



Department of Environment  
Govt. of NCT of Delhi



# Stakeholders Consultation

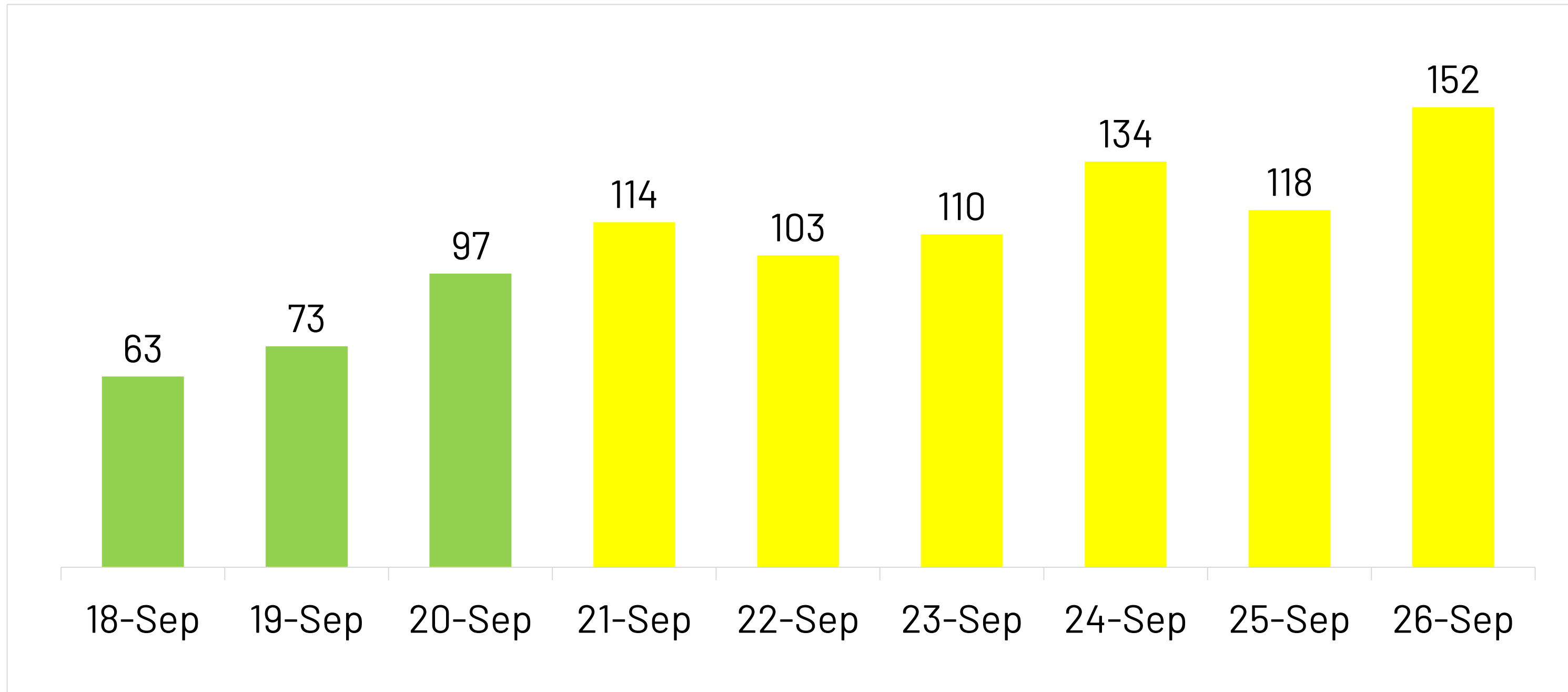
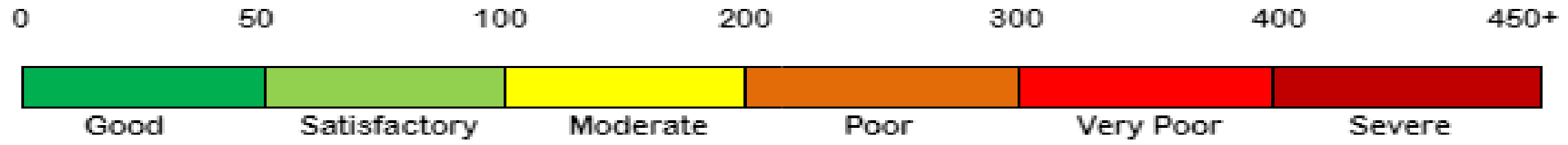
To Control Air Pollution in Delhi



