Ambient Air Quality Data of Bengaluru Stations

For the month of July, 2021

AQI BULLETIN

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#೪೯, ಪರಿಸರ ಭವನ, ಚರ್ಚ್ ಸ್ಟ್ರೀಟ್, ಬೆಂಗಳೂರು-ಕೆ೦ ೦೦೧

Karnataka State Pollution Control Board

No.49, Parisara Bhavan, Church Street, Bengaluru-560 001.

Website: http://kspcb.karnataka.gov.in

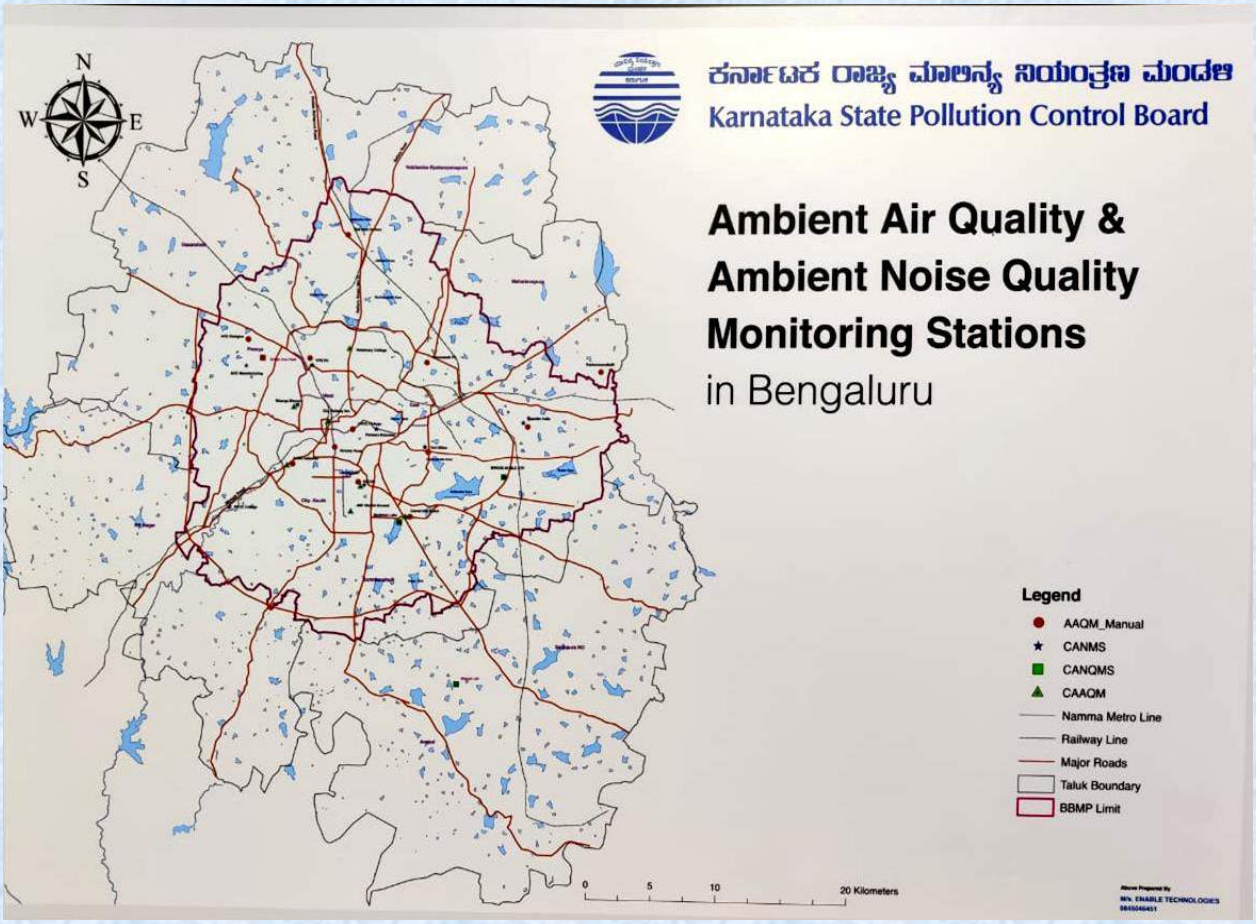
I N D E X

Introduction: Ambient Air Quality of Bengaluru CAAQM Stations

Bengaluru is known for its cool and pleasant climate, because of its high elevation of around 800-900 meters above sea level. The annual average temperate ranges from 23 to 26 throughout the year. However, in view of rapid urbanization, Industrialisation and increase of vehicles, the air quality is getting disturbed compared to past years. Hence, in order to determine the pollutants, its nature, quality and quantity in the Ambient Air and source of emission generated, the KSPCB has installed 7 CAAQM (Continuous Ambient Air quality monitoring Stations) in Bengaluru and the monitoring is done on 24 hours basis for PM_{10}, $PM_{2.5}$, SO_2, NO_2, Ammonia, O3, CO and Benzene and the compiled statistical Data is sent to CPCB, New Delhi electronically and also the data is published in the Board Web Site.

Site map of CAAQM stations operated by KSPCB in Bengaluru

CAAQM Stations: Hebbal, Jayanagar, KAVIKA, NIMHANS, Silkboard, Nisarga Bhavan (Basaveshwaranagar), City Railway Station(CRS)



