	180	Odisha	Tensa
141	Maharashtra	Belapur	181	Odisha	Rourkela
142	Maharashtra	Bhiwandi	182	Odisha	Talcher
143	Maharashtra	Boisar	183	Odisha	Cuttack
144	Maharashtra	Chandrapur	184	Odisha	Jharsuguda
145	Maharashtra	Dhule	185	Odisha	Kalinga Nagar
146	Maharashtra	Jalgaon	186	Odisha	Kalunga
147	Maharashtra	Jalna	187	Odisha	Kuarmunda
148	Maharashtra	Kalyan	188	Odisha	Paradeep
149	Maharashtra	Kolhapur	189	Odisha	Puri
150	Maharashtra	Latur	190	Odisha	Rayagada
151	Maharashtra	Mahad	191	Odisha	Sabalpur
152	Maharashtra	Malegaon	192	Puducherry	Puducherry
153	Maharashtra	Mira-Bhayandar	193	Punjab	Amritsar
154	Maharashtra	Mumbai	194	Punjab	Jalandhar
155	Maharashtra	Nagpur	195	Punjab	Khanna
156	Maharashtra	Nanded	196	Punjab	Ludhiana
157	Maharashtra	Nashik	197	Punjab	Mandi Gobindgarh
158	Maharashtra	Navi Mumbai	198	Punjab	Patiala
159	Maharashtra	Parbhani	199	Punjab	Yamuna Nagar
160	Maharashtra	Pimpri-Chinchwad	200	Rajasthan	Ajmer
161	Maharashtra	Pune	201	Rajasthan	Alwar
162	Maharashtra	Sangli	202	Rajasthan	Banswara
163	Maharashtra	Solapur	203	Rajasthan	Baran
164	Maharashtra	Thane	204	Rajasthan	Barmer

Sl.No	State	City	Sl.No	State	City
205	Rajasthan	Bharatpur	244	Tamil Nadu	Ramanathapuram
206	Rajasthan	Bhilwara	245	Tamil Nadu	Salem
207	Rajasthan	Bhiwadi	246	Tamil Nadu	Tirupur
208	Rajasthan	Bikaner	247	Tamil Nadu	Vellore
209	Rajasthan	Bundi	248	Telangana	Hyderabad
210	Rajasthan	Chittorgarh	249	Telangana	Hyderabad
211	Rajasthan	Churu	250	Telangana	Khammam
212	Rajasthan	Dausa	251	Telangana	Nalgonda
213	Rajasthan	Dholpur	252	Telangana	Sangareddy
214	Rajasthan	Hanumangarh	253	Telangana	Warangal
215	Rajasthan	Jaipur	254	Tripura	Agartala
216	Rajasthan	Jaisalmer	255	Uttar Pradesh	Agra
217	Rajasthan	Jhalawar	256	Uttar Pradesh	Baghpat
218	Rajasthan	Jhunjhunu	257	Uttar Pradesh	Bareilly
219	Rajasthan	Jodhpur	258	Uttar Pradesh	Bulandshahr
220	Rajasthan	Karauli	259	Uttar Pradesh	Firozabad
221	Rajasthan	Kota	260	Uttar Pradesh	Ghaziabad
222	Rajasthan	Nagaur	261	Uttar Pradesh	Gorakhpur
223	Rajasthan	Pali	262	Uttar Pradesh	Greater Noida
224	Rajasthan	Pratapgarh	263	Uttar Pradesh	Hapur
225	Rajasthan	Rajsamand	264	Uttar Pradesh	Jhansi
226	Rajasthan	Sikar	265	Uttar Pradesh	Kanpur
227	Rajasthan	Sri Ganganagar	266	Uttar Pradesh	Khurja
228	Rajasthan	Tonk	267	Uttar Pradesh	Lucknow
229	Rajasthan	Udaipur	268	Uttar Pradesh	Meerut
230	Rajasthan	Jaipur	269	Uttar Pradesh	Moradabad
231	Rajasthan	Jodhpur	270	Uttar Pradesh	Muzaffarnagar
232	Sikkim	Gangtok	271	Uttar Pradesh	Noida
233	Tamil Nadu	Ariyalur	272	Uttar Pradesh	Prayagraj
234	Tamil Nadu	Chengalpattu	273	Uttar Pradesh	Varanasi
235	Tamil Nadu	Chennai	274	Uttar Pradesh	Vrindavan
236	Tamil Nadu	Coimbatore	275	Uttarakhand	Kashipur
237	Tamil Nadu	Cuddalore	276	Uttarakhand	Rishikesh
238	Tamil Nadu	Dindigul	277	West Bengal	Asansol
239	Tamil Nadu	Gummidipoondi	278	West Bengal	Durgapur
240	Tamil Nadu	Hosur	279	West Bengal	Haldia
241	Tamil Nadu	Kanchipuram	280	West Bengal	Howrah
242	Tamil Nadu	Ooty	281	West Bengal	Kolkata
243	Tamil Nadu	Palkalaiperur	282	West Bengal	Siliguri

List of cities where Ni, Pb, As & B(a)P monitoring conducted (prior to Hon'ble NGT order 02.04.2024)

Table 3: Number of cities monitored for the parameter Nickel (12 cities)

Sl. No.	State / Union Territory	City / town
1.	Delhi (UT)	Delhi
2.	Gujarat	Ahmedabad
3.	Gujarat	Ankleshwar
4.	Gujarat	Jamnagar
5.	Gujarat	Rajkot
6.	Gujarat	Surat
7.	Gujarat	Vadodara
8.	Gujarat	Vapi
9.	Karnataka	Bangalore
10.	Karnataka	Kolar
11.	Uttar Pradesh	Kanpur
12.	West Bengal	Kolkata

Table 4: Number of cities monitored for the parameter Lead (23 cities)

Sl.No.	State / Union Territory	City / town
1	Delhi (UT)	Delhi
2	Goa	Amona
3	Goa	Assanora
4	Goa	Bicholim
5	Goa	Codli
6	Goa	Cuncolim
7	Goa	Honda
8	Goa	Kundaim
9	Goa	Tilamol
10	Goa	Tuem

11	Goa	Usgao-Pale
12	Gujarat	Ahmedabad
13	Gujarat	Ankleshwar
14	Gujarat	Jamnagar
15	Gujarat	Rajkot
16	Gujarat	Surat
17	Gujarat	Vadodara
18	Gujarat	Vapi
19	Karnataka	Bangalore
20	Karnataka	Kolar
21	Karnataka	Tumkuru
22	Uttar Pradesh	Kanpur
23	West Bengal	Kolkata

Table 5: Number of cities monitored for the parameter Arsenic (10 cities)

Sl. No.	State / Union Territory	City / town
1.	Delhi (UT)	Delhi
2.	Gujarat	Ahmedabad
3.	Gujarat	Ankleshwar
4.	Gujarat	Jamnagar
5.	Gujarat	Rajkot
6.	Gujarat	Surat
7.	Gujarat	Vadodara
8.	Gujarat	Vapi
9.	Uttar Pradesh	Kanpur
10.	West Bengal	Kolkata

Table 6: Number of cities monitored for the parameter B(a)P (10 cities)

Sl. No.	State / Union Territory	City / town
1.	Delhi (UT)	Delhi
2.	Gujarat	Ahmedabad
3.	Gujarat	Ankleshwar

4.	Gujarat	Jamnagar
5.	Gujarat	Rajkot
6.	Gujarat	Surat
7.	Gujarat	Vadodara
8.	Gujarat	Vapi
9.	Uttar Pradesh	Kanpur
10.	West Bengal	Kolkata

List of cities where Ni, Pb, As & B(a)P monitoring conducted (post Hon'ble NGT order 02.04.2024)

Table 7: Number of cities monitored for the parameter Nickel (413 cities)

Sl. No.	State	City	Sl. No.	State	City
1	Andaman & Nicobar (UT)	Port Blair	34	Assam	Tezpur
2	Andhra Pradesh	Anatapur	35	Assam	Tinsukia
3	Andhra Pradesh	Chittor	36	Bihar	Begusarai
4	Andhra Pradesh	Eluru	37	Bihar	Darbhangha
5	Andhra Pradesh	Guntur	38	Bihar	Gaya
6	Andhra Pradesh	Kadapa	39	Bihar	Muzaffarpur
7	Andhra Pradesh	Kakinada	40	Bihar	Patna
8	Andhra Pradesh	Kurnool	41	Bihar	Rajgir
9	Andhra Pradesh	Nellore	42	Bihar	Sasaram
10	Andhra Pradesh	Ongole	43	Chandigarh (UT)	Chandigarh
11	Andhra Pradesh	Rajahmundry	44	Chattisgarh	Bilaspur
12	Andhra Pradesh	Srikakulam	45	Chattisgarh	Durg-Bhillainagar
13	Andhra Pradesh	Tirupati	46	Chattisgarh	Korba
14	Andhra Pradesh	Vijayawada	47	Chattisgarh	Raigarh
15	Andhra Pradesh	Visakhapatnam	48	Chattisgarh	Raipur
16	Andhra Pradesh	Vizianagaram	49	D&N H and D&D (UT)	Baldevi
17	Andhra Pradesh	Tirumala	50	D & N H and D& D (UT)	Nagarpalika Complex
18	Andhra Pradesh	Bobbili	51	D & N H and D& D (UT)	Shivom Industries, Khadoli
19	Andhra Pradesh	Pydibeemavaram	52	D & N H and D& D (UT)	RTO Office Nani
20	Arunachal Pradesh	Itanagar	53	D & N H and D& D (UT)	Patlara Village
21	Arunachal Pradesh	Naharlagun	54	D & N H and D& D (UT)	J.B hemicals, Kadiya, aman
22	Assam	Bongaigaon	55	Goa	Amona
23	Assam	Brynihat	56	Goa	Assanora
24	Assam	Daranga	57	Goa	Bicholim
25	Assam	Dibrugarh	58	Goa	Codli
26	Assam	Golaghat	59	Goa	Cuncolim
27	Assam	Guwahati	60	Goa	Honda
28	Assam	Magherita	61	Goa	Kundaim
29	Assam	Nagaon	62	Goa	Mapusa
30	Assam	Nalbari	63	Goa	Margao