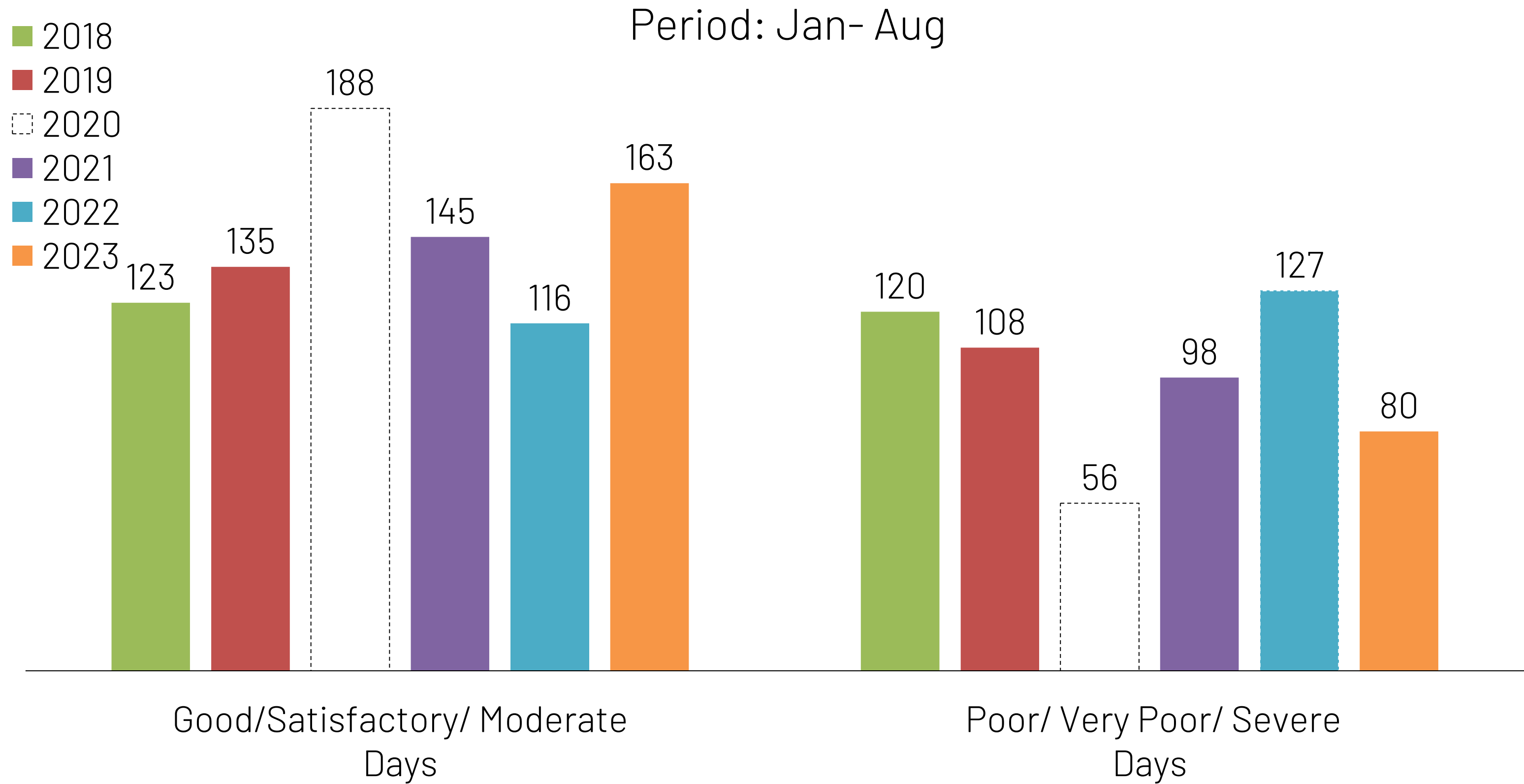
National Clean Air Program

27.09.2023

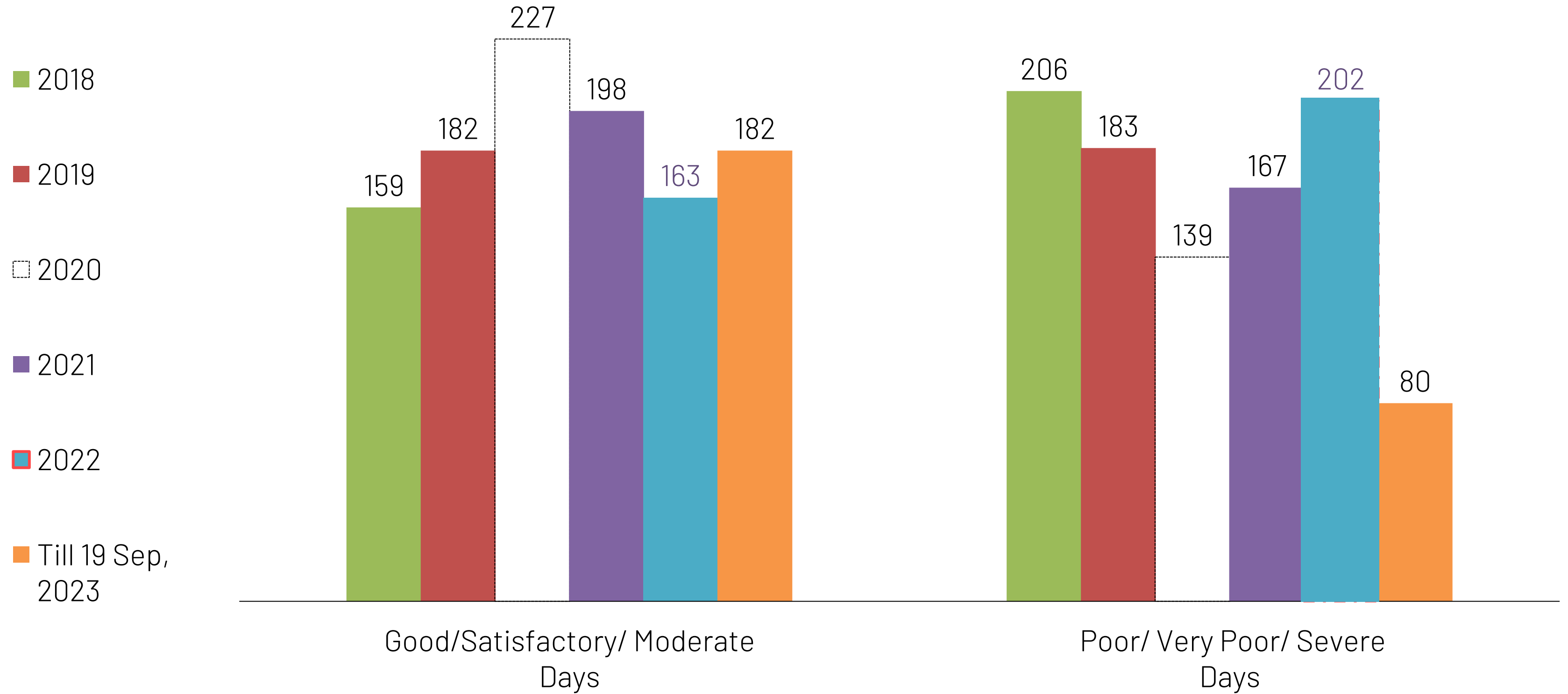
