

Ambient Air Quality Monitoring

Sulphur Dioxide (SO₂), Oxides of Nitrogen as NO₂, Respirable Particulate Matter (PM₁₀) was identified for regular monitoring at selected locations of Vasai - Virar. It also included other important meteorological parameters such as wind speed and wind direction, relative humidity and temperature. Every year, the monitoring is carried out by Central Pollution Control Board, State Pollution Control Boards and Pollution Control Committees. The monitoring of pollutants is carried out for 48 hours (4-hourly sampling for gaseous pollutants and 8-hourly sampling for particulate matter) with a frequency of twice a week, to have 104 observations in a year. In

Table 1 Monthly observation of SO₂, NO₂, PM 2.5 & PM 10 Parameters across the Vasai - Virar

Month	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
Jun-19	4.12	8.26	48.72	13.05
Jul-19	6.88	5.86	33.75	9.02
Aug-19	NA	NA	NA	NA
Sep-19	15.66	11.51	35.38	11.04
Oct-19	11.18	18.83	67.65	31.8
Nov-19	17.49	24.82	107.25	62.52
Dec-19	13.3	25.44	140.8	85.43
Jan-20	3.94	20.32	132.11	77.34
Feb-20	3.25	23.58	127.89	65.3
Mar-20	3.68	17.02	118.99	34.39
Apr-20	3.27	16.93	52.38	13.49
May-20	4.25	14.68	43.15	5.54
Jun-20	6.2	11.84	28.92	7.42

