



Department of Environment,
Govt. of NCT of Delhi



International Day
of Clean Air
for blue skies

Management interventions to mitigate **Air Pollution in Delhi**

October, 2024¹



Air Quality in Delhi



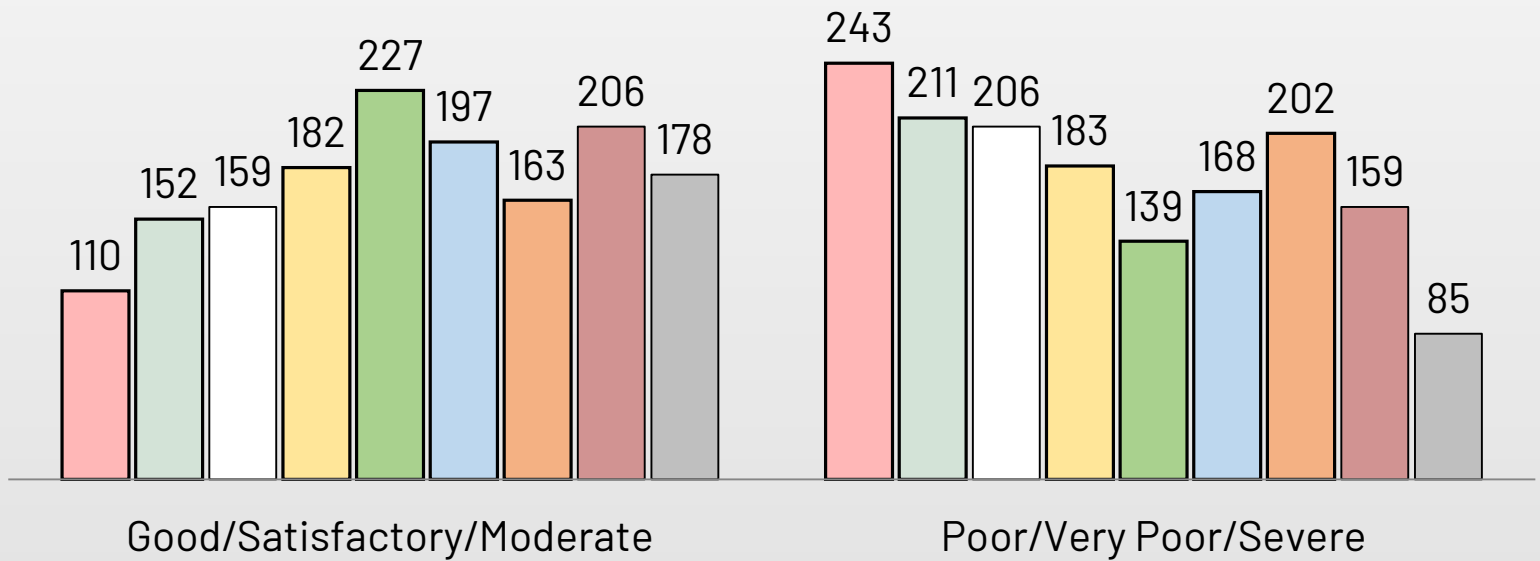


01

Days According to Air Quality Index in Delhi (2016-24)

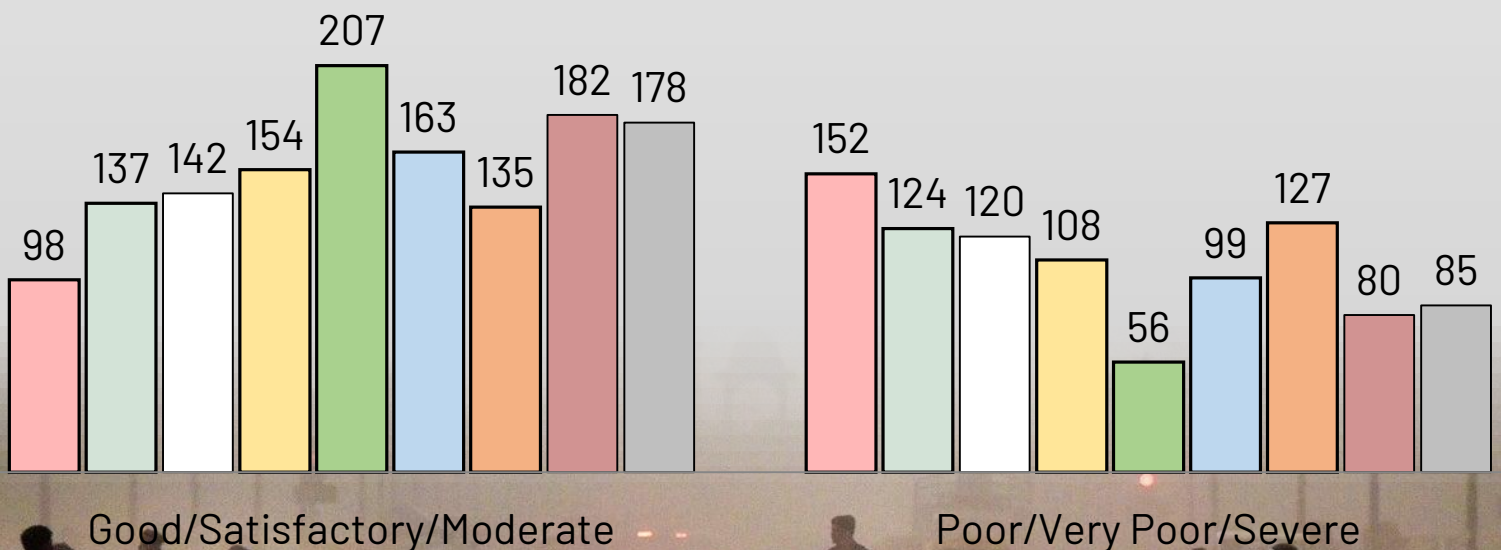
Days according to Air Quality Index in Delhi (2016-24)

2016 2017 2018 2019 2020 2021 2022 2023 *till 19th Sept, 2024



Comparative Status of Days according to AQI of Delhi from 1st January to 19th September (2016-24)

2016 2017 2018 2019 2020 2021 2022 2023 2024

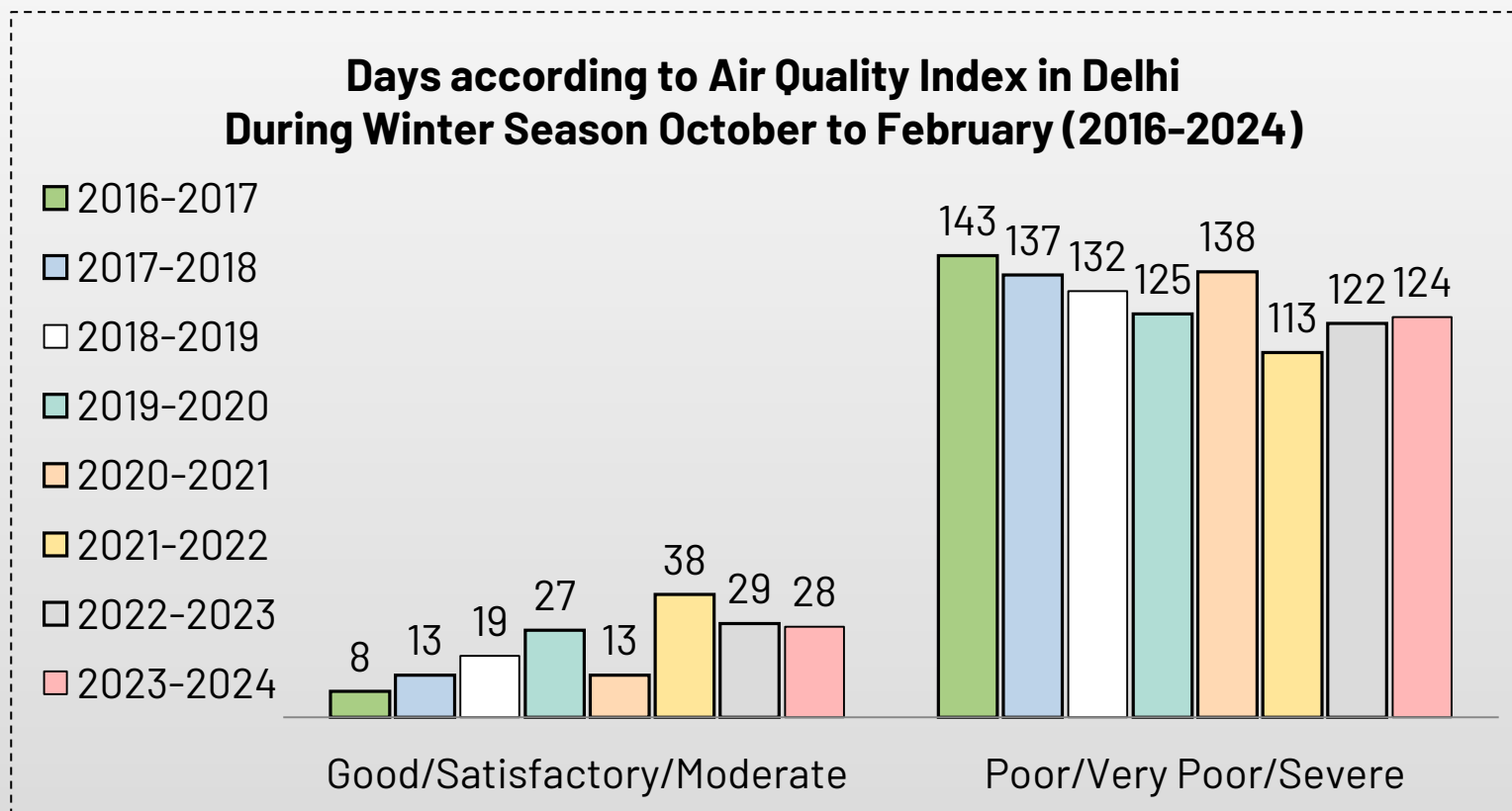


Good Satisfactory Moderate Poor Very Poor Severe Severe +

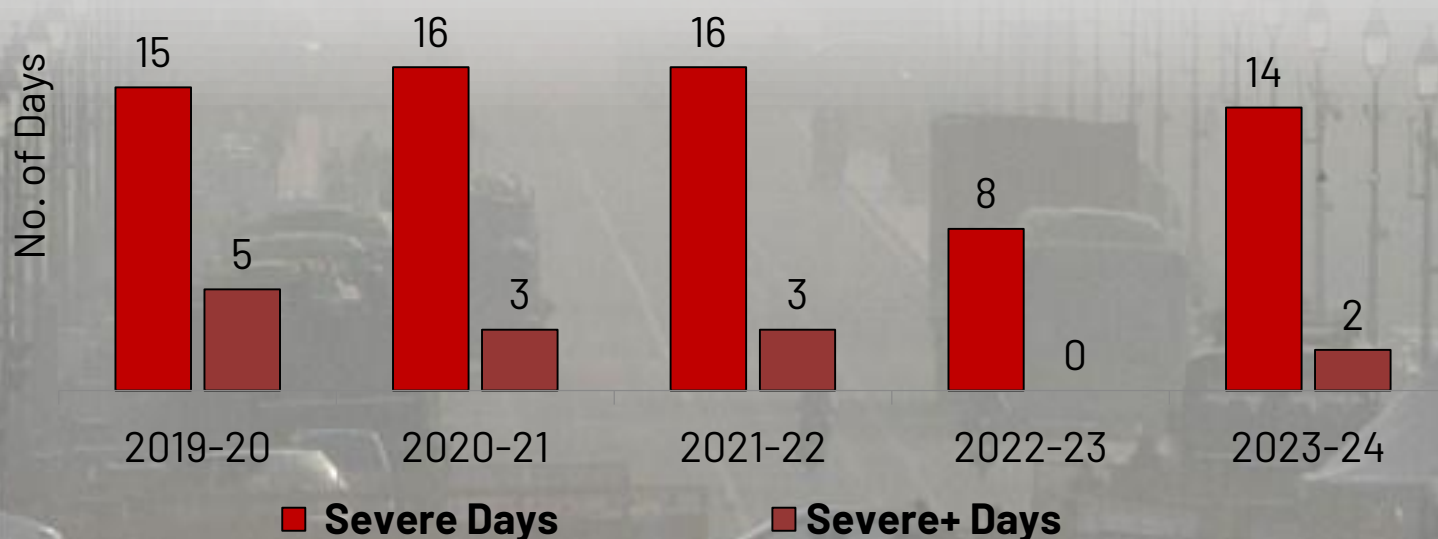
50 100 200 300 400 450

02 Days According to Air Quality Index in Delhi (2016-24)

Period : October to February (Winter Season)



Severe and Severe + : October to January (Winter Season)



Good

Satisfactory

Moderate

Poor

Very Poor

Severe

Severe +

50

100

200

300

400

450

03 Monitoring 8 Parameters Strong Monitoring System

Monitoring 08 ambient air quality parameters on real time basis at 40 locations [24 DPCC, 6 CPCB, 9 IITM/IMD, 1 MHUA].

DPCC air monitoring station data is being utilized by CPCB for analyzing the AQI of the city.

Monitoring 8 Parameters	
1	PM _{2.5}
2	PM ₁₀
3	Sulphur dioxide
4	Nitrogen dioxide
5	Ozone
6	Ammonia
7	Benzene
8	Carbon monoxide



Delhi State Environmental Health Bulletin circulated every day during Oct – March for daily monitoring by HODs [AQI, predominant pollutants, wind speed, actions taken on air polluting activities on a daily basis].

04 Research based actions

Research studies

Source Apportionment Study of NCT of Delhi - IIT Kanpur in 2015 and The Energy Research Institute (TERI) in 2018.

Source apportionment of ambient particulate matter during winter season in Delhi - IIT-Madras, 2018

Research findings are regularly incorporated in management strategies

- Top contributors: Vehicles, Road dust, Construction Dust, Biomass burning and Industrial sources
- Combustion sources, vehicles, biomass burning and MSW burning are consistent sources in winter

Comprehensive Study on Air Pollution and Green House Gases (GHGs) in Delhi

(Final Report: Air Pollution component)

Submitted to
Department of Environment
Government of National Capital Territory of Delhi
and
Delhi Pollution Control Committee, Delhi



Mukesh Sharma; PhD and Onkar Dikshit; PhD
Professors, Department of Civil Engineering
Indian Institute of Technology Kanpur, Kanpur- 208016

January 2016

SOURCE APPORTIONMENT OF AMBIENT PARTICULATE MATTER DURING WINTER SEASON IN DELHI

Sponsored by
DELHI POLLUTION CONTROL COMMITTEE (DPCC)
Government of National Capital Region, New Delhi

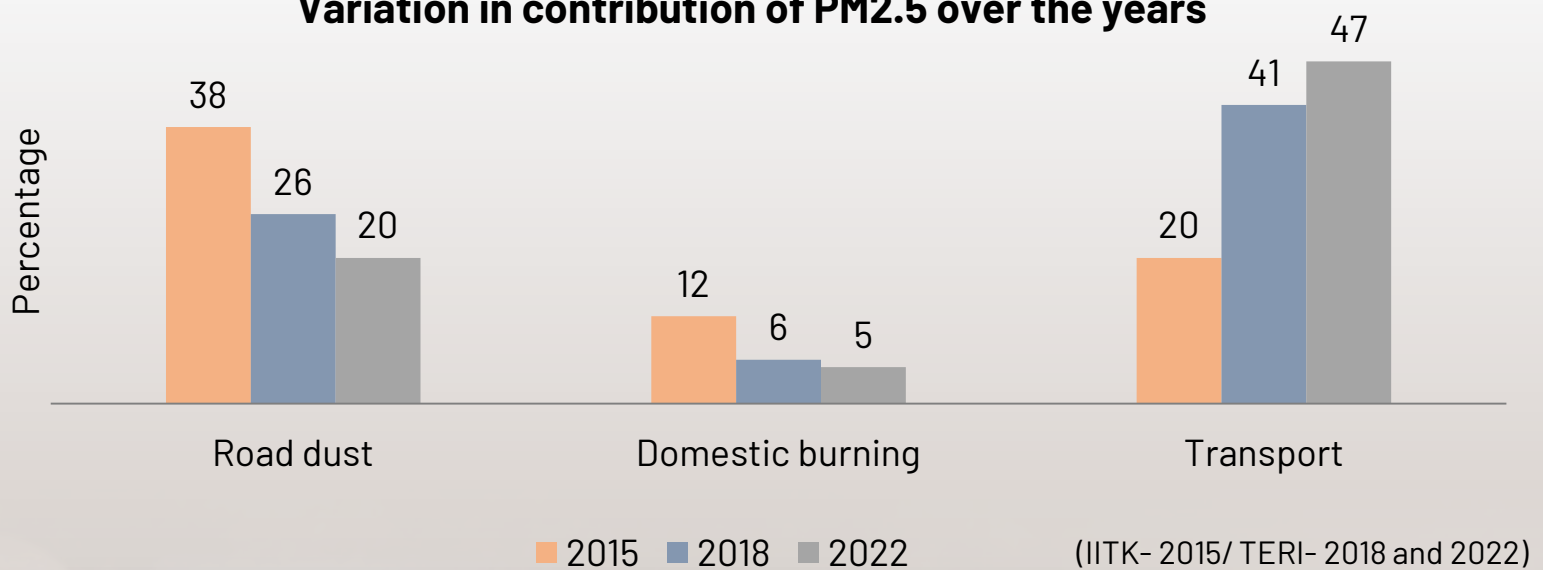


Prepared By
Department of Civil Engineering
Indian Institute of Technology Madras
&
Department of Civil Engineering
Indian Institute of Technology Delhi

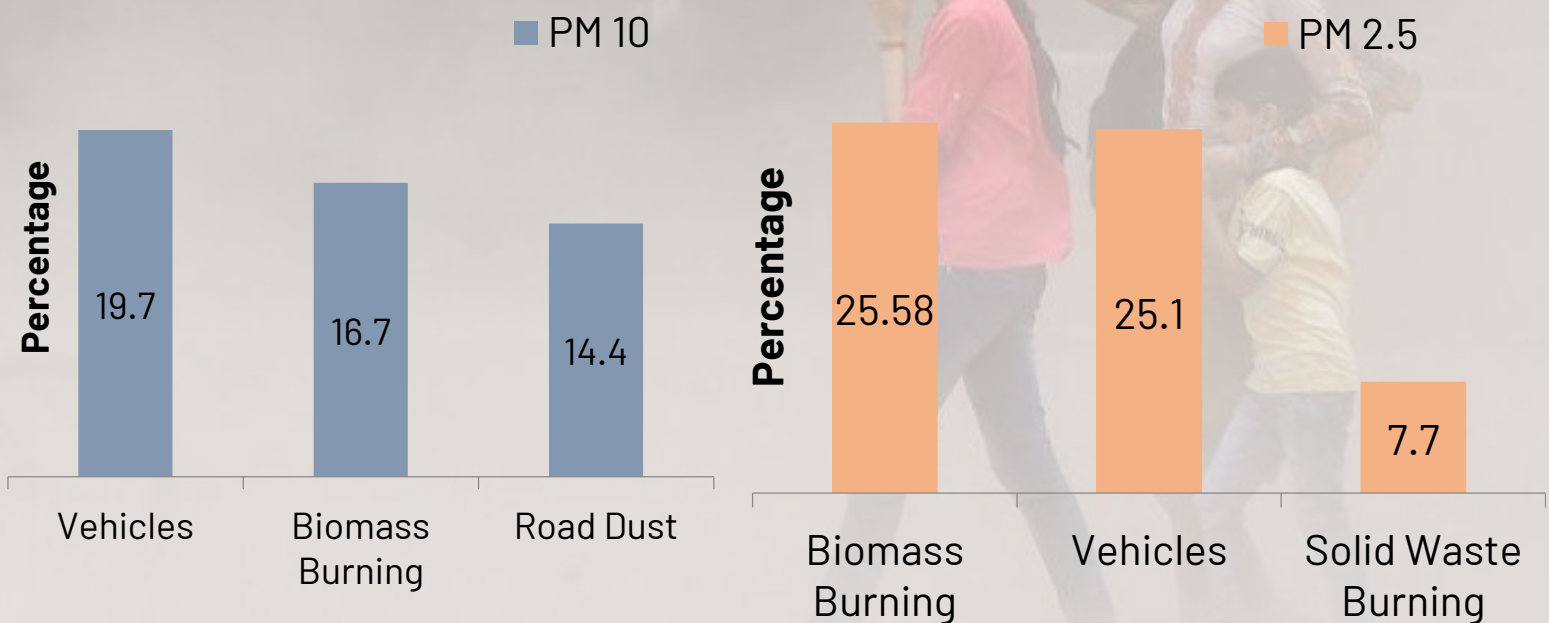


05 Emission inventories

Variation in contribution of PM_{2.5} over the years

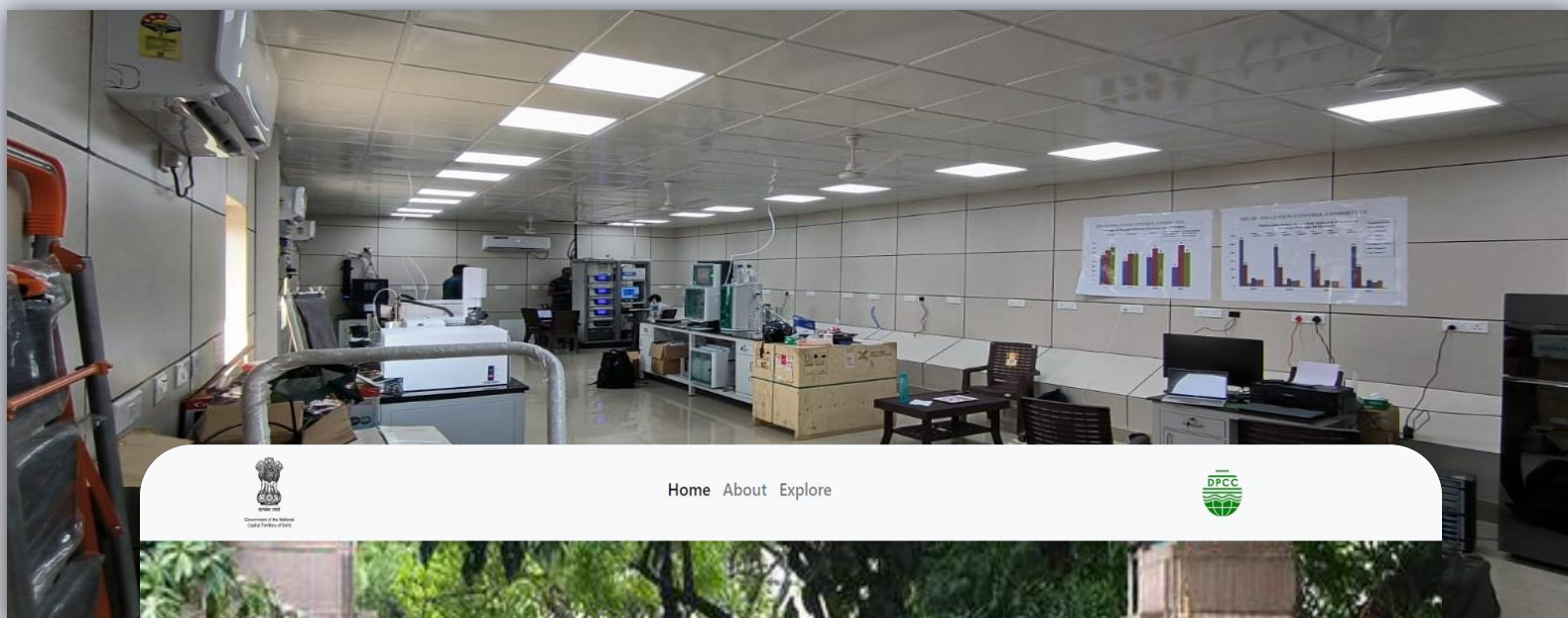


PM₁₀ and PM_{2.5} Percentage contribution from top 3 Specific Sources (Winter months)