31	Assam	North Lakhimpur	64	Goa	Marmagao
32	Assam	Silcher	65	Goa	Panaji
33	Assam	Sivasagar	66	Goa	Ponda

Sl.No	State	City	Sl.No	State	City
67	Goa	Sanguem	110	J & K (UT)	Samba (J)
68	Goa	Tilamol	111	J & K (UT)	Srinagar (K)
69	Goa	Tuem	112	Jharkhand	Barajamda
70	Goa	Usgao-Pale	113	Jharkhand	Dhanbad
71	Goa	Vasco	114	Jharkhand	Jamshedpur
72	Gujarat	Ahmedabad	115	Jharkhand	Ranchi
73	Gujarat	Ankleshwar	116	Jharkhand	Saraikela
74	Gujarat	Gandhinagar	117	Jharkhand	Giridih
75	Gujarat	Jamnagar	118	Jharkhand	Hazaribagh
76	Gujarat	Nandesari	119	Karnataka	Bagalkote
77	Gujarat	Rajkot	120	Karnataka	Bangalore
78	Gujarat	Surat	121	Karnataka	Belgaum
79	Gujarat	Vadodara	122	Karnataka	Bidar
80	Gujarat	Vapi	123	Karnataka	Vijayapura
81	Gujarat	Vatva	124	Karnataka	Chamarajanagar
82	Haryana	Bahadurgarh	125	Karnataka	Chikkaballapur
83	Haryana	Ballabgarh	126	Karnataka	Chikkamagaluru
84	Haryana	Dharuhera	127	Karnataka	Chitradurga
85	Haryana	Jind	128	Karnataka	Devanagere
86	Haryana	Karnal	129	Karnataka	Gadag
87	Haryana	Mandikhera	130	Karnataka	Kalaburgi
88	Haryana	Narnaul	131	Karnataka	Hassan
89	Haryana	Palwal	132	Karnataka	Haveri
90	Haryana	Panipat	133	Karnataka	Hubli-Dharwad
91	Haryana	Rohtak	134	Karnataka	Karwar
92	Haryana	Sonepat	135	Karnataka	Kolar
93	Himachal Pradesh	Baddi	136	Karnataka	Koppal
94	Himachal Pradesh	Damtal	137	Karnataka	Madikeri
95	Himachal Pradesh	Dharamshala	138	Karnataka	Mandya
96	Himachal Pradesh	Gulaba	139	Karnataka	Mangalore
97	Himachal Pradesh	Kala Amb	140	Karnataka	Mysore
98	Himachal Pradesh	Manali	141	Karnataka	Raichur
99	Himachal Pradesh	Nalagarh	142	Karnataka	Ramanagara
100	Himachal Pradesh	Parwanoo	143	Karnataka	Shimaga
101	Himachal Pradesh	Poanta Sahib	144	Karnataka	Tumkuru
102	Himachal Pradesh	Shimla	145	Karnataka	Udupi
103	Himachal Pradesh	Sunder Nagar	146	Karnataka	Yadgir
104	Himachal Pradesh	Una	147	Kerala	Alappuzha
105	Himachal Pradesh	Vashisht	148	Kerala	Eloor
106	Jammu&Kashmir(UT	Budgam (K)	149	Kerala	Ernakulam

107	J & K (UT)	Jammu	150	Kerala	Kannur
108	J & K (UT)	Khathua (J)	151	Kerala	Kochi
109	J & K (UT)	Pulwama (K)	152	Kerala	Kollam

Sl.No	State	City	Sl.No	State	City
153	Kerala	Kottayam	194	Maharashtra	Roha
154	Kerala	Kozhikode	195	Maharashtra	Sangli
155	Kerala	Mallappuram	196	Maharashtra	Solapur
156	Kerala	Palakkad	197	Maharashtra	Tarapur
157	Kerala	Pathanamthitta	198	Maharashtra	Thane
158	Kerala	Thiruvananthapuram	199	Maharashtra	Ulhas Nagar
159	Kerala	Thrissur	200	Maharashtra	Akola
160	Kerala	Thiruvalla (SAMP)	201	Maharashtra	Gadchiroli
161	Madhya Pradesh	Amlai,(now shahdol City)	202	Maharashtra	Kharghar/Panvel
162	Madhya Pradesh	Bhopal City	203	Maharashtra	Yavatmal
163	Madhya Pradesh	Dewas	204	Manipur	Imphal
164	Madhya Pradesh	Gwalior	205	Meghalaya	Byraihat
165	Madhya Pradesh	Indore	206	Meghalaya	Dawki
166	Madhya Pradesh	Jabalpur	207	Meghalaya	Khlihriat
167	Madhya Pradesh	Katni	208	Meghalaya	Nongstoin
168	Madhya Pradesh	Chhindwara	209	Meghalaya	Shillong
169	Madhya Pradesh	Mandideep	210	Meghalaya	Tura
170	Madhya Pradesh	Pithampur	211	Meghalaya	Umaim
171	Madhya Pradesh	Rewa	212	Mizoram	Aizawl
172	Madhya Pradesh	Satna	213	Mizoram	Champhai
173	Madhya Pradesh	Singrauli	214	Mizoram	Kolasib
174	Madhya Pradesh	Ujjain	215	Mizoram	Lawngtlai
175	Maharashtra	Ambernath	216	Mizoram	Lunglei
176	Maharashtra	Amravati	217	Mizoram	Mamit
177	Maharashtra	Aurangabad	218	Mizoram	Saiha
178	Maharashtra	Badlapur	219	Mizoram	Serchhip
179	Maharashtra	Bhiwandi	220	Odisha	Angul
180	Maharashtra	Chandrapur	221	Odisha	Balasore
181	Maharashtra	Dombivali / Kalyan	222	Odisha	Berhampur
182	Maharashtra	Jalgaon	223	Odisha	Bhubaneshwar
183	Maharashtra	Jalna	224	Odisha	Bonaigarh
184	Maharashtra	Kolhapur	225	Odisha	Brajrajnagar
185	Maharashtra	Latur	226	Odisha	Cuttack
186	Maharashtra	Lote	227	Odisha	Jharsuguda
187	Maharashtra	Mumbai	228	Odisha	Kalinga Nagar
188	Maharashtra	Nagpur	229	Odisha	Konark
189	Maharashtra	Nanded	230	Odisha	Paradeep
190	Maharashtra	Nashik	231	Odisha	Puri

191	Maharashtra	Navi Mumbai	232	Odisha	Rajgangpur
192	Maharashtra	Pimpri-Chinchwad	233	Odisha	Rayagada
193	Maharashtra	Pune	234	Odisha	Rourkela

SI.No	State	City	SI.No	State	City
235	Odisha	Sambalpur	275	Punjab	Rakhra (Patiala)
236	Odisha	Talcher	276	Punjab	Tarn Taran
237	Odisha	Keonjhar	277	Punjab	HOSHIARPUR
238	Pondicherry (UT)	Karaikal	278	Punjab	S.B.S. Nagar
239	Pondicherry (UT)	Pondicherry	279	Punjab	KAPURTHALA
240	Punjab	Aligarh (Jagraon)	280	Rajasthan	Ajmer
241	Punjab	Amritsar	281	Rajasthan	Alwar
242	Punjab	Bara Pind (Goraya)	282	Rajasthan	Bharatpur
243	Punjab	Batala	283	Rajasthan	Bhiwadi
244	Punjab	Bishanpura (Payal)	284	Rajasthan	Bikaner
245	Punjab	Chowkimann (Jagraon)	285	Rajasthan	Chittorgarh
246	Punjab	Dera Baba Nanak	286	Rajasthan	Jaipur
247	Punjab	Gurdaspur	287	Rajasthan	Jodhpur
248	Punjab	Jalandhar	288	Rajasthan	Kota
249	Punjab	Khanna	289	Rajasthan	Pali
250	Punjab	Kotladoo (Ajnala)	290	Rajasthan	Udaipur
251	Punjab	Ludhiana	291	Rajasthan	Bhilwara
252	Punjab	Mrar Kalan (Muktsar)	292	Rajasthan	Balotra
253	Punjab	Mukandpur (Nawashahar)	293	Rajasthan	Sikar
254	Punjab	Pathankot	294	Sikkim	Gangtok
255	Punjab	Rohila (Samrala)	295	Sikkim	Mangan
256	Punjab	Subanpur (Dhilwan)	296	Sikkim	Namchi
257	Punjab	Bathinda	297	Sikkim	Pelling
258	Punjab	Dera Bassi	298	Tamilnadu	Ariyalura
259	Punjab	Mandi Gobindgarh	299	Tamilnadu	Chennai
260	Punjab	Sirhind	300	Tamilnadu	Coimbatore
261	Punjab	Naya Nangal	301	Tamilnadu	Cuddalore
262	Punjab	Patiala	302	Tamilnadu	Dharmapuri
263	Punjab	Malerkotla	303	Tamilnadu	Dindigul
264	Punjab	Barnala	304	Tamilnadu	Hosur
265	Punjab	Sangrur	305	Tamilnadu	Madurai
266	Punjab	Fazilka	306	Tamilnadu	Mettur
267	Punjab	Rupnagar	307	Tamilnadu	Nagercoil
268	Punjab	Faridkot	308	Tamilnadu	Perambalur
269	Punjab	Moga	309	Tamilnadu	Salem
270	Punjab	Ferozpur	310	Tamilnadu	Sivagangai
271	Punjab	Muktsar Sahib	311	Tamilnadu	Theni
272	Punjab	Mansa	312	Tamilnadu	Tirupur

273	Punjab	Mohali	313	Tamilnadu	Tiruvannamalai
274	Punjab	Kharaori (Sirhind)	314	Tamilnadu	Tiruvarur

Sl.No	State	City	Sl.No	State	City
315	Tamilnadu	Trichy	354	Uttar Pradesh	Unnao
316	Tamilnadu	Tuticorin / Thoothukudi	355	Uttar Pradesh	Varanasi
317	Tamilnadu	Vellore	356	Uttarakhand	Dehradun
318	Tamilnadu	Villupuram	357	Uttarakhand	Haldwani
319	Telangana	Adilabad	358	Uttarakhand	Haridwar
320	Telangana	Hyderabad	359	Uttarakhand	Kashipur
321	Telangana	Karimnagar	360	Uttarakhand	Rishikesh
322	Telangana	Khammam	361	Uttarakhand	Rudrapur
323	Telangana	Kothur	362	West Bengal	Makhrapara /Alipurduar
324	Telangana	Nalgonda	363	West Bengal	Amtala
325	Telangana	Nizamabad	364	West Bengal	Amta
326	Telangana	Patencheru	365	West Bengal	Asansol(+Raniganj)
327	Telangana	Ramagundum	366	West Bengal	Baharampur
328	Telangana	Sangareddy	367	West Bengal	Balurghat
329	Telangana	Warangal	368	West Bengal	Bankura
330	Uttar Pradesh	Agra	369	West Bengal	Bansberia
331	Uttar Pradesh	Aligarh	370	West Bengal	Bagnan
332	Uttar Pradesh	Allahabad	371	West Bengal	Barasat
333	Uttar Pradesh	Anpara	372	West Bengal	Bardhaman
334	Uttar Pradesh	Ayodhya	373	West Bengal	Barrackpore
335	Uttar Pradesh	Bagpat	374	West Bengal	Barjora
336	Uttar Pradesh	Bareilly	375	West Bengal	Bidhannagar (Salt Lake)
337	Uttar Pradesh	Firozabad	376	West Bengal	Baranagar
338	Uttar Pradesh	Gajroula	377	West Bengal	Baruipur
339	Uttar Pradesh	Ghaziabad	378	West Bengal	Birpara
340	Uttar Pradesh	Gorakhpur	379	West Bengal	Bolpur
341	Uttar Pradesh	Hapur	380	West Bengal	Chinsurah
342	Uttar Pradesh	Hatras	381	West Bengal	CoochBehar
343	Uttar Pradesh	Jhansi	382	West Bengal	Dankuni
344	Uttar Pradesh	Kanpur	383	West Bengal	Darjeeling
345	Uttar Pradesh	Khurja	384	West Bengal	Dhulagarh
346	Uttar Pradesh	Lucknow	385	West Bengal	Durgapur
347	Uttar Pradesh	Mathura	386	West Bengal	Dum Dum
348	Uttar Pradesh	Meerut	387	West Bengal	Khardah
349	Uttar Pradesh	Moradabad	388	West Bengal	Ghatal
350	Uttar Pradesh	Muzaffarnagar	389	West Bengal	Haldia
351	Uttar Pradesh	Noida	390	West Bengal	Howrah

