

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 26.12.2022

(BASED ON US-EPA AQI STANDARDS AND THE DAYALBAGH AQI COLOUR CODE)

Permissible Limits (24 Hour Mean): PM₁₀ = 150; PM_{2.5} = 35, all units are in µg/m³ Sampling Duration = 24 hrs (9:00 AM to 9:00 AM)

Today: 25-12-2022 to 26 -12-2022 from 9:00 a.m. to 9:00 a.m. **Yesterday:** 24 -12-2022 to 25-12-2022 from 9:00 a.m. to 9:00 a.m.

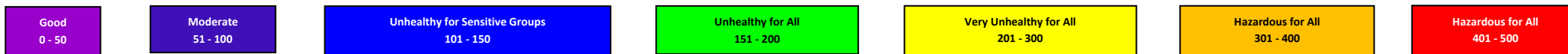
L O C A T I O N	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)											L O C A T I O N	SANJAY PLACE AND AVAS VIKAS (ARITHMETIC MEAN DATA)										
	AQI				Meteorological Parameters								AQI				Meteorological Parameters						
	PM _{2.5}		PM ₁₀		RH %	WS m/s	WD	T °C		SR W/m ²	RF m m		PM _{2.5}		PM ₁₀		RH %	WS m/s	W D	T °C		SR W/ m ²	RF m m
	Today	Yesterday	Today	Yesterday				Ma x	Min				Today	Yesterday	Today	Yesterday				Max	Min		
4 / 97	127 (2%↑)	124	64 (6%↑)	62	75	0.5	WNW	20.6	5.5	81	0	Sanjay Place	127 (15%↑)	112	69 (18%↑)	64	70	1.5	NE	18.6	6.5	23	0
3 / 34	102 (14%↓)	117	54 (6%↓)	56	75	0.5	WNW	20.6	5.5	81	0	Avas Vikas	144 (15%↑)	127	63 (10%↑)	62	76	0.7	E	20.9	7.4	69	0
Science Faculty	132 (2%↑)	124	49 (18%↓)	56	75	0.5	WNW	20.6	5.5	81	0												

Views of AQI Research Group: At the Dayalbagh sites, Concentrations of Particulate matter have marginally changed; PM_{2.5} have substantially decreased at Prem Nagar while PM₁₀ have substantially decreased at Science Faculty. The Air Quality Index w.r.t. PM_{2.5} remains in the *Unhealthy for Sensitive Groups* category at all sites of Dayalbagh, while w.r.t. PM₁₀ it is in the *Good* category at Science Faculty and remains in the *Moderate* category at Vidyut Nagar and Prem Nagar.

Average Visibility yesterday was 2.2 Kms, it dropped to 1.8 Kms today. Around 9:00 am today it dropped to 100 m.

Concentrations of Particulate matter have increased at Sanjay Place and Avas Vikas, Bodla except PM₁₀ which has increased at Avas Vikas, Bodla. The Air Quality Index w.r.t. PM_{2.5} at both these sites remains in the *Unhealthy for Sensitive Groups* category while w.r.t. PM₁₀ it remains in the *Moderate* category.

Values in parentheses indicate the percentage change in the pollutant concentrations with respect to yesterday. ↑ indicates increase while ↓ indicates decrease in pollutant concentrations. Percentage change has not been shown w.r.t. AQI values as the breakpoints for the different



NOTE: 1 A continuing study conducted as part of Dayalbagh Sigma Six Qualities and Values Model implementation.

2 DEI is using United States Environmental Protection Agency (USEPA) methodology and online calculators to calculate AQI. For fair comparison with UPPCB Sanjay Place Weather Station readings, their PM_{2.5} concentration readings are fed in USEPA online calculator for AQI calculation.

3 Formula for AQI calculation for a Pollutant –

$$I = \frac{I_{high} - I_{low}}{C_{high} - C_{low}} * (C - C_{low}) + I_{low}$$

where: I = Air Quality Index; C = Pollutant Concentration (PM_{2.5}); C_{low} = Concentration Breakpoint ≤C; C_{high} = Concentration Breakpoint ≥C; I_{low} = Index Break point corresponding to C_{low}; I_{high} = Index Breakpoint corresponding to C_{high}; *Multiplication Sign