06 Strengthening Scientific Evidence Based Policy & Action

Real Time Source Apportionment



Home About Explore



R-AASMAN

Real-time Advanced Air Source Management Network

Source Apportionment and Forecasting on real time basis including emission inventory: Agreement, with IIT Kanpur led consortium signed on 22.10.2021.

Establishment of one Super site AQS, one mobile air laboratory and unmanned spatial monitoring networks at 5 locations.

07 Implementation of Graded Response Action Plan (GRAP)

GRAP invoked at least two-three days in advance based on prediction of air quality forecasting models (invoked on 6th Oct, 23 till 27th Feb, 24). Revised GRAP enforced this Winter 2024 - 25.

Total no. of Days in GRAP stage (2023-24)

I	II	III	IV
25	85	29	14

Stage I

Poor
AQI
201-300

06.10.2023 to
20.10.2023 and
19.02.2024 to
27.02.2024

Stage II

Very Poor
AQI
301-400

21.10.2023 to
01.11.2023,
28.11.2023 to
21.12.2023,
01.01.2024 to
13.01.2024 and
18.01.2024 to
18.02.2024

Stage III

Severe
AQI
401-450

02.11.2023 to
05.11.2023,
19.11.2023 to
28.11.2023,
22.12.2023 to
31.12.2023 and
14.01.2024 to
17.01.2024

Stage IV

Severe+
AQI
> 450

06.11.2023 to
18.11.2023

OUTLINE

01

Dust management from construction & demolition activities

02

Mitigation of dust from road and open areas

03

Control of fires incidences in sanitary landfill sites

04

Prevention of open burning of MSW and biomass

05

Electric/EV mobility

06

Vehicular Pollution Control

07

Augmentation of Public transport

08

Effective Grievance Redressal

09

Greening and plantation programme

10

Abating pollution from DG sets

11

Other actions under GRAP Stage III and Stage IV

01

Dust Management From Construction & Demolition Activities



8

Dust Management From Construction & Demolition Activities

Strategies

01

Development of extensive
C&D waste processing
facilities

03

Monitoring through C&D web
portal

02

Deployment of ASGs at C&D
sites

04

Enforcement



Dust Pollution Control Self Assessment, DPCC

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Development of Extensive C&D Waste Processing Facilities

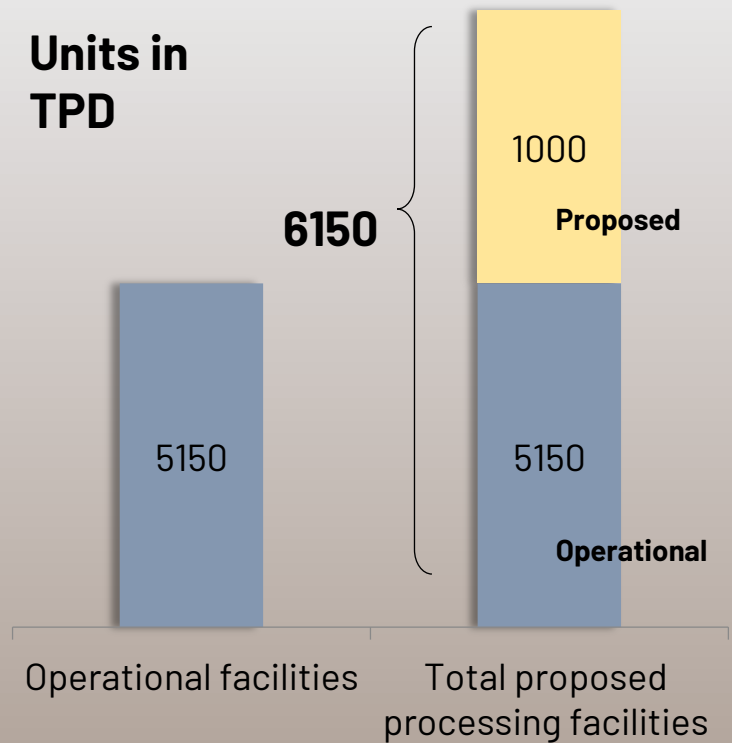
C&D waste generation approx. 6000 TPD in Delhi.

5 operational C&D waste processing facilities in Delhi with total capacity of 5150 TPD including Facility at Jahangirpuri (Burari) (2000 TPD) has been revamped and commissioned in July, **2023**.

Other processing facilities are namely Bakkarwala (1000 TPD), Ranikhera (1000TPD) , Shastri Park (1000 TPD)

More facilities proposed : 1000 TPD **Tehkhand, Okhla.**

**Units in
TPD**

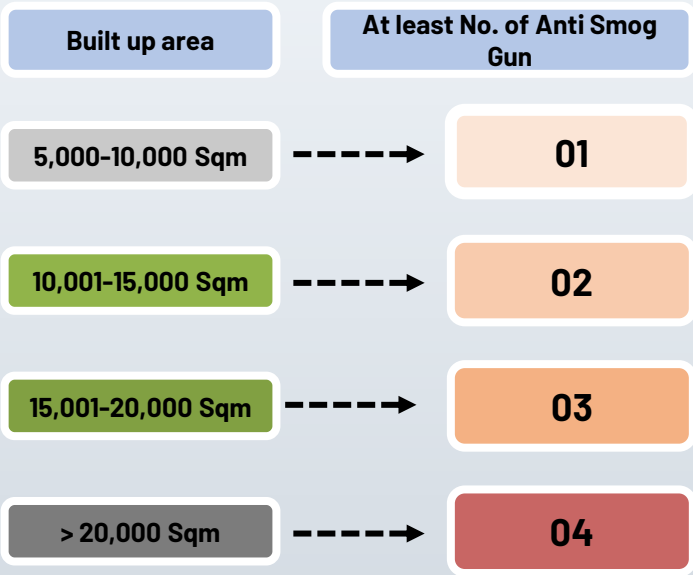


10 Deployment of ASGs at C&D Sites

CAQM's Standards/ Guidelines to mitigate C&D dust

Dust mitigation measures issued by Environment department, GNCTD to all project proponents, contractors.

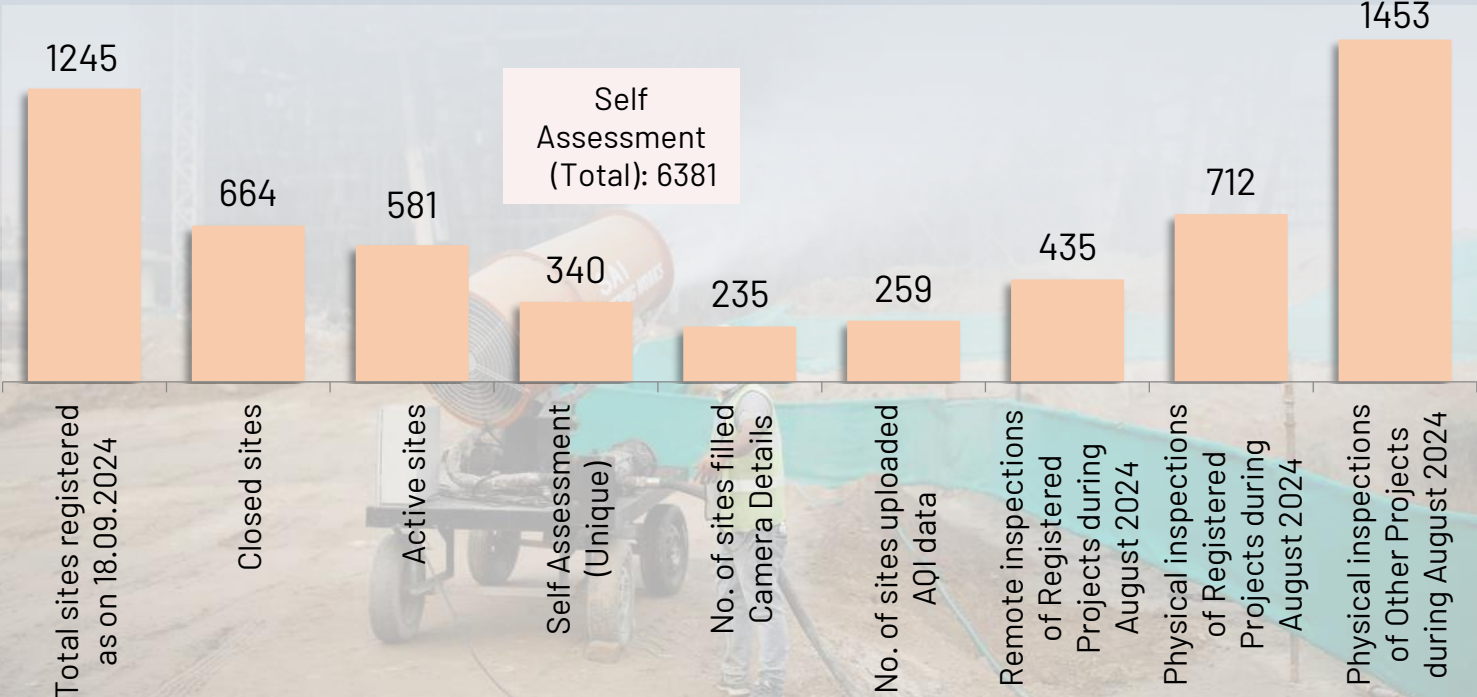
Deployment of adequate numbers of anti-smog guns, in proportion to the area of the construction sites (as per CAQM Policy).



498

Deployment of **498 anti-smog** guns at large construction sites

Dust pollution Control for Self- assessment web portal for C&D sites



11

Monitoring Through C&D Web Portal

Dust pollution Control for Self- assessment web portal for C&D sites

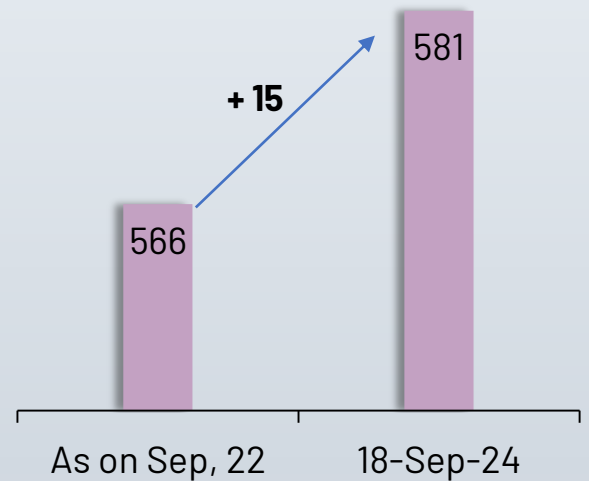
Web portal for Construction and Demolition sites of 500 Sq mt and above built-up area launched by DPCC in Sep, 2021.

Capacity building of all stakeholder departments held on Apr, 2023 and Sept, 2023 on registration and review of self-assessment reports followed by personal hearings to more than 643 PPs to resolve issues related to C&D portal.

No of Workshops held: 9 workshops for overall sensitization about C&D portal

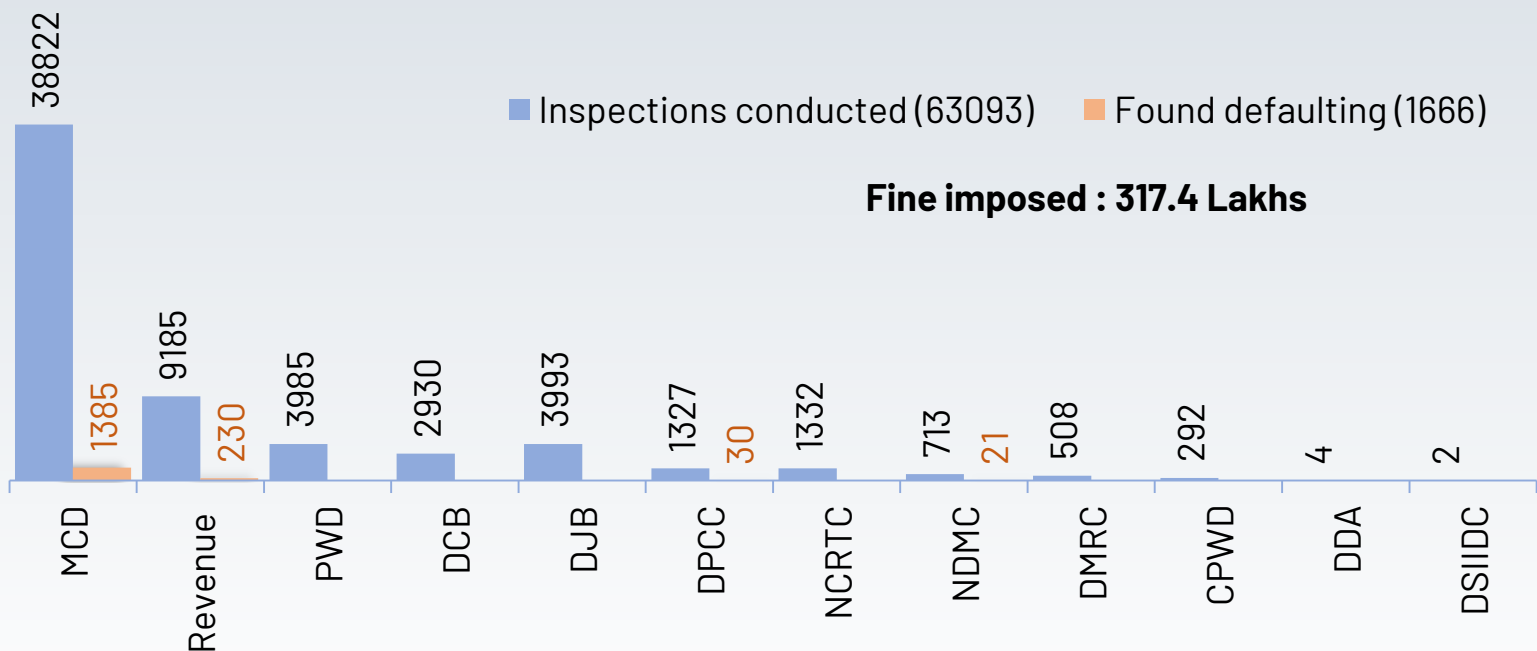
Regular review of self-audit of construction sites registered on DPCC's Dust Assessment portal

No. of active sites registered on portal



591 Teams for ensuring compliance of dust control norms are deployed during winter 2023

Enforcement : Oct ,2023 to 16 Sept, 2024



02

Mitigation Of Dust from Road and Open Areas



12 Mitigation of Dust from Road and Open Areas

Strategies

- | | | | |
|----|--|----|--|
| 01 | Institutionalized monitoring of Road dust management | 08 | Deployment of ASGs on High Rise Building |
| 02 | Deployment of MRS Machines | 09 | Funding to ULBs for mitigation of air pollution (NCAP) |
| 03 | Scientific disposal of Dust Collected in Sites/Landfills | 10 | Machines in summary MRS WS ASGs |
| 04 | Funding to MCD for Integrated MRS Machines | 11 | Paving / Greening of Roads sides |
| 05 | Deployment of Water Sprinklers | 12 | Greening of Central Verges, August-2024 |
| 06 | Deployment of Antismog Guns | 13 | Repair and maintenance of Road Patches/ Potholes |
| 07 | Deployment of Mobile ASG Hotspot Wise | | |



13

Institutionalized Monitoring of Road Dust Management

Dust Control and Management cells constituted by 12 road owning agencies and stakeholder departments under the direction of CAQM.

Monitoring optimum utilization of road sweeping machines, scientific disposal of dust collected in designated sites/ landfills, water sprinkling to suppress dust especially after mechanized sweeping, conversion of non-paved road sides into paved, greening of central verges and deployment of Anti-Smog Guns at dust hotspots etc.

CAQM reviews progress regularly.