352	Uttar Pradesh	Raibareli	391	West Bengal	Jalpaiguri
353	Uttar Pradesh	Saharanpur	392	West Bengal	Jaigaon

Sl.No	State	City	Sl.No	State	City
393	West Bengal	Jhargram	404	West Bengal	Rampurhat
394	West Bengal	Kalimpong	405	West Bengal	Ranaghat
395	West Bengal	Kalyani	406	West Bengal	Rishra
396	West Bengal	Kharagpur	407	West Bengal	Rajarhat
397	West Bengal	Kolkata	408	West Bengal	Sankrail
398	West Bengal	Krishnanagar	409	West Bengal	Siliguri
399	West Bengal	Madhyamgram	410	West Bengal	Suri
400	West Bengal	English Bazar	411	West Bengal	Tamluk
401	West Bengal	Medinipur	412	West Bengal	Uttarpara Kotrung
402	West Bengal	Purulia	413	West Bengal	Uluberia
403	West Bengal	Raiganj			

Table 8: Number of cities monitored for the parameter Lead (410 cities)

Sl. No.	State	City	Sl. No.	State	City
1	Andaman & Nicobar (UT)	Port Blair	25	Assam	Dibrugarh
2	Andhra Pradesh	Anatapur	26	Assam	Golaghat
3	Andhra Pradesh	Chittor	27	Assam	Guwahati
4	Andhra Pradesh	Eluru	28	Assam	Magherita
5	Andhra Pradesh	Guntur	29	Assam	Nagaon
6	Andhra Pradesh	Kadapa	30	Assam	Nalbari
7	Andhra Pradesh	Kakinada	31	Assam	North Lakhimpur
8	Andhra Pradesh	Kurnool	32	Assam	Silcher
9	Andhra Pradesh	Nellore	33	Assam	Sivasagar
10	Andhra Pradesh	Ongole	34	Assam	Tezpur
11	Andhra Pradesh	Rajahmundry/Rajamahendrav arman	35	Assam	Tinsukia
12	Andhra Pradesh	Srikakulam	36	Bihar	Begusarai
13	Andhra Pradesh	Tirupati	37	Bihar	Darbhanga
14	Andhra Pradesh	Vijayawada	38	Bihar	Gaya
15	Andhra Pradesh	Visakhapatnam	39	Bihar	Muzaffarpur
16	Andhra Pradesh	Vizianagaram	40	Bihar	Patna

17	Andhra Pradesh	Tirumala	41	Bihar	Rajgir
18	Andhra Pradesh	Bobbili	42	Bihar	Sasaram
19	Andhra Pradesh	Pydibeemavaram	43	Chandigarh (UT)	Chandigarh
20	Arunachal Pradesh	Itanagar	44	Chattisgarh	Bilaspur
21	Arunachal Pradesh	Naharlagun	45	Chattisgarh	Durg-Bhillainagar
22	Assam	Bongaigaon	46	Chattisgarh	Korba
23	Assam	Brynihat	47	Chattisgarh	Raigarh
24	Assam	Daranga	48	Chattisgarh	Raipur
Sl. No	State	City	Sl. No	State	City
49	Dadara & Nagar Haveli and Daman & Diu (UT)	Baldevi (Dadra & Nagar Haveli)	80	Gujarat	Vapi
50	Dadara & Nagar Haveli and Daman & Diu (UT)	Nagarpalika Complex (Dadra & Nagar Haveli)	81	Gujarat	Vatva
51	Dadara & Nagar Haveli and Daman & Diu (UT)	Shivom Industries, Khadoli (Dadra & Nagar Haveli)	82	Haryana	Bahadurgarh
52	Dadara & Nagar Haveli and Daman & Diu (UT)	RTO Office Nani Daman, Daman	83	Haryana	Ballabgarh
53	Dadara & Nagar Haveli and Daman & Diu (UT)	Patlara Village, Moti Daman, Daman	84	Haryana	Dharuhera
54	Dadara & Nagar Haveli and Daman & Diu (UT)	J.B Chemicals, Kadiya, Daman	85	Haryana	Jind
55	Goa	Amona	86	Haryana	Karnal
56	Goa	Assanora	87	Haryana	Mandikhera
57	Goa	Bicholim	88	Haryana	Narnaul
58	Goa	Codli	89	Haryana	Palwal
59	Goa	Cuncolim	90	Haryana	Panipat
60	Goa	Honda	91	Haryana	Rohtak
61	Goa	Kundaim	92	Haryana	Sonepat
62	Goa	Mapusa	93	Himachal Pradesh	Baddi
63	Goa	Margao	94	Himachal Pradesh	Damtal
64	Goa	Marmagao	95	Himachal Pradesh	Dharamshala
65	Goa	Panaji	96	Himachal Pradesh	Kala Amb
66	Goa	Ponda	97	Himachal Pradesh	Manali
67	Goa	Sanguem	98	Himachal Pradesh	Nalagarh
68	Goa	Tilamol	99	Himachal Pradesh	Parwanoo
69	Goa	Tuem	100	Himachal Pradesh	Poanta Sahib
70	Goa	Usgao-Pale	101	Himachal Pradesh	Shimla
71	Goa	Vasco	102	Himachal Pradesh	Sunder Nagar

72	Gujarat	Ahmedabad	103	Himachal Pradesh	Una
73	Gujarat	Ankleshwar	104	Himachal Pradesh	Vashisht
74	Gujarat	Gandhinagar	105	J & K (UT)	Budgam (K)
75	Gujarat	Jamnagar	106	J & K (UT)	Jammu
76	Gujarat	Nandesari	107	J & K (UT)	Khathua (J)
77	Gujarat	Rajkot	108	J & K (UT)	Pulwama (K)
78	Gujarat	Surat	109	J & K (UT)	Samba (J)
79	Gujarat	Vadodara	110	J & K (UT)	Srinagar (K)

Sl.No	State	City	Sl.No	State	City
111	Jharkhand	Barajamda	152	Kerala	Kottayam
112	Jharkhand	Dhanbad	153	Kerala	Kozhikode
113	Jharkhand	Jamshedpur	154	Kerala	Mallapuram
114	Jharkhand	Ranchi	155	Kerala	Palakkad
115	Jharkhand	Saraikela	156	Kerala	Pathanamthitta
116	Jharkhand	Giridih	157	Kerala	Thiruvananthapuram
117	Jharkhand	Hazaribagh	158	Kerala	Thrissur
118	Karnataka	Bagalkote	159	Kerala	Thiruvalla
119	Karnataka	Bangalore	160	Lakshadweep (UT)	Kavaratti
120	Karnataka	Belgaum	161	Madhya Pradesh	Amlai,
121	Karnataka	Bidar	162	Madhya Pradesh	Bhopal City
122	Karnataka	Bijapur / Vijayapura	163	Madhya Pradesh	Dewas
123	Karnataka	Chamarajanagar	164	Madhya Pradesh	Gwalior
124	Karnataka	Chikkaballapur	165	Madhya Pradesh	Indore
125	Karnataka	Chikkamagaluru	166	Madhya Pradesh	Jabalpur
126	Karnataka	Chitradurga	167	Madhya Pradesh	Katni
127	Karnataka	Devanagere	168	Madhya Pradesh	Chhindwara
128	Karnataka	Gadag	169	Madhya Pradesh	Mandideep
129	Karnataka	Gulbarga / Kalaburgi	170	Madhya Pradesh	Pithampur
130	Karnataka	Hassan	171	Madhya Pradesh	Rewa
131	Karnataka	Haveri	172	Madhya Pradesh	Satna
132	Karnataka	Hubli-Dharwad	173	Madhya Pradesh	Singrauli
133	Karnataka	Karwar	174	Madhya Pradesh	Ujjain
134	Karnataka	Kolar	175	Maharashtra	Ambarnath
135	Karnataka	Koppal	176	Maharashtra	Amravati
136	Karnataka	Madikeri	177	Maharashtra	Aurangabad
137	Karnataka	Mandya	178	Maharashtra	Badlapur
138	Karnataka	Mangalore	179	Maharashtra	Bhiwandi
139	Karnataka	Mysore	180	Maharashtra	Chandrapur
140	Karnataka	Raichur	181	Maharashtra	Jalgaon
141	Karnataka	Ramanagara	182	Maharashtra	Jalna
142	Karnataka	Shimoga / Shivamogga	183	Maharashtra	Kolhapur
143	Karnataka	Tumkuru	184	Maharashtra	Latur
144	Karnataka	Udupi	185	Maharashtra	Lote
145	Karnataka	Yadgir	186	Maharashtra	Mumbai

146	Kerala	Alappuzha	187	Maharashtra	Nagpur
147	Kerala	Eloor	188	Maharashtra	Nanded
148	Kerala	Ernakulam	189	Maharashtra	Nashik
149	Kerala	Kannur	190	Maharashtra	Navi Mumbai
150	Kerala	Kochi	191	Maharashtra	Pimpri-Chinchwad
151	Kerala	Kollam	192	Maharashtra	Pune

Sl.No	State	City	Sl.No	State	City
193	Maharashtra	Roha	235	Odisha	Keonjhar
194	Maharashtra	Sangli	236	Pondicherry (UT)	Karaikal
195	Maharashtra	Solapur	237	Pondicherry (UT)	Pondicherry
196	Maharashtra	Tarapur	238	Punjab	Aligarh
197	Maharashtra	Thane	239	Punjab	Amritsar
198	Maharashtra	Ulhas Nagar	240	Punjab	Bara Pind
199	Maharashtra	Akola	241	Punjab	Batala
200	Maharashtra	Gadchiroli	242	Punjab	Bishanpura
201	Maharashtra	Kharghar/Panvel	243	Punjab	Chowkimann
202	Maharashtra	Yavatmal	244	Punjab	Dera Baba Nanak
203	Meghalaya	Byraihat	245	Punjab	Gurdaspur
204	Meghalaya	Dawki	246	Punjab	Jalandhar
205	Meghalaya	Khlihriat	247	Punjab	Khanna
206	Meghalaya	Nongstoin	248	Punjab	Kotladoom
207	Meghalaya	Shillong	249	Punjab	Ludhiana
208	Meghalaya	Tura	250	Punjab	Mukandpur
209	Meghalaya	Umaim	251	Punjab	Pathankot
210	Mizoram	Aizawl	252	Punjab	Rohila
211	Mizoram	Champhai	253	Punjab	Subanpur
212	Mizoram	Kolasib	254	Punjab	Bathinda
213	Mizoram	Lawngtlai	255	Punjab	Dera Bassi
214	Mizoram	Lunglei	256	Punjab	Mandi Gobindgarh
215	Mizoram	Mamit	257	Punjab	Sirhind
216	Mizoram	Saiha	258	Punjab	Naya Nangal
217	Mizoram	Serchhip	259	Punjab	Patiala
218	Odisha	Angul	260	Punjab	Malerkotla
219	Odisha	Balasore	261	Punjab	Barnala
220	Odisha	Berhampur	262	Punjab	Sangrur
221	Odisha	Bhubaneshwar	263	Punjab	Fazilka
222	Odisha	Bonaigarh	264	Punjab	Rupnagar
223	Odisha	Brajrajnagar	265	Punjab	Faridkot
224	Odisha	Cuttack	266	Punjab	Moga
225	Odisha	Jharsuguda	267	Punjab	Ferozpur
226	Odisha	Kalinga Nagar	268	Punjab	Muktsar Sahib
227	Odisha	Konark	269	Punjab	Mansa