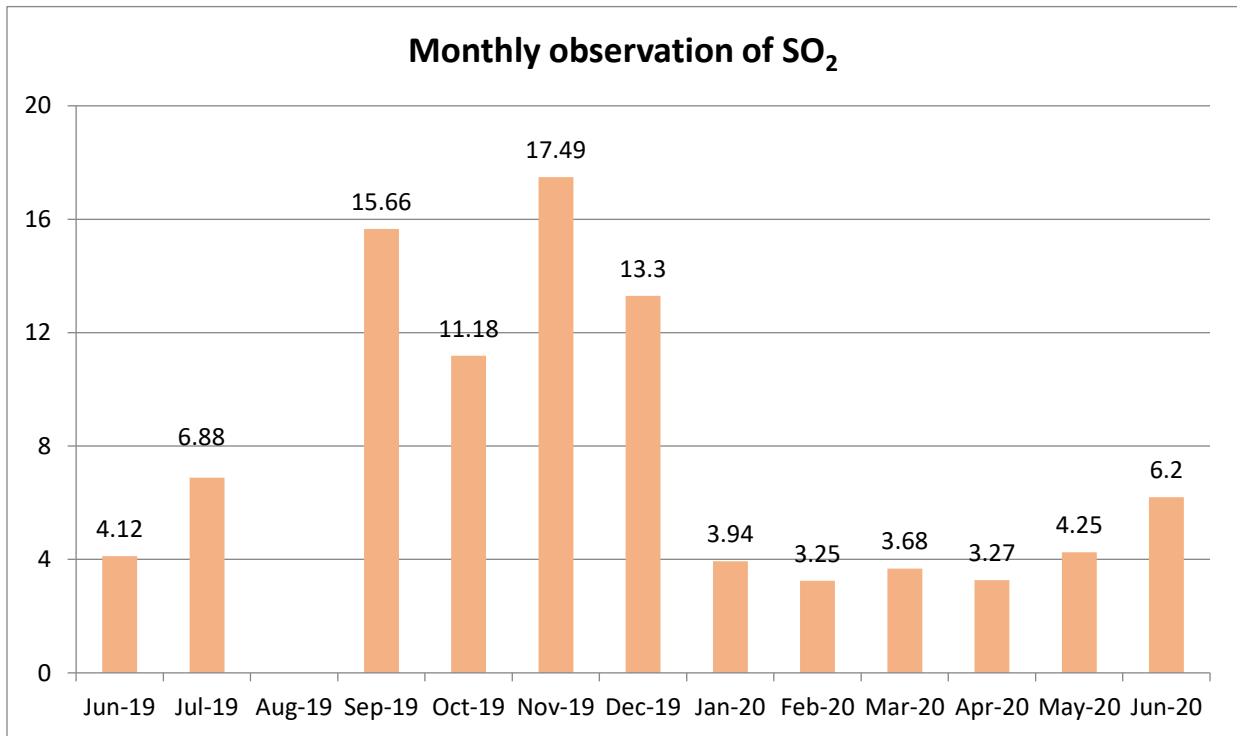


Figure 1 Monthly Observation of SO₂

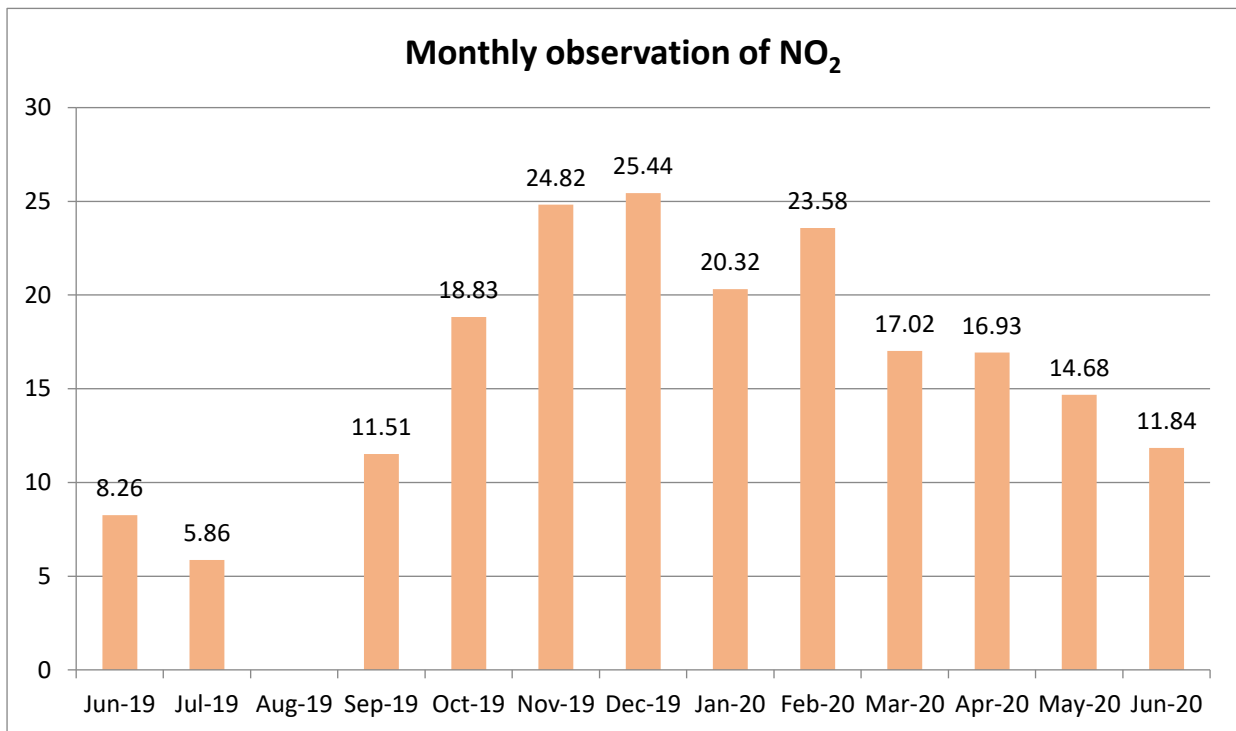


Figure 2 Monthly Observation of NO₂

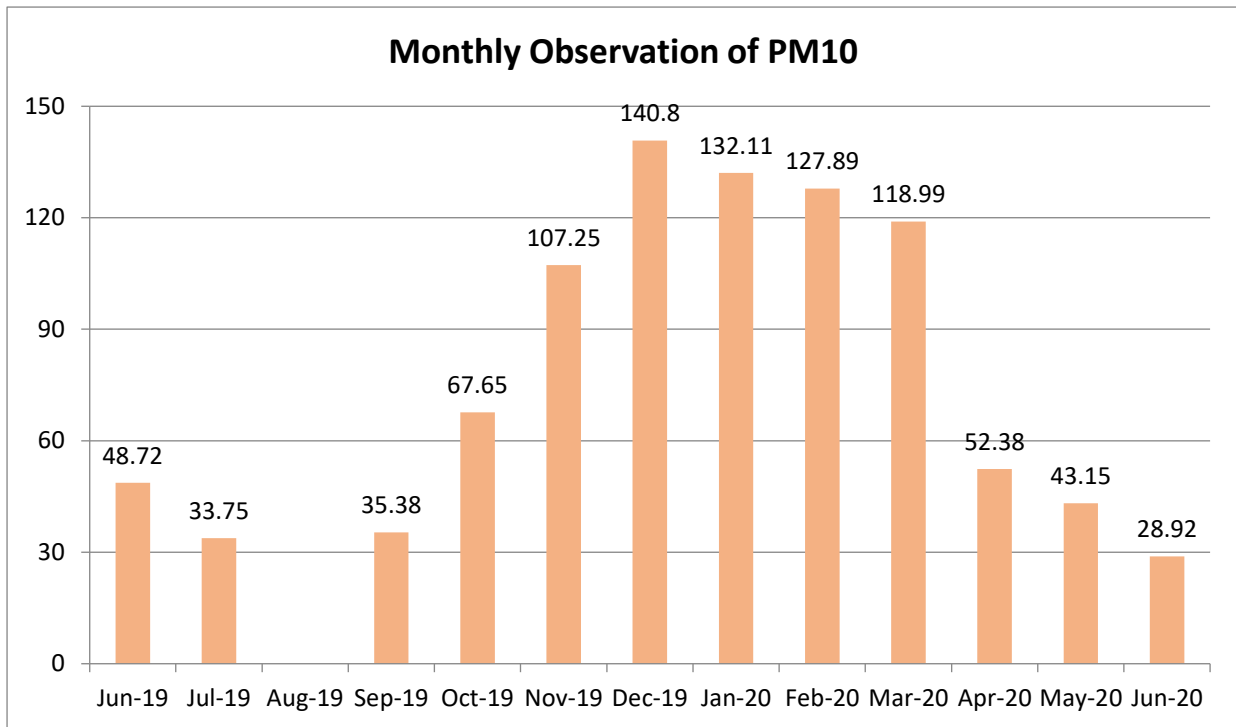


Figure 3 Monthly Observation of PM10 Particles

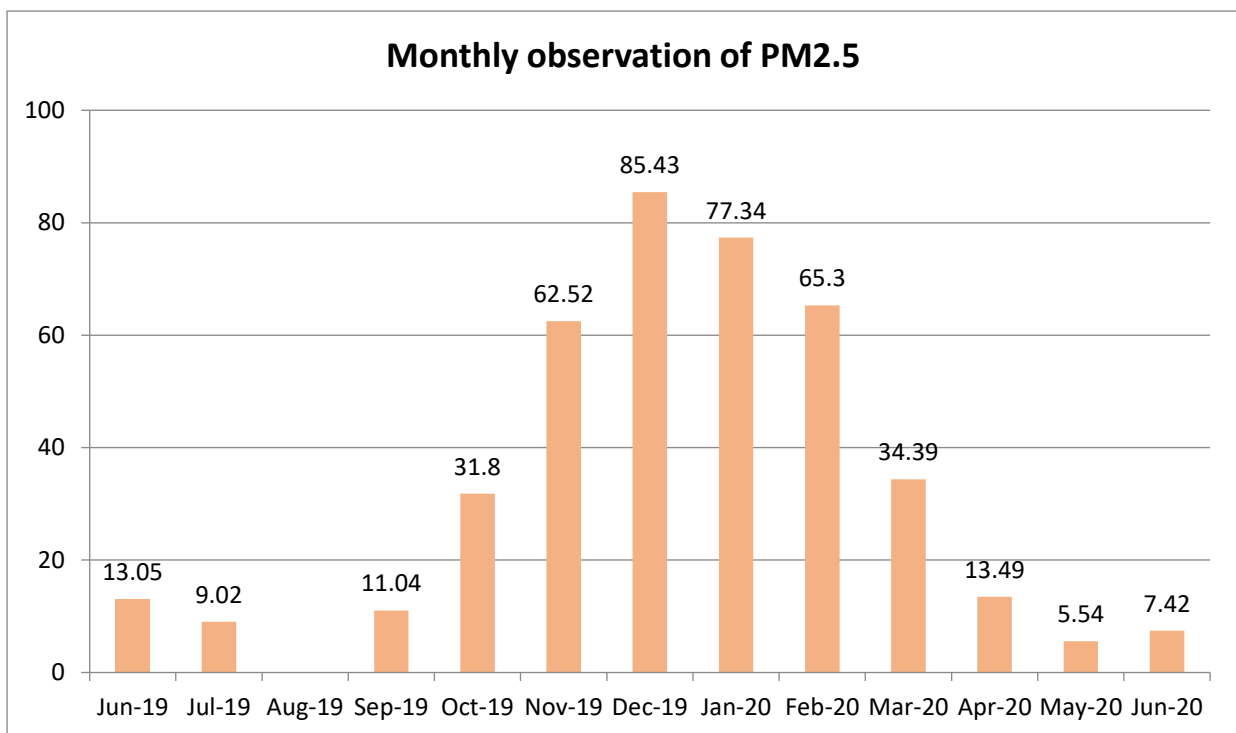


Figure 4 Monthly Observation of PM2.5 Particles

Table 2– Air Quality Data

S. No.	Cities	PM ₁₀ Concentration (µg/m ³)		AQI (PM ₁₀ sub-index) days			
		Average		2019-20		2020-21	
		2019-20	2020-21	<200	Total Observed days	<200	Total Observed days
		1	Vasai virar	119 [^]	85 [^]	175 [^]	175 [^]