Road Owning Agencies

MCD	NDMC	DCB
PWD	DDA	CPWD
DSIIDC	NHAI	IFCD
DMRC	DJB	NCRTC

Department of
Environment

Govt. of NCT
of Delhi



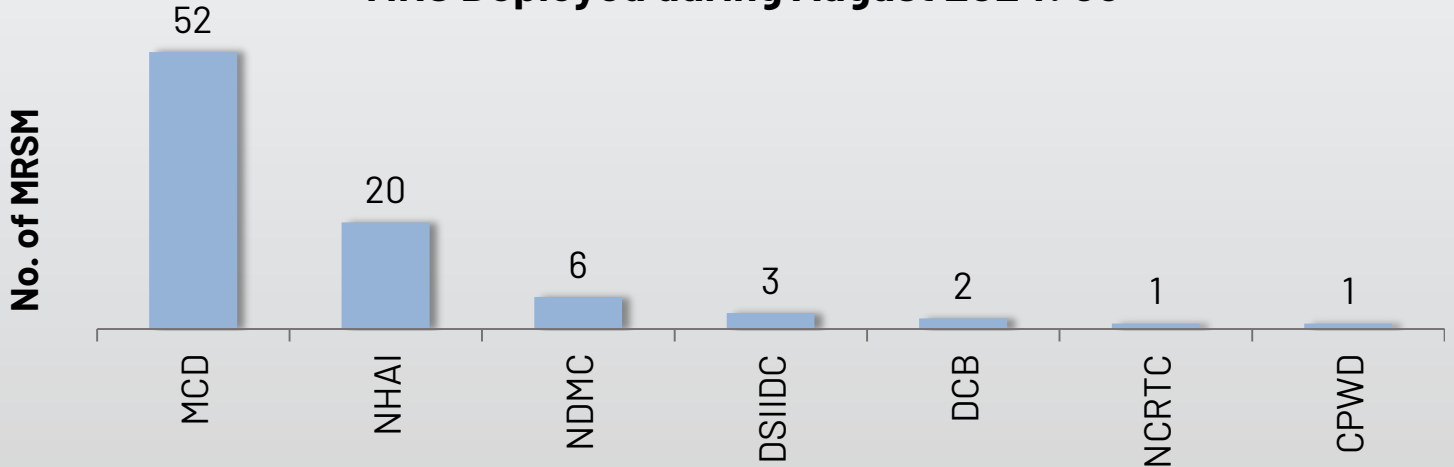
Review of Functioning of Dust Control Management Cells



14

Deployment of MRS Machines

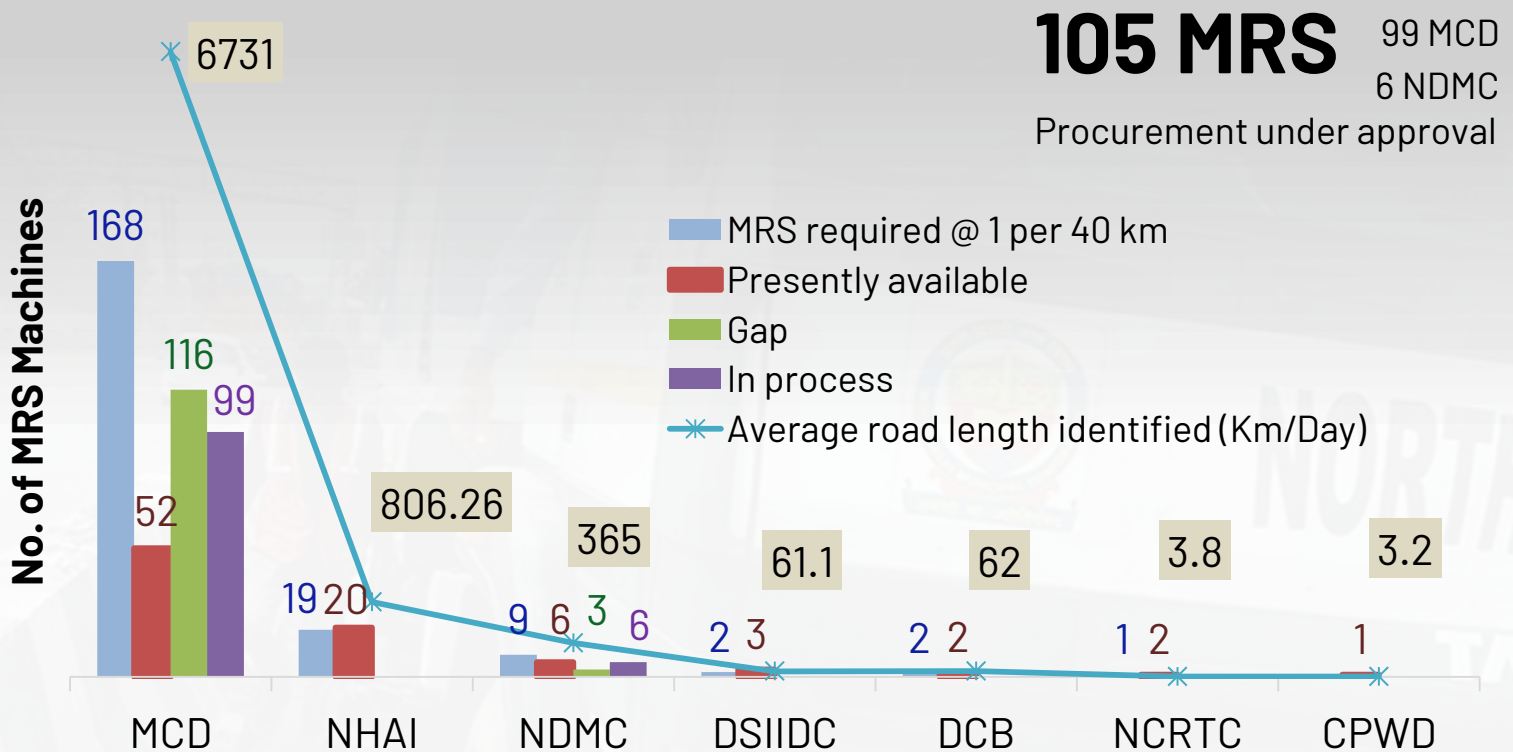
MRS Deployed during August 2024: 85



Covering 35 Km/MRS/Day

Ensuring scientific disposal of dust collected

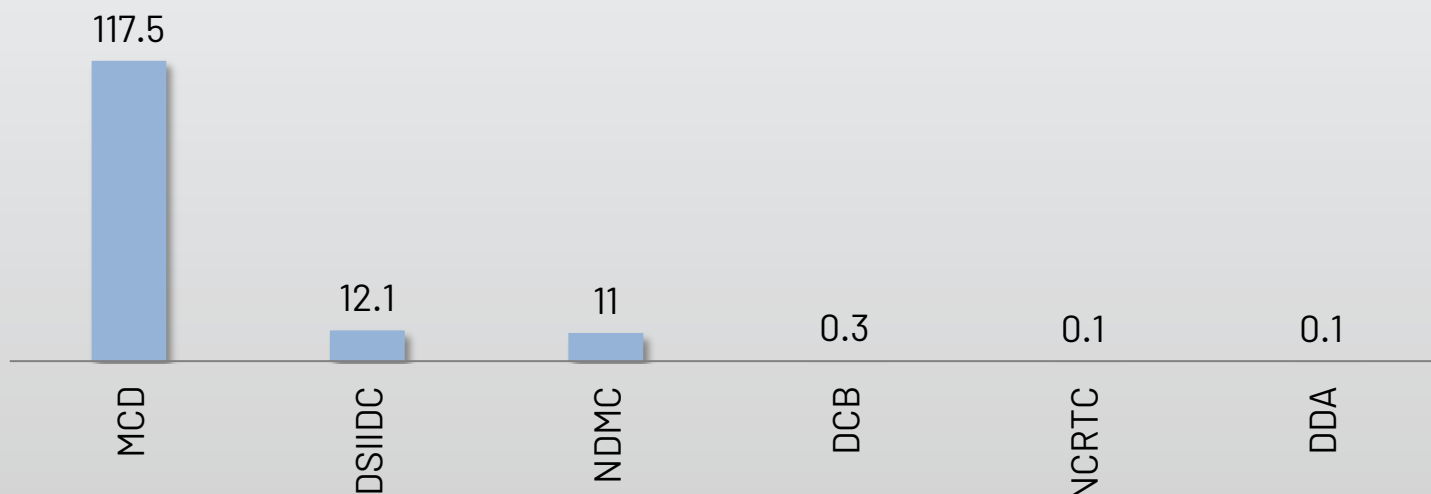
MRSM: Gap in MRS Machines



15

Scientific disposal of Dust Collected in Designated Sites/Landfills

Average Road dust collected per day (141.83 MT/Day)



Disposed at:

Okhla, Bhalaswa, Ghazipur, Shastri park, Begumpur and Burari

Site wise average quantities disposed daily by MCD:

- Okhla - 47.35 MT/Day
- Bhalaswa - 47 MT/Day
- Ghazipur - 35.25 MT/Day

16

Funding to MCD for Integrated MRS Machines

Cabinet approved on **18.11.2023**

Total budget- **Rs 2388 Crore** over concession period

Project-I

250 Water Sprinkler Machines
integrated with Anti-Smog Gun

10 Years



Project-II



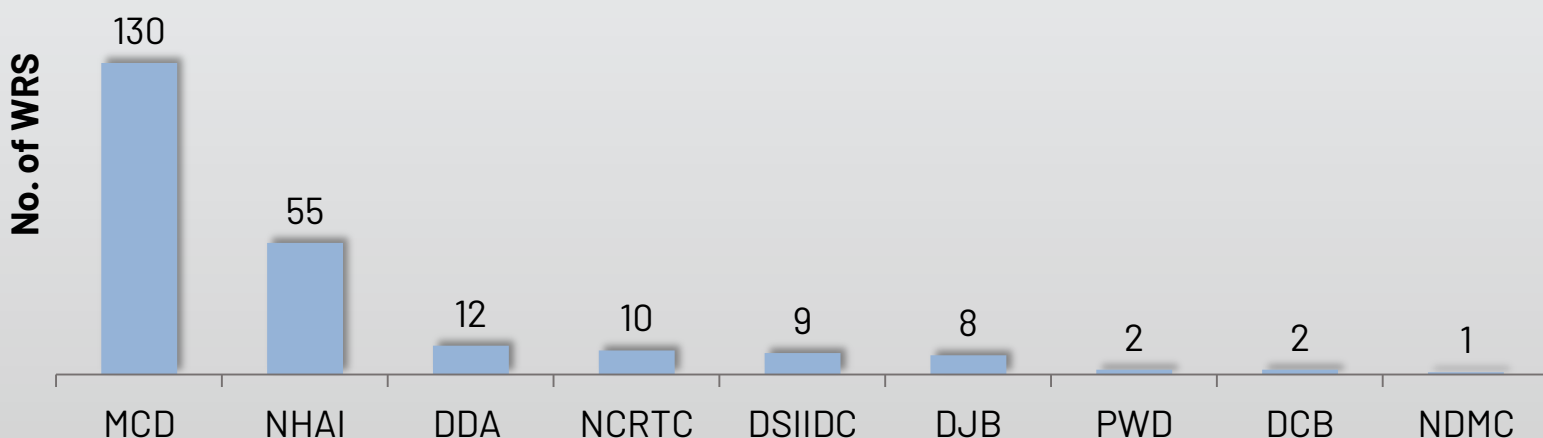
70 Mechanical Road Sweeping (MRS) Machines integrated with
210 Water Sprinkler Machines and Anti-Smog Gun,
18 Dump Vehicles and 18 Water Tankers

7
Years

17

Deployment of Water Sprinklers

**WRS Deployed in August 2024
(including water tankers): 229**



1970.95 Km/Day

Average Road length covered per Day.

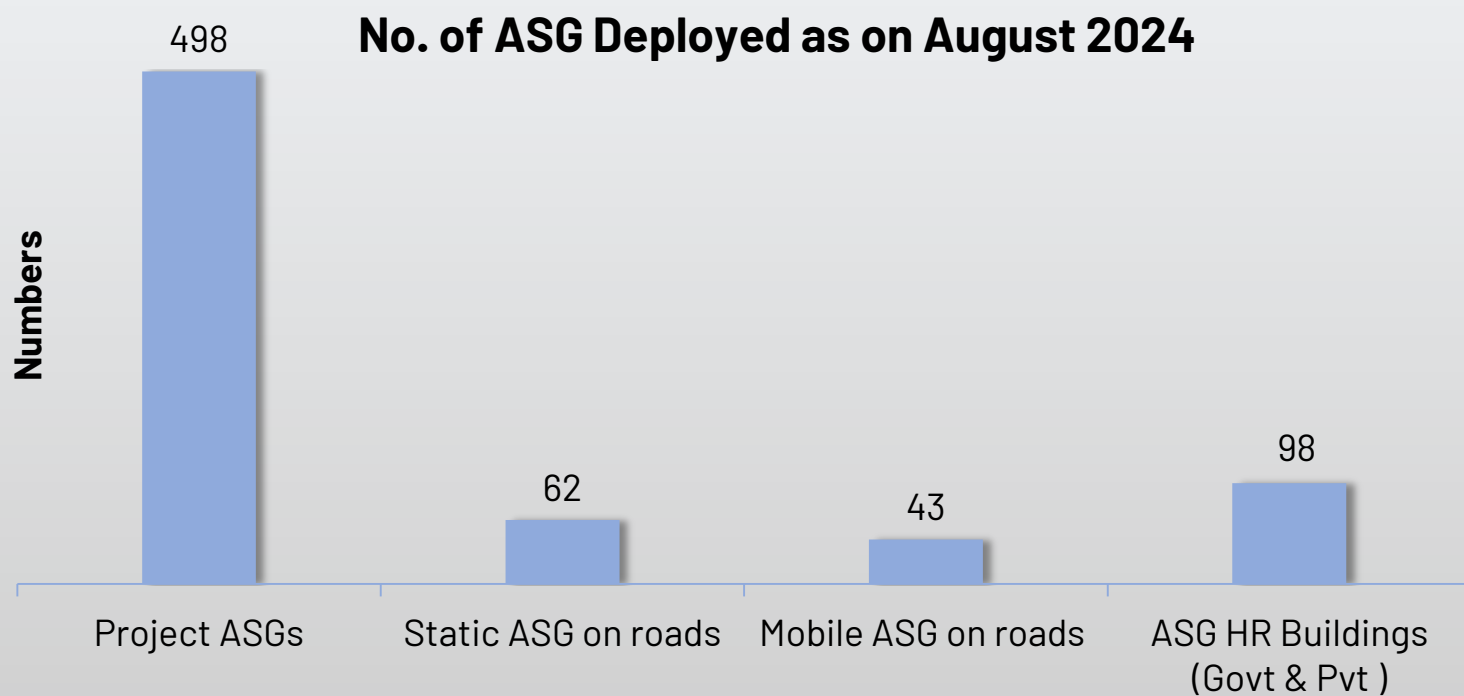
Water Sprinkler Capacity range : 1000- 10000 Liters

Dust suppressants trials done by ULBs



18

Deployment of Antismog Guns



19

Deployment of Mobile ASG Hotspot Wise

200

Mobile ASGs

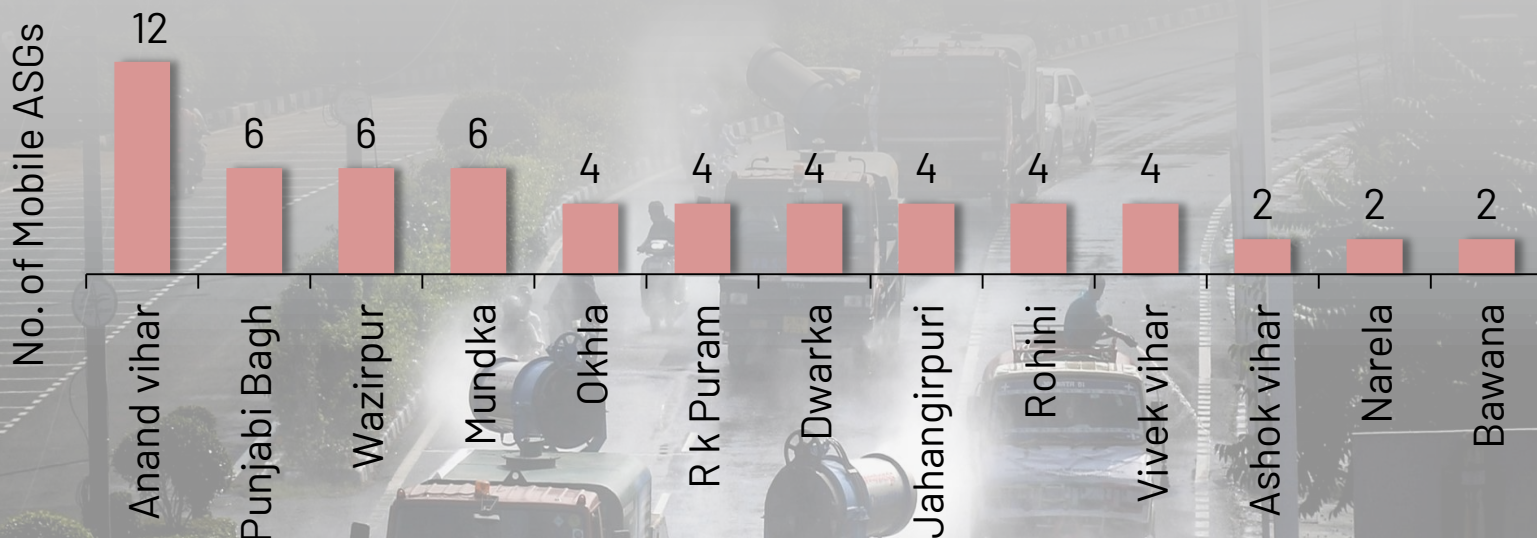
About Rs 40 Cr released during
2023-2024

**Earmarked Rs. 60 Cr. for
2024-25**



60

Mobile ASGs in
hotspot areas

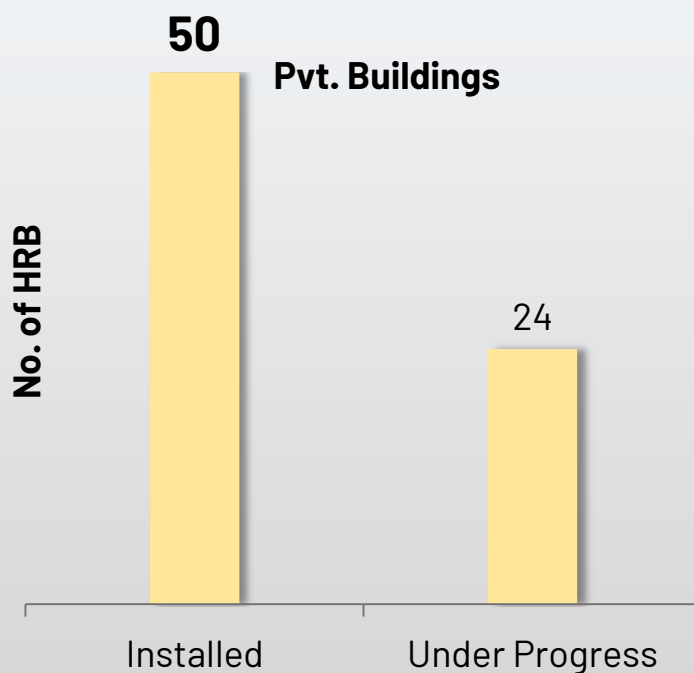
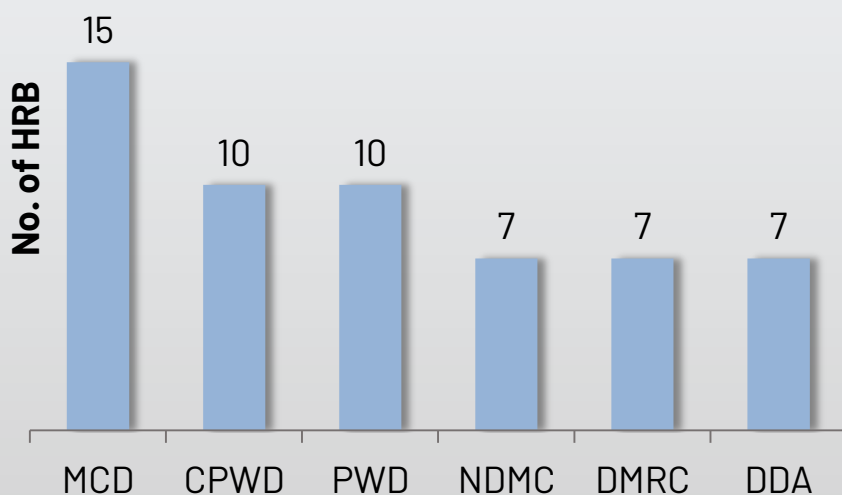


Environment department has provided 60 nos. of mobile ASGs last
winter to assist MCD to combat dust pollution in hotspot areas.

Planned this winter too

20 Deployment of ASGs on High Rise Buildings

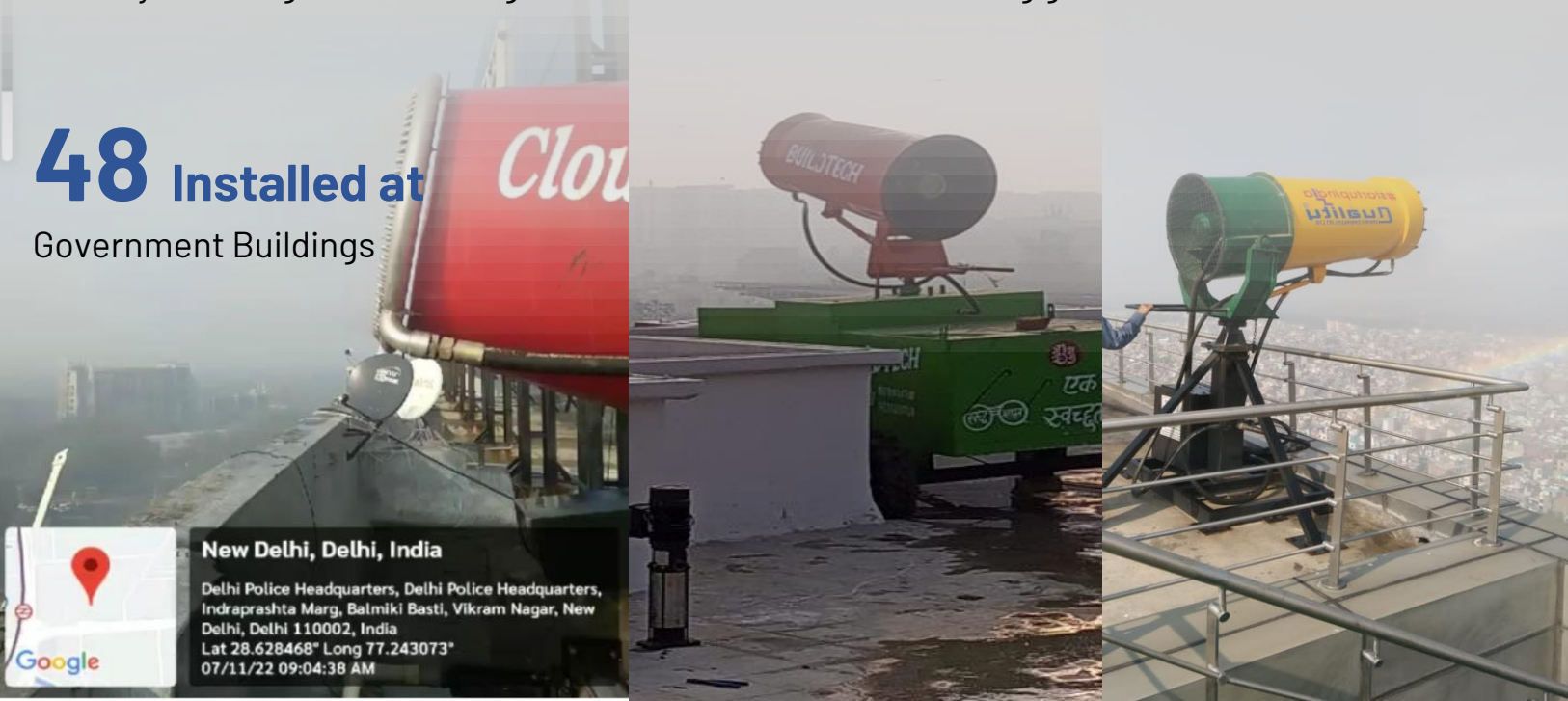
Govt Buildings Identified : 56



Hotels, shopping complexes etc. directed by DPCC.

