

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH NEW DELHI  
Original Application No.663 of 2023**

**IN RE: News Item published in Indian Express dated  
07.10.2023 titled \*GRAP stage 1 kicks in as air quality  
dips to poor, condition likely to prevail till Sunday\***

**SRISHTI MISHRA**

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

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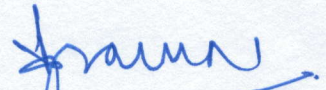
**INDEX**

S. NO.	PARTICULARS	PG. NO.
1.	Report on behalf of Commission for Air Quality Management in National Capital Region and Adjoining Areas in compliance of order dated 24.10.2024 along with supporting affidavit.	1-68

**NEW DELHI**

**DATED: 30.10.2024**

**FILED BY:**



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

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राष्ट्रीय राजधानी क्षेत्र और निकटवर्ती क्षेत्रों में वायु गुणवत्ता प्रबंधन आयोग  
Commission for Air Quality Management in NCR & Adjoining Areas  
भारत सरकार / Government of India  
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**THROUGH**



**SRISHTI MISHRA**

**D/3829/2018**

ADVOCATE FOR COMMISSION FOR  
AIR QUALITY MANAGEMENT IN  
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**MOST RESPECTFULLY SHOWETH:**

1. The Hon'ble NGT vide its Order dated 24.10.2024 in OA No.663 of 2023 in the matter titled as – News Item published in Indian Express dated 07.10.2023 titled “GRAP Stage 1 kicks in as air quality dips to poor condition likely to prevail till Sunday” *inter alia* directed as under:

*“10. ....we require the CAQM to disclose the steps taken by it from January 2024 to September 2024 to ensure that the air quality does not dip in the coming months of winter”*

2. It is respectfully submitted that the Commission has been making continuous efforts since its inception towards better coordination, identification and resolution of

problems surrounding the air quality index and taking measures for protecting and improving the quality of air in the National Capital Region and adjoining areas. The Commission has been ensuring co-ordination of actions by the Governments of the National Capital Territory of Delhi and the States of Punjab, Haryana, Rajasthan and Uttar Pradesh and other authorities concerned.

3. The Commission has been constituted under the Commission for Air Quality Management in NCR and Adjoining Areas Act, 2021. The Commission plays a pivotal role towards issuing directives / advisories, guidelines, coordination and monitoring of efforts of all the stakeholders towards abatement of air pollution in the NCR. The Commission, headed by a Chairperson comprises of a total of 21 Members representing concerned Ministries in the Central Government, State Governments, Technical Members, NGOs etc.

4. Since its inception, the Commission has been vigorously taking up the issue of air pollution in NCR and adjoining areas and has identified various contributors to air pollution with a core focus on the following major sectors:

- i. Agricultural Stubble Burning,
- ii. Pollution from vehicles and transport sector,
- iii. Dust from Construction and Demolition activities,
- iv. Dust pollution from Road and Open Areas,
- v. Industrial Pollution,
- vi. Pollution from Diesel Generator (DG) sets,
- vii. Municipal Solid / Plastic Waste burning, Biomass Burning,
- viii. Fires in Sanitary Landfills and other episodic events,
- ix. Pollution from identified thermal power plants,

- x. Firecrackers and miscellaneous dispersed sources.

**COMPREHENSIVE POLICY GUIDELINES FOR  
ABATEMENT OF AIR POLLUTION IN DELHI-NCR**

5. The Commission, since its inception, has been making efforts to comprehensively address the issue of air pollution in NCR and adjoining areas in a collective, collaborative and participative mode, involving all the major stakeholders.
6. A comprehensive policy detailing sector-wise actions / interventions and quantified targets and timelines (short-term, medium-term and long-term) was formulated and issued in July, 2022, to various stakeholders including Central Government Ministries/Departments, NCR State Governments, GNCTD and Government of Punjab for necessary action and targeted implementation.

7. While the comprehensive policy document noted above provided a broader prospective and indicative road map towards reduction of the air pollution load in NCR, to specifically guide and direct various actions as also envisaged in the policy noted above, the Commission since its inception has issued **84 Statutory Directions**, **15 Advisories**, besides various orders, guidelines and official communications from time to time, targeting each of the identified sectors. Such Statutory Directions, *inter alia*, detail the polluting potential in respective sectors, measures and mechanism for abatement of air pollution in the sector and targeted milestones. In the process, wherever felt necessary, the Commission has also come up with much stringent emission standards / norms for various polluting activities in NCR, as compared to the national standards. These directions are vigorously followed up through periodic progress reviews and issuing records of such deliberations, supplementary

orders, clarifications etc. and numerous official correspondences from time to time.

Besides the above noted Statutory Directions, towards effective enforcement of the various directives as above, the Commission under Section 12(2)(xi) of the Act has so far issued (as on 27.10.2024) **1,122 Closure Directions** in respect of grossly violating units, across various sectors and geographical jurisdictions in the NCR.

#### **PROGRESS REVIEW AND MONITORING BY THE COMMISSION**

8. Towards effective implementation of various directions, advisories, targeted policy actions, rules / regulations and guidelines under various statutes for abatement of air pollution in the NCR, the Commission has been regularly holding progress review meetings.

### **SECTORAL INITIATIVES / ACTIONS**

9. A series of measures that have been initiated / progressed upon by the Commission towards abatement of air pollution in the region across various contributory sectors, are as elaborated in ensuing paras.

### **ABATING AIR POLLUTION CAUSED BY VEHICULAR SECTOR**

10. Vehicular pollution is one of the most significant contributing sectors to the generally poor air quality in Delhi-NCR. Abatement of vehicular pollution thus has been one of the main focus areas of the Commission in its deliberations with the NCR State Governments and GNCTD.