Parameter-wise data tables of CAAQM Stations

I) Hebbal

Continuous Ambient Air Quality Monitoring Station of Hebbal, Monthly Report on Ambient Air Quality, July-2021															
Date	CO mg/m^3	O_3 µg/m3	NO_2 µg/m3	NH_3 µg/m3	SO_2 µg/m3	$PM_{2.5}$ µg/m3	PM_{10} µg/m3	Benzene µg/m3	AT ˚C	RH %	WS m/s	WD deg.	BP mmHg	AQI	Prominent Pollutant
1.7.2021	0.38	24.1	1.4	6.5	5.6	13.0	38.0	0.1	26.7	72	0.8	186	705	38	PM_{10}
2.7.2021	0.33	24.0	1.3	5.9	5.5	4.0	21.0	0.1	25.3	68	1.1	209	706	24	O_3
3.7.2021	0.34	25.2	1.4	5.3	6.1	7.0	29.0	0.1	25.2	66	0.8	192	707	29	PM_{10}
4.7.2021	0.29	24.9	1.3	4.9	6.2	5.0	19.0	0.0	24.3	72	0.9	188	707	25	O_3
5.7.2021	0.32	24.1	1.3	4.7	6.4	9.0	22.0	0.0	23.8	76	0.8	159	706	24	O_3
6.7.2021	0.43	25.3	1.4	5.2	6.9	19.0	41.0	0.1	24.6	74	0.6	143	705	41	PM_{10}
7.7.2021	0.46	25.1	1.3	6.1	3.8	18.0	35.0	0.1	24.2	75	0.6	150	705	35	PM_{10}
8.7.2021	0.39	24.2	1.3	7.7	6.1	13.0	33.0	0.1	24.5	73	0.8	191	705	33	PM_{10}
9.7.2021	0.38	23.6	1.3	5.1	6.2	13.0	32.0	0.0	22.8	75	1.0	204	704	32	PM_{10}
10.7.2021	0.34	23.7	1.4	5.1	6.0	17.0	29.0	0.0	23.9	78	1.1	209	703	29	PM_{10}
11.7.2021	0.32	25.2	1.3	4.9	6.8	20.0	36.0	0.0	22.1	75	1.4	220	703	36	PM_{10}
12.7.2021	0.32	25.3	1.3	4.6	6.5	19.0	44.0	0.1	22.6	73	1.4	217	703	44	PM_{10}
13.7.2021	0.38	22.0	1.3	4.1	6.9	13.0	31.0	0.1	21.6	80	1.1	213	704	31	PM_{10}
14.7.2021	0.55	19.3	1.3	6.3	7.1	5.0	19.0	0.1	21.3	86	0.9	196	704	28	CO
15.7.2021	0.54	19.3	1.2	4.5	6.7	5.0	13.0	0.1	21.3	85	0.9	197	704	27	CO
16.7.2021	0.41	19.5	1.3	5.0	7.0	6.0	17.0	0.1	22.3	82	0.9	196	706	21	CO
17.7.2021	0.48	19.5	1.4	5.7	6.4	7.0	20.0	0.1	22.7	80	0.9	200	706	24	CO
18.7.2021	0.42	19.9	1.3	4.2	6.6	11.0	21.0	0.1	21.2	85	1.0	212	705	21	PM_{10}
19.7.2021	0.5	20.4	1.2	4.3	6.5	11.0	27.0	0.1	22.3	81	1.1	209	706	27	PM_{10}
20.7.2021	0.48	20.6	1.2	4.3	6.4	14.0	39.0	0.1	22.4	78	1.3	217	708	39	PM_{10}
21.7.2021	0.39	19.4	1.1	4.2	6.6	14.0	36.0	0.0	21.5	81	1.2	216	707	36	PM_{10}
22.7.2021	0.43	19.6	1.3	4.3	7.2	13.0	30.0	0.0	20.7	85	1.4	224	704	30	PM_{10}
23.7.2021	0.42	21.0	1.2	4.1	7.3	12.0	33.0	0.1	21.3	83	1.2	212	703	33	PM_{10}
24.7.2021	0.49	19.5	1.3	4.1	7.2	13.0	35.0	0.0	22.1	82	1.0	203	705	35	PM_{10}
25.7.2021	0.45	19.7	1.3	4.0	7.4	12.0	31.0	0.0	22.7	82	1.0	199	706	31	PM_{10}
26.7.2021	0.45	19.9	1.2	4.1	7.5	12.0	30.0	0.0	23.1	78	1.1	209	707	30	PM_{10}
27.7.2021	0.46	20.6	1.2	4.2	7.4	13.0	35.0	0.0	22.9	74	1.3	216	706	35	PM_{10}
28.7.2021	0.46	21.2	1.3	4.4	7.8	12.0	33.0	0.1	23.2	73	1.3	214	707	33	PM_{10}
29.7.2021	0.46	21.1	1.3	4.1	7.5	15.0	43.0	0.1	22.6	74	1.3	214	708	43	PM_{10}
30.7.2021	0.44	21.2	1.3	4.0	7.9	13.0	37.0	0.1	22.7	74	1.3	216	708	37	PM_{10}
31.7.2021	0.37	20.9	1.3	4.0	7.4	13.0	36.0	0.1	23.0	73	1.2	214	709	36	PM_{10}
Average	**0.42**	**21.9**	**1.3**	**4.8**	**6.7**	**12.0**	**31.0**	**0.1**	**22.9**	**77**	**1.1**	**201**	**706**	*	*
Minimum	**0.29**	**19.3**	**1.1**	**4.0**	**3.8**	**4.0**	**13.0**	**0.0**	**20.7**	**66**	**0.6**	**143**	**703**	*	*
Maximum	**0.55**	**25.3**	**1.4**	**7.7**	**7.9**	**20.0**	**44.0**	**0.1**	**26.7**	**86**	**1.4**	**224**	**709**	*	*