228	Odisha	Paradeep	270	Punjab	Mohali
229	Odisha	Puri	271	Punjab	Kharaori
230	Odisha	Rajgangpur	272	Punjab	Rakhra
231	Odisha	Rayagada	273	Punjab	Tarn Taran
232	Odisha	Rourkela	274	Punjab	Hoshiarpur
233	Odisha	Sambalpur	275	Punjab	S.B.S. Nagar
234	Odisha	Talcher	276	Punjab	Kapurthala

SI.No	State	City	SI.No	State	City
277	Rajasthan	Ajmer	320	Telangana	Kothur
278	Rajasthan	Alwar	321	Telangana	Nalgonda
279	Rajasthan	Bharatpur	322	Telangana	Nizamabad
280	Rajasthan	Bhiwadi	323	Telangana	Patencheru
281	Rajasthan	Bikaner	324	Telangana	Ramagundum
282	Rajasthan	Chittorgarh	325	Telangana	Sangareddy
283	Rajasthan	Jaipur	326	Telangana	Warangal
284	Rajasthan	Jodhpur	327	Uttar Pradesh	Agra
285	Rajasthan	Kota	328	Uttar Pradesh	Aligarh
286	Rajasthan	Pali	329	Uttar Pradesh	Allahabad
287	Rajasthan	Udaipur	330	Uttar Pradesh	Anpara
288	Rajasthan	Bhilwara	331	Uttar Pradesh	Ayodhya
289	Rajasthan	Balotra	332	Uttar Pradesh	Bagpat
290	Rajasthan	Sikar	333	Uttar Pradesh	Bareilly
291	Sikkim	Gangtok	334	Uttar Pradesh	Firozabad
292	Sikkim	Mangan	335	Uttar Pradesh	Gajroula
293	Sikkim	Namchi	336	Uttar Pradesh	Ghaziabad
294	Sikkim	Pelling	337	Uttar Pradesh	Gorakhpur
295	Tamilnadu	Ariyalura	338	Uttar Pradesh	Hapur
296	Tamilnadu	Chennai	339	Uttar Pradesh	Hatras
297	Tamilnadu	Coimbatore	340	Uttar Pradesh	Jhansi
298	Tamilnadu	Cuddalore	341	Uttar Pradesh	Kanpur
299	Tamilnadu	Dharmapuri	342	Uttar Pradesh	Khurja
300	Tamilnadu	Dindigul	343	Uttar Pradesh	Lucknow
301	Tamilnadu	Hosur	344	Uttar Pradesh	Mathura
302	Tamilnadu	Madurai	345	Uttar Pradesh	Meerut
303	Tamilnadu	Mettur	346	Uttar Pradesh	Moradabad
304	Tamilnadu	Nagercoil	347	Uttar Pradesh	Muzaffarnagar
305	Tamilnadu	Perambalur	348	Uttar Pradesh	Noida
306	Tamilnadu	Salem	349	Uttar Pradesh	Raibareli
307	Tamilnadu	Sivagangai	350	Uttar Pradesh	Saharanpur
308	Tamilnadu	Theni	351	Uttar Pradesh	Unnao
309	Tamilnadu	Tirupur	352	Uttar Pradesh	Varanasi
310	Tamilnadu	Tiruvannamalai	353	Uttarakhand	Dehradun

311	Tamilnadu	Tiruvarur	354	Uttarakhand	Haldwani
312	Tamilnadu	Trichy	355	Uttarakhand	Haridwar
313	Tamilnadu	Tuticorin / Thoothukudi	356	Uttarakhand	Kashipur
314	Tamilnadu	Vellore	357	Uttarakhand	Rishikesh
315	Tamilnadu	Villupuram	358	Uttarakhand	Rudrapur
316	Telangana	Adilabad	359	West Bengal	Alipurduar
317	Telangana	Hyderabad	360	West Bengal	Amtala
318	Telangana	Karimnagar	361	West Bengal	Amta
319	Telangana	Khammam	362	West Bengal	Asansol(Raniganj)

Sl.No	State	City	Sl.No.	State	City
363	West Bengal	Baharampur	387	West Bengal	Howrah
364	West Bengal	Balurghat	388	West Bengal	Jalpaiguri
365	West Bengal	Bankura	389	West Bengal	Jaigaon
366	West Bengal	Bansberia	390	West Bengal	Jhargram
367	West Bengal	Bagnan	391	West Bengal	Kalimpong
368	West Bengal	Barasat	392	West Bengal	Kalyani
369	West Bengal	Bardhaman	393	West Bengal	Kharagpur
370	West Bengal	Barrackpore	394	West Bengal	Kolkata
371	West Bengal	Barjora	395	West Bengal	Krishnanagar
372	West Bengal	Bidhannagar	396	West Bengal	Madhyamgram
373	West Bengal	Baranagar	397	West Bengal	English Bazar
374	West Bengal	Baruipur	398	West Bengal	Medinipur
375	West Bengal	Birpara	399	West Bengal	Purulia
376	West Bengal	Bolpur	400	West Bengal	Raiganj
377	West Bengal	Chinsurah	401	West Bengal	Rampurhat
378	West Bengal	CoochBehar	402	West Bengal	Ranaghat
379	West Bengal	Dankuni	403	West Bengal	Rishra
380	West Bengal	Darjeeling	404	West Bengal	Rajarhat
381	West Bengal	Dhulagarh	405	West Bengal	Sankrail
382	West Bengal	Durgapur	406	West Bengal	Siliguri
383	West Bengal	Dum Dum	407	West Bengal	Suri
384	West Bengal	Khordah	408	West Bengal	Tamluk
385	West Bengal	Ghatal	409	West Bengal	Uttarpara
386	West Bengal	Haldia	410	West Bengal	Uluberia

Table 9: Number of cities monitored for the parameter Arsenic (410 cities)

Sr. No.	State	City	Sr.no	State	City
1	Andaman & Nicobar (UT)	Port Blair	25	Assam	Dibrugarh
2	Andhra Pradesh	Anatapur	26	Assam	Golaghat
3	Andhra Pradesh	Chittor	27	Assam	Guwahati
4	Andhra Pradesh	Eluru	28	Assam	Magherita
5	Andhra Pradesh	Guntur	29	Assam	Nagaon
6	Andhra Pradesh	Kadapa	30	Assam	Nalbari
7	Andhra Pradesh	Kakinada	31	Assam	North Lakhimpur

8	Andhra Pradesh	Kurnool	32	Assam	Silcher
9	Andhra Pradesh	Nellore	33	Assam	Sivasagar
10	Andhra Pradesh	Ongole	34	Assam	Tezpur
11	Andhra Pradesh	Rajahmundry	35	Assam	Tinsukia
12	Andhra Pradesh	Srikakulam	36	Bihar	Begusarai
13	Andhra Pradesh	Tirupati	37	Bihar	Darbhanga
14	Andhra Pradesh	Vijayawada	38	Bihar	Gaya
15	Andhra Pradesh	Visakhapatnam	39	Bihar	Muzaffarpur
16	Andhra Pradesh	Vizianagaram	40	Bihar	Patna
17	Andhra Pradesh	Tirumala	41	Bihar	Rajgir
18	Andhra Pradesh	Bobbili	42	Bihar	Sasaram
19	Andhra Pradesh	Pydibeemavaram	43	Chandigarh (UT)	Chandigarh
20	Arunachal Pradesh	Itanagar	44	Chattisgarh	Bilaspur
21	Arunachal Pradesh	Naharlagun	45	Chattisgarh	Durg-Bhillainagar
22	Assam	Bongaigaon	46	Chattisgarh	Korba
23	Assam	Brynihat	47	Chattisgarh	Raigarh
24	Assam	Daranga	48	Chattisgarh	Raipur

S. No	State	City	S.No.	State	City
49	Dadara & Nagar Haveli and Daman & Diu (UT)	Baldevi (Dadra & Nagar Haveli)	80	Gujarat	Vapi
50	Dadara & Nagar Haveli and Daman & Diu (UT)	Nagarpalika Comp. (D & N H)	81	Gujarat	Vatva
51	Dadara & Nagar Haveli and Daman & Diu (UT)	Shivom Industries, Khadoli (D & N H)	82	Haryana	Bahadurgarh
52	Dadara & Nagar Haveli and Daman & Diu (UT)	RTO Office Nani Daman, Daman	83	Haryana	Ballabgarh
53	Dadara & Nagar Haveli and Daman & Diu (UT)	Patlara Village, Moti Daman, Daman	84	Haryana	Dharuhera
54	Dadara & Nagar Haveli and Daman & Diu (UT)	J.B Chemicals, Kadiya, Daman	85	Haryana	Jind
55	Goa	Amona	86	Haryana	Karnal
56	Goa	Assanora	87	Haryana	Mandikhera
57	Goa	Bicholim	88	Haryana	Narnaul
58	Goa	Codli	89	Haryana	Palwal
59	Goa	Cuncoim	90	Haryana	Panipat
60	Goa	Honda	91	Haryana	Rohtak
61	Goa	Kundaim	92	Haryana	Sonepat
62	Goa	Mapusa	93	Himachal Pradesh	Baddi
63	Goa	Margao	94	Himachal Pradesh	Damtal
64	Goa	Marmagao	95	Himachal Pradesh	Dharamshala
65	Goa	Panaji	96	Himachal Pradesh	Kala Amb
66	Goa	Ponda	97	Himachal Pradesh	Manali

67	Goa	Sanguem	98	Himachal Pradesh	Nalagarh
68	Goa	Tilamol	99	Himachal Pradesh	Parwanoo
69	Goa	Tuem	100	Himachal Pradesh	Poanta Sahib
70	Goa	Usgao-Pale	101	Himachal Pradesh	Shimla
71	Goa	Vasco	102	Himachal Pradesh	Sunder Nagar
72	Gujarat	Ahmedabad	103	Himachal Pradesh	Una
73	Gujarat	Ankleshwar	104	Himachal Pradesh	Vashisht
74	Gujarat	Gandhinagar	105	Jammu & Kashmir (UT)	Budgam (K)
75	Gujarat	Jamnagar	106	J & K (UT)	Jammu
76	Gujarat	Nandesari	107	J & K (UT)	Khathua (J)
77	Gujarat	Rajkot	108	J & K (UT)	Pulwama (K)
78	Gujarat	Surat	109	J & K (UT)	Samba (J)
79	Gujarat	Vadodara	110	J & K (UT)	Srinagar (K)