# Air Quality Index



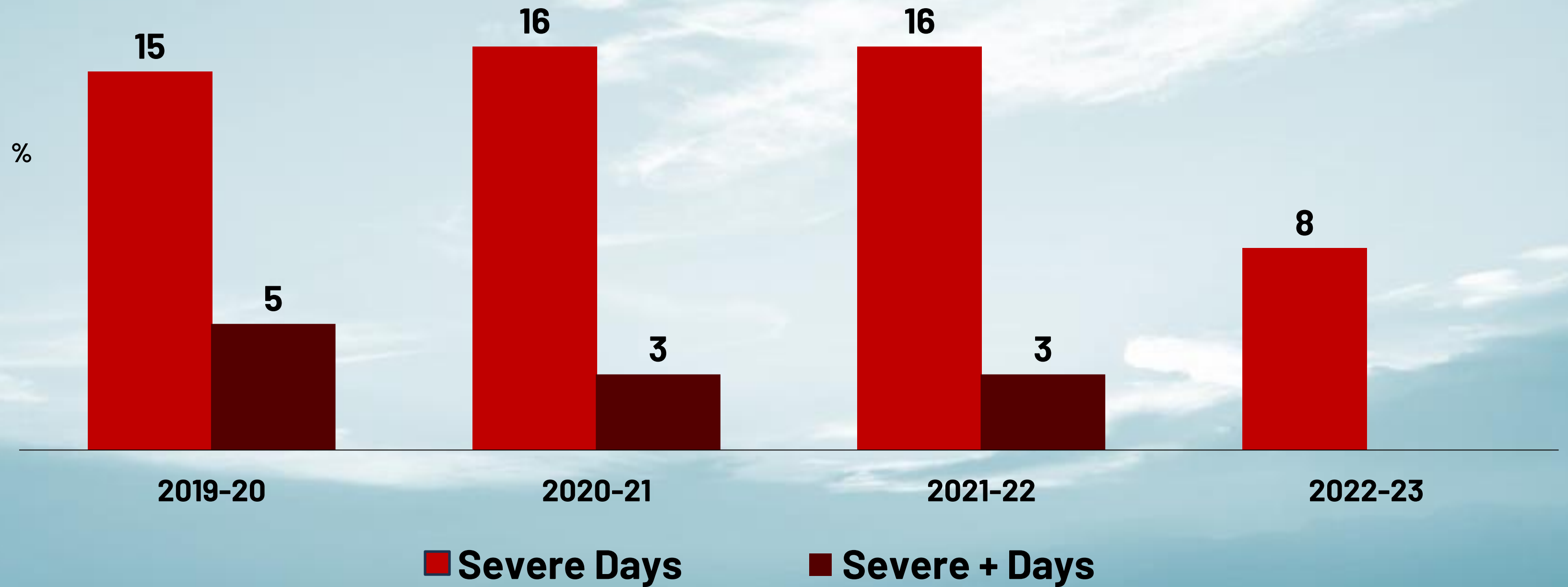
# Days according to Air Quality Index in Delhi (2018-23)