All Government Departments (MCD, DCB, DDA, NDMC, PWD, NHAI, NBCC, CPWD, etc.) directed to identify more high-rise buildings for the installation of anti-smog guns.

48 Installed at
Government Buildings



21 Funding to ULBs for mitigation of air pollution (NCAP)

Implementation of NCAP

National Clean Air Program (NCAP) launched on 10th January, 2019

Delhi hasn't got funds under NCAP in 2019-2020 & 2020 -2021.

Received Rs.11.24 Crore for 2021-2022 and 22.50 Crore for 2022-23.

Transferred 100% funds [33.74 Cr.] to MCD for purchase of 14 MRS and 28 Water Sprinkler/ Anti-Smog Guns and 2 Nos. pothole repairing/ road patching machine

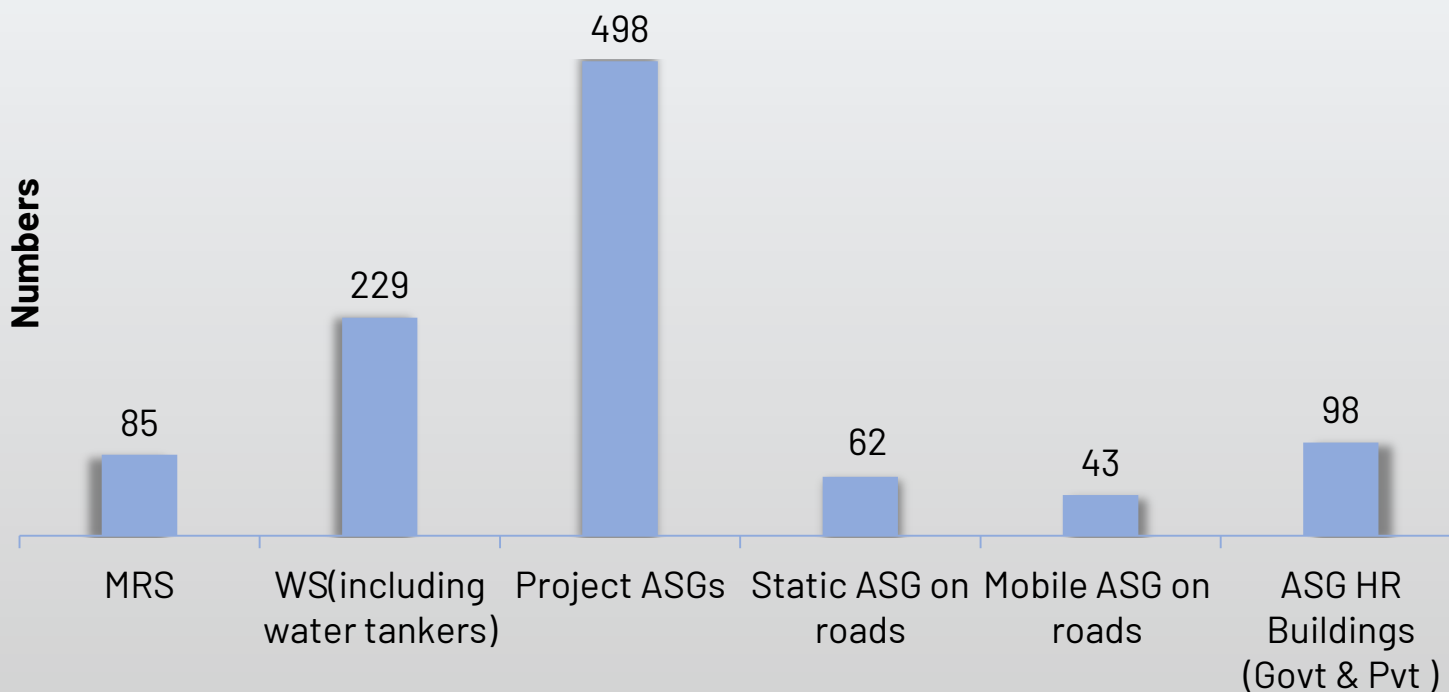
Rs 8.93 crores transferred to NDMC in financial year 2023-24

Utilization is 38.60 % (MCD 33.7 % and NDMC 13 %)



22 Machines in summary

MRS | WS | ASGs

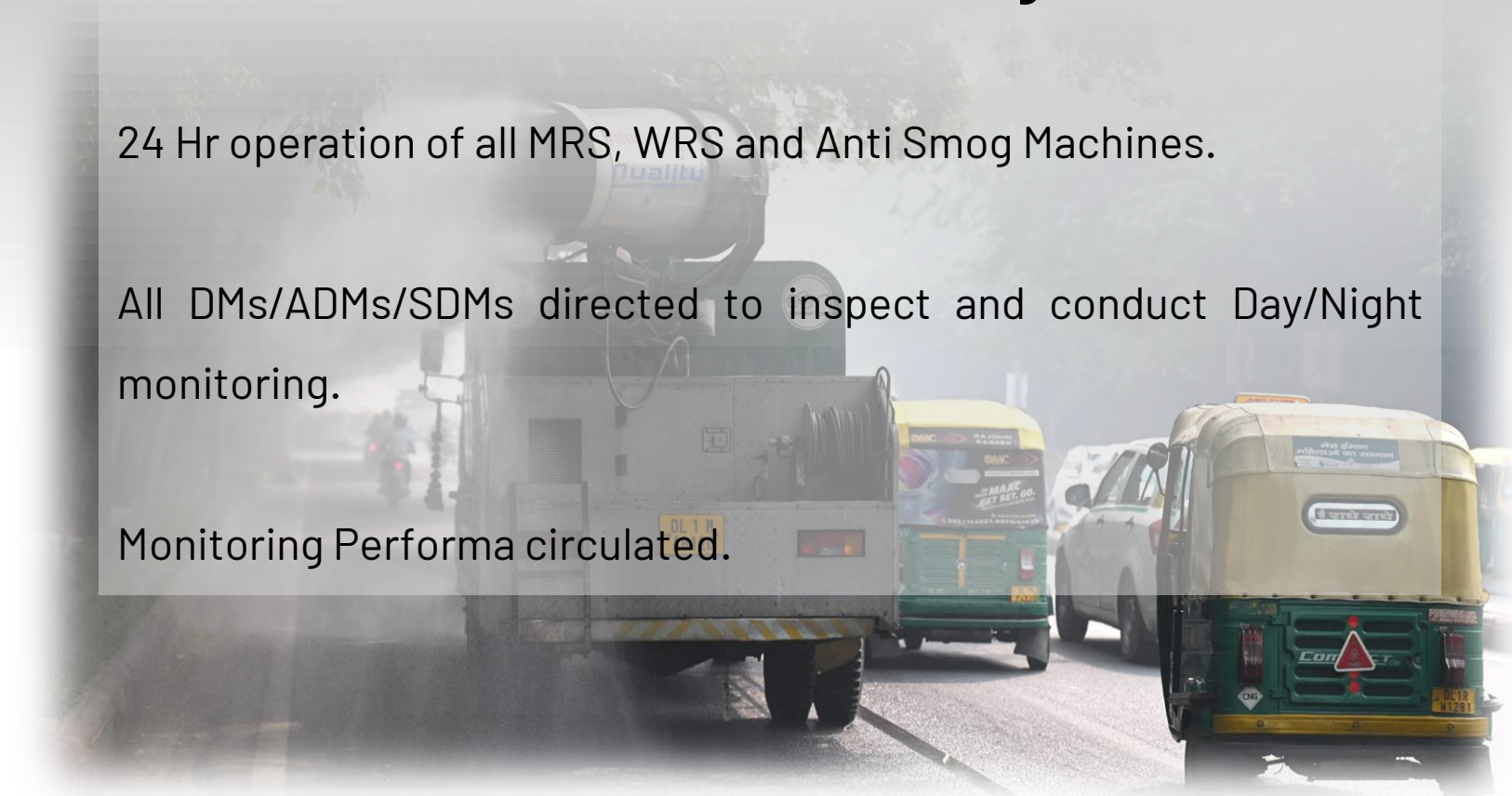


Intensified measures (GRAP) during last winter

24 Hr operation of all MRS, WRS and Anti Smog Machines.

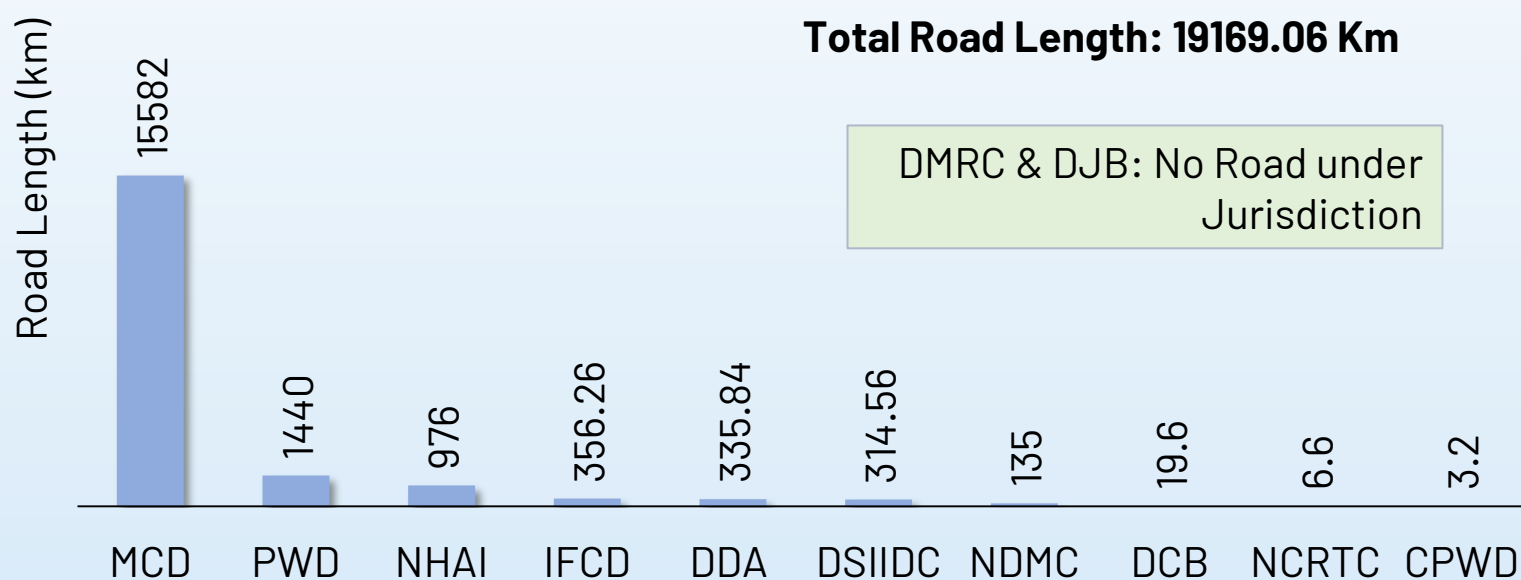
All DMs/ADMs/SDMs directed to inspect and conduct Day/Night monitoring.

Monitoring Performa circulated.

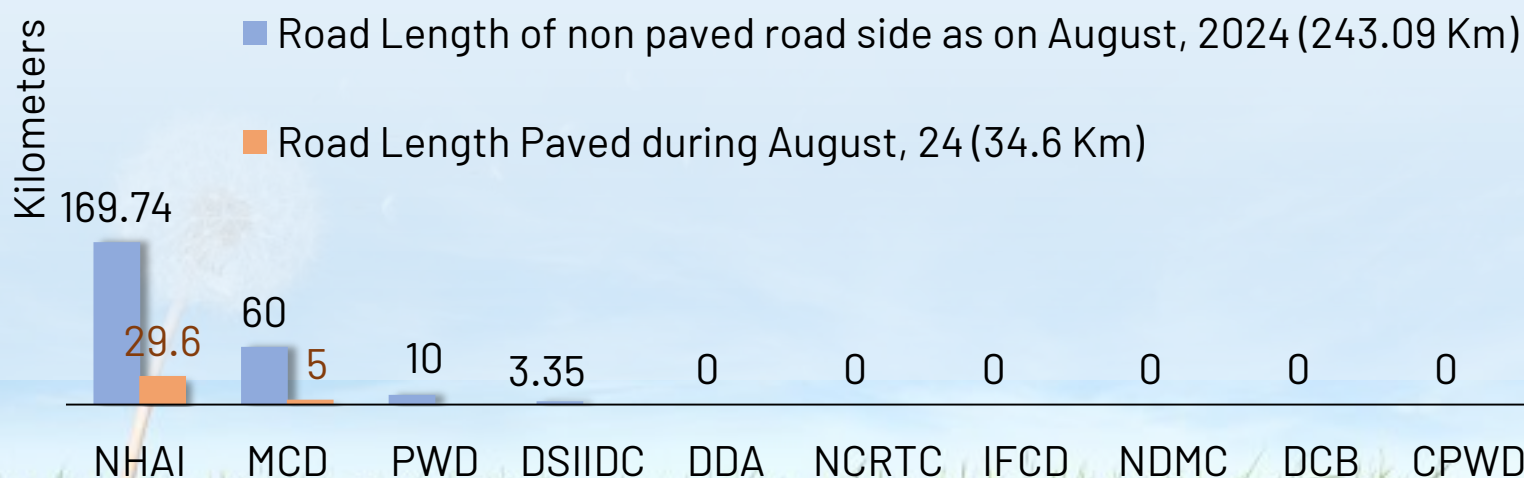


23 Paving / Greening of Roads sides

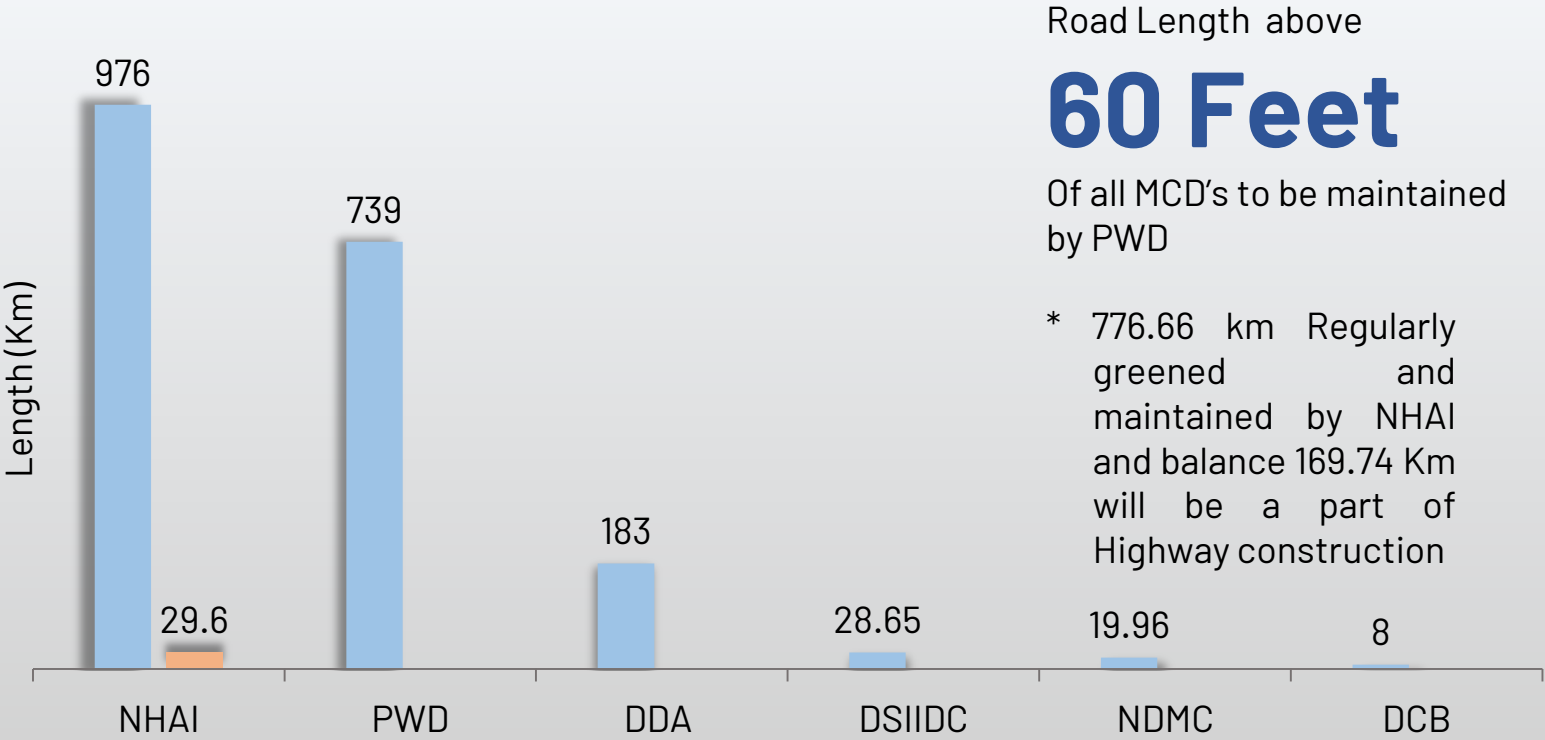
Road length under jurisdiction as on August, 2024



Non-paved/open road sides as on August, 2024



24 Greening of Central Verges



■ Total length of central verges (1954.6 Km) ■ Greened during August 2024 (29.6 Km)

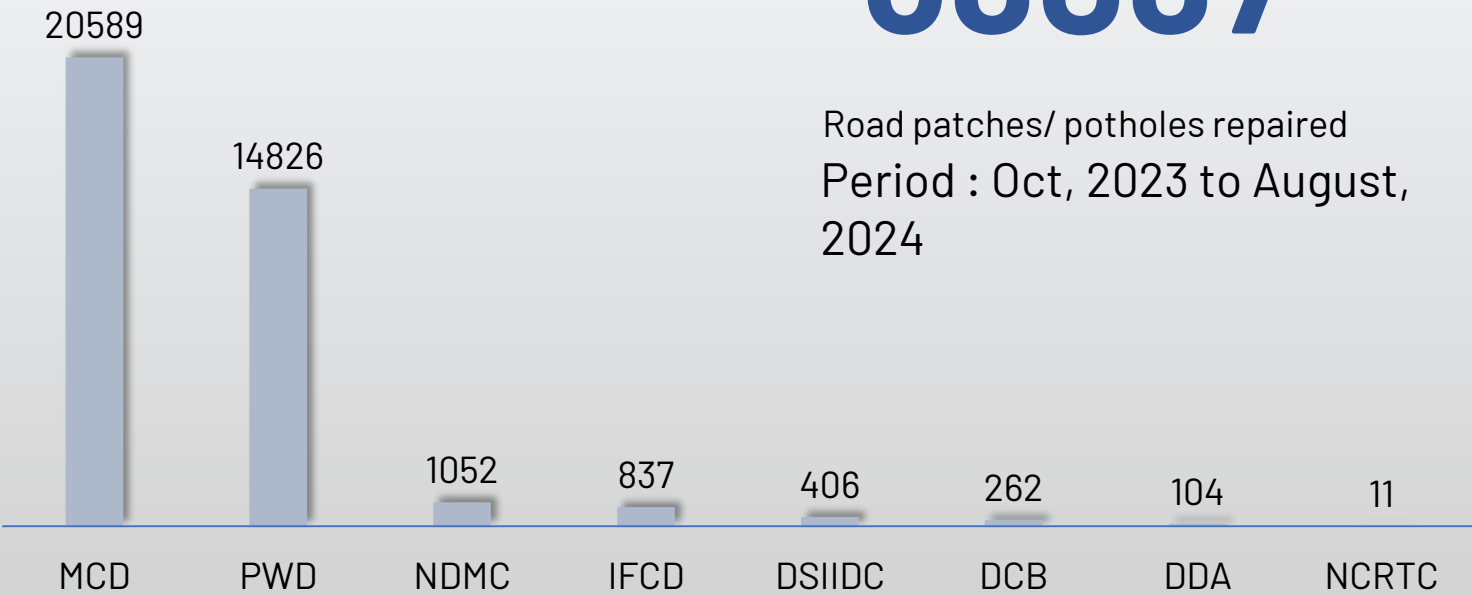


25

Repair and maintenance of Road Patches/ Potholes

38087

Road patches/ potholes repaired
Period : Oct, 2023 to August, 2024



NHA: Regularly repair of potholes & patches



03

Control of fires incidences in sanitary landfill sites



26 Control of Fires Incidences In Landfill Sites

Strategies

01

Ensuring 100% household waste collection and segregation

03

Remediation of legacy waste

02

Processing of Municipal solid wastes

04

Control of fires in landfill sites



27 Ensuring 100% Household Waste Collection & Segregation

100 %

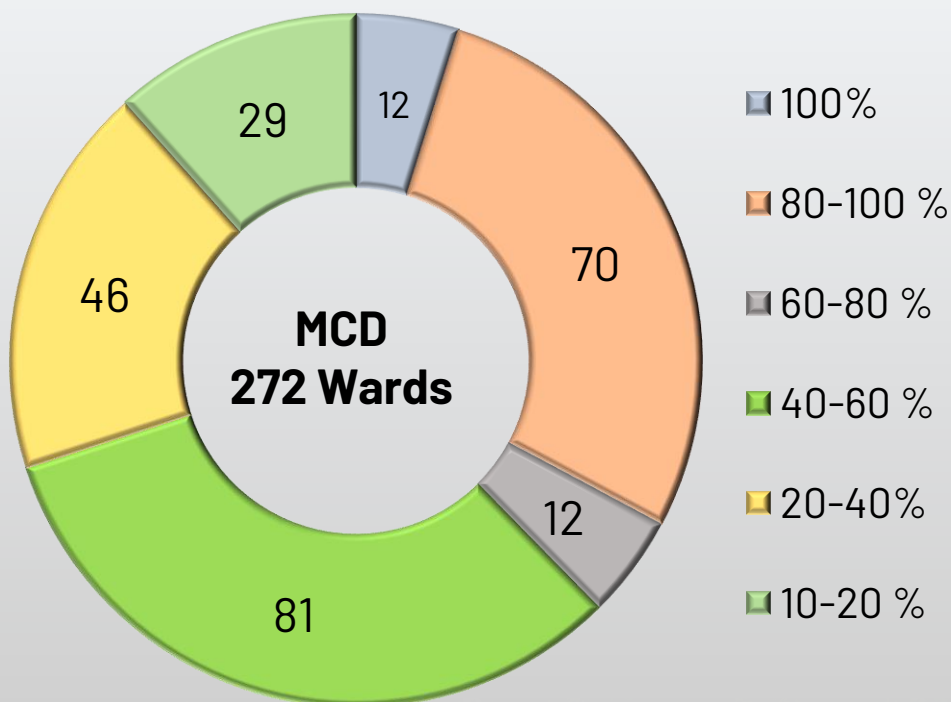
Collection of MSW
by Local bodies

Segregation :