S. No	State	City	S.No.	State	City
111	Jharkhand	Barajamda	152	Kerala	Kottayam
112	Jharkhand	Dhanbad	153	Kerala	Kozhikode
113	Jharkhand	Jamshedpur	154	Kerala	Mallappuram
114	Jharkhand	Ranchi	155	Kerala	Palakkad
115	Jharkhand	Saraikela	156	Kerala	Pathanamthitta
116	Jharkhand	Giridih	157	Kerala	Thiruvananthapuram
117	Jharkhand	Hazaribagh	158	Kerala	Thrissur
118	Karnataka	Bagalkote	159	Kerala	Thiruvalla
119	Karnataka	Bangalore	160	Lakshadweep (UT)	Kavaratti
120	Karnataka	Belgaum	161	Madhya Pradesh	Amlai,
121	Karnataka	Bidar	162	Madhya Pradesh	Bhopal City
122	Karnataka	Bijapur / Vijayapura	163	Madhya Pradesh	Dewas
123	Karnataka	Chamarajanagar	164	Madhya Pradesh	Gwalior
124	Karnataka	Chikkaballapur	165	Madhya Pradesh	Indore

125	Karnataka	Chikkamagaluru	166	Madhya Pradesh	Jabalpur
126	Karnataka	Chitradurga	167	Madhya Pradesh	Katni
127	Karnataka	Devanagere	168	Madhya Pradesh	Chhindwara
128	Karnataka	Gadag	169	Madhya Pradesh	Mandideep
129	Karnataka	Gulbarga	170	Madhya Pradesh	Pithampur
130	Karnataka	Hassan	171	Madhya Pradesh	Rewa
131	Karnataka	Haveri	172	Madhya Pradesh	Satna
132	Karnataka	Hubli-Dharwad	173	Madhya Pradesh	Singrauli
133	Karnataka	Karwar	174	Madhya Pradesh	Ujjain
134	Karnataka	Kolar	175	Maharashtra	Ambarnath
135	Karnataka	Koppal	176	Maharashtra	Amravati
136	Karnataka	Madikeri	177	Maharashtra	Aurangabad
137	Karnataka	Mandya	178	Maharashtra	Badlapur
138	Karnataka	Mangalore	179	Maharashtra	Bhiwandi
139	Karnataka	Mysore	180	Maharashtra	Chandrapur
140	Karnataka	Raichur	181	Maharashtra	Jalgaon
141	Karnataka	Ramanagara	182	Maharashtra	Jalna
142	Karnataka	Shimoga	183	Maharashtra	Kolhapur
143	Karnataka	Tumkuru	184	Maharashtra	Latur
144	Karnataka	Udupi	185	Maharashtra	Lote
145	Karnataka	Yadgir	186	Maharashtra	Mumbai
146	Kerala	Alappuzha	187	Maharashtra	Nagpur
147	Kerala	Eloor	188	Maharashtra	Nanded
148	Kerala	Ernakulam	189	Maharashtra	Nashik
149	Kerala	Kannur	190	Maharashtra	Navi Mumbai
150	Kerala	Kochi	191	Maharashtra	Pimpri-Chinchwad
151	Kerala	Kollam	192	Maharashtra	Pune
Sl. No	State	City	Sl.No	State	City
193	Maharashtra	Roha	235	Odisha	Keonjhar

194	Maharashtra	Sangli	236	Pondicherry (UT)	Karaikal
195	Maharashtra	Solapur	237	Pondicherry (UT)	Pondicherry
196	Maharashtra	Tarapur	238	Punjab	Aligarh
197	Maharashtra	Thane	239	Punjab	Amritsar
198	Maharashtra	Ulhas Nagar	240	Punjab	Bara Pind
199	Maharashtra	Akola	241	Punjab	Batala
200	Maharashtra	Gadchiroli	242	Punjab	Bishanpura
201	Maharashtra	Kharghar/Panvel	243	Punjab	Chowkiman n
202	Maharashtra	Yavatmal	244	Punjab	Dera Baba Nanak
203	Meghalaya	Byraihat	245	Punjab	Gurdaspur
204	Meghalaya	Dawki	246	Punjab	Jalandhar
205	Meghalaya	Khlihriat	247	Punjab	Khanna
206	Meghalaya	Nongstoin	248	Punjab	Kotladoom
207	Meghalaya	Shillong	249	Punjab	Ludhiana
208	Meghalaya	Tura	250	Punjab	Mukandpur
209	Meghalaya	Umaim	251	Punjab	Pathankot
210	Mizoram	Aizawl	252	Punjab	Rohila
211	Mizoram	Champhai	253	Punjab	Subanpur
212	Mizoram	Kolasib	254	Punjab	Bathinda
213	Mizoram	Lawngtlai	255	Punjab	Dera Bassi
214	Mizoram	Lunglei	256	Punjab	Mandi Gobindgarh
215	Mizoram	Mamit	257	Punjab	Sirhind
216	Mizoram	Saiha	258	Punjab	Naya Nangal
217	Mizoram	Serchhip	259	Punjab	Patiala
218	Odisha	Angul	260	Punjab	Malerkotla
219	Odisha	Balasore	261	Punjab	Barnala
220	Odisha	Berhampur	262	Punjab	Sangrur
221	Odisha	Bhubaneshwar	263	Punjab	Fazilka
222	Odisha	Bonaigarh	264	Punjab	Rupnagar

223	Odisha	Brajrajnagar	265	Punjab	Faridkot
224	Odisha	Cuttack	266	Punjab	Moga
225	Odisha	Jharsuguda	267	Punjab	Ferozpur
226	Odisha	Kalinga Nagar	268	Punjab	Muktsar Sahib
227	Odisha	Konark	269	Punjab	Mansa
228	Odisha	Paradeep	270	Punjab	Mohali
229	Odisha	Puri	271	Punjab	Kharaori
230	Odisha	Rajgangpur	272	Punjab	Rakhra
231	Odisha	Rayagada	273	Punjab	Tarn Taran
232	Odisha	Rourkela	274	Punjab	Hoshiarpur
233	Odisha	Sambalpur	275	Punjab	S.B.S. Nagar
234	Odisha	Talcher	276	Punjab	Kapurthala

Sl. No	State	City	Sl.No	State	City
277	Rajasthan	Ajmer	318	Telangana	Karimnagar
278	Rajasthan	Alwar	319	Telangana	Khammam
279	Rajasthan	Bharatpur	320	Telangana	Kothur
280	Rajasthan	Bhiwadi	321	Telangana	Nalgonda
281	Rajasthan	Bikaner	322	Telangana	Nizamabad
282	Rajasthan	Chittorgargh	323	Telangana	Patencheru
283	Rajasthan	Jaipur	324	Telangana	Ramagundum
284	Rajasthan	Jodhpur	325	Telangana	Sangareddy
285	Rajasthan	Kota	326	Telangana	Warangal
286	Rajasthan	Pali	327	Uttar Pradesh	Agra
287	Rajasthan	Udaipur	328	Uttar Pradesh	Aligarh
288	Rajasthan	Bhilwara	329	Uttar Pradesh	Allahabad
289	Rajasthan	Balotra	330	Uttar Pradesh	Anpara
290	Rajasthan	Sikar	331	Uttar Pradesh	Ayodhya
291	Sikkim	Gangtok	332	Uttar Pradesh	Bagpat

29 2	Sikkim	Mangan	333	Uttar Pradesh	Bareilly
29 3	Sikkim	Namchi	334	Uttar Pradesh	Firozabad
29 4	Sikkim	Pelling	335	Uttar Pradesh	Gajroula
29 5	Tamilnadu	Ariyalura	336	Uttar Pradesh	Ghaziabad
29 6	Tamilnadu	Chennai	337	Uttar Pradesh	Gorakhpur
29 7	Tamilnadu	Coimbatore	338	Uttar Pradesh	Hapur
29 8	Tamilnadu	Cuddalore	339	Uttar Pradesh	Hatras
29 9	Tamilnadu	Dharmapuri	340	Uttar Pradesh	Jhansi
30 0	Tamilnadu	Dindigul	341	Uttar Pradesh	Kanpur
30 1	Tamilnadu	Hosur	342	Uttar Pradesh	Khurja
30 2	Tamilnadu	Madurai	343	Uttar Pradesh	Lucknow
30 3	Tamilnadu	Mettur	344	Uttar Pradesh	Mathura
30 4	Tamilnadu	Nagercoil	345	Uttar Pradesh	Meerut
30 5	Tamilnadu	Perambalur	346	Uttar Pradesh	Moradabad
30 6	Tamilnadu	Salem	347	Uttar Pradesh	Muzaffarnagar
30 7	Tamilnadu	Sivagangai	348	Uttar Pradesh	Noida
30 8	Tamilnadu	Theni	349	Uttar Pradesh	Raibareli
30 9	Tamilnadu	Tirupur	350	Uttar Pradesh	Saharanpur
31 0	Tamilnadu	Tiruvannamalai	351	Uttar Pradesh	Unnao
31 1	Tamilnadu	Tiruvarur	352	Uttar Pradesh	Varanasi
31 2	Tamilnadu	Trichy	353	Uttarakhand	Dehradun
31 3	Tamilnadu	Tuticorin	354	Uttarakhand	Haldwani
31 4	Tamilnadu	Vellore	355	Uttarakhand	Haridwar
31 5	Tamilnadu	Villupuram	356	Uttarakhand	Kashipur
31 6	Telangana	Adilabad	357	Uttarakhand	Rishikesh
31 7	Telangana	Hyderabad	358	Uttarakhand	Rudrapur

Sl. No	State	City	Sl.No	State	City
35 9	West Bengal	Makhrapara /Alipurduar	385	West Bengal	Ghatal

360	West Bengal	Amtala	386	West Bengal	Haldia
361	West Bengal	Amta	387	West Bengal	Howrah
362	West Bengal	Asansol(Including Raniganj)	388	West Bengal	Jalpaiguri
363	West Bengal	Baharampur	389	West Bengal	Jaigaon
364	West Bengal	Balurghat	390	West Bengal	Jhargram
365	West Bengal	Bankura	391	West Bengal	Kalimpong
366	West Bengal	Bansberia	392	West Bengal	Kalyani
367	West Bengal	Bagnan	393	West Bengal	Kharagpur
368	West Bengal	Barasat	394	West Bengal	Kolkata
369	West Bengal	Bardhaman	395	West Bengal	Krishnanagar
370	West Bengal	Barrackpore	396	West Bengal	Madhyamgram
371	West Bengal	Barjora	397	West Bengal	English Bazar
372	West Bengal	Bidhannagar (Salt Lake)	398	West Bengal	Medinipur
373	West Bengal	Baranagar	399	West Bengal	Purulia
374	West Bengal	Baruipur	400	West Bengal	Raiganj
375	West Bengal	Birpara	401	West Bengal	Rampurhat
376	West Bengal	Bolpur	402	West Bengal	Ranaghat
377	West Bengal	Chinsurah	403	West Bengal	Rishra
378	West Bengal	CoochBehar	404	West Bengal	Rajarhat
379	West Bengal	Dankuni	405	West Bengal	Sankrail
380	West Bengal	Darjeeling	406	West Bengal	Siliguri
381	West Bengal	Dhulagarh	407	West Bengal	Suri
382	West Bengal	Durgapur	408	West Bengal	Tamluk
383	West Bengal	Dum Dum	409	West Bengal	Uttarpara Kotrung
384	West Bengal	Khardah	410	West Bengal	Uluberia

