

SAFAR-India (AHMEDABAD)

Indian Institute of Tropical Meteorology, Pune
Ministry of Earth Sciences

Air Quality Forecast for Diwali-2022

The Air Quality Forecast for the Diwali-2022 period is issued based on the indigenously developed SAFAR-Air Quality Forecasting Framework. The forecast is based on the following model scenario:

- (1) Scenario-1: Additional Firecracker emissions are the same as last year's Diwali day
- (2) Scenario-2: The 25% more than last year's additional firecracker emissions.

Highlights:

1. During this period, the most dominating factor controlling Ahmedabad's air quality is calm surface wind and low temperature that deteriorates air quality by preventing dispersion and accelerating accumulation of pollutants near the surface.
2. In Scenario-1, with firecracker emissions the same as last year, adding to existing background emissions, AQI is predicted to touch the very poor category in Ahmedabad on 24-25th October 2022. Thereafter, it is expected to be back to the poor category on 26th Nov.
3. In the case of scenario 2, the AQI will deteriorate further but will remain in the VERY POOR category with a higher magnitude.
4. Early morning hours of 25th Oct (0100 hrs to 0600 hrs) are likely to be the hot spot hours.
5. The most polluted and least polluted locations in Ahmedabad are Rakhiyal and GIFT City, respectively.

Date	SAFAR-AQI Forecast-Ahmedabad			
	22 nd Oct	23 rd Oct	24 th Oct	25 th Oct
CONCENTRATION PM _{2.5} ($\mu\text{g}/\text{m}^3$)	54	76	122	138
AIR QUALITY INDEX (AQI)	90	152	302	314