### **CLEANER PUBLIC TRANSPORT SERVICES**

11. **Inter-city Bus Services:** While public transport buses (city buses) in Delhi have been operating on cleaner fuels

viz. CNG / E-buses, large number of intercity bus services from the cities / towns in the States of Haryana, Uttar Pradesh and Rajasthan to Delhi and other areas in NCR were still operating through diesel buses to BS-IV / lower standards. The Commission vide Direction No. 78 dated 19.10.2023 accordingly, devised a targeted action plan and directed for migrating such intercity buses to only BS-VI diesel / CNG / EV mode. The status in this regard is as under:

- ❖ Total 3,567 intercity buses on an average ply to Delhi on a daily basis from various cities in Haryana, Uttar Pradesh and Rajasthan. All of these have now been shifted completely to much cleaner BS-VI diesel / CNG / EV mode.
- ❖ About 1717 such buses ply on a daily basis for the intercity bus services from the above noted States to any other city in NCR beyond Delhi. Of these, 1400 buses are

now on BS-VI diesel / CNG / EV mode and complete transition is also likely by December, 2024.

- ❖ Towards proliferating such cleaner transition of inter city buses, the Commission vide Direction No. 81 dated 14.06.2024 also directed for the intercity bus services from Punjab, HP, Uttarakhand, MP and J&K to Delhi and other areas in NCR to be targeted to shift to EV / CNG / BS-VI Diesel mode by December, 2024. Of a total of about 1,006 buses plying from these States on a daily basis, about 600 buses have already transitioned to cleaner modes.

12. **Auto-rickshaws:** While auto rickshaws are a preferred economical mode of transport, these are also major contributors of particulate matter emissions. All auto rickshaws in the NCT of Delhi have already been mandated on CNG / electric mode. However, diesel fueled auto rickshaws are still plying in the NCR across the

States of Haryana, Uttar Pradesh and Rajasthan. The Commission issued a Statutory Direction No. 70 dated 30.11.2022, mandating new registration of only CNG / electric autos across NCR w.e.f. 01.01.2023, which has been strictly implemented.

State Governments in NCR have been further directed to phase out existing diesel auto rickshaws from the entire NCR by 2026 in a staggered but time bound manner as under:

- By 31.12.2024 from the districts of Gurugram, Faridabad, Noida and Ghaziabad.
- Districts of Sonipat, Rohtak, Jhajjar and Baghpat – by 31.12.2025
- All other districts in NCR – by 31.12.2026

13. For augmenting cleaner public transport systems across NCR, the Commission has also issued comprehensive guidelines for:

- Augmenting Public Transport System, focusing on Electric buses, Metro cars etc.
- Improving first and last mile connectivity to mass public transport systems like DMRC, RRTS etc.
- Effective traffic management and easing out congestions at hotspots
- Action against vehicles without PUCC, visibly polluting, overloaded vehicles, transportation of C&D materials in open vehicles.
- Action against End-of-Life (EoL) Vehicles/Overaged vehicles
- Effective implementation of Scrapping Policy
- Parking area management plans - Rationalization of parking charges

The Commission has also advised the GNCTD / NCR States to deliberate upon and pilot the following futuristic initiatives towards cleaner transportation:

- Vehicular emission monitoring through remote sensing
  - Congestion pricing and earmarking Low Emission Zones (LEZ)
  - Integrated Traffic Management System (ITMS), Intelligent traffic signals, early warning systems etc.
14. Towards an effective long-term strategy of controlling vehicular emissions, transition to e-mobility has been identified as an important tool by the Commission. With all the NCR States and GNCTD coming up with their respective medium / long term targeted EV Policies, the Commission has also issued an advisory for “Mandating procurement of e-vehicles” in identified sectors like Govt.

procurements, e-commerce platforms for door-to-door deliveries, service agencies etc. to give a further push to clean technologies in transport sector. Equally important is the need to build requisite infrastructure to support e-mobility i.e., battery charging stations, battery swapping points and for disposal of large volume of batteries which is likely to be generated in the ensuing years. In this regard, progress on e-mobility, as reported by the State Govts. / GNCT of Delhi is as under:

<b>Region</b>	<b>No. of EVs as on 30.09.2024</b>	<b>Battery Charging Infrastructure</b>
Delhi	3,37,693	3,497 Stations (5,612 points) Augmentation planned to 18,000 stations (30,000 points) by 2025-26
Uttar Pradesh	1,34,313	171 charging points Additional 252 points by 2025-26
Haryana	41,115*	305 charging points Additional 170 points by 2025-26

\*As in August 2024

15. Regular certification of vehicles towards compliance of emission standards is a must and in this context the Commission has directed the NCR State Govts. and GNCTD for effective implementation of the new “Pollution Under Control” (PUC) Certificate regime, including periodic audits of the PUC Certificate issuing agencies, in compliance of the Central Motor Vehicles Rules (Amendment) Rules, 2021 dated 14.06.2021. Drives on a continual basis have been directed for in the NCR for ascertaining the compliance of PUC norms. To this effect, details of challans for PUC violation, visibly polluting / over loaded vehicles etc. issued in the NCR during January, 2024 to September, 2024 are as under:

<b>Region</b>	<b>No. of Challans issued</b>	
	<b>2023</b>	<b>2024 (till September)</b>
Delhi	1,64,000	2,53,700
Haryana	11,135	23,269

UP	22,579	66,524
Rajasthan	6,154	8,150

16. Towards controlling vehicular pollution caused by old / end of life vehicles owing to much inferior emission standards, the Commission has taken up with the States concerned and GNCTD to strictly ensure that Petrol/Diesel vehicles more than 15/10 years old do not ply in NCR, in consonance with the Hon'ble NGT directions, also upheld by the Hon'ble Supreme Court. Progress in this regard however, has been far from satisfactory for the NCR States / NCT of Delhi as is evident from the details of overaged vehicles impounded by the agencies concerned, as under:

<b>Region</b>	<b>No. of vehicles impounded</b>	
	<b>2023</b>	<b>2024 (till September)</b>
Delhi	22,397	2,310
Haryana	220	2,496

UP	3,058	631
Rajasthan	389	574

17. A boost in public transport infrastructure and facilities is the need of the hour to ease congestions on roads and abate vehicular pollution. GNCTD and NCR State Governments have been accordingly advised to prioritize public transport while also mandating e-mobility in some sectors and augmentation of the charging infrastructure.