II) Jayanagar

Continuous Ambient Air Quality Monitoring Station of Jayanagar, Monthly Report on Ambient Air Quality, July-2021															
Date	CO mg/m^3	O_3 µg/m3	NO_2 µg/m3	NH_3 µg/m3	SO_2 µg/m3	$PM_{2.5}$ µg/m3	PM_{10} µg/m3	Benzene µg/m3	AT ˚C	RH %	WS m/s	WD deg.	BP mmHg	AQI	Prominent Pollutant
1.7.2021	0.46	42.9	14.9	7.9	7.2	17.0	39.0	0.09	26.7	69	1.3	220	705	43	O_3
2.7.2021	0.39	38.1	18.6	10	6.4	8.0	25.0	0.06	27.1	63	1.6	221	706	38	O_3
3.7.2021	0.4	42.4	20.8	11.1	7.2	13.0	44.0	0.07	26.5	64	1.3	220	706	44	PM_{10}
4.7.2021	0.38	40.2	23.1	11.1	4.8	8.0	25.0	0.05	26.0	71	1.2	225	707	40	O_3
5.7.2021	0.70	32.3	31.1	12.2	6.5	11.0	28.0	0.17	26.0	72	1.0	214	706	39	NO_2
6.7.2021	0.82	37.1	34.0	12.7	5.6	17.0	56.0	0.2	26.1	74	0.9	214	705	56	PM_{10}
7.7.2021	0.65	38.4	29.7	12	6.3	13.0	37.0	0.11	26.2	73	1.0	221	705	38	O_3
8.7.2021	0.6	34.9	28.6	11.9	5.2	14.0	38.0	0.12	26.3	71	1.1	235	705	38	PM_{10}
9.7.2021	0.43	32.8	24.4	11.2	5.0	16.0	25.0	0.07	25.7	75	1.4	224	704	33	O_3
10.7.2021	0.39	31.7	23.4	11.1	6.8	13.0	21.0	0.05	24.7	79	1.6	222	704	32	O_3
11.7.2021	0.34	38.5	22.2	10.9	6.3	17.0	30.0	0.05	24.7	75	1.9	222	703	39	O_3
12.7.2021	0.41	38.2	23.7	11.2	5.7	20.0	39.0	0.07	24.8	75	1.8	220	703	39	PM_{10}
13.7.2021	0.37	23.9	22.8	9.7	6.5	13.0	31.0	0.07	24.6	80	1.5	224	703	31	PM_{10}
14.7.2021	0.37	14.4	26.0	11.5	5.8	7.0	16.0	0.08	24.0	86	1.2	217	704	33	NO_2
15.7.2021	0.32	21.6	24.3	11.2	7.7	8.0	16.0	0.07	23.9	85	1.4	215	704	30	NO_2
16.7.2021	0.35	23.2	27.0	11.6	5.9	11.0	20.0	0.08	24.6	81	1.3	220	704	34	NO_2
17.7.2021	0.39	23.7	26.3	11.5	4.0	13.0	28.0	0.08	24.8	81	1.2	230	706	33	NO_2
18.7.2021	0.31	23.7	23.6	11.1	7.3	8.0	14.0	0.06	23.9	86	1.4	225	706	30	NO_2
19.7.2021	0.34	24.8	27.0	11.6	8.0	11.0	24.0	0.08	24.6	80	1.4	227	705	34	NO_2
20.7.2021	0.36	26.1	24.4	11.3	6.0	14.0	35.0	0.06	24.9	75	1.8	229	706	35	PM_{10}
21.7.2021	0.38	22.1	23.6	11.1	3.5	14.0	30.0	0.07	24.1	82	1.6	222	707	30	PM_{10}
22.7.2021	0.38	23.9	24.1	11.2	4.7	11.0	24.0	0.05	23.8	84	1.7	227	707	30	NO_2
23.7.2021	0.37	24.1	22.3	11.1	4.0	15.0	26.0	0.07	23.8	84	1.6	218	704	28	NO_2
24.7.2021	0.46	21.6	23.4	11.7	4.7	13.0	29.0	0.06	24.6	82	1.5	222	703	29	NO_2
25.7.2021	0.35	24.8	20.8	11.3	7.6	13.0	24.0	0.05	25.0	80	1.5	218	705	26	NO_2
26.7.2021	0.39	23.9	25.3	11.9	6.1	12.0	27.0	0.07	25.2	75	1.6	227	706	32	NO_2
27.7.2021	0.63	25.4	23.6	11.7	6.3	14.0	32.0	0.07	25.1	73	1.7	227	707	32	PM_{10}
28.7.2021	0.24	28.4	22.9	11.6	4.9	15.0	33.0	0.07	25.2	71	1.8	223	706	33	PM_{10}
29.7.2021	0.27	29.1	24.4	11.8	5.0	22.0	44.0	0.08	24.9	72	1.8	224	707	44	PM_{10}
30.7.2021	0.46	29.5	26.9	12.2	5.5	21.0	42.0	0.08	24.9	73	1.7	228	707	42	PM_{10}
31.7.2021	0.52	28.8	25.1	11.9	5.3	19.0	39.0	0.08	25.0	74	1.6	228	708	39	PM_{10}
Average	**0.43**	**29.4**	**24.5**	**11.3**	**5.9**	**13.0**	**30.0**	**0.08**	**25.1**	**76**	**1.5**	**223**	**705**	*	*
Maximum	**0.82**	**42.9**	**34.0**	**12.7**	**8.0**	**22.0**	**56.0**	**0.20**	**27.1**	**86**	**1.9**	**235**	**708**	*	*
Minimum	**0.24**	**14.4**	**14.9**	**7.9**	**3.5**	**7.0**	**14.0**	**0.05**	**23.8**	**63**	**0.9**	**214**	**703**	*	*

III) KAVIKA

Continuous Ambient Air Quality Monitoring Station of KAVIKA, Monthly Report of Ambient Air Quality, July-2021																
Date	CO mg/m³	Ozone µg/m³	NO2 µg/m³	NH3 µg/m³	SO2 µg/m³	PM2.5 µg/m³	PM10 µg/m³	BEN µg/m³	Et-BEN µg/m³	AT °C	RH %	WS m/s	WD deg.	BP mmHg	AQI	Prominent Pollutant
01-07-2021	0.46	20.0	13.5	29.1	7.3	30	48	0.09	1.15	26.3	71	1.4	104	707	50	PM2.5
02-07-2021	0.39	15.7	12.4	26.8	3.1	15	30	0.09	0.74	25.8	69	1.7	87	708	30	PM10
03-07-2021	0.49	21.2	12.0	23.8	6.3	15	39	0.07	0.70	25.9	65	1.4	92	709	39	PM10
04-07-2021	0.51	22.7	10.3	23.8	5.9	9	29	0.07	0.72	25.0	73	1.4	101	709	29	PM10
05-07-2021	0.41	16.9	17.7	32.6	5.5	19	50	0.14	2.06	25.1	74	1.3	107	708	50	PM10
06-07-2021	0.48	22.6	19.4	32.9	5.9	30	56	0.13	2.46	25.6	75	0.9	122	707	56	PM10
07-07-2021	0.47	20.1	20.9	31.1	3.5	27	51	0.09	1.82	25.4	75	1.0	110	707	51	PM10
08-07-2021	0.42	17.8	16.5	30.7	5.7	36	58	0.10	1.86	25.3	75	1.2	97	708	60	PM2.5
09-07-2021	0.38	15.3	14.0	28.6	9.6	52	86	0.08	1.17	24.6	76	1.7	87	706	87	PM2.5
10-07-2021	0.36	14.0	12.0	23.6	10.4	30	44	0.08	0.72	22.9	82	2.0	82	706	50	PM2.5
11-07-2021	*	*	9.8	18.9	9.5	20	30	0.04	0.39	22.8	78	2.2	83	706	33	PM2.5
12-07-2021	0.46	*	13.5	22.7	7.5	29	46	0.06	0.55	23.0	77	2.2	84	706	48	PM2.5
13-07-2021	0.61	12.5	13.1	25.6	5.6	37	53	0.15	0.55	22.1	85	1.8	85	706	62	PM2.5
14-07-2021	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15-07-2021	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16-07-2021	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17-07-2021	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18-07-2021	0.44	16.2	13.3	23.1	6.0	16	21	0.06	0.79	22.9	*	*	*	*	27	PM2.5
19-07-2021	0.41	15.9	13.7	25.7	6.7	20	35	0.07	0.86	22.8	*	*	*	*	35	PM10
20-07-2021	0.42	16.4	13.9	25.0	9.8	28	49	0.07	0.76	23.3	*	*	*	*	49	PM10
21-07-2021	0.40	15.2	16.1	25.0	17.6	17	30	0.09	0.71	22.7	77	1.2	281	716	30	PM10
22-07-2021	0.52	13.6	13.7	24.4	10.9	19	31	0.06	0.56	21.5	83	1.4	222	713	32	PM2.5
23-07-2021	0.52	13.1	15.1	24.7	8.8	21	37	0.05	0.50	21.5	85	2.0	119	713	37	PM2.5
24-07-2021	0.43	8.3	15.6	27.9	8.5	25	43	0.07	0.88	22.6	86	1.8	162	714	43	PM10
25-07-2021	0.50	12.1	10.8	22.1	6.6	22	33	0.08	0.44	23.4	86	1.8	136	715	37	PM2.5
26-07-2021	0.49	11.5	15.0	24.6	7.4	25	38	0.06	0.68	23.7	82	1.9	193	716	42	PM2.5
27-07-2021	0.53	13.7	13.1	22.2	8.0	26	42	0.07	0.55	23.6	81	2.1	252	715	43	PM2.5
28-07-2021	0.54	14.3	13.9	23.5	9.2	31	46	0.05	0.57	23.8	82	2.2	256	716	52	PM2.5
29-07-2021	0.57	16.0	14.2	22.7	9.5	28	51	0.07	0.66	23.3	81	2.2	258	716	51	PM10
30-07-2021	0.56	15.5	14.2	24.0	7.0	28	46	0.05	0.71	23.4	81	2.3	262	717	47	PM2.5
31-07-2021	0.54	14.6	15.5	27.1	7.3	56	78	0.07	1.12	23.6	84	2.0	258	717	93	PM2.5
Average	**0.47**	**15.8**	**14.2**	**25.6**	**7.7**	**26**	**44**	**0.08**	**0.91**	**23.8**	**79**	**1.7**	**152**	**711**		
Maximum	0.61	22.7	20.9	32.9	17.6	56	86	0.15	2.46	26.3	86	2.3	281	717		
Minimum	0.36	8.3	9.8	18.9	3.1	9	21	0.04	0.39	21.5	65	0.9	82	706		