NDMC: 100 % in all
14 Circles

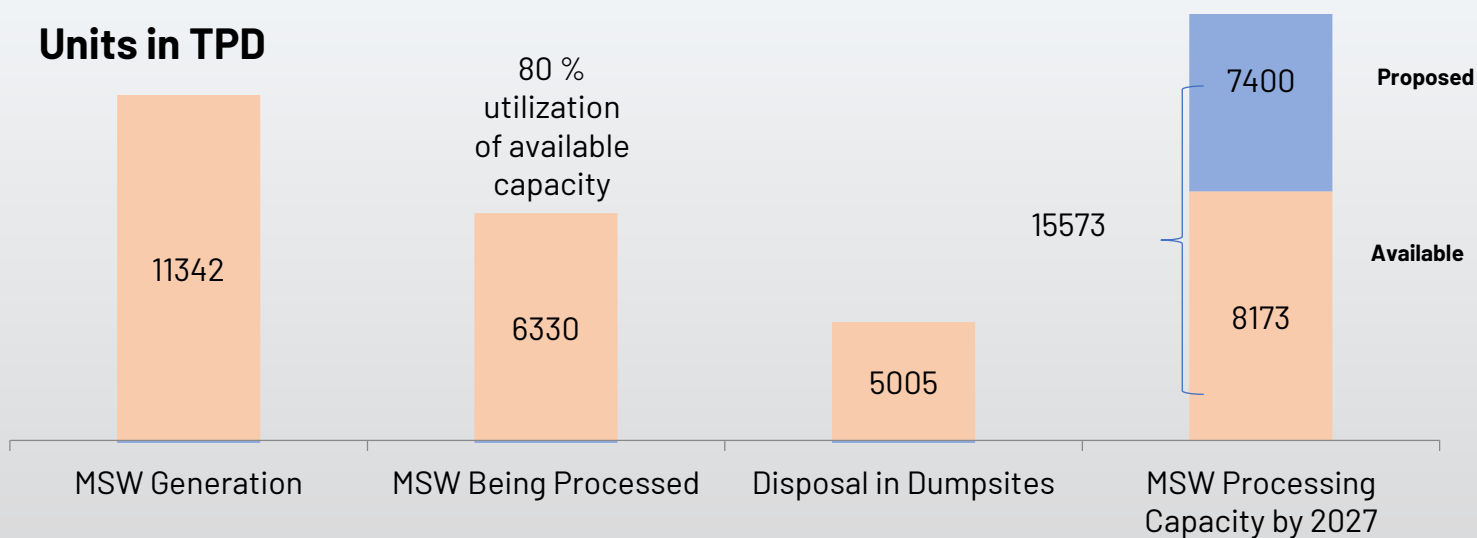
DCB: 90 % in Model Wards
of Civilian Area and 60 % in
Army Area

MCD: 100 % segregation
Timeline – Dec, 2024



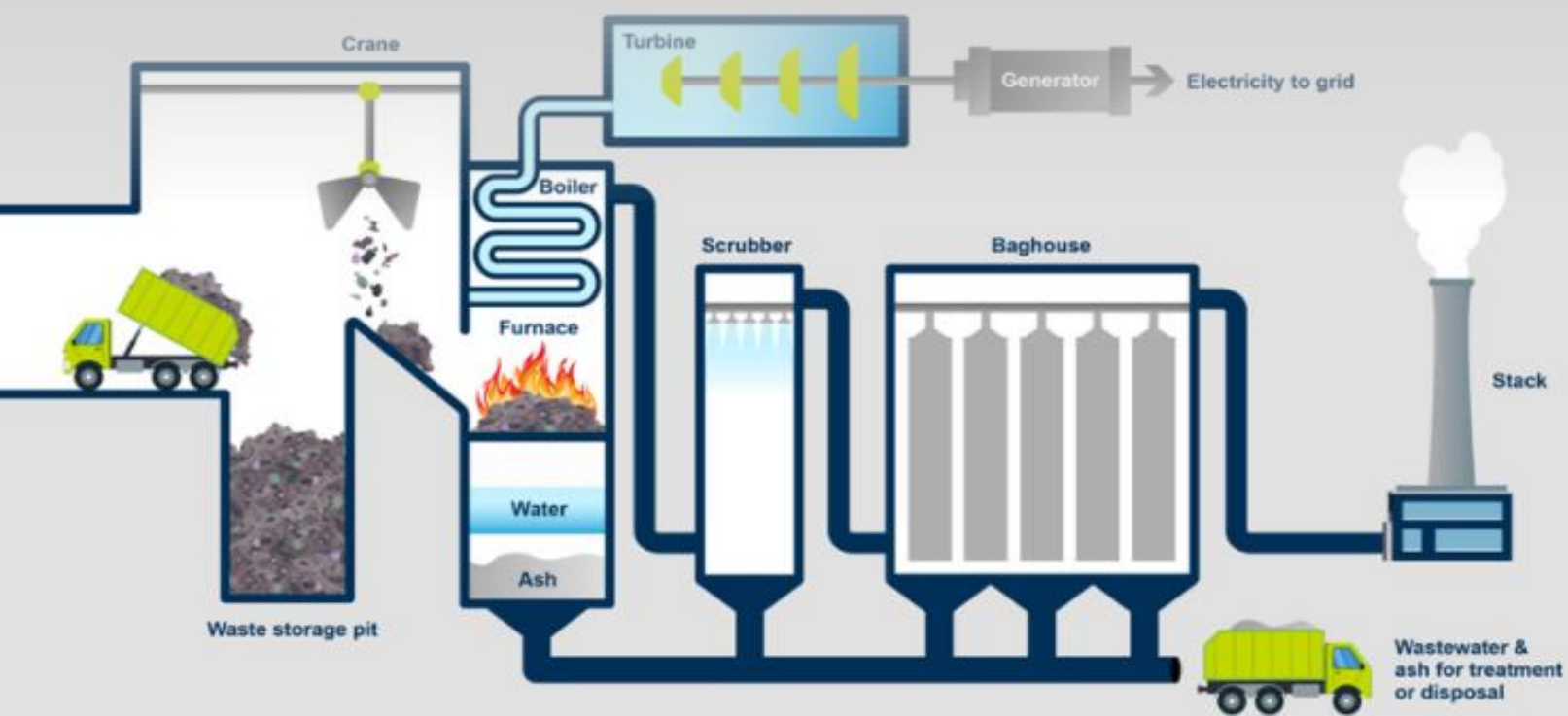
28 Processing of Municipal solid wastes (MSW)

Units in TPD



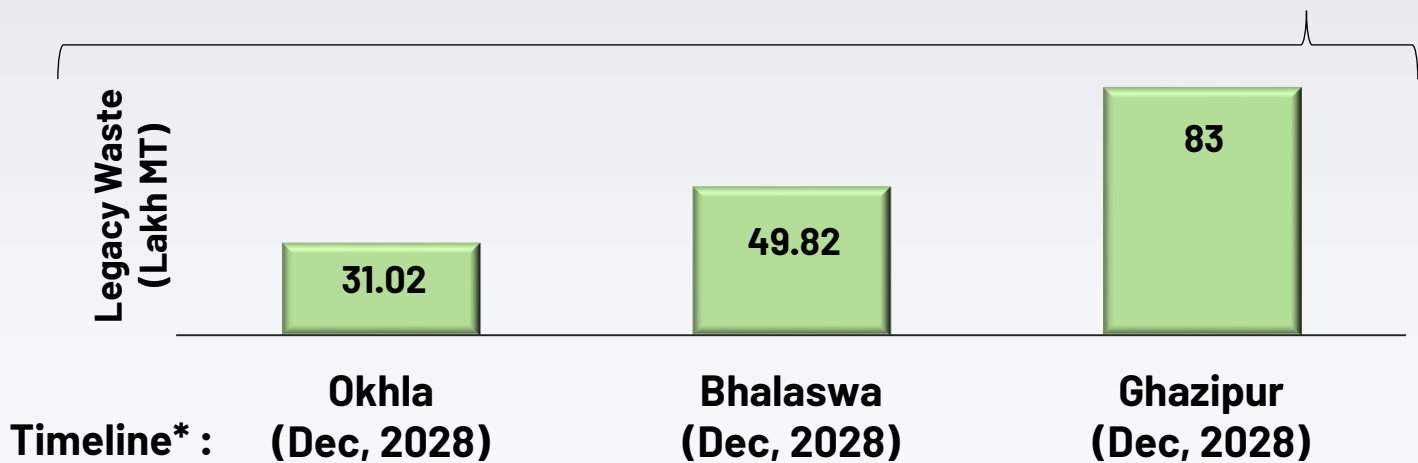
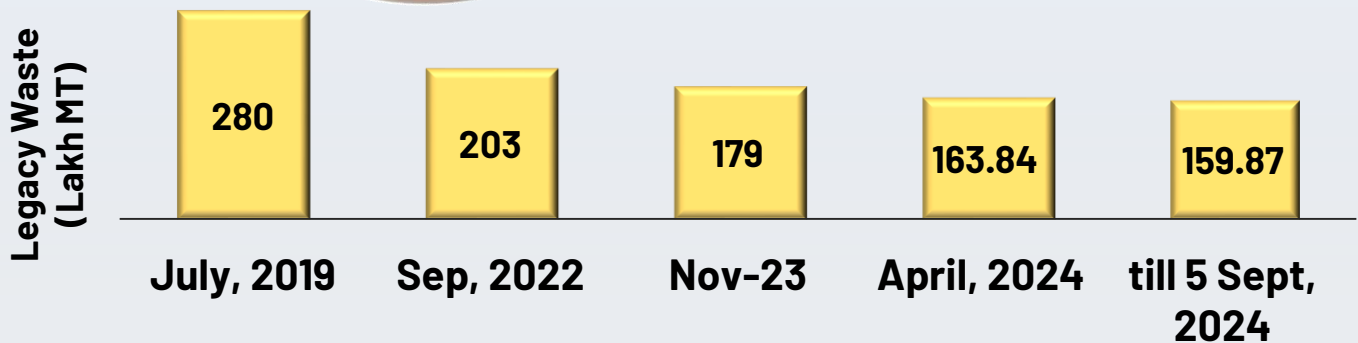
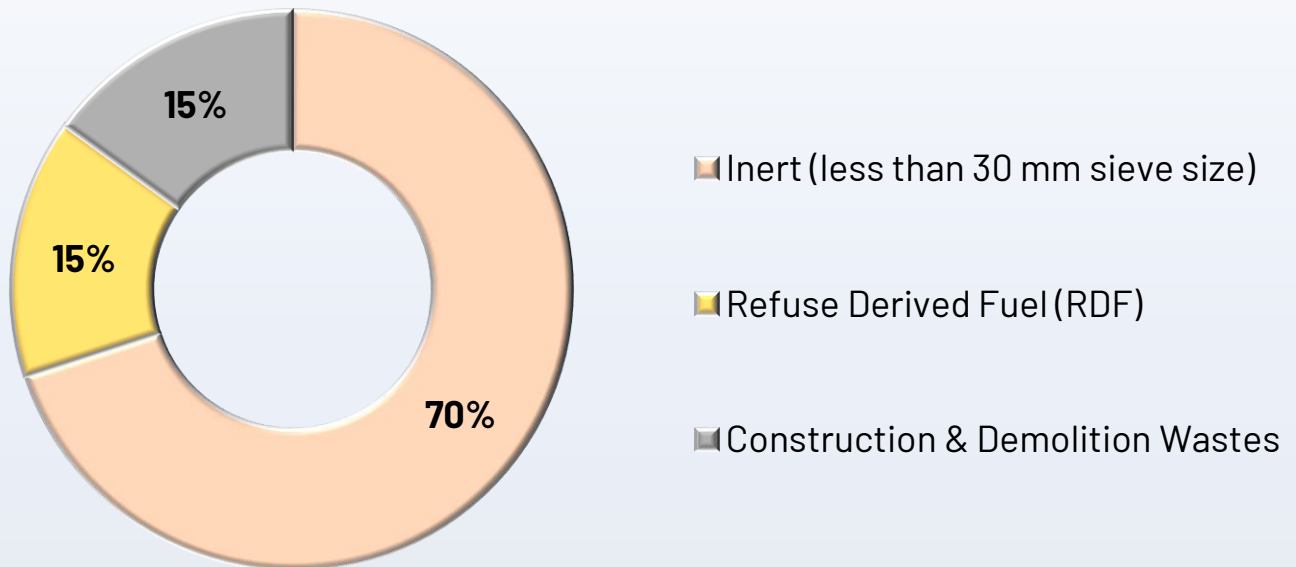
Major Proposed Projects: .

- Expansion of existing WtE of 1950 TPD at Okhla to 2950 TPD. (Timeline: June 2026)
- Expansion of existing WtE of 2000 TPD at Tehkhand to 3000 TPD. (Timeline: Dec 2026)
- 2000 TPD Waste to Energy Plant Ghazipur (Timeline: Dec 2027)
- 3000 TPD Waste to Energy Plant at Narela – Bawana (Timeline: June 2027)



29 Remediation of Legacy Waste

Composition of Biomined legacy waste

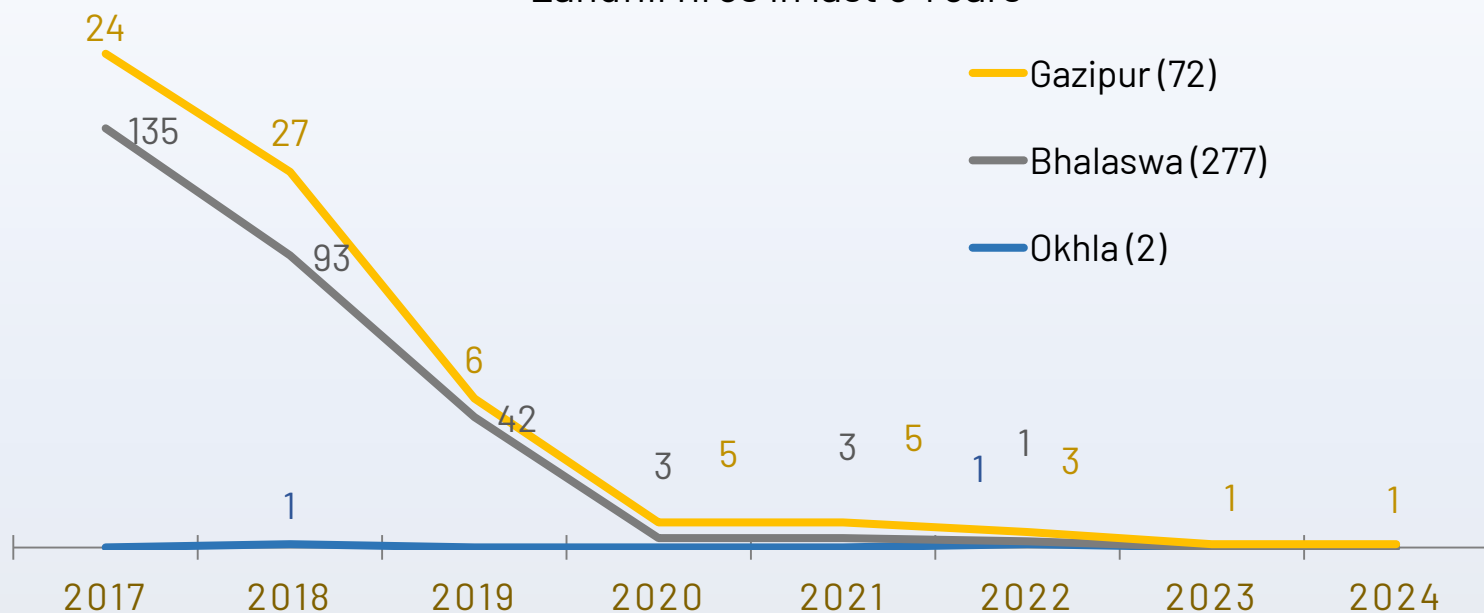


58 Trommels Machines in operation

*subject to the stoppage of incoming fresh waste and formation of Standing Committee in MCD

30 Control of Fires in Landfill Sites

Landfill fires in last 8 Years



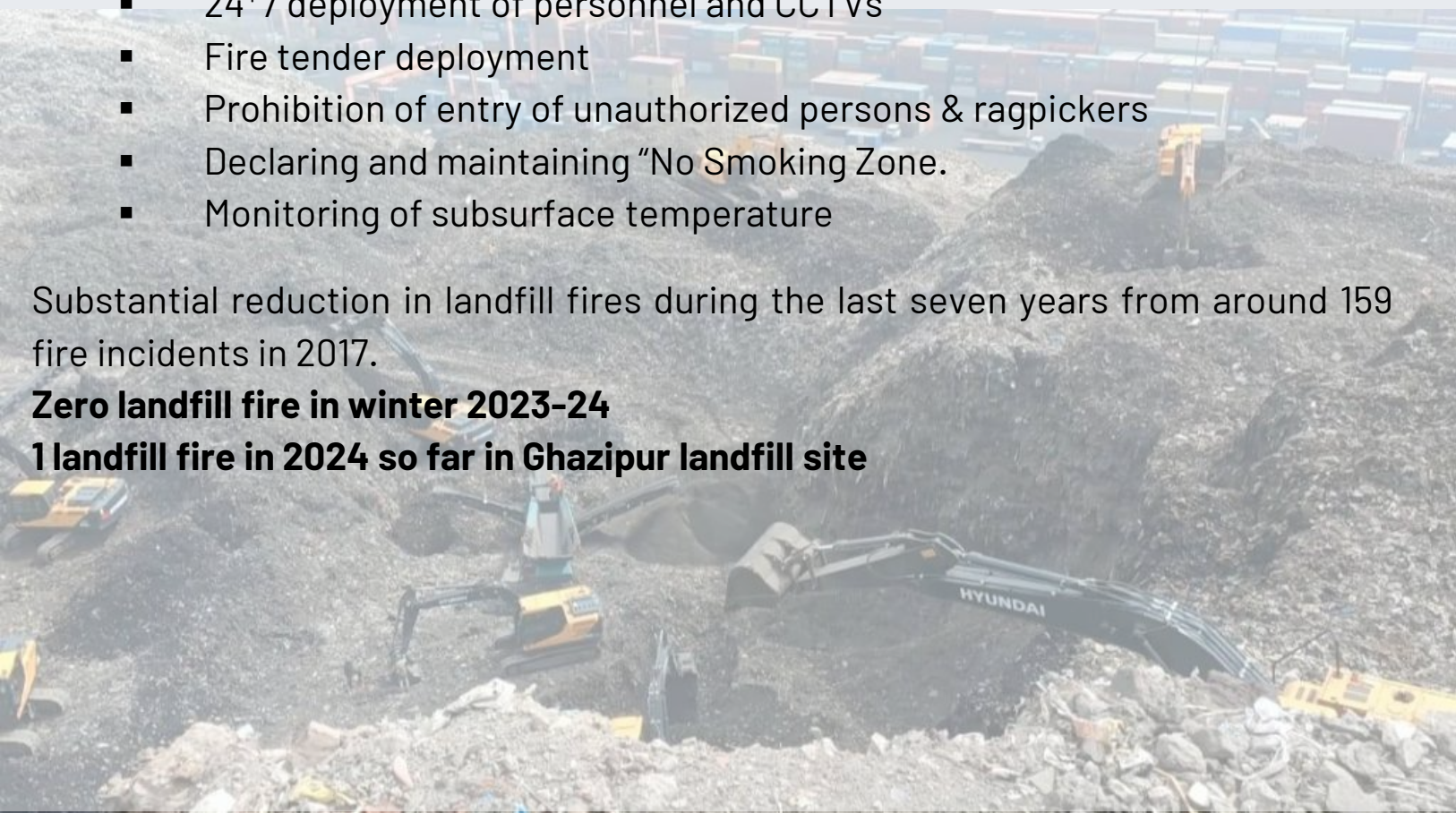
Plan in place for controlling fire at landfill sites.