### **PREVENTION AND CONTROL OF PADDY STUBBLE BURNING**

18. High incidences of paddy stubble burning in Punjab and Haryana, year on year, have been a matter of serious concern and have been contributing adversely to the air quality scenario in the NCR particularly during the winter months which coincide with paddy harvesting. Accordingly, prevention and control of paddy stubble

burning has been a high priority sector for the Commission.

19. To this end, following detailed deliberations and discussions with the State Governments of Punjab, Haryana, UP, Rajasthan, Government of NCT of Delhi, State Pollution Control Boards of NCR States, other stakeholders and knowledge institutions like Indian Council of Agricultural Research (ICAR), Indian Agricultural Research Institute (IARI), Indian Space Research Organization (ISRO) etc., the Commission in June, 2021 developed a guiding framework for prevention and control of paddy stubble burning and effective management techniques for paddy stubble.
20. Statutory Directions were thereafter issued to the State Governments of Punjab, Haryana and Uttar Pradesh to prepare **detailed and monitorable state specific action**

**plans, on a year-to-year basis, along the following components of action, based on the broad framework:**

- i. **Plans / Schemes to reduce generation of paddy straw;**
  - Crop diversification – to other crops like maize, millets etc.
  - Promoting Basmati variety as this is conveniently used as cattle fodder
  - Promoting low straw and early maturing paddy varieties – to enhance time window between harvest and sowing of wheat crop
  - Promote direct seeding of rice (DSR) method against transplant to shorten the overall crop cycle
  
- ii. ***In-situ* Crop Residue Management** – Post the paddy harvesting, this practice entails in situ

mulching / incorporation of the residual paddy straw in the soil through various mechanized means, mainly facilitated by procurement of subsidized crop residue management (CRM) machinery through the CRM Scheme of the Ministry of Agriculture and Farmers Welfare, Government of India introduced in 2018-19 and is still continuing. Key machines deployed for such *in situ* management include super straw management system (Super SMS), happy seeders, super seeders, till drills, rotavators, mulchers, mechanized ploughs, reapers, slashers etc.

Under this scheme, financial assistance is provided to individual farmers for purchase of crop residue management machinery @ 50% subsidy and to the Custom Hiring Centres (CHCs), Cooperative Societies, FPOs etc., for procurement of such

machines @ 80% subsidy, for onward renting to needy farmers.

Since 2018-19, total funds to the tune of Rs. 1681.85 crores and Rs. 1081.71 crores have been so far released by the Central Government to the State Governments of Punjab and Haryana respectively, under the CRM Scheme to facilitate procurement of such crop residue management machinery on a year-to-year basis as detailed under:

**Rs. (in crores)**

<b>Year</b>	<b>Punjab</b>	<b>Haryana</b>
2018-19	269.38	137.84
2019-20	273.80	192.06
2020-21	272.50	170.00
2021-22	331.94	193.35

2022-23	278.83	223.46
2023-24	105.00	90.00
2024-25	150.00	75.00
Total	1681.85	1081.71

Following are the elements for effective *in situ* management:

- Timely procurement and allocation of adequate and appropriate Crop Residue Management machinery under the CRM Scheme on a year-to-year basis
- Ensuring optimal utilization of the available machinery with Custom Hiring Centers, Cooperatives and individual farmers
- Staggering harvesting schedule in Village / Block to improve machine utilization

- Use of PUSA Bio-decomposer in conjunction with CRM Machines

iii. ***Ex-situ Crop Residue Management*** –

Ex situ utilization of paddy straw, while obviating open burning in the fields, also fetches economic value for the farmers and the straw is utilized as a resource in various end-use applications. Over last few years, the practice of ex situ utilization of paddy straw has been gaining traction across industrial / commercial applications. Such major sectors for ex situ utilization of paddy straw include:

<b>As Fuel</b>	<b>Other applications</b>
Industrial Boilers, Furnaces	Bio-mass power generation
Waste to Energy Plants	Production of Compressed Bio-Gas (CBG)

Thermal Power Plants Captive Power Plants (Co-firing of Biomass pellets with Coal)	Production of Bio-ethanol
Brick Kilns	Cattle Fodder, Compost/Manure
Biomass Pellets / briquettes in Tandoors/Stoves/Chullahs Crematoria	Misc. applications – Particle board / panels, Cutlery, Packaging etc.

The CRM Scheme of the MoAFW also facilitates procurement of machines like balers, rakers etc. which are used for straw collection from the farms in the form of bales for various subsequent ex-situ utilization straw. A new component has been incorporated in the CRM Scheme from 2023 onwards for promoting and facilitating paddy straw supply chain for paddy straw bales through bio-mass aggregators / entrepreneurs / farmers etc.

- iv. **IEC activities to educate and guard against stubble burning.**
- Sensitization and education on the ill effects of paddy stubble burning on environment, air quality, human health and also soil health through electronic media, social media, print media, hoardings, Audio-visual clips on TV, Broadcast of radio jingles, PA system mounted mobile vans etc.
  - Demonstration camps for various *in situ* / *ex situ* management practices.
  - Dissemination of various schemes, economic benefits, subsidies and incentives towards control of stubble burning.
- v. **Prohibitory Orders for Crop Residue Burning;**
- vi. **Effective monitoring/enforcement actions to prevent stubble burning;**

21. For ensuring a standard method for recording of paddy residue burning fire events and avoiding multiplicity / mismatch of data reported by various agencies, a standard protocol was developed by ISRO for the Commission. Directions were issued by the Commission to ensure adoption and application of the standard protocol for recording of Crop Residue Burning Fire Events, using satellite recorded data.
22. Based on the directions for adoption of the Framework developed by the Commission, respective State Action plans were prepared and updated for 2021, 2022, 2023 and 2024, duly factoring in various resources, schemes and learnings of implementation of the action plan.
23. Particularly to promote ex-situ utilization of paddy straw, also as an economic resource for the farmers, various Directions / Advisories were issued by the Commission, as under:

- i. Detailed Advisories were issued to the State Governments of Punjab, Haryana and Uttar Pradesh on 28.07.2021 on “Ex-Situ Stubble Management for tackling the problem of open Stubble Burning”, including the need to establish an ecosystem and robust supply chain mechanism for ex-situ utilization of straw in various end use applications.
- ii. Statutory directions were issued on 17.09.2021 to 11 Thermal Power Plants within 300km of Delhi for mandatory **co-firing of at least 5-10% biomass pellets (with at least 50% paddy straw)**. The progress on this front is vigorously monitored by the Commission, aided by the Ministry of Power, SAMARTH mission and NTPC. Multiple joint visits by the officials of these bodies have been made towards stepping up the levels of co-firing in the identified TPPs.