# Days according to Air Quality Index in Delhi (2018-23)



# Severe and Severe + Period : October to January (Winter season)



Like previous years, all agencies will implement GRAP in Delhi as per categories



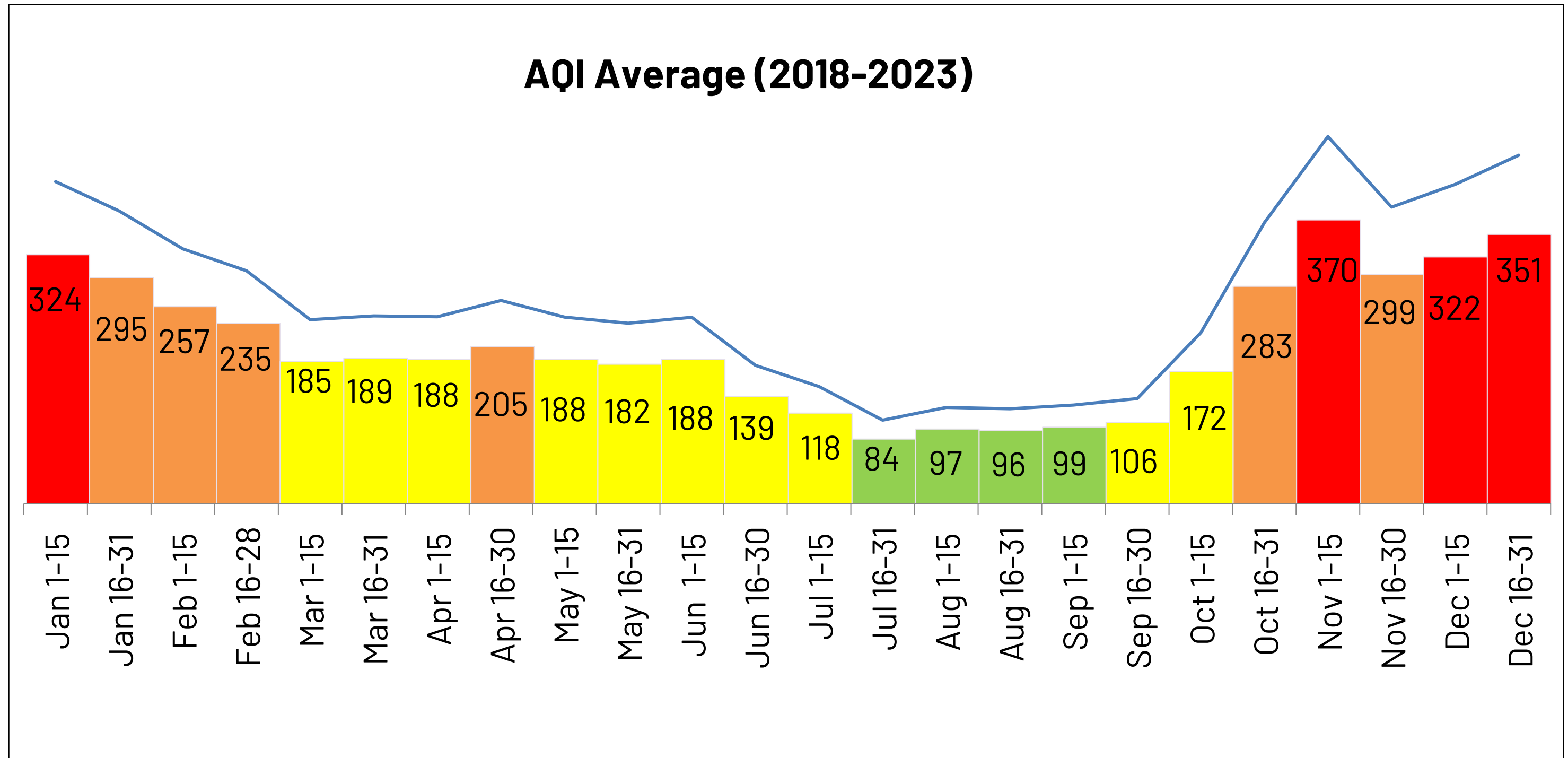
**Air quality category**

**Satisfactory**  
AQI : 51-100

**Moderate**  
AQI : 101-200

**Poor**  
AQI: 201-300

**Very Poor**  
AQI: 301-400



\* AQI Average 16th Sep-31st Dec is for 2018-2022

# Implementation of Graded Response Action Plan

- Graded Response Action Plan (GRAP) - implemented as Emergency Response System (Since 2018)

## Revised GRAP, 2023:

- GRAP for NCR - four different stages of adverse air quality in Delhi, reflected through Air Quality Index (AQI).
- Proactively implement GRAP measures based on air quality forecasts, rather than retroactively implementing them once acceptable levels are breached
- Measures - to be invoked at least two-three days in advance based on the prediction of air quality forecasting models

**POOR**  
AQI  
201-300

Stage I

**VERY POOR**  
AQI  
301-400

Stage II

**SEVERE**  
AQI  
401-450

Stage III

**SEVERE +**  
AQI  
> 450

Stage IV

# Revised GRAP, 2023

## ▪ **Stage I - 'Very Poor' AQI category (AQI 201-300)**

- Implementation of Directions/ guidelines on dust mitigation measures in Construction and Demolition (C&D) activities and sound environmental management of C&D waste.
- Not permit C&D activities in respect of such projects with plot size equal to or more than 500 sqm which are not registered on the 'web portal' for remote monitoring of dust mitigation measures.
- Banning DG sets of any capacity running purely on Diesel and not equipped with ECDs or working in dual fuel mode



# Revised GRAP, 2023

## ▪ **Stage II - 'Very Poor' AQI category (AQI 301-400)**

- Intensify inspections for strict enforcement of dust control measures at C&D sites.
- Banning DG sets of any capacity running purely on Diesel and not equipped with ECDs or working in dual fuel mode

## ▪ **Stage III - 'Severe' AQI category (AQI 401-450)**

- Ban on C&D activities in NCR
- Restrictions on BS III petrol and BS IV diesel LMVs (4W)

## ▪ **Stage IV - 'Severe+' AQI category (AQI > 450)**

- Stop entry of truck traffic into Delhi
- Disallow LCVs registered outside Delhi, other than EVs / CNG / BS-VI diesel, to enter Delhi
- Ban on plying of Delhi registered diesel run Medium Goods Vehicles and Heavy Goods Vehicles
- Ban on C&D activities in linear public projects such as highways, roads

# 01

## Abatement of air and dust pollution from open areas and Construction & Demolition

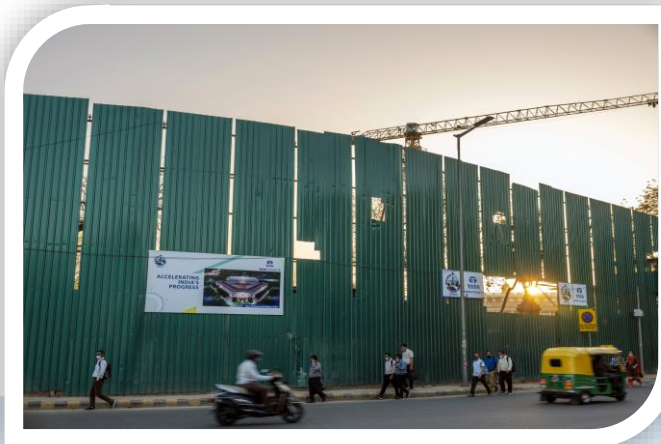
| PWD | DCMs | DPCC | ULBs | SLC



# Delhi Pollution Control Committee Guidelines

01

Dust/wind breaking walls of appropriate height around the periphery of site.