IV) NIMHANS

Continuous Ambient Air Quality Monitoring Station of NIMHANS, Monthly Report on Ambient Air Quality, July-2021															
Date	CO mg/m³	Ozone µg/m³	NO2 µg/m³	NH3 µg/m³	SO2 µg/m³	PM2.5 µg/m³	PM10 µg/m³	BEN µg/m³	AT °C	RH %	WS m/s	WD deg.	BP mmHg	AQI	Prominent Pollutant
01-07-2021	0.27	21.0	13.2	4.8	6.1	20	49	0.78	26.2	67	1.9	252	705	49	PM10
02-07-2021	0.24	17.2	11.4	4.3	5.8	13	33	0.88	25.9	66	2.4	283	705	33	PM10
03-07-2021	0.27	21.1	11.3	4.3	5.7	17	42	0.86	25.8	65	1.9	278	706	42	PM10
04-07-2021	0.27	21.1	7.9	4.2	6.3	10	25	0.68	24.8	65	2.0	219	706	25	PM10
05-07-2021	0.23	16.2	17.2	4.4	5.7	12	29	0.53	24.6	67	0.7	171	705	29	PM10
06-07-2021	0.27	21.3	16.3	6.2	5.5	9	23	0.67	24.8	70	0.3	217	704	23	PM10
07-07-2021	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08-07-2021	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09-07-2021	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10-07-2021	0.22	14.1	14.4	3.2	5.1	7	14	0.91	22.6	79	0.3	293	704	18	PM10
11-07-2021	0.38	18.0	10.5	2.2	7.8	14	27	0.86	22.7	75	0.3	278	703	27	PM10
12-07-2021	0.38	18.3	11.5	2.1	9.5	19	38	0.86	22.9	71	0.3	275	703	38	PM10
13-07-2021	0.22	13.1	11.3	1.7	9.5	10	21	0.88	22.3	82	0.3	281	704	21	PM10
14-07-2021	0.30	8.2	15.5	3.2	7.4	12	21	0.87	21.7	82	0.3	281	704	21	PM10
15-07-2021	0.69	14.3	11.5	8.4	6.9	13	19	0.89	21.7	80	1.4	287	704	22	PM2.5
16-07-2021	0.64	15.7	12.9	7.9	7.1	15	24	0.83	22.9	76	1.1	268	705	25	PM2.5
17-07-2021	0.64	16.0	12.9	7.9	6.1	19	31	0.77	23.0	76	0.3	248	706	32	PM2.5
18-07-2021	0.47	14.4	15.2	7.0	6.9	12	18	0.88	21.6	77	0.3	283	705	20	PM2.5
19-07-2021	0.45	17.5	11.4	8.4	6.2	16	24	0.84	22.7	74	0.3	273	705	27	PM2.5
20-07-2021	0.36	17.5	11.5	10.0	7.2	21	38	0.86	23.2	76	0.5	279	707	38	PM10
21-07-2021	0.33	12.8	12.4	9.9	7.3	17	30	0.83	21.9	81	1.6	269	706	30	PM10
22-07-2021	0.31	14.4	11.8	9.3	7.2	16	28	0.85	21.3	89	2.0	274	703	28	PM10
23-07-2021	0.36	15.0	11.6	9.3	7.8	17	28	0.82	21.5	83	1.9	264	703	28	PM10,PM2.5
24-07-2021	0.40	11.6	13.3	9.3	6.7	18	32	0.83	22.6	74	1.9	267	704	32	PM10
25-07-2021	0.31	14.2	9.4	9.4	6.5	16	27	0.82	23.4	70	1.9	264	705	27	PM10,PM2.5
26-07-2021	0.31	14.4	12.1	9.5	7.6	17	30	0.84	23.7	69	1.9	271	706	30	PM10
27-07-2021	0.27	15.4	12.7	9.4	7.5	22	44	0.85	23.5	70	2.0	275	706	44	PM10
28-07-2021	0.28	17.8	11.9	9.3	7.3	20	39	0.85	23.7	66	2.0	274	706	39	PM10
29-07-2021	0.30	17.6	15.5	9.3	6.9	25	52	0.85	23.3	64	2.0	273	707	52	PM10
30-07-2021	0.32	18.0	14.2	9.2	7.7	22	42	0.86	23.3	62	2.0	277	707	42	PM10
31-07-2021	0.30	17.3	12.8	9.2	7.1	21	39	0.86	23.5	54	2.0	276	708	39	PM10
Average	**0.35**	**16.2**	**12.6**	**6.9**	**6.9**	**16**	**31**	**0.83**	**23.2**	**73**	**1.3**	**266**	**705**		
Maximum	0.69	21.3	17.2	10.0	9.5	25	52	0.91	26.2	89	2.4	293	708		
Minimum	0.22	8.2	7.9	1.7	5.1	7	14	0.53	21.3	54	0.3	171	703		