- 24*7 deployment of personnel and CCTVs
- Fire tender deployment
- Prohibition of entry of unauthorized persons & ragpickers
- Declaring and maintaining "No Smoking Zone."
- Monitoring of subsurface temperature

Substantial reduction in landfill fires during the last seven years from around 159 fire incidents in 2017.

Zero landfill fire in winter 2023-24

1 landfill fire in 2024 so far in Ghazipur landfill site



04

Prevention of open burning of MSW and biomass



31

Prevention of Open Burning of MSW and Biomass

Strategies

01

Enforcement : Biomass
Burning

03

Stubble burning control

02

Enforcement: Electric
heaters provided by RWA 's

04

Burning along railway tracks



32 Enforcement Biomass Burning

Period: Oct, 2023 to 16 Sept, 2024

74832

No. of inspections of garbage burning sites conducted

**Rs. 6.85
Lakhs**

Amount of fine imposed

1321

No. of open burning incidents addressed

338

Teams for day and night patrolling for preventing open burning

GNCTD has also authorized IFCD officers along with SDMs and Tehsildars of Revenue Dept., GNCTD to impose challans on open burning.



33**Enforcement****Electric heaters provided by RWA's**

From October, 2023 to September, 2024

No. of RWAs contacted

1382

No. of RWAs who have provided
heaters to Security Guards:

790

34 Stubble burning control

Two rice varieties namely Pusa 2090 and Pusa 1824 have been recommended to be released by GNCTD Seed Sub-Committee for Agricultural and Horticultural Crops. Owing to their early maturity, it can help timely harvest of paddy crop in the Delhi-NCR area, which can help providing sufficient time for after-harvest operations.

TARGET : 2023-24

Bio decomposer Spray:
GNCTD targeted 4350 Acres of non-basmati paddy area for spraying of Bio decomposers in agricultural fields of Delhi

ACHIEVEMENT : 2023-24

4189 acres of fields sprayed since 28.10.2023 at North, North-West, West, Central and South-west districts

TARGET : 2024-25

Bio decomposer Spray: GNCTD targeted 4000 Acres. Field survey has been completed.

Based on Efficacy report from WAPCOS,
Organic carbon increased by 5.36 to 42.11% and available nitrogen increased by 2.70 to 24.21 % by spraying of PUSA Bio-decomposer.

Implementation of CSS

Scheme – Promotion of Agricultural Mechanization: 50% subsidy on machinery (Super SMS, Happy feeder, Shrub Master, Zero till drill, Super seeder, bailers) – Target subsidy Rs. 67 Lakh (2023-24).

165 application forms for availing 50% subsidy on purchase of Agriculture implements and machinery have been received.

247 no. crop residue management machineries have been provided to farmers of Delhi during last 3 years.

ADMs/ SDMs – nodal officers in each district, to coordinate and monitor incidents of stubble burning.

18 inspection / patrolling team (13 day & 7 night) constituted among agriculture functionaries to keep watch/prevent probable incidence of cop residue burning

50 training programs will be held in villages to educate farmers on avoiding paddy crop residue burning

Central sector scheme for Agricultural mechanization for in - situ mgt. of crop residue will be implemented.

Machinery will be provided to farmers on 50 percent subsidy.

Field extension teams will monitor burning incidents in 5 districts, reporting them to the relevant SDMs for action.

35 Burning Along Railway Tracks

- Clearing of wastes along tracks in railway land by Railways and by MCD beyond
- MCD identified and mapped nearest dustbin/dhalo/FCTS for the railways to transport and dump the garbage therein. Plan was submitted to Railways.
- As per Hon'ble Supreme Court:
- Cost for Collection/ transportation /processing of MSW to be borne in 70: 30 Ratio (Railway : State Govt.)
- Quantity of MSW lying on 105 km of Railways track in Delhi was assessed as 31989 MT in June, 2023 in joint inspection by MCD and Railways. Re assessed as 28080 MT
- **17293 MT** has been lifted.

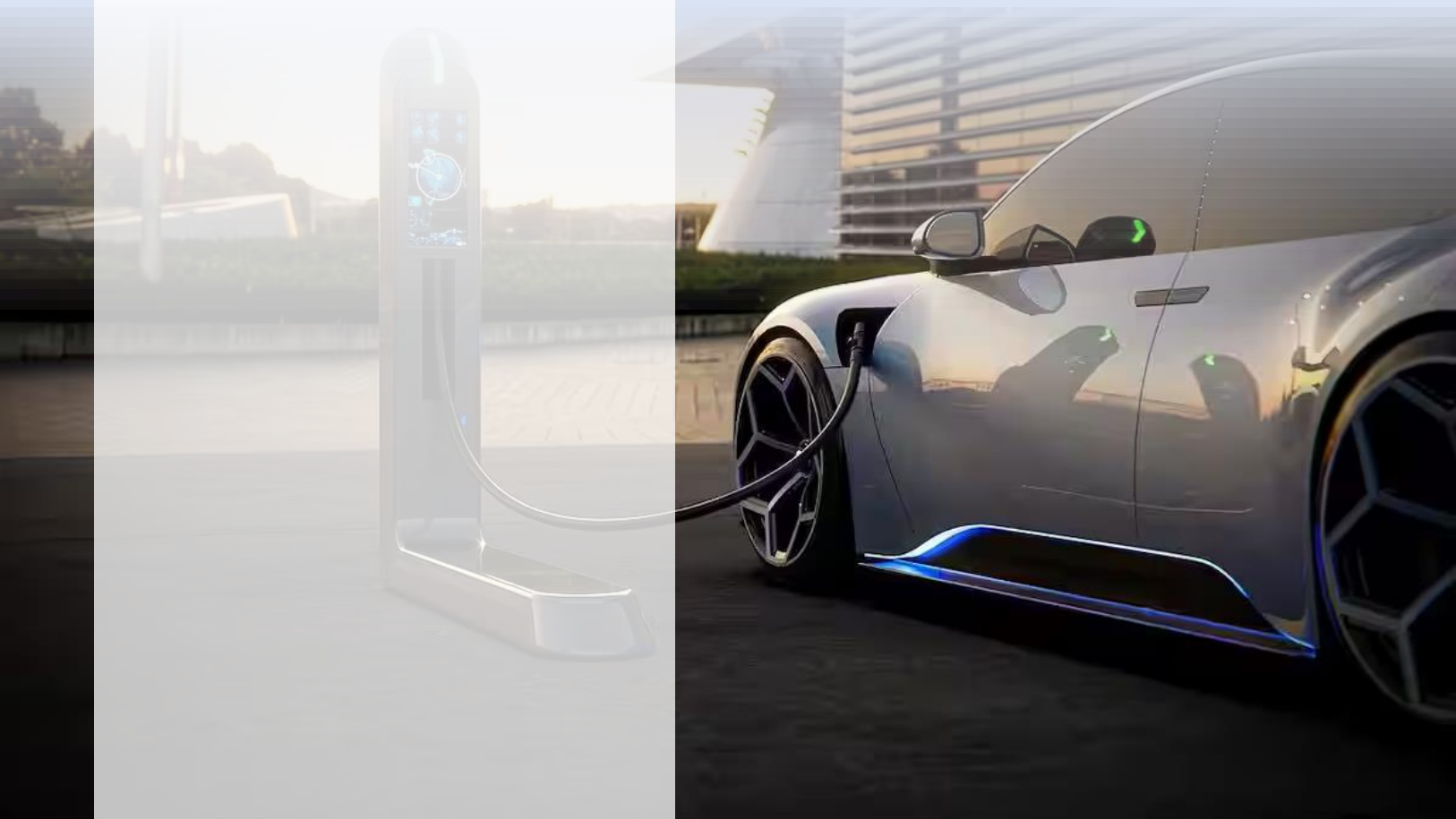
Identification of Vulnerable Industrial plots for Burning

164 Vulnerable plots identified
Regular action by DSIIDC, MCD and DPCC



05

Electric/ EV mobility



36 Electric/ EV mobility

Strategies

01

Increasing adoption

03

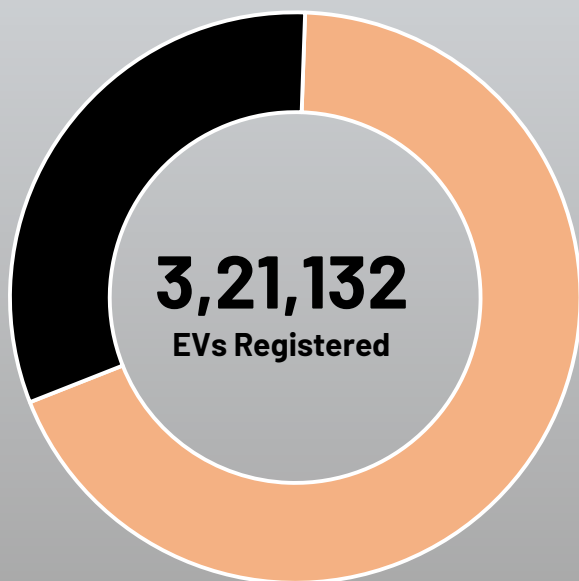
Electrification of Depots

02

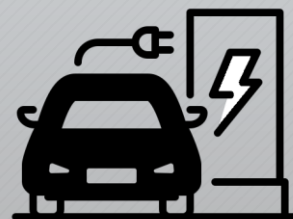
Augmentation of
infrastructure [EV Charging
Stations/ battery swapping]



37 Electric/ EV mobility Increasing Adoption



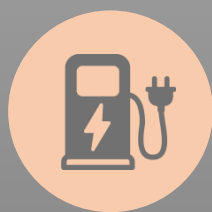
Till 15th September, 2024



14.53 %

New Vehicle EV registrations is 14.53% of total new registration since Jan 2024

Augmentation of infrastructure [EV Charging Stations/ battery swapping



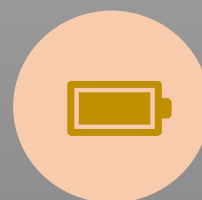
3100

**Charging Stations
In place**



4793

**Charging Points
In place**



318

**Swapping Stations
In place**

Future Targets

Installation of around 18,000 public and 30,000 private/semi-public EV charging points by 2026.

Public Charging points: 13000 points by 2025/ 18000 points by 2026

Private/semi-public charging points: 20000 points by 2026/ 30000 points by 2026

38

Electric/ EV mobility Augmentation of infrastructure

DDA

Requested to incorporate provision to **reserve at least 20% of parking area for EV charging points** in the draft Master Plan for Delhi-2041.

MCD

Requested to approve building plans only **if they adhere to EV Charging Station (EVCS) requirement (20% of parking capacity)** and also ensure implementation of 5% parking space to be EV ready in existing buildings with parking capacity of more than 100 vehicles within six months



39

Electric/ EV mobility Electrification of Depots

- **Out of 70 bus depots (43 depots of DTC, 08 depots of DMRC and 19 depots of DIMTS), 21 are electrified (15 of DTC and 6 of DIMTS). Remaining depots shall be electrified by 2024-25**
- Plan to electrify balance depots by FY 2024-25 to achieve 8000 buses out of target fleet of 11,000 Buses



06

Vehicular Pollution Control



40 Vehicular Pollution Control

Strategies

01

Phasing out old vehicles

03

Smooth road traffic management

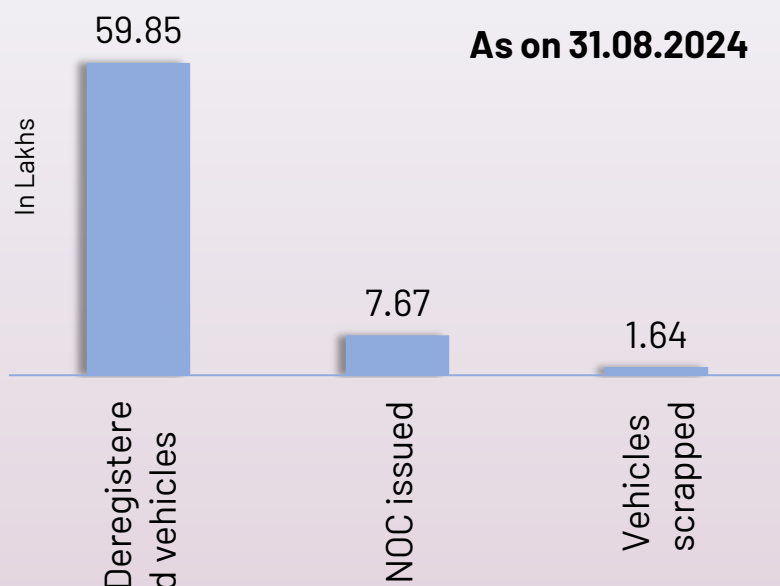
02

Enforcement of PUC norms



41 Elimination of 10/15 Year Old Diesel/ Petrol Vehicles

Phasing out old vehicles [Total live vehicles = 82. 93 Lakhs]



950

Personnel

For compliance of ban on 10-Y-old diesel and 15-Y-old petrol vehicles

10/15-Year-Old Diesel/ Petrol vehicles are being impounded as per the order of NGT (in OA Nos. 21 of 2014) and Hon'ble Supreme Court of India.

Policy for scrapping of old vehicles notified on 24.08.2018.

New scrapping Rules under approval in line with Notification of MoRTH issued vide date 23.09.2021 as amended to date.

59.85 lakh vehicles (10-15yr old) have been de-registered (till 31.08.2024)

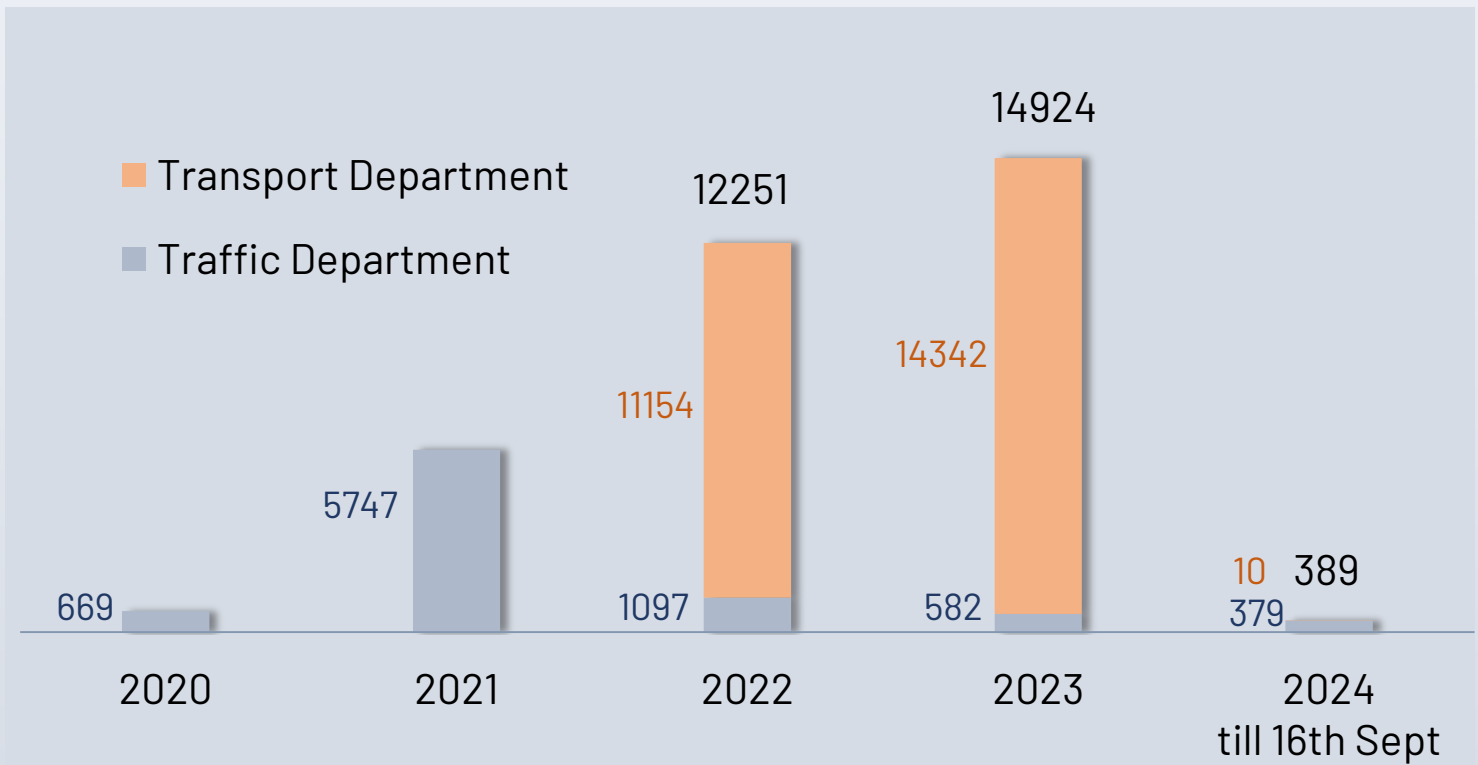
563

Vehicles impounded and sent for scrapping (Oct, 2023 to 16 Sept, 2024)



42 Elimination of 10/15 Year Old Diesel/ Petrol Vehicles

Vehicles Impounded

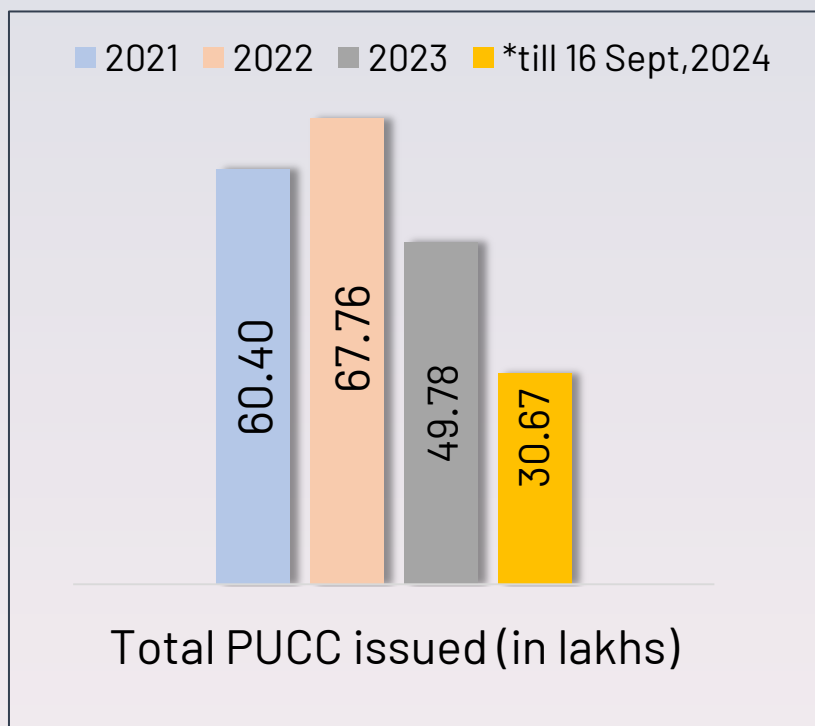


43 Enforcement of PUC regime

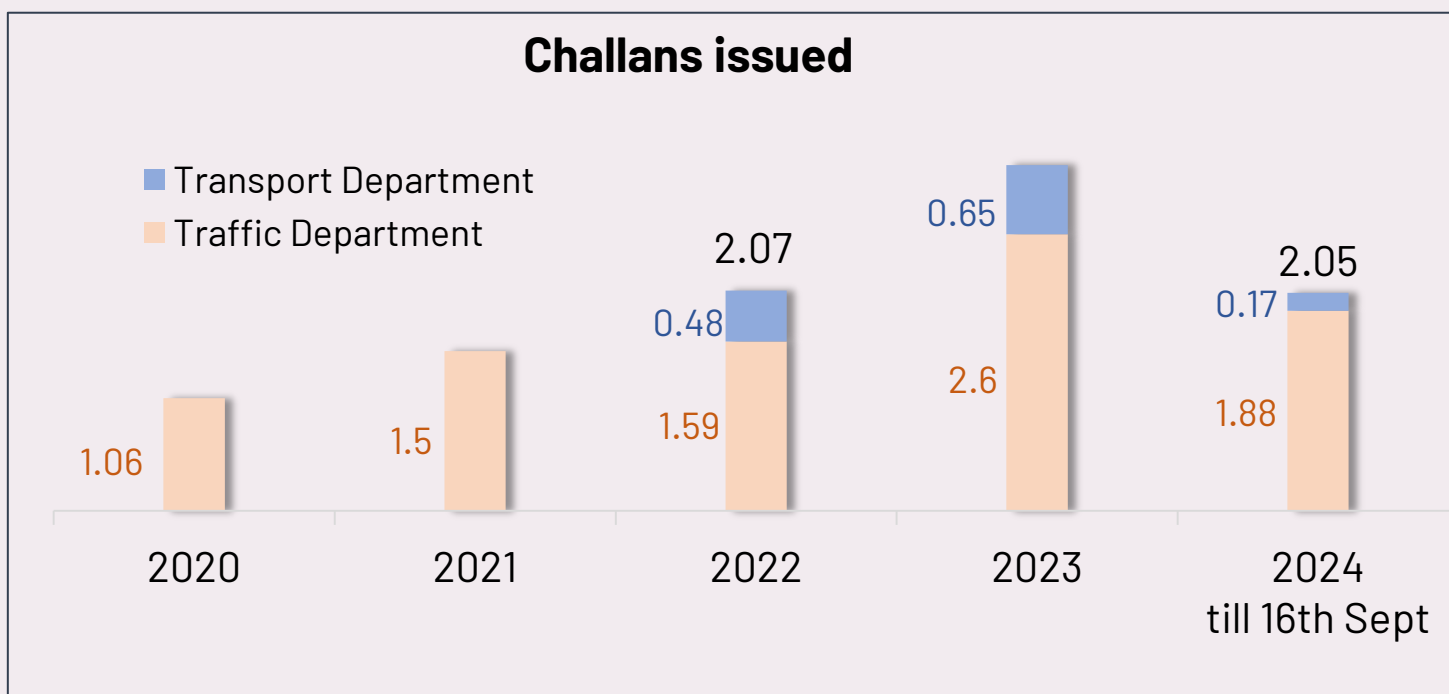
943 PUC Centers operational in Delhi. Target 1000 centers.