02

Installation of Anti Smog Gun(s) (for >20,000 sqmt built up area).



03

Tarpaulin or green-net on scaffolding around the area under-construction and the building.



04

All vehicles including carrying construction material & construction debris of any kind should be cleaned & wheels washed.



# Delhi Pollution Control Committee Guidelines



05

All vehicles carrying construction material should be fully covered & protected.



06

All construction should be stored on the site and not dumped on public roads or pavements.



07

No loose soil or sand or any other construction material that causes dust shall be left uncovered.



08

No grinding and cutting of building materials in open Wet-jet should be used in grinding and stone cutting.

# Delhi Pollution Control Committee Guidelines



09

Unpaved surfaces and areas with loose soil adequately sprinkled with water to suppress dust.



11

Construction and demolition waste should be recycled on-site or transported to authorized recycling facility & due record of the same should be maintained.



10

Roads leading to or at construction sites must be paved and blacktopped i.e. metallic roads (for >20,000 sqmt built up area).



12

Every worker should be provided with dust-mask

# Delhi Pollution Control Committee Guidelines



13

Arrangement should be provided for medical help, investigation & treatment to workers



14

Dust mitigation measures shall be displayed prominently at the construction site for easy public viewing.

# Setting up of "Web Portal" for monitoring of dust control measures at construction and demolition sites

Action Taken : Web portal developed and is live`

An online mechanism through a web portal put in place by DPCC for monitoring of compliance of dust mitigation measures by Project Proponents

**Delhi Pollution Control Committee** Self Declaration: Dust Control Audit  
(To be filled by all projects in which dust is generated)

**Site Registration**  
For uploading self declaration audit sheet for dust mitigation in industrial, commercial and institutional projects.  
**ALREADY REGISTERED?**  
[Click Here to Login](#)

**Contact Details :**

Project's Name \*

Address of Project Site

Address 1 \* Address 2 \*

Pin Code \* Latitude \* Longitude \*

Project Type \* Name of Project Proponent\*

Office Address of Project Proponent

Address 1 \* Address 2 \*

Pin Code \*

Activate Windows  
Go to Settings to activate Windows.

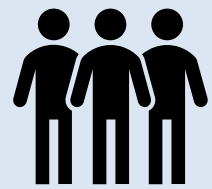
- ❑ Project proponent registration form
- ❑ Self audit sheet filing
- ❑ Dynamic audit sheet

# Abatement of air and dust pollution from Construction and Demolition

---

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

- DPCC : Capacity building of all stakeholder departments by Apr, 2023 on registration and review of self-assessment reports followed by personal hearings to more than 400 PPs during April to June 2023



244 Teams of 647 personnel and 174 night Teams of 451 personnel for ensuring compliance of dust control norms at construction sites, road dust control, etc during Summer, 23.