* Data not available

V) Silk board

Continuous Ambient Air Quality Monitoring Station of Silkboard, Monthly Report on Ambient Air Quality, July-2021															
Date	CO mg/m³	Ozone µg/m³	NO2 µg/m³	NH3 µg/m³	SO2 µg/m³	PM2.5 µg/m³	PM10 µg/m³	BEN µg/m³	AT °C	RH %	WS m/s	WD deg.	BP mmHg	AQI	Prominent Pollutant
01-07-2021	0.32	33.7	41.8	10.3	2.6	15	57	0.50	25.3	68	1.7	224	707	57	PM10
02-07-2021	0.39	37.9	42.5	10.1	2.6	11	51	0.51	26.1	66	2.0	233	708	53	NO2
03-07-2021	0.36	37.6	40.2	10.1	2.7	14	53	0.50	25.9	63	1.7	227	709	53	PM10
04-07-2021	0.29	44.0	38.6	10.0	2.9	9	31	0.52	25.0	71	1.6	235	709	48	NO2
05-07-2021	0.65	32.0	49.0	10.4	2.9	11	42	0.50	24.9	73	1.3	226	708	61	NO2
06-07-2021	0.56	37.7	51.1	10.6	2.7	21	64	0.46	25.4	72	1.1	209	707	64	NO2
07-07-2021	0.37	36.8	45.5	10.5	2.8	16	55	0.48	25.2	74	1.3	216	707	57	NO2
08-07-2021	0.50	29.1	48.6	10.5	2.9	16	60	0.53	25.6	72	1.6	238	707	61	NO2
09-07-2021	0.43	38.0	45.9	10.5	2.8	12	48	0.52	24.6	76	1.7	236	706	57	NO2
10-07-2021	0.43	38.5	44.0	10.4	2.5	9	43	0.53	23.1	79	2.1	241	705	55	NO2
11-07-2021	0.42	42.0	41.2	10.2	2.7	9	47	0.54	22.8	75	2.5	243	705	52	NO2
12-07-2021	0.41	39.6	43.8	10.4	2.7	13	56	0.54	23.0	75	2.3	242	705	56	PM10
13-07-2021	0.66	28.6	44.6	10.6	4.9	12	52	0.54	22.4	81	2.0	244	706	56	NO2
14-07-2021	0.50	31.8	44.8	10.8	8.6	11	31	0.53	21.8	87	1.6	238	706	56	NO2
15-07-2021	0.36	28.3	18.0	18.2	8.4	8	25	0.51	21.6	86	1.7	230	706	25	PM10
16-07-2021	0.55	36.0	23.5	21.2	8.6	11	45	0.53	23.1	79	1.6	239	708	45	PM10
17-07-2021	0.65	27.9	21.6	19.0	8.1	15	66	0.56	23.3	79	1.5	254	708	66	PM10
18-07-2021	0.40	30.3	18.0	10.4	5.8	6	27	0.53	21.6	87	1.8	241	708	27	PM10
19-07-2021	0.75	33.7	16.2	12.9	5.7	13	54	0.54	23.0	81	1.9	244	708	54	PM10
20-07-2021	0.52	34.9	14.2	12.4	5.6	13	139	0.55	23.6	75	2.5	250	709	126	PM10
21-07-2021	0.64	32.8	13.9	11.6	5.6	11	76	0.54	22.1	80	2.2	244	709	76	PM10
22-07-2021	0.71	29.1	17.2	12.4	5.5	12	49	0.56	21.4	82	2.5	255	706	49	PM10
23-07-2021	0.38	27.4	25.0	11.3	5.8	11	72	0.53	21.7	82	2.3	238	706	72	PM10
24-07-2021	0.67	33.5	23.5	14.6	5.7	15	90	0.54	23.0	79	1.9	242	707	90	PM10
25-07-2021	0.31	35.5	41.8	9.3	6.7	10	65	0.52	23.6	78	2.0	236	708	65	PM10
26-07-2021	0.61	35.0	33.3	12.9	8.5	14	105	0.55	24.0	73	2.2	248	709	103	PM10
27-07-2021	0.62	37.0	12.9	13.1	8.7	15	116	0.54	23.8	70	2.3	244	708	111	PM10
28-07-2021	0.50	37.2	13.2	12.6	7.8	15	110	0.53	24.0	69	2.3	242	709	107	PM10
29-07-2021	0.53	38.8	21.2	14.9	4.4	15	120	0.54	23.5	69	2.5	245	709	113	PM10
30-07-2021	0.61	34.3	28.3	16.2	4.5	16	119	0.55	23.6	70	2.4	248	710	113	PM10
31-07-2021	0.71	39.6	33.9	15.5	4.3	16	112	0.55	23.6	71	2.2	246	710	108	PM10
Average	**0.51**	**34.8**	**32.2**	**12.4**	**5.0**	**13**	**67**	**0.53**	**23.6**	**76**	**1.9**	**239**	**708**		
Maximum	0.75	44.0	51.1	21.2	8.7	21	139	0.56	26.1	87	2.5	255	710		
Minimum	0.29	27.4	12.9	9.3	2.5	6	25	0.46	21.4	63	1.1	209	705		