- iii. Statutory Directions were issued in February, 2022, permitting running of industries in NCR (beyond Delhi) on Biomass fuels, thus targeting extensive utilization of paddy straw as fuel in boilers / furnaces as a mandatory replacement of heavy polluting fuels like coal, diesel oil, furnace oil etc.
  - iv. The Commission also issued a Statutory Direction No. 72 dated 17.03.2023 to all the coal based Captive Thermal Power plants situated in NCR to initiate immediate steps to co-fire biomass-based pellets (with focus on paddy straw utilization) with coal targeting at least 5% co-firing of biomass pellets, latest by 30th, September,2023 and at least 10% co-firing by 31st December, 2023.
24. Owing to the concerted actions by all stakeholders for implementation of the action plans framed on a year-to-year basis since 2021, a gradual but significant reduction

was witnessed in the paddy residue burning incidences, recorded based on the standard protocol, as tabulated below:

<b>State</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>% reduction in 2023 over 2021</b>
<b>Punjab</b>	71,304	49,922	36,663	48.6
<b>Haryana</b>	6,987	3,661	2,303	67

25. Towards a systematic planning and to take preparatory actions in advance, the Commission started following up with the State Governments of Punjab and Haryana, well before the paddy sowing season 2024, as early as in February 2024, to sensitize the machinery for prevention and control of the incidents of stubble burning and deliberating upon further preventive and mitigative actions that could be taken to control stubble burning

and update / review the Action Plan for 2024 in the following key areas:

- a) Mapping of available machinery in Custom Hiring Centers and cooperatives;
- b) Optimized use of available CRM machinery including staggering harvesting schedule at village/ cluster level;
- c) Speedy procurement of additional farm machinery through fund allocations made by MoAFW under the Crop Residue Management (CRM) Scheme;
- d) Expanding bio-decomposer application to supplement in-situ stubble management measures;
- e) Facilitating robust supply chain towards ex-situ utilization;
- f) Intensifying campaigns and IEC activities against stubble burning;
- g) Intensifying monitoring and enforcement actions;

h) Co firing of Biomass in Thermal power Plants and use of paddy residue in industries.

26. The States of Punjab and Haryana were directed to prepare detailed Annual Action Plan encompassing the targets for management of paddy straw through various in-situ and ex-situ management options, **targeting elimination of paddy stubble burning**, which was reviewed and deliberated upon in detail by the CAQM and approved. A Statutory Direction to effectively implement the Action Plan, in letter and spirit, **to ensure complete elimination of paddy stubble burning during 2024** was also issued by the Commission on 12.04.2024.

27. The salient features of the Action Plans for States of Punjab and Haryana for 2024, both targeting elimination of paddy stubble burning, are briefed as under:

## PUNJAB

<b>Parameter</b>	<b>2023</b>	<b>2024</b>
Total straw generation (Million Tonnes)	<b>19.47</b> (Basmati-3.3 Non-Basmati- 16.17)	<b>19.52</b> (Basmati-3.42 Non-Basmati- 16.10)
Target for in-situ management (Million Tonnes)	<b>11.5</b>	<b>12.7</b>
Utilisation as fodder (Million Tonnes)	<b>0.70</b>	<b>0.86</b>
Target for ex-situ utilization (Million Tonnes)	<b>3.66</b>	<b>5.96</b>
Availability of CRM Machines (Nos.)	<b>1,17,672</b>	<b>*1,30,851</b> in March 2024  Ongoing additional procurement of around 12,000 machines by Sept. 2024
No. of CHCs for farm machinery	23,792	24,736

Of the total available machinery in the State, more than about 73,500 machines have been supplied to individual farmers whereas more than about 68,500 machines have been procured for the Custom Hiring Centres, FPOs and co-operative societies for community lending purposes. The utilization of the machinery available with the CHCs however has generally been reported to be sub-optimal, particularly in respect of small and marginal farmers.

### HARYANA

<b>Parameter</b>	<b>2023</b>	<b>2024</b>
Total straw generation (Million Tonnes)	<b>7.31</b> (Basmati-3.67 Non-Basmati- 3.64)	<b>8.10</b> (Basmati-4.06 Non-Basmati- 4.04)
Target for in-situ management (Million Tonnes)	<b>3.19</b>	<b>3.30</b>
Utilisation as fodder	<b>2.20</b>	<b>2.20</b>
Target for ex-situ utilization	<b>1.95</b>	<b>2.54</b>

(Million Tonnes)		
Availability of CRM Machines(Nos)	<b>80,071</b>	* <b>90,945</b> in March 2024 Ongoing additional procurement of around 11,000 machines by Sept, 2024
Custom Hiring Centres for machinery (Nos)	6,775	6,794

Of the total available machinery in the State, more than about 68,500 machines have been reported to be supplied to individual farmers whereas more than about 32,500 machines have been procured for the Custom Hiring Centres for community lending purposes. The utilization of the machinery available with the CHCs, however, has generally been reported to be sub-optimal, particularly in respect of small and marginal farmers.

28. Due to concerted efforts made to boost ex-situ utilization of paddy straw and huge capital investments made for various alternate end-use applications in the last few years, the plans and targets for ex situ utilization of paddy straw are witnessing an encouraging and increasing trend as evident from the tabulation given below:

<b>Total ex situ utilization (million tonnes)</b>					
PUNJAB			HARYANA		
2022	2023	2024*	2022	2023	2024*
1.51	3.66	6.66	1.80	1.95	2.54

\* Much enhanced targets for 2024

Detailed end-use wise targets under ex situ utilization plan for 2024, for these two States are given below:

<b>Application</b>	<b>Punjab</b>	<b>Haryana</b>
Boilers and furnaces	4.0	1.03

Bio-mass based power	1.01	0.83
CBG plants	0.35	0.1
2 G Bio-ethanol plants	0.2	0.2
Co-firing in TPPs	0.74	0.28
Brick kilns and misc.	0.36	0.10
<b>Total ex-situ utilisation</b>	<b>6.66</b>	<b>2.54</b>

29. Towards monitoring the effective implementation of the respective Action Plans, various consultative and review meetings have been held from time to time with all stakeholders concerned in the State Governments of Punjab and Haryana including the Dy. Commissioners of various districts of both the States.