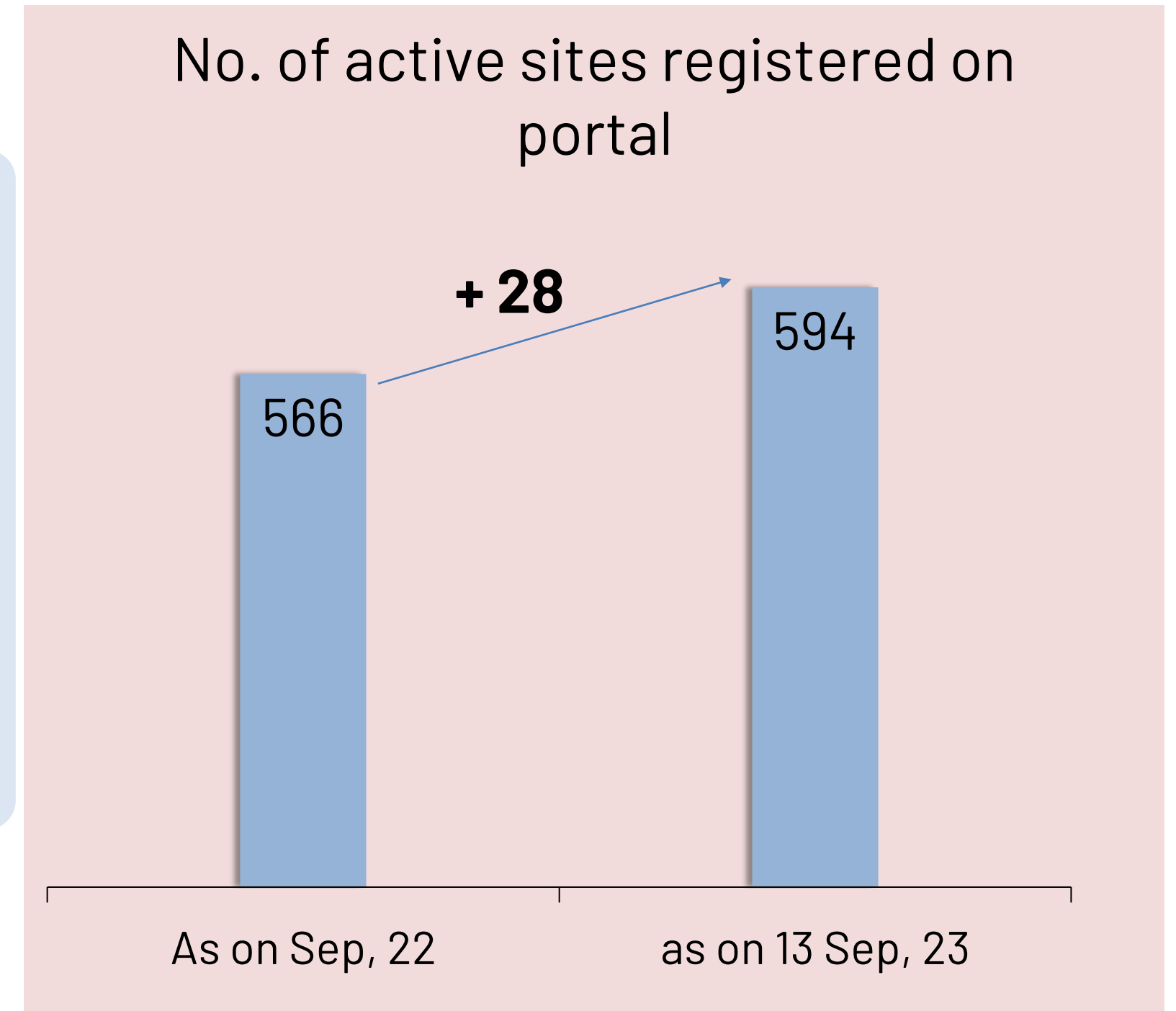
- Total 1038 sites registered on dust portal as on 22.09.2023.
  - Active sites: 580
  - Closed sites: 458
  - Self Assessment: 4073
  - Self Assessment (Unique): 337
  - No. of sites filled Camera Details: 244
  - No. of sites uploaded AQ data: 274



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



02

# Abating Air Pollution from DG Set

MCD | DPCC | ULBs | DSIIDC |  
Department of Power | DISCOMs |  
DDA | Revenue



**Commission directs for adoption of the following revised Schedule for regulated operations of DG sets across all sectors in the NCR including Industrial, Commercial, Residential and Office establishments etc.:**

S. No.	Capacity Range of DG sets	System to be adopted for control of emissions	Regulations for use
1.	Power generating sets of all capacities running on LPG/ Natural Gas/ Bio-gas/ Propane/Butane	None	No restrictions (Even during periods under GRAP)
2.	Portable DG sets (below 19kW)	None	No restrictions during the periods, other than restrictions under GRAP.  Not to be permitted during periods of restriction under GRAP.
3.	19 kW to less than 125 kW	Dual fuel mode (Natural Gas & Diesel)	No restrictions during periods other than under GRAP. To be permitted to run for maximum 2 hrs. in a day during restrictions under GRAP subject to methodical maintenance of log of operation of DG sets, preferably in a digital mode.
4.	125 kW to less than 800 kW	Dual fuel mode <b>and</b> Retro-fitted ECDs through certified vendors/ agencies	No restrictions (Even during periods under GRAP)

S. No.	Capacity Range of DG sets	System to be adopted for control of emissions	Regulations for use
5.	800 kW and above	Dual fuel mode <b>or</b> Any other emission control device/ System  Strictly subject to compliance for stack emissions as in the footnote.	No restrictions during periods other than under GRAP. To be permitted to run for maximum 2 hrs. in a day during restrictions under GRAP subject to methodical maintenance of log of operation of DG sets, preferably in a digital mode.
6.	New power generating sets of all capacities up to 800 kW procured to the standards as in MoEFCC notification No.Q-15017/05/2012-CPW and GSR 804€ dated 03.11.2022	None	No restrictions. (Even during periods under GRAP)

**Note: Standards for stack emissions for 800 kW and above capacity DG sets**

S. No.	Parameter	Emission Standards
i.	PM (at 15% O <sub>2</sub> )	50 mg/ Nm <sup>3</sup>
ii.	NO <sub>x</sub> (at 15% O <sub>2</sub> )	650 mg/ Nm <sup>3</sup>
iii.	CO (at 15% O <sub>2</sub> )	100 mg/ Nm <sup>3</sup>
iv.	Stack height	<p>Maximum of the following (in mtr)</p> <p>a) Minimum 6 m above the building where DG set is installed.</p> <p>b) 30 m.</p> <p>For example, if the building height where such DG sets are installed is 20 mtrs, stack height for DG sets should be 30 mtrs. From ground level; while if the building height itself is 27 mtrs, the minimum stack height for the DG sets should be 33 mtrs. From the ground level.</p>

It is hereby directed that the above noted schedule for regulation of DG sets would come in force in the entire NCR strictly w.e.f. 01.10.2023 and Retro-fitment of dual fuel kits or ECDs, wherever warranted, must be targeted to be completed latest by 30.09.2023, failing which the use of the Diesel genset shall not be permitted under any circumstances, anywhere in the entire NCR.