VI) Nisarga Bhavan

Continuous Ambient Air Quality Monitoring Station, Nisarga Bhavan, Saneguruvanahalli, Monthly Report on Ambient Air Quality July-2021										
Date	NO2 ug/m3	SO2 ug/m3	CO mg/m3	PM10 ug/m3	TEMP degreC	HR %	WS m/s	WD degree	SR W/m2	AQI	Prominent Pollutant
01-07-2021	10.37	4.47	0.47	37.27	24.93	38.17	0.52	246.26	225.56	37	PM_{10}
02-07-2021	10.46	3.84	0.55	45.76	25.26	38.17	0.64	264.31	259.40	46	PM_{10}
03-07-2021	10.38	6.17	0.48	47.50	25.25	38.18	0.68	264.73	245.35	48	PM_{10}
04-07-2021	10.47	6.64	0.42	50.87	23.97	49.66	0.63	243.77	289.02	51	PM_{10}
05-07-2021	10.70	5.38	0.46	47.51	23.89	38.18	0.68	259.50	227.86	48	PM_{10}
06-07-2021	10.18	5.49	0.47	47.43	25.04	38.18	0.73	276.01	232.20	47	PM_{10}
07-07-2021	10.52	8.46	0.47	50.36	23.80	49.65	0.60	230.93	278.18	50	PM_{10}
08-07-2021	13.30	5.73	0.50	43.97	28.82	71.00	1.57	219.30	325.33	44	PM_{10}
09-07-2021	10.60	8.52	0.46	51.14	23.84	50.93	0.60	232.96	283.58	50	PM_{10}
10-07-2021	10.43	7.23	0.45	54.83	24.79	40.73	0.70	250.28	162.50	55	PM_{10}
11-07-2021	10.41	3.20	0.48	50.72	22.23	38.17	0.85	244.94	204.69	51	PM_{10}
12-07-2021	10.29	6.53	0.44	50.15	22.31	38.16	0.84	246.24	211.90	50	PM_{10}
13-07-2021	10.18	5.96	0.45	49.29	21.60	38.16	0.88	243.13	187.24	49	PM_{10}
14-07-2021	10.13	12.95	0.55	37.79	21.05	38.17	0.87	247.70	183.01	38	PM_{10}
15-07-2021	10.04	9.43	0.48	33.31	21.37	38.17	0.80	239.71	192.17	33	PM_{10}
16-07-2021	12.46	6.56	0.64	43.84	27.63	54.45	0.58	265.82	434.88	44	PM_{10}
17-07-2021	15.21	5.11	0.55	53.79	28.79	51.96	0.58	272.05	328.33	54	PM_{10}
18-07-2021	12.39	7.25	0.43	51.65	28.73	51.92	0.64	275.18	434.98	52	PM_{10}
19-07-2021	6.90	4.00	0.46	45.20	20.45	36.86	0.85	240.76	226.60	45	PM_{10}
20-07-2021	13.23	6.88	0.54	49.72	28.04	50.60	0.62	267.27	296.63	50	PM_{10}
21-07-2021	12.51	5.76	0.47	47.72	28.96	49.31	0.58	271.24	505.29	48	PM_{10}
22-07-2021	10.18	5.48	0.44	47.77	18.83	34.98	0.83	243.35	166.11	48	PM_{10}
23-07-2021	4.61	5.32	0.47	40.82	19.33	33.18	0.83	237.68	190.11	41	PM_{10}
24-07-2021	10.52	4.57	0.50	43.53	24.54	38.18	0.64	262.28	283.02	44	PM_{10}
25-07-2021	10.42	4.20	0.51	47.47	24.28	38.18	0.66	261.14	261.23	47	PM_{10}
26-07-2021	9.64	4.75	0.52	51.76	21.34	35.03	0.99	227.87	256.35	52	PM_{10}
27-07-2021	11.52	4.97	0.49	51.34	21.25	34.94	0.98	227.88	253.45	51	PM_{10}
28-07-2021	15.98	4.88	0.46	41.61	21.33	34.86	0.77	271.07	245.89	42	PM_{10}
29-07-2021	11.81	4.88	0.47	50.19	20.93	34.53	0.76	274.11	239.38	50	PM_{10}
30-07-2021	15.40	4.91	0.46	48.49	21.17	34.63	0.79	273.78	249.67	48	PM_{10}
31-07-2021	9.94	5.29	0.47	46.96	22.48	34.90	0.85	233.24	240.92	47	PM_{10}
Min	**4.6**	**3.2**	**0.4**	**33.3**	**18.8**	**33.2**	**0.5**	**219.3**	**162.5**		
Max	**16.0**	**12.9**	**0.6**	**54.8**	**29.0**	**71.0**	**1.6**	**276.0**	**505.3**		
Avg	**11.0**	**6.0**	**0.5**	**47.1**	**23.7**	**41.7**	**0.8**	**252.1**	**262.0**		

VII) City Railway Station.

Continuous Ambient Air Quality Monitoring Station, City Railway Station, Monthly Report on Ambient Air Quality, July-2021						
Date	NO2 ug/m3	CO mg/m3	PM10 ug/m3	SO2 ug/m3	AQI	Prominent Pollutant
01-07-2021	22.38	0.70	61.66	6.33	62	PM_{10}
02-07-2021	22.71	0.42	60.26	6.52	60	PM_{10}
03-07-2021	22.73	0.48	56.23	6.69	56	PM_{10}
04-07-2021	21.93	0.50	45.30	6.00	45	PM_{10}
05-07-2021	22.28	0.40	53.59	7.82	54	PM_{10}
06-07-2021	22.40	0.47	60.74	7.28	61	PM_{10}
07-07-2021	23.46	0.50	57.68	6.54	58	PM_{10}
08-07-2021	22.64	0.55	63.67	6.53	64	PM_{10}
09-07-2021	22.95	0.48	67.74	6.26	68	PM_{10}
10-07-2021	23.05	0.47	59.93	6.20	60	PM_{10}
11-07-2021	22.92	0.45	61.05	6.14	61	PM_{10}
12-07-2021	23.24	0.55	73.53	7.14	74	PM_{10}
13-07-2021	22.05	0.56	58.19	5.88	58	PM_{10}
14-07-2021	18.39	0.55	38.22	5.72	38	PM_{10}
15-07-2021	22.17	0.73	44.36	6.51	44	PM_{10}
16-07-2021	23.11	0.56	54.41	5.62	54	PM_{10}
17-07-2021	35.98	0.57	57.45	7.08	57	PM_{10}
18-07-2021	22.89	0.56	63.27	6.13	63	PM_{10}
19-07-2021	22.12	0.52	50.94	6.24	51	PM_{10}
20-07-2021	36.18	0.54	61.19	6.17	61	PM_{10}
21-07-2021	22.84	0.53	56.59	6.57	57	PM_{10}
22-07-2021	22.89	0.45	71.18	6.28	71	PM_{10}
23-07-2021	22.27	0.45	61.49	5.27	61	PM_{10}
24-07-2021	17.87	0.51	62.48	6.26	62	PM_{10}
25-07-2021	21.92	0.49	58.92	5.80	59	PM_{10}
26-07-2021	19.00	0.48	59.01	7.23	59	PM_{10}
27-07-2021	22.09	0.54	66.23	6.16	66	PM_{10}
28-07-2021	11.23	0.51	62.54	6.85	63	PM_{10}
29-07-2021	21.43	0.58	54.04	7.20	54	PM_{10}
30-07-2021	22.61	0.54	52.45	6.37	52	PM_{10}
31-07-2021	21.93	0.50	53.47	6.83	53	PM_{10}
Min	11.2	0.4	38.2	5.3		
Max	36.2	0.7	73.5	7.8		
Avg	22.6	0.5	58.3	6.4		