Regular SMS sent to vehicle owners whose PUC has expired or going to be expired within one week.

Periodic Calibration of PUC Equipment linked with software and no PUCC can be issued if calibration of equipment is expired.



Challans issued



385 Teams constituted for checking PUC compliance.

44 Smooth Road Traffic Management

Inter-departmental Task Force : headed by Transport Commissioner.



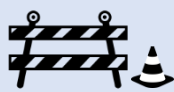
Lane Driving

Regular action against buses / four wheeled goods vehicles as per directions of Hon'ble SC.



Encroachment removal

Regular drives on major arterial roads in coordination with local bodies



Unnecessary barricading



Intelligent Traffic Management System (ITMS) project:

MoU signed with C-DAC on 15.03.2022 for preparation of DPR.

C-DAC appointed consultant on 10.05.2022

C-DAC submitted DPR on 24.12.2022.

C-DAC submitted revised version of DPR on 18.04.2023

C-DAC also submitted RFP on 01.05.2023.

On May 6, 2024, File re-submitted with MHA for seeking approval of competent authority i.e. MHA for acceptance of DPR and RFA.

Approval of Competent Authority is awaited.



45 Smooth Road Traffic Management

Identification and removal of congestion points

1800 +

Officials deployed on daily basis for smooth traffic management

134

Road Stretches
Identified road stretches with maximum congestion (Transport)

Action against unauthorized parking (Oct, 23 to 16 Sept, 24)

6,95,093

Challans issued

9.92 Lakhs

Notices issued

Multilevel Car Parking

28 Available

Multilevel parking near metro stations and at heavily congested sites.

6 Added

During Jan - Mar 2024

2 Proposed

To be completed by October 2024

Ensuring 100 % utilization is crucial

07

Augmentation of public transport



46 Augmentation of Public Transport

Strategies

01

Fleet Induction By 2025

03

Ease of using public transport: Common Mobility App

02

Last mile connectivity to DMRC network



47 Fleet Induction By 2025



- 7538 buses (Cluster- 3147 (2747 CNG + 400 Electric), DTC 4391 (2816 CNG+ 1575 electric) in place including 1975 E-buses.
- Target to augment total fleet of 10,925 buses including approx. 8000 E buses.
- 1112 electric buses (855 of DIMTS + 257 (12 mtr) buses of DTC) to be inducted by FY 2024-25. 1040 of DTC and 492 of DIMTS AC floor e buses (9 mtr) to be expected by 2024-25
- 1500 buses timeline: 1275 buses are in operation / 225 buses are expected to be delivered soon.

48 Last Mile Connectivity To DMRC Network

E-Bus

- 100 E-buses transferred to DIMTS
- Operational-Data to be provided by DIMTS as E-buses transferred to DIMTS
- All 100 e-buses handed over to Tpt. dept./ GNCTD w.e.f. 01.04.2023.

E-Auto

- DMRC is in process to deploy 1299 e-autos in Delhi.
- 663 of 1299 e- autos shall be driven by women drivers.
- 423 e- autos in Dwarka region (M/s SUN Mobility)
- 34 e- autos (women driver) in Azadpur region and 94 e-autos in Kalkaji region (M/s ETO Motors),
- 20 E-autos in Saket (M/s Mahindra & Mahindra and Amplus Pvt. Ltd), 46 E-autos in Paschim Vihar west region (M/s Swarn E-Connect) have been made operational.
- DMRC has requested another 1000 e-autos permit from GNCTD.
- Overall 559 E-autos facilitated around 26041 passengers daily from 38 metro stations in July 24

E-Rickshaw

- Fleet of 45 e rikshaws
- Serving 1865 passengers daily.
- Connectivity: 3 metro stations.

E-Cycles

- Micro Mobility Vehicles (MMVs) through a mobile app.
- 314 : E-cycles
- Operational across 36 metro stations.

WALK CYCLE IPT

BUS



BUS

IPT

CYCLE WALK



HOME

METRO

OFFICE

49 One Delhi App Common Mobility App



**Live Tracking
of Buses**



**Buy Online
Bus Ticket/ Pass**



**Find Electric vehicle
charging stations**



बसों की लाइव ट्रेक करें



संपर्क-रहित टिकट खरीदें



**इलेक्ट्रिक वाहन (ईवी) के सभी
चार्जिंग स्टेशन की जानकारी पाएं**



Premium Bus Aggregator Scheme- Draft scheme for stage carriage service in satellite town is ready and comments of stakeholders received and cabinet note is being put up. To be operated on CNG or Electric.

Lifting of cap on Auto Rickshaw registration for e Autos- Transport Dept to file an application for lifting cap on the registration Autos in respect of e autos.

08

Effective Grievance Redressal

311 App-MCD

Green Delhi App- Env.



50 MCD 311 Application

Pilot Project on "Abatement of air pollution from non-point dispersed sources"

Pilot Program of CAQM in jurisdiction of MCD in association with NGO using 311 app.

Types of complaints dealt:

- Removal of malba & garbage, Road repair
- Prevention of dust from C&D, garbage/ biomass burning, Action on visibly polluting industries
- Greening of brown spaces

Status Of MCD 311 App As On 13th Sept 2024

Agency	Total Issues	Total Pending	Short Term	Long Term	Pending %
MCD	124750	8787	5811	2976	7.04%
PWD	61216	7785	4806	2979	12.72%
I&FC	15133	3837	741	3096	25.36%
DJB	14393	4483	3080	1403	31.15%
DDA	12236	4415	4073	342	36.08%
DMRC	3265	811	800	11	24.84%
Others	22363	14998	12674	2324	67.07%
TOTAL	253356	45116	31985	13131	17.81%

51

DPCC/Environment Department Green Delhi App

An innovative platform for submission of pollution related grievances, launched in Oct, 2020 and relaunched in Oct, 2023.

User friendly mobile based app for citizens and agencies.

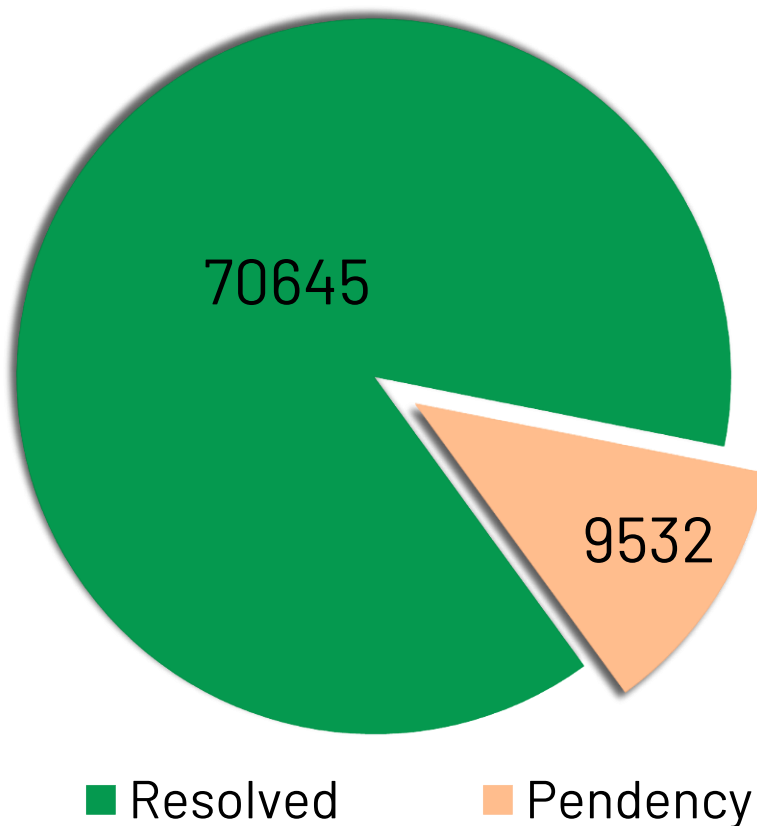
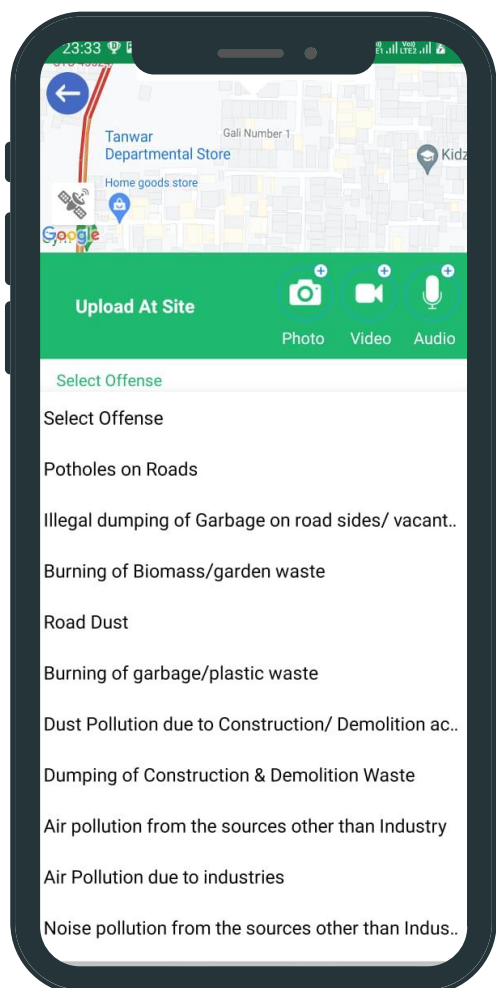
24 x 7 Green War Room established for inter departmental coordination.

80177

**Total grievances received since Oct, 2020
As on 17.09.2024**

88.11 %

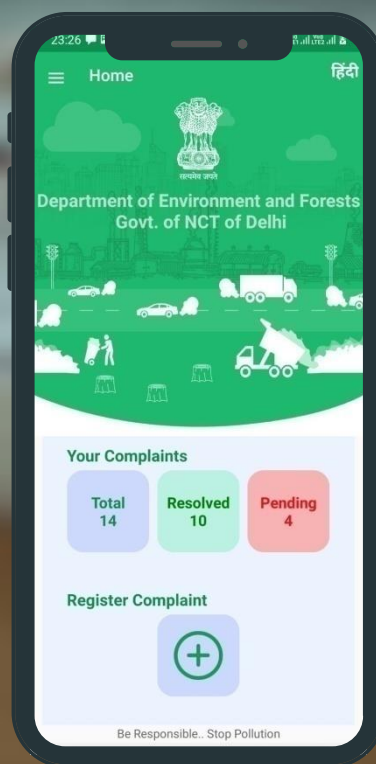
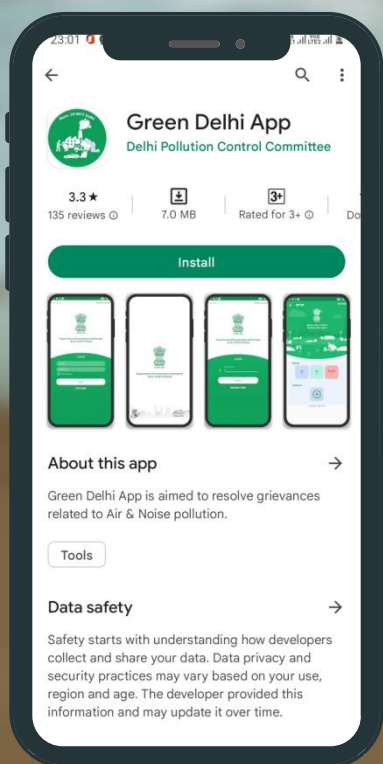
Resolution Percentage



52 DPCC/Environment Department Green Delhi App

Green Delhi App - Department Wise Complaints Report As on 17.09.2024 11 AM of Major Departments

S No	Department	Total	Pending	Pending %	Overdue
1	Municipal Corporation of Delhi (MCD)	52001	7568	14.55	7534
2	Public Works Department (PWD)	11643	1078	9.26	1048
3	Delhi Development Authority (DDA)	4603	242	5.26	233
4	Irrigation & Flood Control (IFC)	1957	127	6.49	127
5	Delhi Jal Board (DJB)	2801	77	2.75	77



09

Greening and Plantation Program



53 Implementation of Greening Action Plan, 2023-24

Greening and Plantation Program

FY- 2023-24 Targets

102.04 Lakhs

Total Target

Plantation target : 95.04 Lakhs

Free distribution target: 7.00 Lakhs

FY- 2023-24 Achievements

88.53 Lakhs

86.76 %

Achievement till Mar 2024

Plantation done: 80.41 Lakhs

Free distribution done: 8.12 Lakhs

FY- 2024-25 Targets

Plantation target : 56.40 Lakhs

Free distribution target: 7.74 Lakhs

64.14 Lakhs

Total Target

FY- 2024-25 Achievements

Plantation done: 35.65 Lakhs

Free distribution done: 4.97 Lakhs

40.62 Lakhs

62.35 % Achieved



10

Abating pollution from DG sets



54

Abating Pollution From DG Sets

Uninterrupted power supply

Delhi has very reliable power supply with almost negligible power outage.

Delhi is heavily power surplus in winters (Oct- Feb)

DISCOMs directed to provide daily reports on power outage, to check the interrupted power supply.

CAQM Direction no. 73 : Schedule for regulation of DG Sets would come into force in the entire NCR strictly w.e.f 01.10.2023 and retro-fitment of dual fuel kits or ECDs must be targeted to be completed latest by 30.09.2023 failing which use of DG set shall not be permitted under any circumstances.

Industrial associations sensitised regarding installation of retrofit emission control devices (RECD) on DG sets.

Total 3327 DG sets as on 31.07.2024 are working in Delhi.

Enforcement data (since 01.10.2023 till 16.09.2024)

- No. of inspections conducted regarding unauthorized DG sets at construction sites: 9222
- No. of sites found using unauthorized DG Sets: 4
- Fine imposed: Rs. 30,000/-

55 Complete Ban on Firecrackers

Directions

Directions issued on 06.10.2023 as under:

"Complete ban" on all kinds of firecrackers on manufacturing, storage, selling (including delivery through online marketing platform) and bursting upto 01.01.2024 in the territory of Delhi.



Manufacturing



Storage



Sales
(including online)



Bursting

Directions also proposed during this year

56 Complete Ban on Firecrackers

Action Taken during last winter

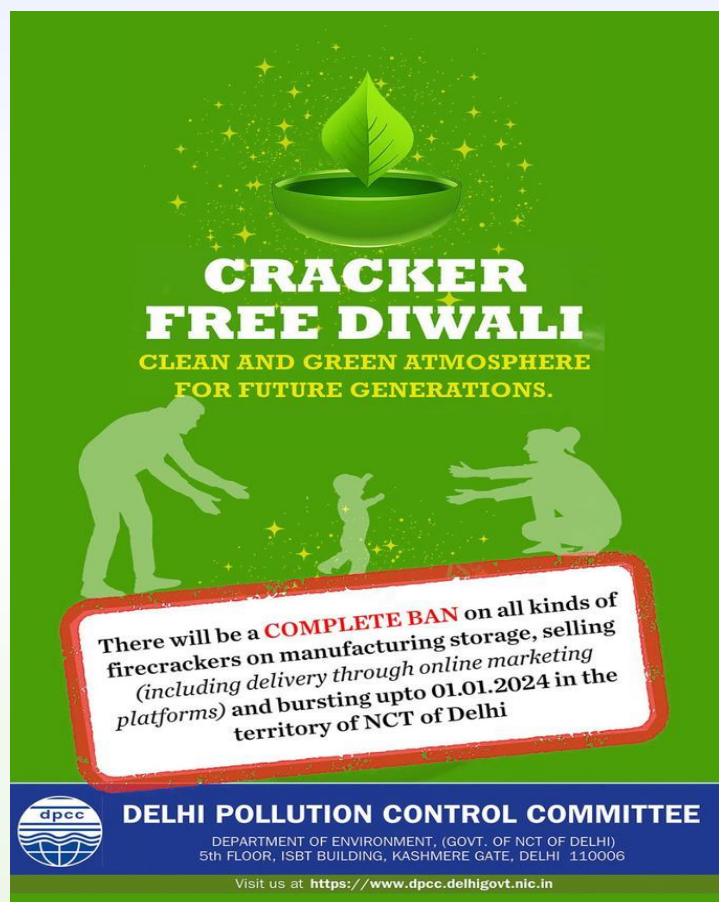
Enforcement data (Since 16.10.2023 till 01.01.2024):

No. of fire crackers sale violation observed / identified : 138

Quantity of fire crackers seized for storage/sale : 12,459.60 kg

Quantity of fire crackers seized for bursting : 11.400 kg

No of violation observed/identified for bursting firecrackers: 54



210 teams
of around 750 personnel
were on-ground to ensure
that there is compliance on
the ban.

Newspaper publicity: 7 -11 Nov

Run for pollution - on 20 Oct

Radio Jingles: 4-11 Nov

11

Other actions under GRAP Stage III and Stage IV



57 Action against Non-Destined trucks

W.e.f. 01.11.2023, all buses originated from NCR district in the respective states and plying to Delhi will be either EV or CNGs or BSVI diesel.