## List of agencies certified for RECD applicable to Diesel Generators (Up to 1000 KVA) for different capacity Ranges as of 30-08-2023

Sr. No.	Name of RECD Vendors	Applicability for the following Range of In- Use Diesel Generators (KVA)**	Certification Agency
1.	M/s. PI Green Innovations Pvt. Ltd.	~ 225- 320 KVA	ARAI
		~ 330- 500 KVA	
		~ 330- 910 KVA	
2.	M/s Platino Automotive Pvt. Ltd.	~ 250 KVA	ARAI
3.	M/s. Chakr Innovation Pvt. Ltd.	~ 250 KVA	ARAI
		~ 320 - 500 KVA	ICAT

\*\* During Type Approval testing, the RECD + Engines combination are tested for mechanical gross power in KW as per the System & Procedure Document. Corresponding KVA rating shall be checked and verified with data plates affixed on In-Use Engines as well as DG sets for correctness.

**ARAI-** The Automotive Research Association of India, Pune, Maharashtra

**ICAT-** International Centre for Automotive Technology, Manesar, Haryana

# 03

## Industrial Pollution Control

Concerned Agencies :

- DSIIDC
- DPCC



## Direction No. 64: Permissible fuels for industrial applications in NCR.

Permit use of metallurgical coke in standalone cupola based furnaces and family of low Sulphur heavy stock fuels in furnaces for metal heating / smelting / refining purposes respectively, only for regions in the NCR beyond the jurisdiction of GNCTD, subject to the stricter emission norms and standards as under, to be complied with through technological upgrades and use of appropriate pollution control devices / systems:

Parameters	Permissible Standards	
	<b>Metallurgical coke</b> (For Standalone Cupola Foundries)	<b>Low Sulphur Fuels namely LSHS, Very Low Sulphur &amp; Ultra-Low Sulphur fuel Oil</b> (For metal smelting/ melting/ refining / heatine furnaces and kilns)
PM (mg/Nm <sup>3</sup> )	80 ( Aim for achieving a level of 50 mg/Nm <sup>3</sup> )	
SO <sub>x</sub> (mg/Nm <sup>3</sup> )	50	
NO <sub>x</sub> (mg/Nm <sup>3</sup> )	50	
CO	1% max	



# **Direction No. 65 dt 23.06.2022: Standard list of approved fuels for various applications across NCR.**

**The approved fuel list shall be completely in force in the entire NCR w.e.f. 01.01.2023.**

- Standard list of approved fuels for entire NCR
- Petrol (BS VI with 10 ppm Sulphur) - Vehicular fuel
- Diesel (BS VI with 10 ppm Sulphur) - Vehicular fuel.
- Hydrogen/Methane- Vehicular and Industrial purposes. Natural Gas (CNG/PNG/LNG) - Vehicular, Industrial and Domestic Purposes
- Liquefied Petroleum Gas (LPG) /Propane/Butane - Vehicular, Industrial and Domestic Purposes
- Electricity - Vehicular, Industrial, Commercial and Domestic Purposes.
- Aviation turbine fuel

# **Direction No. 65 dt 23.06.2022: Standard list of approved fuels for various applications across NCR.**

**The approved fuel list shall be completely in force in the entire NCR w.e.f. 01.01.2023.**

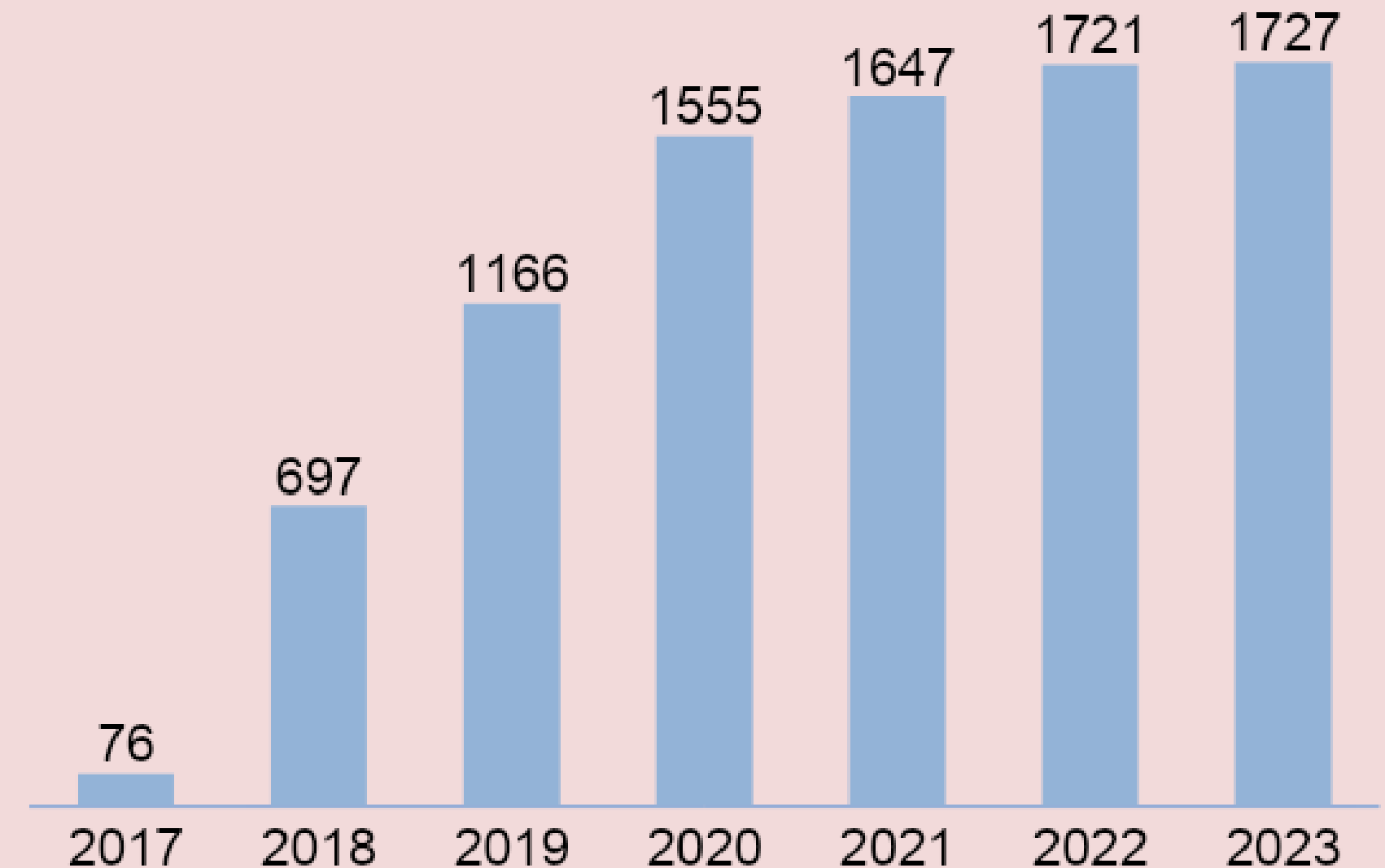
- Biofuels (Bio-alcohols, Bio-diesel, Bio-gas, CBG, Bio-CNG)- for industrial/vehicular/Domestic purposes as applicable.
- Refuse Derived Fuel (RDF) for Power plants, Cement plants, Waste to Energy plants.
- Firewood/ Biomass briquettes for religious purposes. Wood/Bamboo Charcoal for Tandoors and Grills of Hotels/Restaurants/Banquet Halls (with emission channelization/control system) and Open eateries/ Dhabas.
- Wood charcoal for cloth ironing.
- Electricity/ CNG/ Firewood and Biomass briquettes for Crematoria.