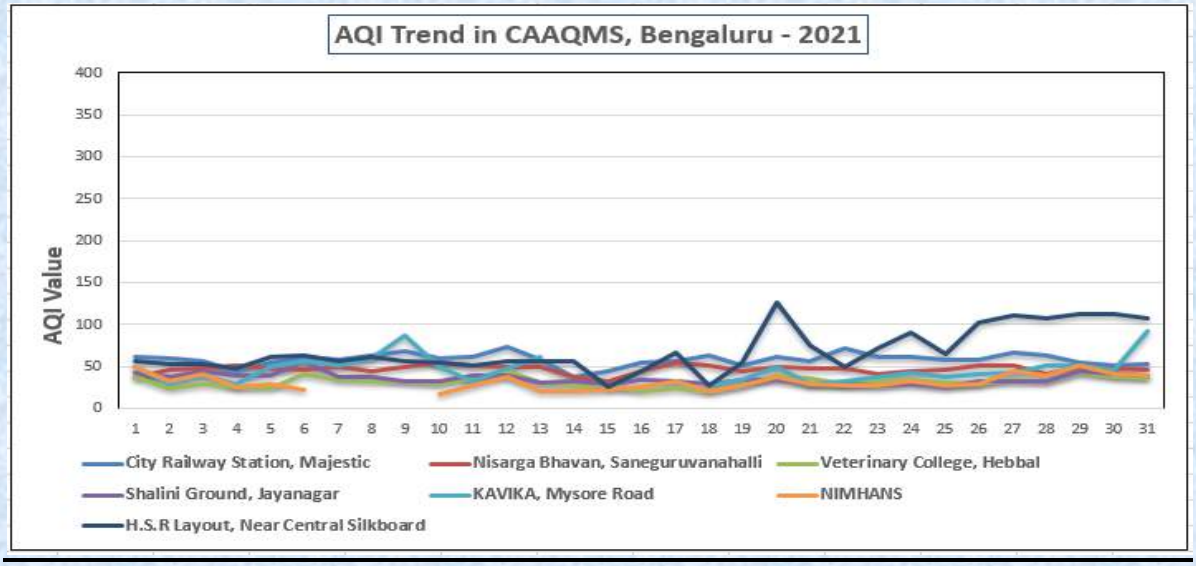
Range	Category	Possible Health Impacts
0-50	Good	Minimal Impact
51-100	Satisfactory	Minor breathing discomfort to sensitive people
101-200	Moderate	May cause breathing discomfort to the people with lung disease such as asthma and discomfort to people with heart disease Children and older adults
201-300	Poor	May cause breathing discomfort to people on prolonged exposure and discomfort to people with heart disease
301-400	Very Poor	May cause respiratory illness to the people on prolonged exposure. Effect may be more pronounced in people with lung and heart diseases
> 401	Severe	May cause respiratory effects even on healthy people and serious health effect on people with lung/heart diseases

Daily AQI values of CAAQM Stations in Bengaluru(July-2021)

Daily AQI Values of CAAQM Stations in Bengaluru (July-2021)							
Date/ Cities	City Railway Station, Majestic	Nisarga Bhavan, Saneguruvanahalli	Veterinary College, Hebbal	Shalini Ground, Jayanagar	KAVIKA, Mysore Road	NIMHANS	H.S.R Layout, Near Central Silkboard
01-07-2021	62	37	38	43	50	49	57
02-07-2021	60	46	24	38	30	33	53
03-07-2021	56	48	29	44	39	42	53
04-07-2021	45	51	25	40	29	25	48
05-07-2021	54	48	24	39	50	29	61
06-07-2021	61	47	41	56	56	23	64
07-07-2021	58	50	35	38	51	*	57
08-07-2021	64	44	33	38	60	*	61
09-07-2021	68	50	32	33	87	*	57
10-07-2021	60	55	29	32	50	18	55
11-07-2021	61	51	36	39	33	27	52
12-07-2021	74	50	44	39	48	38	56
13-07-2021	58	49	31	31	62	21	56
14-07-2021	38	38	28	33	*	21	56
15-07-2021	44	33	27	30	*	22	25
16-07-2021	54	44	21	34	*	25	45
17-07-2021	57	54	24	33	*	32	66
18-07-2021	63	52	21	30	27	20	27
19-07-2021	51	45	27	34	35	27	54
20-07-2021	61	50	39	35	49	38	126
21-07-2021	57	48	36	30	30	30	76
22-07-2021	71	48	30	30	32	28	49
23-07-2021	61	41	33	28	37	28	72
24-07-2021	62	44	35	29	43	32	90
25-07-2021	59	47	31	26	37	27	65
26-07-2021	59	52	30	32	42	30	103
27-07-2021	66	51	35	32	43	44	111
28-07-2021	63	42	33	33	52	39	107
29-07-2021	54	50	43	44	51	52	113
30-07-2021	52	48	37	42	47	42	113
31-07-2021	53	47	36	39	93	39	108
Min	**38**	**33**	**21**	**26**	**27**	**18**	**25**
Max	**74**	**55**	**44**	**56**	**93**	**52**	**126**
*** Data Not Available**							

Good	Satisfactory	Moderate	Poor	Very Poor	Severe		
(0-50)	(51-100)	(101-200)	(201-300)	(301-400)	(>401)		

AQI Trend Bengaluru, July 2021



Hebbal, Jayanagar, KAVIKA, NIMHANS, Silkboard, Nisarga Bhavan (Basaveshwaranagar), City Railway Station(CRS)

Good	Satisfactory	Moderate	Poor	Very Poor	Severe
(0–50)	(51–100)	(101–200)	(201–300)	(301–400)	(>401)

Data Analysis of Ambient Air Quality:

- Particulate Matter (PM_{10}): Recorded within permissible limit at Hebbal, Jayanagar, KAVIKA, NIMHANS, Nisarga Bhavan and City Railway Station as per NAAQS 2009 standards. However there is a slight increase in PM_{10} values was observed in last 6 days at Silkboard station and that maybe due to high vehicular movement at that particular period of time.

- Particulate Matter ($PM_{2.5}$): Recorded within permissible limit in all the five monitored station viz., Hebbal, Jayanagar, KAVIKA, NIMHANS & Silkboard as per NAAQS 2009 standards.

- Sulphur Dioxide(SO_2): Recorded within permissible limit in all stations across Bengaluru as per NAAQS 2009 standards.

- Nitrogen Dioxide(NO_2): Recorded within permissible limit in all stations across Bengaluru as per NAAQS 2009 standards.

- Ammonia(NH_3): Observed within permissible limit in all the five monitored stations viz., Hebbal, Jayanagar, KAVIKA, NIMHANS & Silk board as per NAAQS 2009 standards.

- Carbon Monoxide(CO): Observed 8-hourly concentration values within the permissible limit in all stations across Bengaluru as per NAAQS 2009 Standard.

- Ozone(O_3): Observed within permissible limit in all the five monitored stations viz., Hebbal, Jayanagar, KAVIKA, NIMHANS & Silk board as per NAAQS 2009 standards.

Concentration ranges of Ambient Air Quality Parameters of Bengaluru Stations

The concentration ranges for pollutants of CAAQM stations having 24 hourly standard limits are presented in below table based on detailed tabulated date.

Table-1 Range of 24-hourly Averages for Notified Parameters monitored in July 2021, Bengaluru														
Parameters	**Hebbal**		**Jayanagar**		**KAVIKA**		**NIMHANS**		**Silk board**		**Nisarga Bhavan**		**City Railway station**	
	MIN	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**
PM_{10}(µg/m^3)	13	44	14	56	21	86	14	52	25	139	33.31	54.83	38.22	73.53
$PM_{2.5}$(µg/m^3)	4	20	7.0	22.0	9	56	7	25	6	21	-	-	-	-
SO_2(µg/m^3)	3.8	7.9	3.5	8.0	3.1	17.6	5.1	9.5	2.5	8.7	3.20	12.95	5.3	7.82
NO_2(µg/m^3)	1.1	1.4	14.9	34.0	9.8	20.9	7.9	17.2	12.9	51.1	4.61	15.98	11.23	36.18
NH_3(µg/m^3)	4.0	7.7	7.9	12.7	18.9	32.9	1.7	10.0	9.3	21.2	-	-	-	-
Note: * Insufficient Data														
CO, Ozone and Benzene not included as there is no 24 hourly permissible limits in NAAQM														

Air Quality Index(AQI)

AQI of Bengaluru was found largely lying in Good &Satisfactory at all locations of Bengaluru. However, there was slight increase in PM_{10} values in the last six days monitored at Silk board and that may be due high vehicular movement in that particular period. Moderate rainfall during July-2021 has also attributed for improved air quality in Bengaluru city to some extent.