30. During the various review meetings, the State Governments have been committing to target elimination of paddy residue burning practice. However, for the period from 15<sup>th</sup> – 29<sup>th</sup> October, 2024, a brief status on

the fire counts encountered in these two States is as under:

**Comparative Paddy stubble burning incidences (15<sup>th</sup>  
– 29<sup>th</sup> October)**

<b>State</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
<b>PUNJAB</b>	<b>12,112</b>	<b>5,254</b>	<b>2,356</b>
<b>HARYANA</b>	<b>1,813</b>	<b>1,094</b>	<b>739</b>

31. Towards ensuring strict enforcement, the Commission, in exercise of the powers conferred upon the Commission under Section 14(2) of the Act, through Statutory Direction No. 84 dated 10.10.2024, authorized the Deputy Commissioners / District Collectors / District Magistrates in the States of Punjab, Haryana, NCR areas of Rajasthan and Uttar Pradesh and in the NCT of Delhi to file a complaint/ prosecution before jurisdictional Judicial Magistrate, in case of inaction in respect of officials including nodal officers and supervisory officers

at various levels and Station House Officers, responsible for effective enforcement towards ensuring elimination of paddy stubble burning in their respective jurisdiction.

32. The Commission shall be maintaining a close watch on the situation towards prevention of such paddy stubble burning incidences. Further preventive / corrective measures, as appropriate, shall follow based on the detailed reports of the State Governments including the special reports on the above two noted districts.
33. With persistent field level efforts and targeted policy initiatives in the short/ medium/ long term, it is expected that instances of paddy stubble burning in Punjab and Haryana will see a definite and marked improvement, with a consequent improvement in the air quality of Delhi-NCR during the paddy harvesting season.

**ABATEMENT OF DUST POLLUTION FROM  
CONSTRUCTION & DEMOLITION ACTIVITIES**

34. Construction and Demolition activities also contribute significantly to air pollution in the region. The Commission accordingly issued directions for dust control / mitigation measures in all construction / demolition projects like wind breaking walls at the project boundaries, installation of anti-smog guns in construction sites, dust screens over the area under construction, covering of construction material / debris at site, regular misting / sprinkling of water, use of dust-suppressants and transportation of C&D materials in covered vehicles etc. in compliance of various rules and guidelines related to effective dust mitigation measures at C&D sites.
35. To facilitate remote monitoring of bigger construction projects which are large in number in the NCR, the

Commission issued statutory directions No. 11-18 dated 11.06.2021 for registering all projects on plot areas greater than 500 sq mtr. on the respective **Web Portal** of the State Pollution Control Board / DPCC. Salient features of this remote monitoring mechanism are as under:

- i. Provision of video fencing with remote connectivity to the web portal.
- ii. Standardized check-list for dust mitigation measures is available on the portal.
- iii. Mandatory fortnightly self-audits and declaration by the proponents on the web portal.
- iv. Low cost PM2.5 and PM10 sensors at the project site.
- v. Inspection agencies to carry out incognito inspections.

- vi. Levying environmental compensation /directing stoppage of work for non-compliances.

36. Such Web Portals are fully functional in the Pollution Control Boards in Haryana, Uttar Pradesh and Rajasthan and DPCC in Delhi. The status of registration of construction sites on Web Portal as reported by the States is given below:

(As on 30.09.2024)

<b>Region</b>	<b>No. of sites registered</b>
Delhi	565
Uttar Pradesh	770
Haryana	854
Rajasthan	152

37. The Commission further mandated deployment of adequate numbers of anti-smog guns, in proportion to the area of the construction as under:
- i. At least 1 for a total construction area between 5,000 – 10,000 sqm.
  - ii. At least 2 for a total construction area between 10,001- 15,000 sqm.
  - iii. At least 3 for a total construction area between 15,001- 20,000 sqm.
  - iv. At least 4 for a total construction area above 20,000 sqm.
38. The State PCBs in NCR and DPCC have also been directed to conduct regular physical inspections of different construction and demolition projects in their respective jurisdiction towards appropriate dust mitigation measures, adherence to stipulated guidelines for transportation of construction materials and demolition

waste, covering of construction materials and demolition waste, regular water sprinkling, deployment of adequate number of anti-smog guns and compliance of various environmental pre-requisites like Consent To Establish / Environment Clearance and registration / self-certification on the web-portal for remote monitoring, wherever applicable. Details of the inspections conducted, non-conformances / violations observed and penal measures including Environmental Compensation (EC) charged against such projects, from 01.01.2024 to 30.09.2024 are as under:

<b>S. No.</b>	<b>Status of inspection of C&amp;D sites</b>	<b>Delhi</b>	<b>Haryana</b>	<b>Uttar Pradesh</b>	<b>Rajasthan</b>
1	No. of C&D sites physically inspected	22702	1513	1083	1829
2	Total no. of sites against which EC	1403	75	121	79

	was levied for non-conformities				
3	No. of sites ordered for closure / stoppage of work	592	153	49	41

### **MANAGEMENT OF DUST FROM ROADS AND RIGHT OF WAYS**

39. Like the construction and demolition activities, dust from roads, sidewalks and open areas contribute significantly to the dust and particulate emissions. To mitigate the effect of such sources, the Commission issued Statutory Directions No. 19-28 dated 15.06.2021 to the NCR states, GNCTD and agencies like NHAI, DDA and municipal corporations / councils in NCR for setting-up of “Dust Control and Management Cells” tasked with monitoring and implementation of various dust control measures in

all such road projects/activities and management of dust from roads and open areas.