Transport Department/ Traffic Police
Department of GNCTD 18 Teams of 6 each in
borders deployed

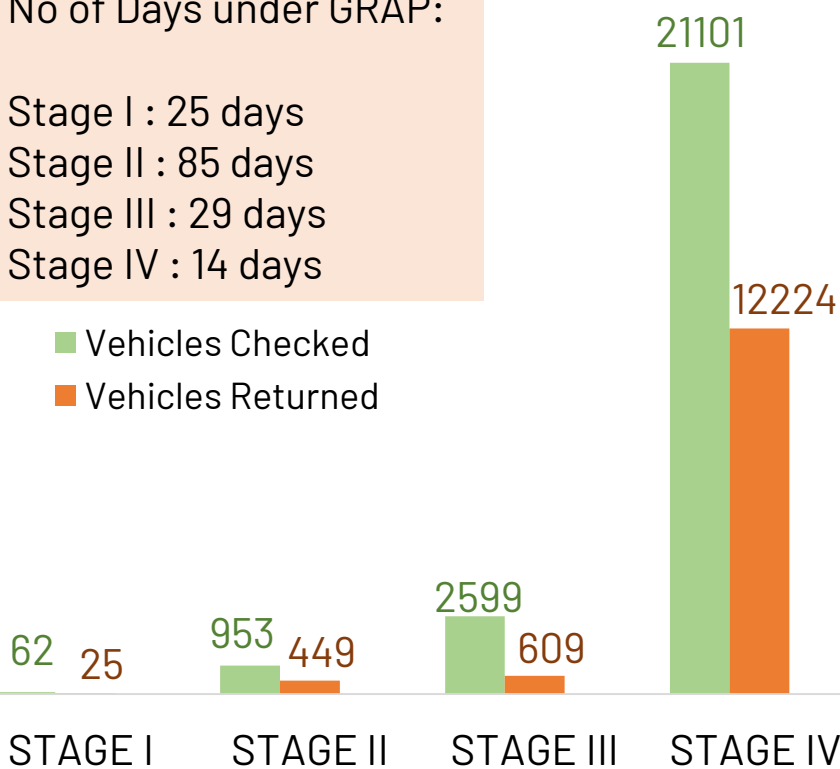
Total Non destined Goods vehicles checked:
28308

Total Non destined Goods vehicles returned:14082
during stage I , stage II ,stage III and Stage IV of
GRAP

No of Days under GRAP:

Stage I : 25 days
Stage II : 85 days
Stage III : 29 days
Stage IV : 14 days

■ Vehicles Checked
■ Vehicles Returned



**Period : Oct, 23 to
16 Sept, 2024**

33047

43.78%
Returned

14471

No. of goods
vehicles
checked for
non-destined

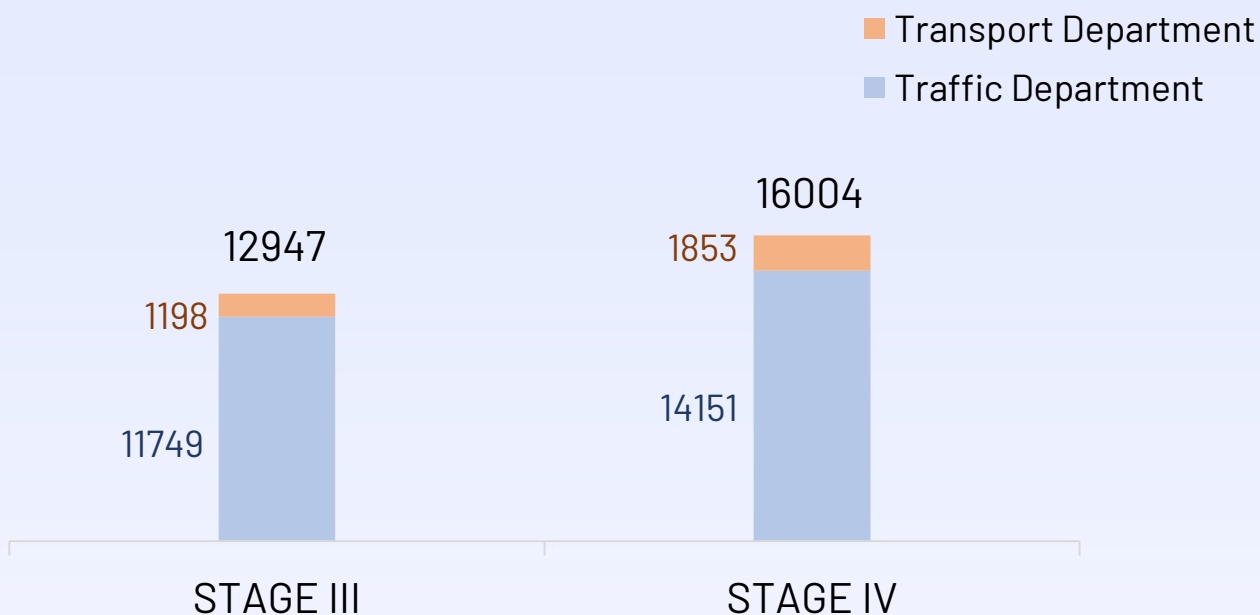
No. of non
destined
goods
vehicles
returned

58

Ban on plying of BS III Petrol/ BS IV Diesel LMVs (Stage III and Stage IV)

Stage III : 29 days
Stage IV : 14 days

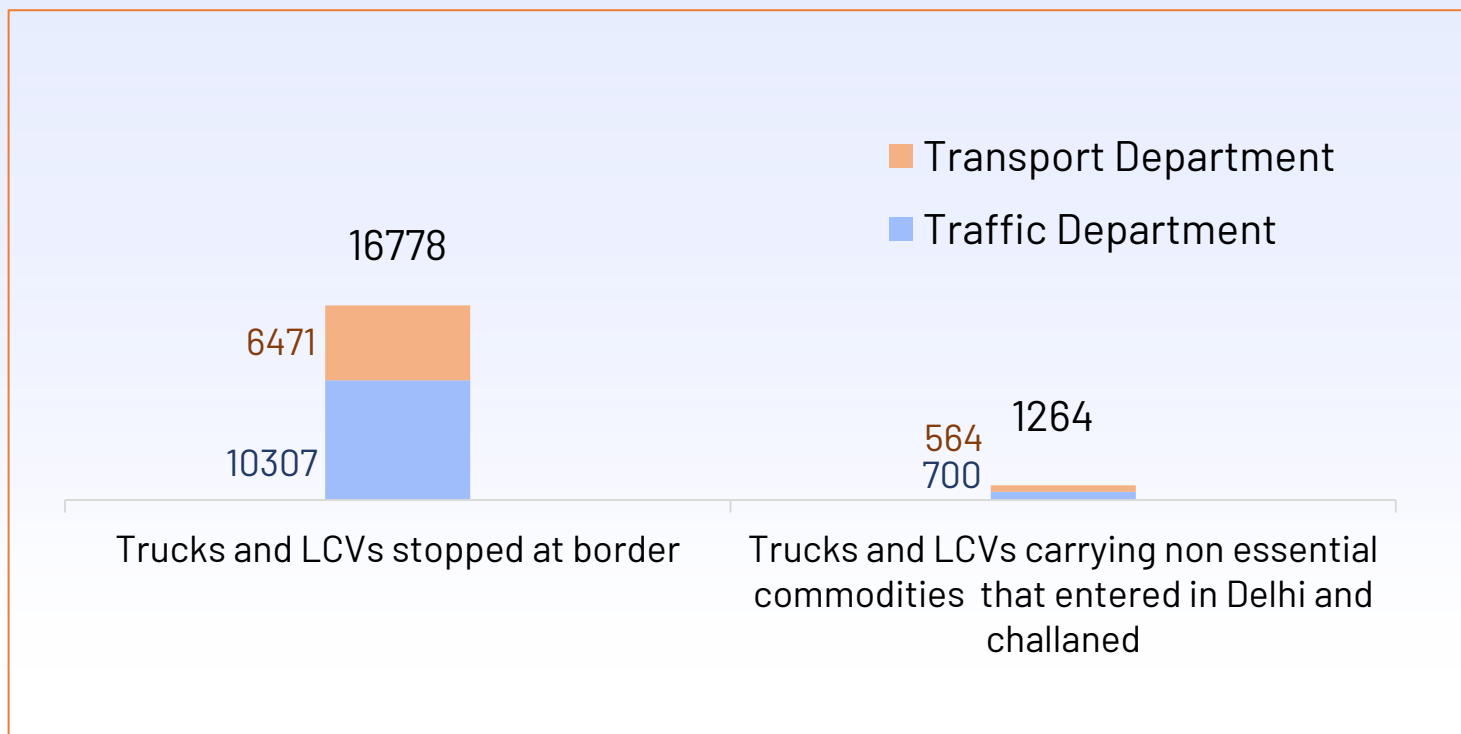
Challans issued for Ban on plying of BS III Petrol/ BS IV Diesel LMVs: 28951



59

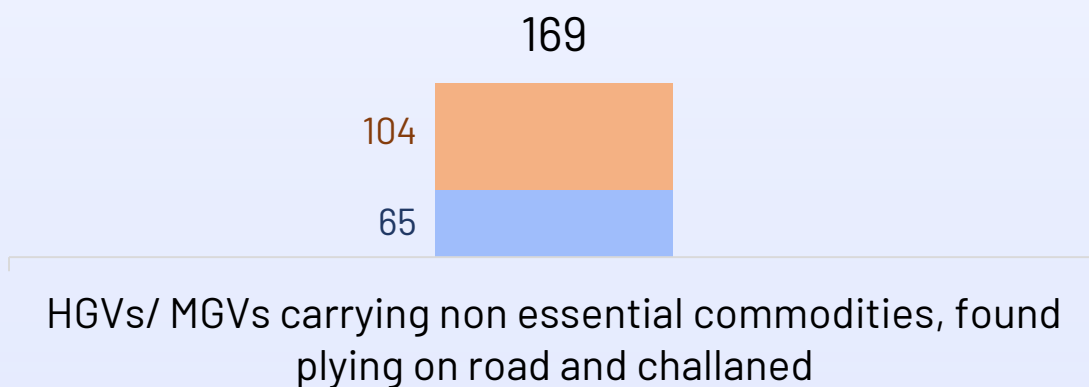
Ban on plying of Trucks and LCVs (Stage IV)

Stage IV
14 days



Ban on plying of HGVs /MGVs (Stage IV)

Total HGVs and MGVs registered in Delhi: 5409



60 Additional fleet and increasing frequency of service

During winter 2023-24

▪ DMRC

- DMRC has operated additional 40 trips (for all lines) on weekdays.
- Operated additional 20 trips as and when GRAP Stage-III & higher was enforced i.e. 60 additional trips for all lines in weekdays.

▪ DTC

- Extra shuttle service with 126 buses and 2700 trips (856-Duty Trips (M+E)) w.e.f 01/11/23 till AQI/ environmental condition was normalised.
- Special Service *Paryawaran Sewa* planned

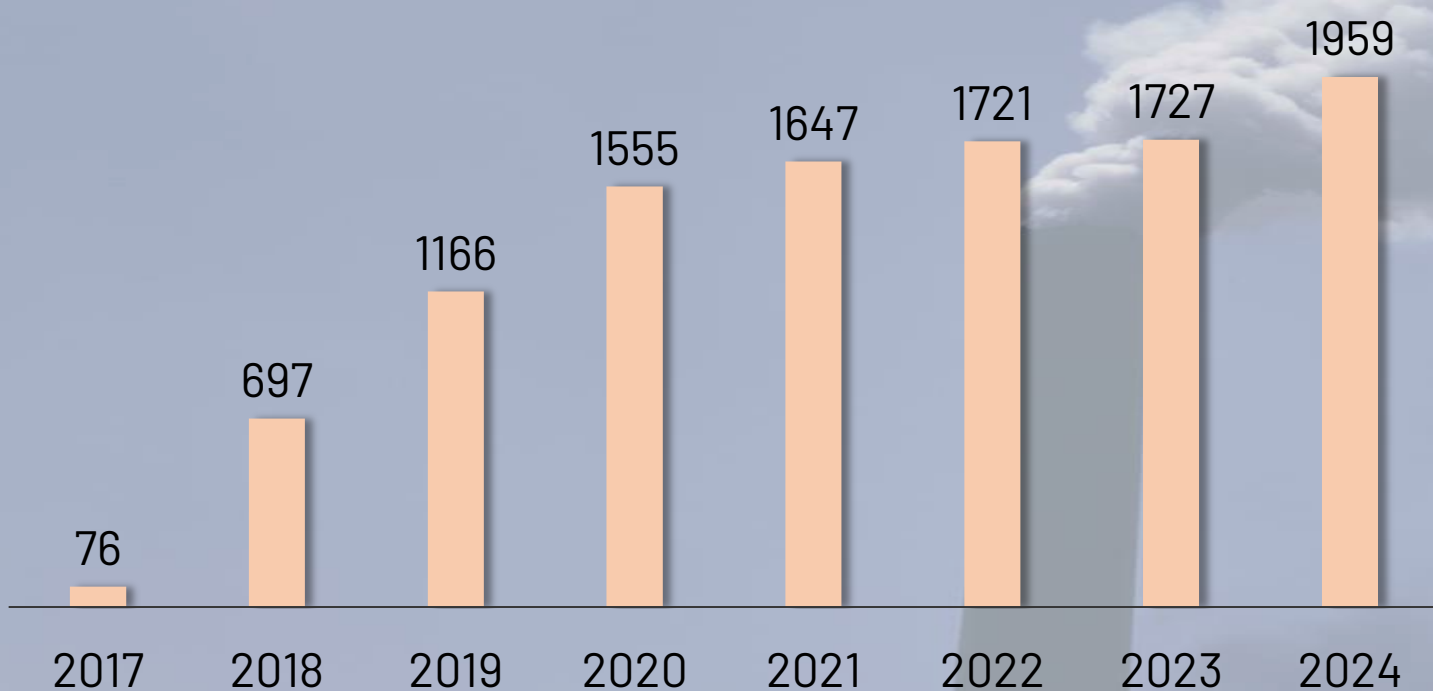


61

Industrial Pollution Control

Shift to cleaner fuel

Progress in conversion of industrial unit to PNG till 18th Sept, 2024



- All the units have been directed to use only PNG, wherever available.
- No polluting fuel is permitted other than approved fuels including PNG/ Electricity/ LPG.
- All industries which are using fuel have to operate their industry on approved fuels as per CAQM [Direction No. 65 dated 23.06.2022](#).
- 2083 are with approved fuel (including 1959 already converted to PNG and remaining 124 are running on approved fuel)
- Strict compliance on use of PNG by monitoring gas consumptions.

62 Major point sources {inventorization}

Anand Vihar Hotspot



Targeting major point
air pollution sources



Department of Environment
Govt. of NCT of Delhi

Department of Environment
Govt. of NCT of Delhi



Pollution Sources at Anand Vihar

1. RRTS construction near metro station
2. C&D site on DDA land behind ISBT, Anand Vihar (between stretch Anand Vihar & Karkadooma)
3. C&D site behind Kaushambi ISBT by PWD
4. ISBT Terminal bus exit road; diesel bus congestion
5. Road traffic congestion at exit point of railway station
6. MCD unpaved parking
7. Road traffic on Chaudhary Charan Singh Marg
8. Dumping of C&D waste on Swami Dayanand Marg
9. Patparganj Industrial Area
10. UP Roadway Bus Terminal Kaushambi (UP)
11. Construction activity nearby Surya Nagar Red light (UP)
12. Sahibabad Industrial Area (UP)

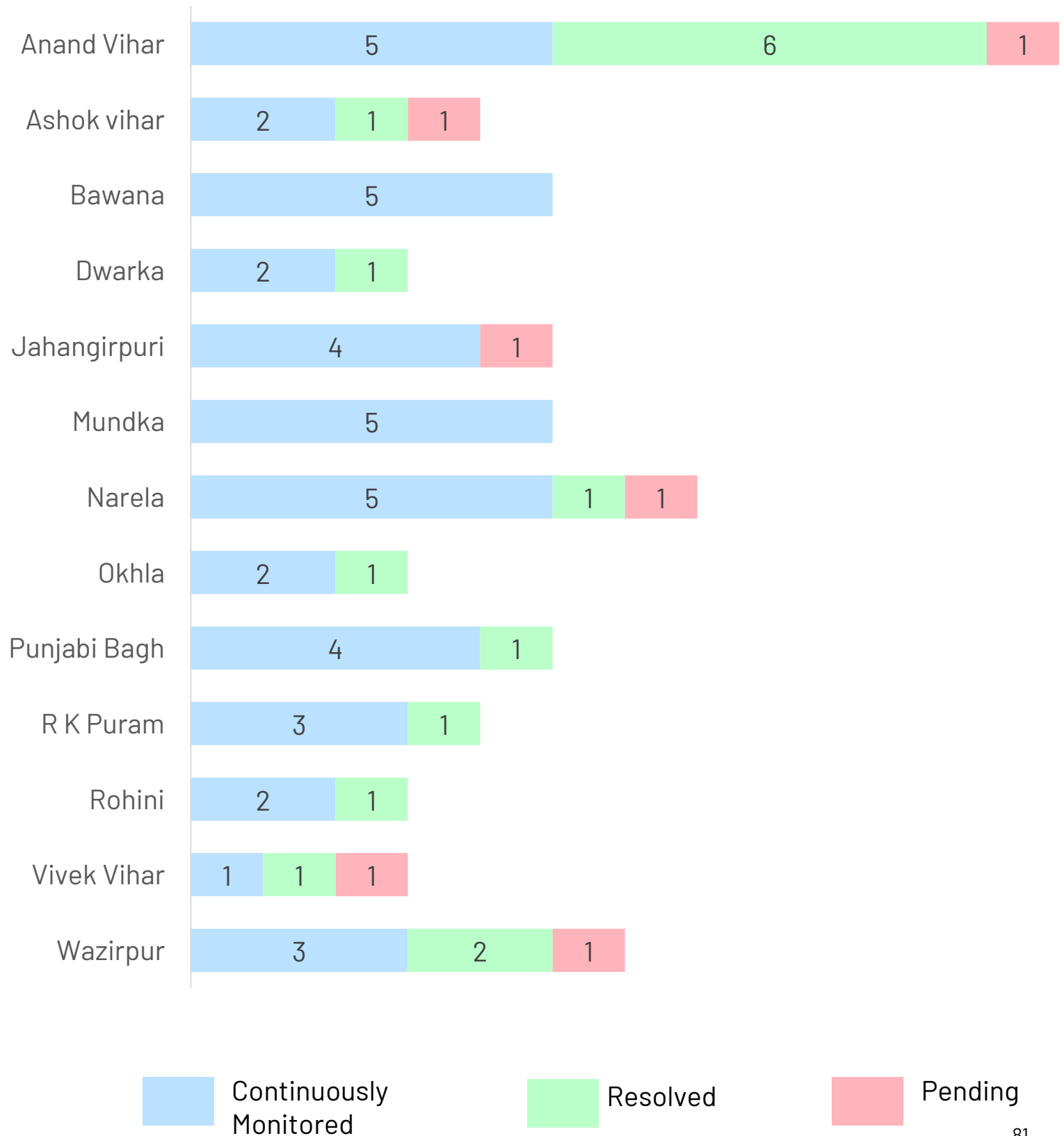
An example of Inventorization of major point pollution source : Mundka

Hotspot Name		MUNDKA	Concerned Departments
S. No.	Identified Sources of Pollution / Regarding	Actions which can be taken at this Hotspot	
1	Construction of Urban Extension Road II (UER II) nearby monitoring station.	Dust Mitigation Measures be followed in construction of UER 2 and in operation of RMC Plants.	NHAI
2	Operation of RMC plant by the construction agency of UER II		
3	Unpaved shoulders and potholes on the nearby Delhi Rohtak highway leading to huge dust emission. (Special attention from metro pillar number 410 to 611)	Paving or putting interlocking on the shoulders of the Delhi Rohtak Highway. Removing potholes from the road through proper pavement. Mechanized removal of dust from the pavement./ Water sprinkling on the unpaved shoulder and medians. Redesign / reconstruction of storm water drain along Delhi Rohtak Road starting from Maharaja Surajmal Stadium supplementary drain to Hiran Kudna	PWD MCD

An example of Inventorization of major point pollution source : Mundka

Hotspot Name		MUNDKA	Concerned Departments
S. No.	Identified Sources of Pollution / Regarding	Actions which can be taken at this Hotspot	
4	Traffic congestion below Mundka Industrial area metro station intersection due to higher traffic volume on Delhi Rohtak highway.	Proper regulation of the traffic, possibly providing U turn after the Mundka Industrial area metro station for the Rani khera Mod	Delhi Traffic Police
5	Unpaved roads inside Mundka Redevelopment area	Pavement of roads inside the Mundka industrial area. Water sprinkling on the unpaved roads on regular basis	Industries Department DSIIDC
6	RMC Plant operation inside the nearby DMRC Casting Yards	Dust mitigation measures and guidelines to be followed by RMC plants inside casting yards	DMRC
7	Dust emission from potholes and unpaved Shoulders of Shaheed Vikrant Singh Lakra Marg starting from Ranikhera Mod Red light	Paving of potholes and shoulders and water sprinkling of dust emission sources on regular basis	MCD

Redressal of pollution sources at hotspots (Hotspot action plan)



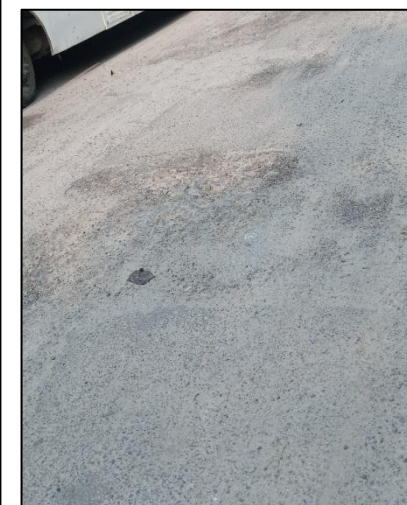
64 Inventorization of Dispersed air pollution sources at Hotspots

Department of Environment, GNCTD inventorised and mapped around **4555+ major and minor point** air pollution sources

On-boarded on Green Delhi App during 2nd Half of 2023

2650+ resolved during 12th May 2023– 17th Sept 2024

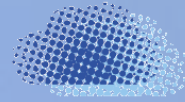
Includes dumping of plastic waste/ garbage/ malba/ construction and demolition waste, unpaved roads/ roadsides, patches and pot holes, congested traffic points, road dust, construction & demolition sites, vulnerable municipal solid waste burning, non-paved parking sites, air polluting industrial units, etc.







**Department of
Environment, Govt. of NCT
of Delhi**



**International Day
of Clean Air
for blue skies**

