

SAFAR-India (PUNE)

Indian Institute of Tropical Meteorology, Pune
Ministry of Earth Sciences

SAFAR Air Quality Report for Diwali-2020 FINAL REPORT (Issued on 16th November' 2020)

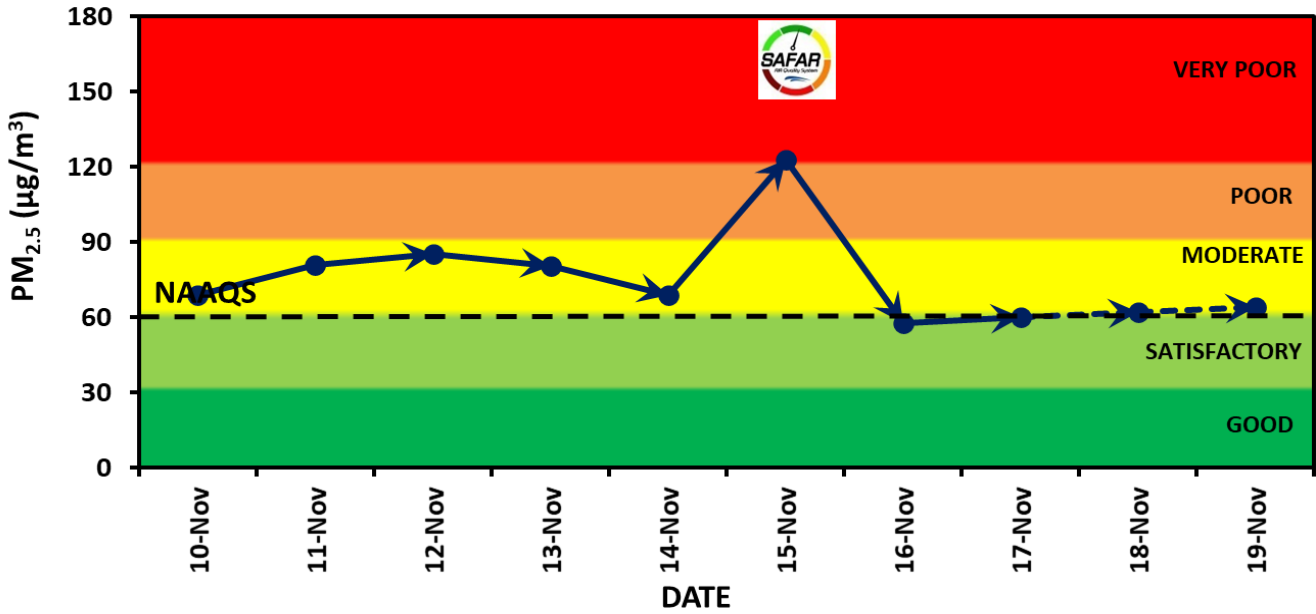
The year 2020 followed the same trend a day after Diwali (15th Nov) as 2017 and 18. The observed data of air quality during Diwali and day after Diwali 2020 period coincided with the forecast made with 50% of averaged firecracker emissions of past years (Diwali-2016-2018 emissions) and the AQI touched Very poor category in Pune. Though on the Diwali Day the air quality was in the MODERATE category due to warmer weather but in the wee hours of 15th November, the air quality deteriorated significantly due to accumulation of fire induced PM_{2.5} fine particles under cooler and low boundary layer height conditions. However, the AQI of Pune is back to SATISFACTORY category as on 16th No' 2020.

1. Post Diwali day (15h Nov) PM_{2.5} concentration in Pune observed in **VERY POOR** Category with PM_{2.5} level touching 123 µg/m³.
2. **PEAK** (Hot) spot hours:
Mid-Night to 6AM early morning of 15th November 2020.
3. **Coincidence:** The magnitude of PM_{2.5} or AQI on the post Diwali day is found to be almost consistent with past 4 years (except rainy 2019).

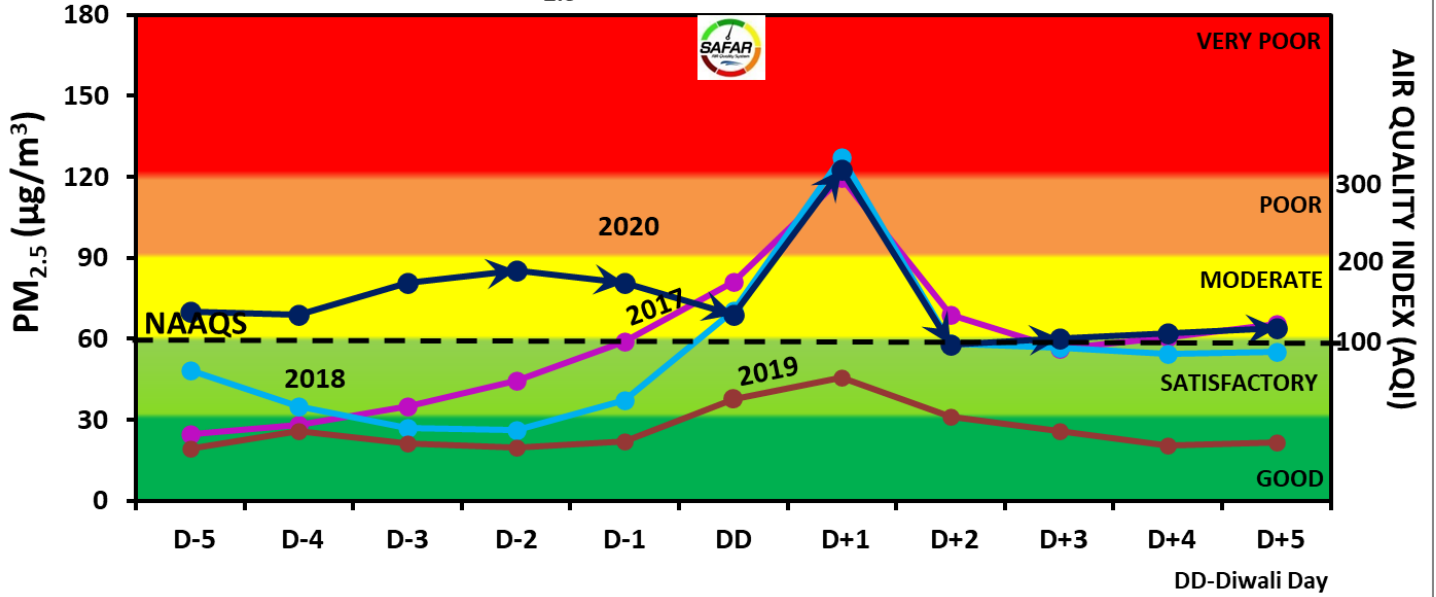
SAFAR-Air Quality -2020 (PUNE)					
	Observed		Forecasted		
DATE	15 th Nov	16 th Nov	17 th Nov	18 th Nov	19 th Nov
PM _{2.5} concentration(µg/m ³)	123	58	60	62	64
AIR QUALITY INDEX (AQI)	302	96	100	104	111

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AIR QUALITY - PUNE



Pune PM_{2.5} Diwali Comparison (2017-2020)



DD-Diwali day; D-5: 5 days before DD; D+5: 5 days after DD