40. The directions focus mainly on:

- 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. Proper maintenance to keep the roads pot hole free.
- vi. Laying and repairing of roads to support mechanized sweeping,

- vii. Conversion of non-paved road sides to paved / green areas,
  - viii. Greening of central verges,
  - ix. Preference to cemented roads over the bituminous roads especially in Industrial Areas,
  - x. Identification of hotspots of road dust and implementing specific targeted dust control measures.
41. Sixty-two (63) Dust Control & Management Cells have been set up in the NCR, of which 12 are in NCT of Delhi, 18 in UP, 19 in Haryana and 14 in Rajasthan. Regular review meetings of these DCMCs were held by the Commission to evaluate the progress and efforts made in this direction towards road sweeping, water sprinkling, scientific disposal of dust, pot-filling / repair to roads including black topping and shoulder levelling besides

greening of central verges and greening / paving of pathways / road sides.

42. Current availability of mechanized road sweeping machines in NCR is tabulated as under:

Region	Deployment of Mechanized Road Sweeping Machines	Deployment of water sprinklers
Delhi	85	227, besides 110 anti-smog guns for misting
Uttar Pradesh	41	232
Haryana	76	103
Rajasthan	08	27

### **ABATEMENT OF INDUSTRIAL POLLUTION**

43. Running of industrial operations on cleaner fuels has been an area of priority for the Commission since its inception. While within the NCT of Delhi, the identified industries had shifted to PNG, use of highly polluting fossil fuels like coal, furnace oil, light diesel oil and the

types dominated the industrial spectrum in the NCR beyond Delhi. To this end, the Commission convened several meetings with the concerned stakeholders (NCR States, GNCT of Delhi, CPCB, SPCBs of NCR States and Delhi Pollution Control Committee) for a road map to shift the industries to PNG/Cleaner fuels. A standard list of approved clean fuels was formulated by the Commission and Statutory Directions No. 65 dated 23.06.2022 and addendum dated 03.04.2024 were issued for strict implementation in the NCR, in a graded and phased manner, targeting transition of all industries in the NCR to the approved fuels latest by 31.12.2022. Besides clean gaseous fuels like PNG/ CNG/ LPG etc., biomass fuels with stricter emission norms were permitted by the Commission for industrial applications in the NCR, beyond the jurisdiction of NCT of Delhi towards an affordable alternative and to minimize the uncontrolled

burning of biomass / agricultural residue / straw etc. in fields and open areas.

44. Towards effective enforcement, directives were also issued by the Commission to:

- i. Audit and inspect the industries already connected to PNG and ensure that those industries are not using other polluting fuels.
- ii. Ensure transition of industries not running on approved fuels, to any of the fuels in the approved fuel list.
- iii. Maintain strict vigil to prevent use of unapproved fuels by enforcement agencies and stringent action against violators.
- iv. Develop a time bound comprehensive action plan, in consultation with the authorized entities to supply gas in industrial areas within NCR.

**Status of Transition of Industries to Cleaner Fuels in  
NCR**

45. Pursuant to issue of a standard list of approved fuels for NCR and a concerted drive for shifting more and more industries to approved fuels, the periodic status of transition of industries to the approved fuels is as under:

	<b>Haryana</b>	<b>UP</b>	<b>Rajasthan</b>	<b>NCT of Delhi</b>	<b>Total in NCR</b>
Total No. of fuel-based industries in NCR	3,141	2,273	522	1,823	7,759
Industries operating on such approved fuels <b>as on 01.01.2022</b>	630	1,161	198	1,635	3,624
<b>Current Status (As on 30.09.2024)</b>	2,954	2,188	484	1,823	7,449
Balance (Closed)	187	85	38	-	310

46. The balance 310 units have reported temporary self-closure or through directions of the State authorities. These units would be permitted to resume their operations only subject to their shifting and operating on approved fuels. State authorities have been asked to ensure that under no circumstances any industry should be permitted to operate on unapproved fuels.

#### **REGULAR INSPECTION OF INDUSTRIES**

47. The State PCBs in NCR and DPCC have been directed by the Commission to conduct regular inspections of industrial units in their respective jurisdiction towards use of approved fuels, adherence to stipulated emission standards, effectiveness of emission / air pollution control devices and compliance of conditions of various environmental pre-requisites like CTE / CTO, Environment Clearance, authorization from agencies

concerned etc. Details of such inspections conducted, from 01.01.2024 to 30.09.2024 are as under:

<b>Inspection of industrial units by State PCBs / DPCC</b>				
<b>Area</b>	<b>Delhi</b>	<b>Haryana</b>	<b>Uttar Pradesh</b>	<b>Rajasthan</b>
Number of Industries inspected during the period.	9410	3053	1495	1307
No. of Industries observed with violations / non-compliances	67	44	12	206
Number of Industries issued with closure directions for gross violations	--	32	05	07

### **PNG INFRASTRUCTURE AND SUPPLY IN NCR**

48. Towards adoption of standard approved fuels for NCR, PNG infrastructure and supply is extremely critical, targeting as many industries to switch over to PNG for their fuel requirements for boilers, furnaces, heaters etc. The Commission accordingly pursued the matter with all stakeholders in this context i.e., MoPNG, all City Gas

Distribution Agencies in NCR and industrial associations etc. towards fast-tracking natural gas infrastructure and supply of PNG in all industrial areas in NCR.

49. There are a total of 240 industrial areas in the NCR. PNG is identified as one of the best fuel for industrial applications in as far as the emissions are concerned. Up till March, 2021, PNG infrastructure was available only in about 115 industrial areas, which on rigorous follow up by the Commission with multiple agencies concerned has since been proliferated in 220 industrial areas. Action is underway for another 11 industrial areas, which are targeted by the end of 2024. Gas infrastructure projects are sub-judice in 3 industrial areas in Haryana. PNG pipeline infrastructure would be economically unviable in 6 industrial areas owing to low demand and gas supply in such areas is envisaged through cascades on a demand basis.