Table 10: Number of cities monitored for the parameter B(a)P (347 cities)

Sl. No.	State	City	Sl. No.	State	City
1	Andaman & Nicobar (UT)	Port Blair	10	Andhra Pradesh	Ongole
2	Andhra Pradesh	Anatapur	11	Andhra Pradesh	Rajahmundry

3	Andhra Pradesh	Chittor	12	Andhra Pradesh	Srikakulam
4	Andhra Pradesh	Eluru	13	Andhra Pradesh	Tirupati
5	Andhra Pradesh	Guntur	14	Andhra Pradesh	Vijayawada
6	Andhra Pradesh	Kadapa	15	Andhra Pradesh	Visakhapatnam
7	Andhra Pradesh	Kakinada	16	Andhra Pradesh	Vizianagaram
8	Andhra Pradesh	Kurnool	17	Andhra Pradesh	Tirumala
9	Andhra Pradesh	Nellore	18	Andhra Pradesh	Bobbili

Sl.No.	State	City	Sl.No.	State	City
19	Andhra Pradesh	Pydibeemavaram	44	Dadara & Nagar Haveli and Daman & Diu (UT)	Shivom Industries, Khadoli (Dadra & Nagar Haveli)
20	Arunachal Pradesh	Itanagar	45	Dadara & Nagar Haveli and Daman & Diu (UT)	RTO Office Nani Daman, Daman
21	Arunachal Pradesh	Naharlagun	46	Dadara & Nagar Haveli and Daman & Diu (UT)	Patlara Village, Moti Daman, Daman
22	Assam	Bongaigaon	47	Dadara & Nagar Haveli and Daman & Diu (UT)	J.B Chemicals, Kadiya, Daman
23	Assam	Brynihat	48	Goa	Amona
24	Assam	Daranga	49	Goa	Assanora
25	Assam	Dibrugarh	50	Goa	Bicholim
26	Assam	Golaghat	51	Goa	Codli
27	Assam	Guwahati	52	Goa	Cuncolim
28	Assam	Magherita	53	Goa	Honda
29	Assam	Nagaon	54	Goa	Kundaim
30	Assam	Nalbari	55	Goa	Mapusa
31	Assam	North Lakhimpur	56	Goa	Margao
32	Assam	Silcher	57	Goa	Marmagao
33	Assam	Sivasagar	58	Goa	Panaji
34	Assam	Tezpur	59	Goa	Ponda
35	Assam	Tinsukia	60	Goa	Sanguem
36	Chandigarh (UT)	Chandigarh	61	Goa	Tilamol
37	Chattisgarh	Bilaspur	62	Goa	Tuem
38	Chattisgarh	Durg - Bhillainagar	63	Goa	Usgao-Pale

39	Chattisgarh	Korba	64	Goa	Vasco
40	Chattisgarh	Raigarh	65	Gujarat	Ahmedabad
41	Chattisgarh	Raipur	66	Gujarat	Ankleshwar
42	Dadara & Nagar Haveli and Daman & Diu (UT)	Baldevi (Dadra & Nagar Haveli)	67	Gujarat	Gandhinagar
43	Dadara & Nagar Haveli and Daman & Diu (UT)	Nagarpalika Complex (Dadra & Nagar Haveli)	68	Gujarat	Jamnagar

Sl.No.	State	City	Sl.No.	State	City
69	Gujarat	Nandesari	102	Jharkhand	Barajamda
70	Gujarat	Rajkot	103	Jharkhand	Dhanbad
71	Gujarat	Surat	104	Jharkhand	Jamshedpur
72	Gujarat	Vadodara	105	Jharkhand	Ranchi
73	Gujarat	Vapi	106	Jharkhand	Saraikele
74	Gujarat	Vatva	107	Jharkhand	Giridih
75	Haryana	Bahadurgarh	108	Jharkhand	Hazaribagh
76	Haryana	Ballabgarh	109	Karnataka	Bagalkote
77	Haryana	Dharuhera	110	Karnataka	Bangalore
78	Haryana	Jind	111	Karnataka	Belgaum
79	Haryana	Karnal	112	Karnataka	Bidar
80	Haryana	Mandikhera	113	Karnataka	Bijapur / Vijayapura
81	Haryana	Narnaul	114	Karnataka	Chamarajanagar
82	Haryana	Palwal	115	Karnataka	Chikkaballapur
83	Haryana	Panipat	116	Karnataka	Chikkamagaluru
84	Haryana	Rohtak	117	Karnataka	Chitradurga
85	Haryana	Sonepat	118	Karnataka	Devanagere
86	Himachal Pradesh	Baddi	119	Karnataka	Gadag
87	Himachal Pradesh	Damtal	120	Karnataka	Gulbarga
88	Himachal Pradesh	Dharamshala	121	Karnataka	Hassan
89	Himachal Pradesh	Gulaba	122	Karnataka	Haveri
90	Himachal Pradesh	Kala Amb	123	Karnataka	Hubli-Dharwad
91	Himachal Pradesh	Manali	124	Karnataka	Karwar
92	Himachal Pradesh	Nalagarh	125	Karnataka	Kolar
93	Himachal Pradesh	Parwanoo	126	Karnataka	Koppal
94	Himachal Pradesh	Poanta Sahib	127	Karnataka	Madikeri
95	Himachal Pradesh	Shimla	128	Karnataka	Mandya
96	Himachal Pradesh	Sunder Nagar	129	Karnataka	Mangalore

97	Himachal Pradesh	Una	130	Karnataka	Mysore
98	Himachal Pradesh	Vashisht	131	Karnataka	Raichur
99	Jammu & Kashmir (UT)	Jammu	132	Karnataka	Ramanagara
100	Jammu & Kashmir (UT)	Khathua (J)	133	Karnataka	Shimoga / Shivamogga
101	Jammu & Kashmir (UT)	Samba (J)	134	Karnataka	Tumkuru

Sl.No	State	City	Sl.No.	State	City
135	Karnataka	Udupi	171	Meghalaya	Khliehriat
136	Karnataka	Yadgir	172	Meghalaya	Nongstoin
137	Kerala	Alappuzha	173	Meghalaya	Shillong
138	Kerala	Eloor	174	Meghalaya	Tura
139	Kerala	Ernakulam	175	Meghalaya	Umaim
140	Kerala	Kannur	176	Mizoram	Aizawl
141	Kerala	Kochi	177	Mizoram	Champhai
142	Kerala	Kollam	178	Mizoram	Kolasib
143	Kerala	Kottayam	179	Mizoram	Lawngtlai
144	Kerala	Kozhikode	180	Mizoram	Lunglei
145	Kerala	Mallapuram	181	Mizoram	Mamit
146	Kerala	Palakkad	182	Mizoram	Saiha
147	Kerala	Pathanamthitta	183	Mizoram	Serchhip
148	Kerala	Thiruvananthapuram	184	Odisha	Bhubaneshwar
149	Kerala	Thrissur	185	Odisha	Cuttack
150	Kerala	Thiruvalla	186	Odisha	Konark
151	Kerala	Wayanad	187	Odisha	Puri
152	Lakshadweep (UT)	Kavaratti	188	Pondicherry (UT)	Karaikal
153	Madhya Pradesh	Bhopal City	189	Pondicherry (UT)	Pondicherry
154	Madhya Pradesh	Gwalior	190	Punjab	Aligarh (Jagraon)
155	Madhya Pradesh	Indore	191	Punjab	Amritsar
156	Madhya Pradesh	Jabalpur	192	Punjab	Bara Pind (Goraya)
157	Maharashtra	Ambernath	193	Punjab	Batala
158	Maharashtra	Aurangabad	194	Punjab	Bishanpura (Payal)
159	Maharashtra	Badlapur	195	Punjab	Chowkimann (Jagraon)
160	Maharashtra	Bhiwandi	196	Punjab	Dera Baba Nanak
161	Maharashtra	Kolhapur	197	Punjab	Gurdaspur
162	Maharashtra	Latur	198	Punjab	Jalandhar
163	Maharashtra	Mumbai	199	Punjab	Khanna
164	Maharashtra	Nanded	200	Punjab	Kotladoom

165	Maharashtra	Navi Mumbai	201	Punjab	Ludhiana
166	Maharashtra	Roha	202	Punjab	Mukandpur (Nawashahar)
167	Maharashtra	Ulhas Nagar	203	Punjab	Pathankot
168	Maharashtra	Kharghar/Panvel	204	Punjab	Rohila (Samrala)
169	Meghalaya	Byraihat	205	Punjab	Subanpur
170	Meghalaya	Dawki	206	Punjab	Bathinda

Sl.No.	State	City	Sl.No.	State	City
207	Punjab	Dera Bassi	247	Tamilnadu	Ariyalura
208	Punjab	Mandi Gobindgarh	248	Tamilnadu	Chennai
209	Punjab	Sirhind	249	Tamilnadu	Coimbatore
210	Punjab	Naya Nangal	250	Tamilnadu	Cuddalore
211	Punjab	Patiala	251	Tamilnadu	Dharmapuri
212	Punjab	Malerkotla	252	Tamilnadu	Dindigul
213	Punjab	Barnala	253	Tamilnadu	Hosur
214	Punjab	Sangrur	254	Tamilnadu	Madurai
215	Punjab	Fazilka	255	Tamilnadu	Mettur
216	Punjab	Rupnagar	256	Tamilnadu	Nagercoil
217	Punjab	Faridkot	257	Tamilnadu	Perambalur
218	Punjab	Moga	258	Tamilnadu	Salem
219	Punjab	Ferozpur	259	Tamilnadu	Sivagangai
220	Punjab	Muktsar Sahib	260	Tamilnadu	Theni
221	Punjab	Mansa	261	Tamilnadu	Tirupur
222	Punjab	Mohali	262	Tamilnadu	Tiruvannamalai
223	Punjab	Kharaori (Sirhind)	263	Tamilnadu	Tiruvarur
224	Punjab	Rakhra (Patiala)	264	Tamilnadu	Trichy
225	Punjab	Tarn Taran	265	Tamilnadu	Tuticorin / Thoothukudi
226	Punjab	Hoshiarpur	266	Tamilnadu	Vellore
227	Punjab	S.B.S. Nagar	267	Tamilnadu	Villupuram
228	Punjab	Kapurthala	268	Telangana	Adilabad
229	Rajasthan	Ajmer	269	Telangana	Hyderabad
230	Rajasthan	Alwar	270	Telangana	Karimnagar
231	Rajasthan	Bharatpur	271	Telangana	Khammam
232	Rajasthan	Bhiwadi	272	Telangana	Kothur
233	Rajasthan	Bikaner	273	Telangana	Nalgonda
234	Rajasthan	Chittorgargh	274	Telangana	Nizamabad
235	Rajasthan	Jaipur	275	Telangana	Patencheru
236	Rajasthan	Jodhpur	276	Telangana	Ramagundum
237	Rajasthan	Kota	277	Telangana	Sangareddy
238	Rajasthan	Pali	278	Telangana	Warangal

