

Commission for Air Quality Management in NCR and Adjoining Areas

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PRESS RELEASE ON AIR QUALITY SCENARIO OF DELHI (JANUARY - NOVEMBER, 2023)

- AQI levels are greatly impacted by the levels of rainfall/ precipitation, direction of wind and its speed, which are prime facilitators for dispersal of the pollutants/ emissions. Effective dispersal is a must for a good air quality, while also controlling the quantum of emissions from all the primary sources in the region.
- The average wind speed over Delhi and out of Delhi during the month of November, 2023 was also relatively slower for long spells with an average speed of only about 4 kmph and “still” conditions were also witnessed during the month on multiple occasions. An average wind speed of at least 10 kmph and above is desirable for effective dispersion of pollutants.
- Low-speed North-Westerly winds flowing in to Delhi were however observed during the month, leading to pollutant in-flow from such areas.
- Paddy sowing was disturbed and delayed in many parts of Punjab and Haryana owing to incessant rains which also resulted in delayed harvesting in such areas.
- Relatively low temperature scenario as observed in November, 2023, led to frequent “inversions”, thus reducing the mixing height which is vital for vertical dispersion of the pollutants.
- Paddy farm fires emanating from Punjab and Haryana in November, 2023, while being much lower than in the last 3 years, owing to highly unfavourable climatic and meteorological conditions as above, contributed significantly to the PM_{2.5} load in Delhi-NCR.
- The peak of the paddy harvesting activity in Punjab / Haryana coincided with the festival of Deepawali this year, further aggravating the air pollution scenario in Delhi-NCR.
- All the factors listed above led to a higher daily average AQI of about 372 as against 320 for 2022. Similar meteorological and climatic conditions also prevailed in November 2021 wherein the daily average AQI was recorded as 377.

- Despite the above scenario, the daily average air quality in Delhi, for the 11-month period between January - November, 2023, registers its best index as compared to the corresponding period during the last 6 years (barring the COVID affected 2020).
- The daily avg. AQI for Delhi during the above noted period during the current year has been recorded as 190 against 199 in 2022, 196 in 2021, 172 in 2020, 203 in 2019 and 213 in 2018 respectively, during the corresponding period.
- This period in 2023 has also witnessed a reduction in daily avg. PM_{2.5} and PM₁₀ concentrations over the last 6 years.
- The period during January-November in 2023 recorded a daily average PM_{2.5} concentration of about 88 µgm/m³ as against ranging from 90-105 µgm/m³ during the corresponding periods from 2018 to 2022 (barring the COVID affected 2020).
- Likewise, the daily average PM₁₀ concentration in Delhi has been about 192 µgm/m³, which is much lower than a range of 200-230 µgm/m³ during the corresponding periods from 2018 to 2022 (barring the COVID affected 2020).
- In wake of prevailing highly unfavourable meteorological and climatic conditions, measures under GRAP Stage-III were invoked proactively on 02.11.2023 so as to intensify the preventive measures and adopt some restrictive measures to prevent further degradation of air quality. GRAP Stage-IV was also required to be invoked on 05.11.2023 in wake of likely rise in the AQI levels close to 450.
- Enforcement and monitoring of all the envisaged actions under GRAP Stage-III and IV respectively was closely monitored by the Commission.
- Arising out of the improvements in AQI owing to favourable conditions for dispersal of pollutants and also the preventive / restrictive actions under the various stages of GRAP, the Stage-IV of the GRAP was revoked on 18.11.2023 and with further improvements in the average air quality in Delhi-NCR, even the Stage-III of GRAP was withdrawn on 28.11.2023.
- The Commission once again urges the stakeholders to effectively implement all directions / guidelines related to abatement of air pollution, particularly under the schedule of the GRAP Stage-II presently in force and also the citizens to follow the Citizen Charter in our joint pursuit for better air quality.