**ABATING AIR POLLUTION CAUSED BY DIESEL GENERATOR SETS**

50. Owing to not so reliable power supply arrangements, particularly in the industrial areas and in some areas in NCR, rampant use of highly polluting Diesel Generator sets was observed by the Commission. Accordingly, to improve upon the power availability and reliability, particularly to abate air pollution in the winter months, all the DISCOMs operating in Delhi-NCR were issued Statutory Directions No. 58-61 dated 22.02.2022 towards comprehensively assessing the power requirements and ensuring uninterrupted power supply in Delhi-NCR particularly during the winter months from October – February to minimize use of DG Sets.
51. Further, the Commission also issued detailed Statutory Directions No. 76 dated 29.09.2023 for emission control mechanism and regulations for the use of Diesel operated

Generator Sets in the NCR, salient features of which are as under:

- Power generating sets running on LPG/ Natural Gas etc – no restrictions
- New gen-sets up to 800 kW adhering to latest emission standards (fuel agnostic) as per MoEFCC notification dated 03.11.2022– no restrictions
- Portable DG sets (below 19 kW) – no restrictions (allowed only for emergency services during GRAP)
- Direction No. 76 dated 29.09.2023 for mandatory retrofitment of Emission Control Devices (ECD) / Dual fuel kits in all existing DG Sets between 19 kW – 800 kW capacity.
- Stringent emission standards for existing DG sets > 800 kW capacity

52. The Commission has rigorously followed up for implementation of the statutory directions regarding emission control from DG Sets. Based on informal data gathered from various agencies concerned, about 7,965 DG sets have been retro-fitted with ECDs / dual fuel kits so far and work is in progress for another about 1,500 DG Sets. Various proponents in NCR have also replaced their old and polluting DG sets with about 6,316 new DG sets to the latest standards and procurement process is ongoing for additional 1,740 such new DG sets.
53. Towards ascertaining compliance of the Directions, incognito inspections are being conducted on random sample basis through the Flying Squads of CAQM. 3,968 DG sets have been inspected so far and sealing directions have been issued against 927 DG sets found non-compliant. Intensified inspections and monitoring is,

however, also required to be undertaken by the State PCBs/ DPCC.

**OPEN BIO-MASS/MSW BURNING AND FIRES AT LANDFILL SITES**

54. The Commission advised for formulation of action plans for control of Bio-mass/Municipal Solid Waste Burning and fires in Landfill Sites, focusing on deployment of enforcement teams, quick complaint redressals and corrective actions through IT enabled platforms etc. for strict compliance.
55. The need to prevent fires at various landfill sites in the region were observed and following policy interventions were directed for prevention / elimination of open burning and controlling landfill fires by the MCD and other concerned urban local bodies:

- i. Concrete and time bound plan for liquidating legacy solid waste at sanitary landfill sites through decentralized segregation, waste processing plants and by preventing dumping of fresh waste;
- ii. Expediting the timelines for completion of infrastructure works and capacity enhancement related to waste processing facilities in cities based on proper estimation of waste generation and by aiming for 100% source segregation;
- iii. Effective management and waste segregation at source (separating out days for collection of wet and dry waste, incentivize collection and transportation of segregated waste, bulk waste generators to be liable for segregation and processing etc.);
- iv. Expansion of waste recycling capabilities, material recovery centers, composting sites and timely completion of ongoing and planned infrastructure works.

**GREEN BELTS IN NCR FOR ABATEMENT OF AIR POLLUTION**

56. Dust mitigation through greening and creation of forest sinks is vital to abate air pollution. This green walling is needed against desertification and ingress of dust and cleansing of toxic gases. Guided by this, the Commission took up the task of enhanced greening and plantation with NCR States and GNCTD, also involving various road owning agencies viz NHAI, CPWD, MCD and various other urban local bodies in the NCR etc. for target-oriented action plans for mass plantation drives, focusing on nurturing and better survival rate and protection of all categories of forest areas, besides greening/ paving of central verges and sidewalks along the entire road network in NCR.

57. All ULBs in NCR were particularly impressed upon to prepare and implement action plans for expanding the

net of "Nagar Van" and "Nagar Vatika", as feasible, in urban agglomerations and cities in NCR, including adoption of Miyawaki technique for dense plantation in limited urban spaces.

58. The Commission engaged with various stakeholders on a regular basis, also emphasizing on the involvement of students and residents in various plantation drives, in an endeavor towards increasing the green cover in the Delhi-NCR to curb air pollution. Following detailed consultations with these entities, greening and plantation action plans are being formulated for all the NCR districts of Haryana, Rajasthan, Uttar Pradesh and Delhi on a year-to-year basis.
59. The progress vis-à-vis as per the targets laid down in the respective action plans is periodically monitored by the Commission duly emphasizing the need to improve the quality of plants and the processes adopted for

plantations. The Commission appropriately emphasized monitoring, post-plantation care, audit of survival rate, use of recycled water for watering plants, and plantation of native species as the key elements of the plantation program.

Progress made from year to year in this context is tabulated below:

**(No. of plantations)**

<b>Agencies</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Delhi	28,81,145	39,49,980	80,41,331
Uttar Pradesh	1,64,07,023	1,73,93,359	1,70,28,308
Rajasthan	7,28,908	10,58,236	22,33,288
Haryana	53,63,820	87,96,324	86,49,277
Central Govt. Agencies and CAPFs	-	--	7,24,036
Higher Education and	--	--	7,11,456

Research Institutions			
Associations	--	--	--
<b>Total</b>	<b>2,53,80,896</b>	<b>3,11,97,899</b>	<b>3,73,87,696</b>

Target and achievements for the year 2024-25

**(No. of plantations)**

<b>Agencies</b>	<b>Target</b>	<b>Achievement</b>
Delhi	56,40,593	45,88,659
Uttar Pradesh	1,97,56,196	1,86,97,404
Rajasthan	55,80,558	60,33,781
Haryana	1,32,50,000	1,37,71,216
Central Govt. Agencies and CAPFs	32,37,000	8,72,180
Higher Education and	9,08,742	2,09,859

Research		
Institutions		
Associations	52,00,000	3,90,000
<b>Total</b>	<b>5,35,73,089</b>	<b>44,563,099</b>

### **ENFORCEMENT ACTIONS BY THE COMMISSION**

60. Towards effective enforcement of the directives and policy guidelines of the Commission, in exercise of the powers conferred under section 11(5) of the CAQM Act, 2021 and in exercise of the enabling provisions made thereunder, the Commission has constituted a Special Enforcement Task Force (ETF) to monitor and supervise the implementation of the Statutory directions issued by it from time to time and related environmental statutes.
61. To assist the ETF, 40 Flying Squads/ Inspections Teams assisted by the Central Pollution Control Board carry out

incognito checks on a regular basis for identifying serious violations of the statutory Directions of the Commission.