# Industrial Pollution Control

## Shift to cleaner fuel

- 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.](#)
- 1727 industries converted to PNG.
  - Strict compliance on use of PNG by monitoring gas consumptions.

Progress in conversion of industrial unit to PNG



# Lifting and proper disposal of industrial waste

**164**

Vulnerable spots

identified for industrial waste dumping in industrial areas.

Physical verification completed.



04

RWAs

Open Burning Control  
Citizen's Charter



# Green Delhi app

Launched in October 2020 to report violations of pollution

28,000+

Complaints received  
by Revenue  
Department till date



90.5%

Complaints resolved

## Under Stage I -'Poor' Air Quality (DELHI AQI ranging between 201-300):

- Keep engines of your vehicles properly tuned.
- Maintain proper tyre pressure in vehicles.
- Keep PUC certificates of your vehicles up to date.
- Do not idle your vehicle, also turn off the engine at red lights.
- Prefer hybrid vehicles or EVs to control vehicular pollution.
- Do not litter / dispose wastes, garbage in open spaces.
- Report air polluting activities through 311 App, Green Delhi App, SAMEER App etc.
- Plant more trees.
- Celebrate festivals in an eco-friendly manner –avoid firecrackers.
- Do not drive/ply end of life/ 10/15 years old Diesel/Petrol vehicles.

## Under Stage II -'Poor' Air Quality (DELHI AQI ranging between 201-300):

- People to use public transport and minimize use of personal vehicles.
- Use technology, take less congested route even if slightly longer.
- Regularly replace air filters at recommended intervals in your automobiles.
- Avoid dust generating construction activities during months of October to January
- Avoid open burning of solid waste and bio-mass.



## Under Stage III - 'Severe' Air Quality (DELHI AQI ranging between 401-450) :-

- Walk or use cycles for small distances.
- Choose a cleaner commute. Share a ride to work or use public transport.
- People, whose positions allow working from home, may work from home.
- Do not use coal and wood for heating purpose.
- Individual house owners may provide electric heaters (during winters) to security staff to avoid open burning.
- Combine errands and reduce trips.

## Under Stage IV - 'Severe +' Air Quality (DELHI AQI > 450) :-

- Children, elderly and those with respiratory, cardiovascular, cerebrovascular or other chronic diseases to avoid outdoor activities and stay indoors, as much as possible.

# Direction No-75 dt 27.07.2023 - Implementation of Graded Response Action Plan for NCR including NCT of Delhi, Revised in July, 2023

---

Under Stage II -'Very Poor' Air Quality (DELHI AQI ranging between 301-400):

“Resident Welfare Associations to necessarily provide electric heaters to security staff to avoid open Bio-Mass and MSW burning during winters”

# DIRECTIONS OF NGT IN OA 21/2014

---

- National Green Tribunal vide, its various orders in OA 21 of 2014 titled “Vardhman Kaushik Vs Union of India & Ors”, regarding air Pollution in Delhi has passed directions for controlling Air Pollution.
- National Green Tribunal vide its order dated 28th April, 2015 has imposed compensation on burning of any kind of garbage leaves, waste plastic, rubber, self-moulding compound and such other material in open as under:
  - **“...the person who is found actually burning such material and/or responsible abating such burning would be liable to pay compensation in terms of Section 15 of the National Green Tribunal Act, 2010 for polluting environment and would be liable to pay a sum of Rs 5,000 to be paid instantaneously.”**



Department of Environment  
Govt. of NCT of Delhi



**Thank you**