239	Rajasthan	Udaipur	279	Uttar Pradesh	Agra
240	Rajasthan	Bhilwara	280	Uttar Pradesh	Ayodhya
241	Rajasthan	Balotra	281	Uttar Pradesh	Bareilly
242	Rajasthan	Sikar	282	Uttar Pradesh	Firozabad
243	Sikkim	Gangtok	283	Uttar Pradesh	Gajroula
244	Sikkim	Mangan	284	Uttar Pradesh	Kanpur
245	Sikkim	Namchi	285	Uttar Pradesh	Khurja
246	Sikkim	Pelling	286	Uttar Pradesh	Lucknow

Sl.No.	State	City	Sl.No.	State	City
287	Uttar Pradesh	Moradabad	318	West Bengal	Dhulagarh
288	Uttar Pradesh	Raibareli	319	West Bengal	Durgapur
289	Uttar Pradesh	Varanasi	320	West Bengal	Dum Dum
290	Uttarakhand	Dehradun	321	West Bengal	Khardah
291	Uttarakhand	Haldwani	322	West Bengal	Ghatal
292	Uttarakhand	Haridwar	323	West Bengal	Haldia
293	Uttarakhand	Kashipur	324	West Bengal	Howrah
294	Uttarakhand	Rishikesh	325	West Bengal	Jalpaiguri
295	Uttarakhand	Rudrapur	326	West Bengal	Jaigaon
296	West Bengal	Makhrapara /Alipurduar	327	West Bengal	Jhargram
297	West Bengal	Amtala	328	West Bengal	Kalimpong
298	West Bengal	Amta	329	West Bengal	Kalyani
299	West Bengal	Asansol(Including Raniganj)	330	West Bengal	Kharagpur
300	West Bengal	Baharampur	331	West Bengal	Kolkata
301	West Bengal	Balurghat	332	West Bengal	Krishnanagar
302	West Bengal	Bankura	333	West Bengal	Madhyamgram
303	West Bengal	Bansberia	334	West Bengal	English Bazar
304	West Bengal	Bagnan	335	West Bengal	Medinipur
305	West Bengal	Barasat	336	West Bengal	Purulia
306	West Bengal	Bardhaman	337	West Bengal	Raiganj
307	West Bengal	Barrackpore	338	West Bengal	Rampurhat
308	West Bengal	Barjora	339	West Bengal	Ranaghat
309	West Bengal	Bidhannagar (Salt Lake)	340	West Bengal	Rishra
310	West Bengal	Baranagar	341	West Bengal	Rajarhat
311	West Bengal	Baruipur	342	West Bengal	Sankrail
312	West Bengal	Birpara	343	West Bengal	Siliguri
313	West Bengal	Bolpur	344	West Bengal	Suri
314	West Bengal	Chinsurah	345	West Bengal	Tamluk
315	West Bengal	CoochBehar	346	West Bengal	Uttarpara Kotrung
316	West Bengal	Dankuni	347	West Bengal	Uluberia

317	West Bengal	Darjeeling			
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Annexure-XXV

The list of cities exceeding the prescribed NAAQS-2009 standards (24 hours/Annual) for consecutively two days monitored in April-June, 2024.

Parameters	Ni	Pb	As	B(a)P
No. of cities monitored	413	410	410	347
No. of cities exceeding daily/ annual standards for consecutively two days	(05) 1. Kalinga Nagar, 2. Rourkela (Orissa) 3. Udupi (Karnataka) 4. Khanna 5. Mandi Gobindgarh (Punjab)	(03) 1. Gajraula (UP), 2. Hosur (Tamilnadu), 3. Kothur (Telangana)	(10) 1. Bangalore, 2. Chikkaballapur, 3. Kolar, 4. Ramanagara, 5. Tumkuru (Karnataka) 6. Thrissur (Kerala) 7. Lote (Maharashtra) 8. Cuncolim (Goa) 9. Budgam (J&K) 10. Navi Mumbai (Maharashtra)	(14) 1. Ernakulam, 2. Wayanad (Kerala) 3. Tirupur, 4. Tiruvavur, 5. Tuticorin, 6. Villupuram (Tamilnadu), 7. Kothur, 8. Ramagundam (Telangana) 9. Ayodhya, 10. Gajroula, 11. Kanpur, 12. Khurja, 13. Lucknow, 14. Varanasi (Uttar Pradesh)



Annexure- XXVI

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

File No: EQ-11012/1/2022-AQMN-HO-CPCB-HO/28 24 - 33/2024 Date : 08.07.2024

To

The Member Secretary
SPCBs/PCCs as per the list enclosed

Subject: Regular monitoring of parameters like, Pb, As, Ni and BaP: regarding

Sir,

This has the reference to data submitted for Pb, As, Ni and BaP in ambient air for the period April 2024 to June 2024 for various cities of your state. The observed values show that the concentration of aforesaid parameters has exceeded the national standards for cities as per the list enclosed.

The National Ambient Air Quality Standards (NAAQS-2009) states that, "Whenever and wherever monitoring results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered adequate reason to institute regular or continuous monitoring and further investigation".

In view of the above, it is requested to institute regular monitoring and further investigation at these locations as per provisions of NAAQS 2009.

Action taken report in this regard be submitted within 30 days (i.e. before 07.08.2024.)

Encl: As above

(Aditya Sharma)
Additional Director & Head
AQMN Division

Copy to-

1. PS to MS - for kind information of MS please.
2. DH-AQM - for kind information please.

‘परिवेश भवन’ पर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, Delhi-110032

दूरभाष/Tel : 43102030, 22305792, वेबसाइट/Website : www.cpcb.nic.in

Sr. No.	SPCBs and PCCs
1	Goa State Pollution Control Board, Nr. Pilerne Industrial Estate, Opp. Saligao Seminary, Saligao - Bardez Goa – 403511
2	Jammu & Kashmir State Pollution Control Board, PariveshBhawan, Forest Complex, Gladni, Narwal, Transport Nagar, Jammu, Jammu and Kashmir 180004
3	Karnataka State Pollution Control Board, ParisaraBhavan, 4th & 5th Floor, # 49, Church St., Bangalore-560 001
4	Kerala State Pollution Control Board, Plamoodu Jn., Pattom Palace P.O. Thiruvananthapuram-695 004
5	Maharashtra Pollution Control Board, Kalpataru Point, 2nd – 4th Floor Opp. Cine Planet Cinema, Nr. Sion Circle, Sion (E) Mumbai – 400 022
6	Odisha Pollution Control Board, A-118, Nilakanta Nagar, Unit –VIII, Bhubaneswar – 751012.
7	Punjab Pollution Control Board, VatavaranBhawan, Nabha Road, Patiala, Punjab
8	Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-600 032
9	Telangana State Pollution Control Board, ParyavaranBhawan, A-3, I.E. Sanath Nagar, Hyderabad-500 018
10	Uttar Pradesh Pollution Control Board, Building.No. TC-12V VibhutiKhand, Gomti Nagar Lucknow-226 010

List of states alongwith cities exceeding daily/ annual standards for consecutively two days during the monitoring from April to June, 2024.

Parameters State	Ni (05)	Pb (03)	As (10)	B(a)P (14)
Odisha	1. Kalinga Nagar, 2. Rourkela	-	-	-
Karnataka	1. Udupi	-	1. Bangalore, 2. Chikkaballapur, 3. Kolar, 4. Ramanagara, 5. Tumkuru	-

Kerala	-	-	1. Thrissur	1. Ernakulam, 2. Wayanad
Punjab	1. Khanna 2. Mandi Gobindgarh	-	-	-
Uttar Pradesh	-	1. Gajraula	-	1. Ayodhya, 2. Gajroula, 3. Kanpur, 4. Khurja, 5. Lucknow, 6. Varanasi
Tamilnadu	-	1. Hosur	-	1. Tirupur, 2. Tiruvavur, 3. Tuticorin, 4. Villupuram
Telangana	-	1. kothur	-	1. Kothur 2. Ramagundam
Maharashtra	-	-	1. Lote 2. Navi Mumbai	-
Goa	-	-	1. Cuncolim	-
Jammu & Kashmir	-	-	1. Budgam	-

**GUIDELINES FOR ENVIRONMENTAL RESEARCH AND DEVELOPMENT
PROGRAMME**



November, 2022

**MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE
NEW DELHI**



सत्यमेव जयते
Government of India

- m) Expenditure will be as per General Finance Rules (GFR), 2017 and various Instructions, Circulars and Orders of the GOI.
- n) The grantee institution shall ensure that audited Utilization Certificate (UC), Statement of Expenditure(ES) as per GFR, 2017 and annual progress report as per the prescribed format are dully submitted to the Ministry while soliciting further release of grants. Final settlement of the project accounts would be done on receipt and acceptance of the consolidated and audited ES, UC and Final Technical Report (FTR) by the Ministry.

6.2 Norms for Funding

The following are the norms for funding different components of the Research Projects funded by the Ministry:

Sl.	COMPONENT	NORM FOR FUNDING
1.	Pay and Allowances for Research Staff engaged under the Project	As per norms of DST/GOI norms or as revised by DST/GOI from time to time
2.	Honorarium to retired Professors/ Senior Scientist/Consultants	Maximum of ₹30,000/- per month, subject to other Government Rules.
3.	Support staff including technical/non- technical Assistant, field Attendant/Field Worker, Computer Data Entry Operator	As per GOI Rules or in case GOI rules have not been specified, as approved during project approval.
4.	Equipment/Instruments including purchase of computers, software and other equipment required under the project and approved by Ministry that are not available in the Department/ Institution or are available in the Department/ Institution but not for specific use in the Project.	100% on Competitive Bidding/Tender Basis in accordance with GOI Rules and norms as applicable.
5.	Travel/Consumables/Expendables, other project charges	On case-to-case basis
6.	Contingency	5% of total project cost (excluding institutional charges) for projects upto ₹50 lakhs, the quantum will be decided for projects \geq ₹50 lakhs.
7.	Institutional Charges	Project cost < ₹20 lakhs of Project cost. Project \geq ₹20 lakhs to ₹50 lakhs will be <u>15% of project cost</u> subject to a minimum of ₹4 lakhs and a maximum of ₹5 lakhs for project costing ₹50 lakhs, quantum will be decided on case- to-case basis. Institutional charges are not applicable to autonomous/subordinate institutions/ Centres of Excellence of the Ministry and Regional Offices of the Ministry.

* Subject to periodic centralised revision by the Department of Science & Technology, Government of India

6.3 The last and Final Installment for “Settlement of funds” will be based on the submission of Final Technical Report and its approval/acceptance by the Ministry, actual expenditure, and subject to fulfillment of GOI Rules/norms and conditions specified in the Sanctions and at the time of the project approval.