62. The ETF meets frequently to review and take stock of the ground situation and to closely monitor the field level implementation and compliances of the various directions and orders issued by the Commission. Non-conformities / non-compliances in respect of various directions identified by the Flying Squads are presented before the ETF for deliberations and deciding action against such serious violators.

63. Section 12(2)(xi) of the CAQM Act, 2021 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.*

*Explanation.—For avoidance of doubts, it is hereby declared that the power to issue directions under this section includes the power to direct—*

*(a) the closure, prohibition or regulation of any industry, operation or process; or*

*(b) stoppage or regulation of the supply of electricity or water or any other service.”*

64. In consonance with the above noted provisions of the Act, in the cases of gross violations of the directions of the Commission and other extant statutes on matters related to air pollution, the Flying Squads constituted by the Commission have conducted inspections at about **19,316 sites / units** since inception. In respect of gross violations observed, the Commission has also issued Closure Directions across different sectors and geographical jurisdictions in the NCR, as under:

<b>No. of closures direction issued</b>				<b>State-wise closure direction</b>			
Industry	C&D Sites	Misc.	<b>Total</b>	Delhi	Har	UP	Raj
619	462	41	<b>1,122</b>	159	364	497	102

65. Units / sites issued with such closure directions are later permitted to resume their operations by the Commission, only after following due corrective and preventive measures and a commitment to henceforth comply with all statutory directions / guidelines of the Commission and other related statutes to abate air pollution, and imposition and realization of appropriate environmental compensation charges from such units.
66. In light of the averments made above, it is respectfully submitted that action Plans for abatement of air pollution from various sectors have been put in place and Directions, Advisories and Orders have been issued from time to time. To ensure implementation of such action

plans by the implementing authorities, regular follow up and review of the actions taken is being carried out by the Commission.

**NEW DELHI**

**DATED:** 30.10.2024.

**FILED BY:**

राम कुमार अग्रवाल / Ram Kumar Agrawal  
निदेशक / Director  
राष्ट्रीय राजधानी क्षेत्र और निकटवर्ती क्षेत्रों में वायु गुणवत्ता प्रबंधन आयोग  
Commission for Air Quality Management in NCR & Adjoining Areas  
भारत सरकार / Government of India  
17वीं मंजिल, जवाहर व्यापार भवन (एस.टी.सी. बिल्डिंग), टॉलस्टॉय मार्ग,  
17th Floor, Jawahar Vyapar Bhawan (STC Building), Tolstoy Marg,  
नई दिल्ली-110001 / New Delhi-110001

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

**THROUGH**

**SRISHTI MISHRA**  
**D/3829/2018**  
ADVOCATE FOR COMMISSION FOR  
AIR QUALITY MANAGEMENT IN  
NATIONAL CAPITAL REGION AND ADJOINING AREAS

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
PIRINCIPAL BENCH NEW DELHI  
Original Application No.663 of 2023

IN RE: News Item published in Indian Express dated  
07.10.2023 titled \*GRAP stage 1 kicks in as air quality dips  
to poor, condition likely to prevail till Sunday\*

AFFIDAVIT

I, Ram Kumar Agrawal aged about 55 Years, s/o Shri Prabhat Kishore Agrawal, working as the Director in Commission for Air Quality Management in National Capital Region and Adjoining Areas do hereby solemnly affirm and declare as under:-

1. That I am the Director of the Commission and am well conversant with the facts and circumstances of the present case, hence competent to swear this affidavit.
2. That I have read and understood the contents of the accompanying Report on behalf of Commission for Air Quality Management in National Capital Region and Adjoining Areas in compliance of order dated 24.10.2024 and state that the averments made therein are true and correct to the best of my knowledge and belief as derived from the official record.



*Agrawal*

3. That no material fact has been concealed therefrom.

*[Handwritten signature]*  
**IDENTIFIED BY**

*[Handwritten signature]*

**DEPONENT**

राम कुमार अग्रवाल / Ram Kumar Agrawal  
निदेशक / Director  
राष्ट्रीय राजधानी क्षेत्र और निकटवर्ती क्षेत्रों में वायु गुणवत्ता प्रबंधन आयोग  
Commission for Air Quality Management in NCR & Adjoining Areas  
भारत सरकार / Government of India  
17वीं मंजिल, जवाहर व्यापार भवन (एस.टी.सी. बिल्डिंग), टॉलस्टॉय मार्ग,  
17th Floor, Jawahar Vyapar Bhawan (STC Building), Tolstoy Marg,  
नई दिल्ली-110001 / New Delhi-110001

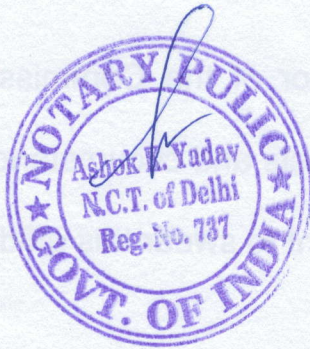
**VERIFICATION**

Verified at New Delhi on this the 30<sup>th</sup> day of Oct. 2024,  
that the contents of above affidavit are true and correct to my  
knowledge and belief.

*[Handwritten signature]*

**DEPONENT**

राम कुमार अग्रवाल / Ram Kumar Agrawal  
निदेशक / Director  
राष्ट्रीय राजधानी क्षेत्र और निकटवर्ती क्षेत्रों में वायु गुणवत्ता प्रबंधन आयोग  
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17th Floor, Jawahar Vyapar Bhawan (STC Building), Tolstoy Marg,  
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**ATTESTED**

*[Handwritten signature]*

30 OCT 2024

**NOTARY PUBLIC  
GOVT OF INDIA**

*[Handwritten signature]*