Item Nos.08 & 09

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 638/2023

News Item titled "Feeling anxious? Toxic air could be to blame" appearing in Times of India dated 10.10.2023

With
Original Application No. 658/2023

News Item titled "Delhi Chennai studies hint at pollution link to diabetes" appearing in Times of India dated 10.10.2023

Date of hearing: 02.04.2024

**CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

Respondent: Mr. Shlok Chandra (Through VC) & Mr. Sankalp Sharma, Advs. for MoEF & CC
Mr. Shashwat Sharma, Adv. for ICMR (R - 3)
Mr. Rajkumar, Mr. Ankit Chaudhary, Mr. Sumit Chaudhary, Ms. Neetu Singh & Mr. Bharat Bhushan, Advs. for CPCB
Mr. Amit Singh Chauhan, Adv. for CPCB
Ms. Jyoti Mendiratta & Ms. Ananya Basudha, Advs. for Health & Family Welfare Deptt., GNCTD

ORDER

1. The Original Application 638/2023, registered *suo-moto*, the issue of high risk of depression and anxiety besides respiratory disorder on account of air pollution is involved and in Original Application 658/2023, registered *suo-moto*, the issue of increase in risk of new onset type-II diabetes due to exposure of air pollution is involved. Hence, OA's involve the issue of various health hazard created on account of the deteriorating air quality.

2. Tribunal in the proceedings dated 19.12.2023 had taken note of the fact that the EC fund is also being utilized by the Central Pollution Control Board (CPCB) by making it available to the local bodies for construction of road, pavement, etc., and had expressed doubt about the

permissibility to divert fund for such activities and had stated that this may be gross misuse and serious financial irregularity. Accordingly, Tribunal had granted time to the CPCB to ensure that funds under the head EC are not directed for the purpose other than the one for which it is created.

3. Reply dated 20.03.2024 has been filed by the CPCB disclosing the status of funds as under:-

“Table 1: Status of EPC funds (as on January 03, 2024)

(In Rs. Cr)

1. Amount accrued in EPC account	383.89
2. Amount Disbursed	95.4
3. Balance/available funds	288.49

8. Out of Rs. 95.4 crore, Rs. 6.68 crore (50% of the sanctioned amount) has been released on 08.06.2023 and 25.07.2023 to Ghaziabad Municipal Corporation (GMC) for construction/repair works for 08 roads, for which GMC has stated vide letter dated 16.11.2022 that these works are not being funded from any other scheme. The remaining Rs. 6.68 crore would be released after completion of works. The remaining amount disbursed, i.e. Rs. 95.4 Crore — Rs. 6.68 Crore = Rs. 88.7 Crore have been spent on various activities such as scientific/technical studies, inspection drives, Clean Air Campaign, procurement of laboratory equipment, Continuous Ambient Air Quality Monitoring Stations, etc., and list of such activities re annexed at **Annexure VII.”**

4. The facts disclosed in paragraph 8 revealed that the local bodies such as Ghaziabad Municipal Corporation have been released funds under the EPC fund for construction/repair work of roads.

5. From the record, Learned Counsel for CPCB could not point out the approval accorded to such activity and the criteria/guideline which

has been adopted and the reason which prompted the CPCB to release the fund for construction/repair of road to the local bodies.

6. Learned Counsel for CPCB has sought time to place the entire material in this regard on record.

7. The CPCB is also required to disclose the manner it has prioritized utilization of environmental compensation (EC) funds (received in compliance of Hon'ble Supreme Court Order in *WP(C) No. 13029/1985: MC Mehta V. Union of India & Ors. dated 12.08.2016* and different orders of Tribunal, the priorities assigned to different heads for the utilization and the proposed plan for utilization of fund in next one year to achieve the object of improving the air quality as well as other environmental issues.

8. We also find that (from table 1, page 152) no monitoring is done with respect to NH₃, Ni, Pb, As and B(a) P and no reasons are given for this huge gap and no supporting data provided. The next report should give added monitoring results on these left out parameters also.

9. Reply on behalf of Health Department, GNCTD-Respondent No.5 has been filed wherein different studies undertaken have been disclosed, showing adverse effect of the air pollution on health, as under:-

"2. It is respectfully submitted that environmental pollution has been recognized as a significant factor affecting public health, with a growing body of research exploring its impact on psychological health. In India, where rapid industrialization and urbanization have led to increased pollution, understanding the mental health implications is particularly crucial. Based on research papers, the following are the key insights with regard to air pollution and mental health:

(a) Exposure to various environmental pollutants, including air pollutants, heavy metals, and noise pollution, is associated with an increase in mental

health disorders such as anxiety, mood, and psychotic syndromes, with both direct biological effects and stress-related impacts being implicated.

- (b) A study published in the journal Environmental Health Perspectives found that people living in areas with high levels of air pollution were twice as likely to be diagnosed with depression as those living in areas with low levels of pollution.*
- (c) A study published in the journal JAMA Psychiatry found that people living in areas with high levels of air pollution were more likely to experience symptoms of anxiety, such as worry, irritability, and restlessness.*
- (d) A study published in the journal Environmental Health found that exposure to air pollution can increase levels of stress hormones in the body.*
- (e) A study published in the journal Neurotoxicology found that exposure to air pollution can lead to problems with thinking, memory, and learning.*
- (f) A study published in the journal Environmental Health Perspectives found that people living in areas with high levels of air pollution were more likely to be diagnosed with psychosis, a mental disorder that causes a loss of contact with reality.*
- (g) The built environment, including factors like high rise housing, poor-quality housing, and loud exterior noise, can increase psychological distress and indirectly affect mental health through altering psychosocial processes (Evans 2003).*
- (h) Air pollution has been found to significantly reduce subjective well-being (SWB), with negative emotions such as nervousness, depression, and restlessness being more prominent in individuals exposed to higher levels of pollutants like PM_{2.5}.*
- (i) Several recent systematic reviews have been conducted on the impact of air pollution on mental health (Borrioni et al., 2022; Braithwaite et al., 2019; Fan et al., 2020; Q. Liu et al., 2021; Margolis et al., 2022; Trushna et al., 2021; Zeng et al., 2019; Zhao et al., 2018). However, these reviews either focused on one specific air pollutant (e.g., PM) or on specific developmental periods (e.g., adults).*
- (j) In the systematic review by Zundel et al (in year 2022) on air pollution and internalizing symptoms*

and behaviours revealed that air pollution exposure is consistently associated with increased anxiety and depression across different exposure windows and in both human and animal models. Further they also reported that air pollution exposure is associated with several neurobiological changes, predominantly increased inflammation, neuronal degeneration, and oxidative stress.

- (k) *Clara G. Zundel had stated in a World Economic Forum Report that humans exposed to polluted air tend to experience changes in the brain regions that govern emotions such as amygdala, hippocampus, and the prefrontal cortex.*
- (l) *According to another research, children and adolescents breathing polluted air could display depressive symptoms and be at a high risk for suicidal behaviours.*
- (m) *Data reported from China stated that standard deviation by 1 for increase in the particulate matter according to the accepted level of PM2.5 concentration in the air tends to increase the chances of developing psychiatric illness by 6.67% in individuals which is equivalent to a medical expense of approximately 22.88 billion dollars. This data holds important implications as majority of the global population resides in regions which have PM2.5 concentration levels much higher than permissible limits defined by the WHO guidelines.*
- (n) *Braithwaite et al in 2019 published a meta-analysis of 22 studies and reported that the findings supported the hypothesis of an association between long-term PM2.5 exposure and depression, as well as of possible associations between long-term PM2.5 exposure and anxiety and between short-term PM10 exposure and suicide.*
- (o) *The synthesis of research indicates a clear link between environmental pollution and psychological health, with various pollutants contributing to increased mental health issues.*

Indian Perspective:-

- 3. *That there is evidence suggesting that air pollution exposure worsens mental health outcomes in India, leading to feelings*

of sadness, cognitive difficulties, and a reduced ability to cope with life's challenges.

4. *In India, the impact is particularly evident, with air pollution and climate variability exacerbating psychological distress, especially in rural and economically vulnerable populations. These findings underscore the importance of addressing environmental pollution not only for physical health but also for the mental well-being of individuals in India.*
5. *These studies suggest that in India, environmental pollutants, particularly air pollution, are linked to a range of mental health issues, including anxiety, mood changes, and psychotic disorders, with notable impacts on subjective well-being, psychiatric symptoms, and psychological disorders across different populations, and that hot weather may also worsen psychological health in rural areas due to economic stress.”*

10. Report suggest general remedial measures and specific remedial measures as under:-

“10. General Remedial Measures suggested are as follows:-

- i. *Reduce exposure to air pollution: To reduce the impact of air pollution on person's mental health, there are a number of things one can do to reduce one's exposure. Avoid going out when not extremely necessary.*
- ii. *Staying Active: One can try to incorporate a healthy and active lifestyle. To be regular in exercise, yoga, dance etc., in indoors as well, as it will help to manage mental well-being.*
- iii. *Wearing a mask: If one must spend time outdoors when pollution levels are high, one can wear a mask to help filter out pollutants.*
- iv. *Maintain a healthy lifestyle: A healthy lifestyle can help to reduce one's risk of mental health problems. This includes eating a healthy diet, exercising regularly, getting enough sleep, and managing stress.*
- v. *Seeking social support: Social support is important for mental health. Make time for activities that one enjoys with friends and family.*
- vi. *Talking to a therapist: If anyone is struggling with mental health problems, he/she can talk to a therapist. They can help you to understand your symptoms and develop coping mechanisms.*

11. Specific measures under taken by the GNCTD of Delhi are as follows :-

- i. *Govt hospitals like DDU, BSA and GTB with Psychiatry department provide treatment for persons with mental health issues including depression and anxiety.*
- ii. *IHBAS is the State mental health institution under Delhi govt catering to population of NCT of Delhi and neighbouring states of Northern India. It provides OPD; inpatient; emergency and community outreach services for persons with mental health conditions. It provides counseling services and medications free of cost.*
- iii. *IHBAS also runs Mobile Mental Health Units (MMHU) services in Delhi covering all the 11 districts in the state and provides mental healthcare to homeless and homebound persons with mental illness.*
- iv. *Telemanas is the govt mental health helpline for persons with psychological issues to reach out for support and care. [Telephone No. 14416]*
- v. *Public awareness campaigns highlighting mental health alongside physical health and services available for seeking help.”*

11. Let further report covering the above aspects be filed by the CPCB within four weeks by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF.

12. The report of CPCB will also cover following specific issues:-

- A. Details of approval permitting release of EC funds for road construction.
- B. Comprehensive plan on utilization of EC&EPC funds on each environmental component including air.
- C. Response on relationship between pollutants and human health in view of ambient air quality standards not meeting.

13. List on 10.07.2024.

Prakash Shrivastava, CP

Sudhir Agarwal, JM

Dr. A. Senthil Vel, EM

April 02, 2024
Original Application No. 638/2023
& Original Application No. 658/2023
JG.