Table-2 AQI Values of CAAQM stations in Bengaluru for the month of July 2021								
AQI Categories	Range	Hebbal	Jayanagar	KAVIKA	NIMHANS	Silkboard	Nisarga Bhavan	City Railway station
Good	**(0-50)**	31	3	19	27	5	24	3
Satisfactory	**(51-100)**	-	1	8	1	5	7	28
Moderate	**(101-200)**	-	-	-	-	7	-	-
Poor	**201-300**	-	-	-	-	-	-	-
Very Poor	**301-400**	-	-	-	-	-	-	-
Severe	(> 401)	-	-	-	-	-	-	-

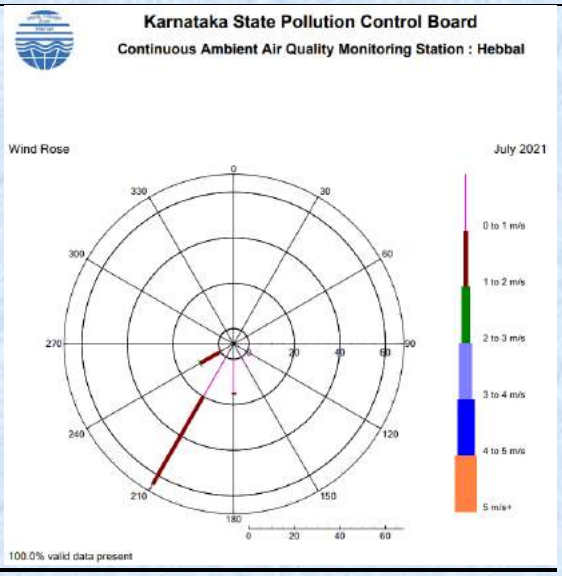
Meteorological Parameters

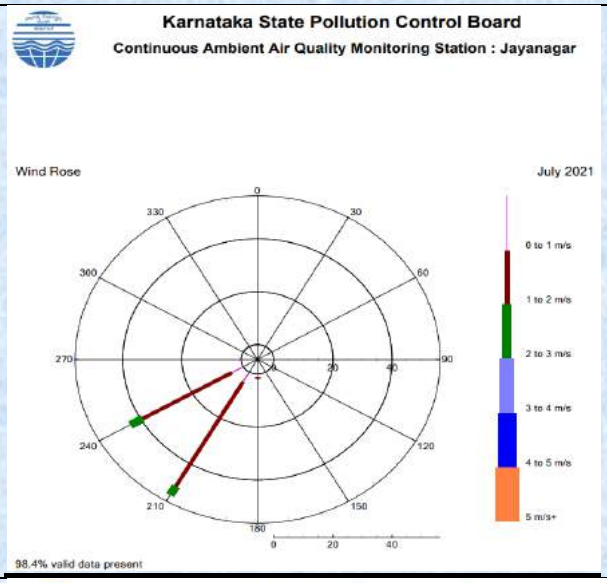
Daily average wind speed was observed in the range 0.3 m/s – 2.5 m/s. Monthly average temperature was 23.71˚C with minimum daily average as 18.8˚C and maximum as 29˚C recorded. Monthly average relative humidity was 70.45% with maximum daily average as 89 % and minimum as 33.2% recorded.

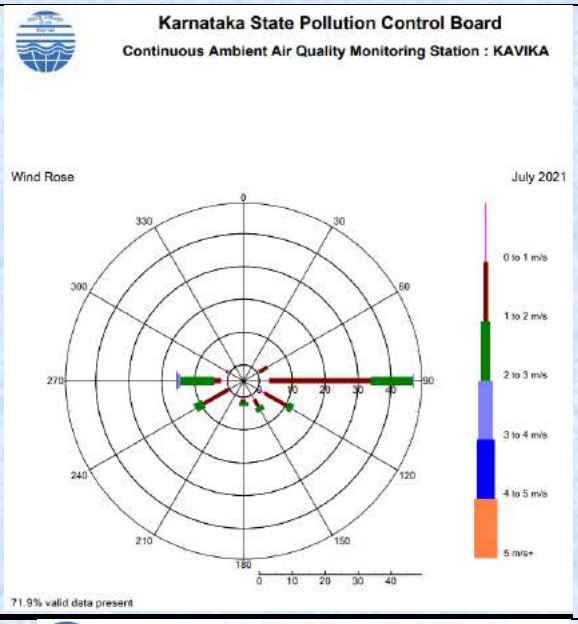
Table-4 Monthly Range and Average for Metrological Parameters in Bengaluru, July 2021			
Parameters(Unit)*	Average	Maximum	Minimum
Wind Speed(m/s)	1.33	2.5	0.3
Temperature(^{o}C)	23.71	29	18.8
Relative Humidity(%)	70.45	89	33.2

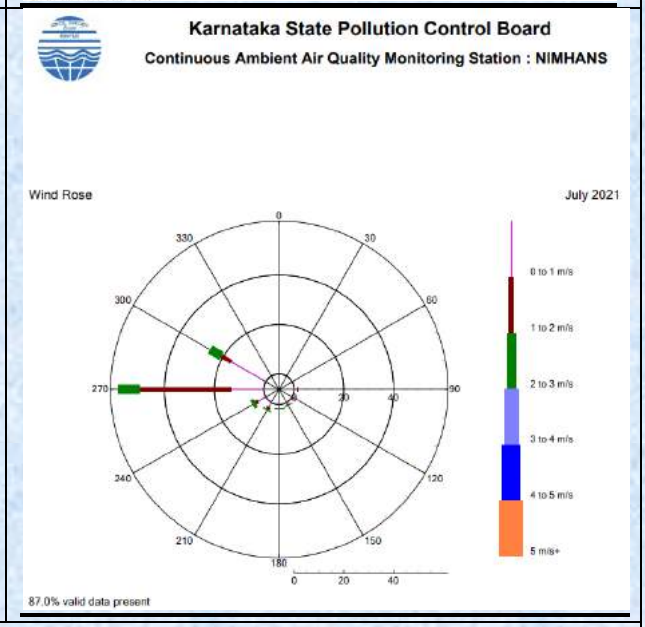
* Data of 6 Stations

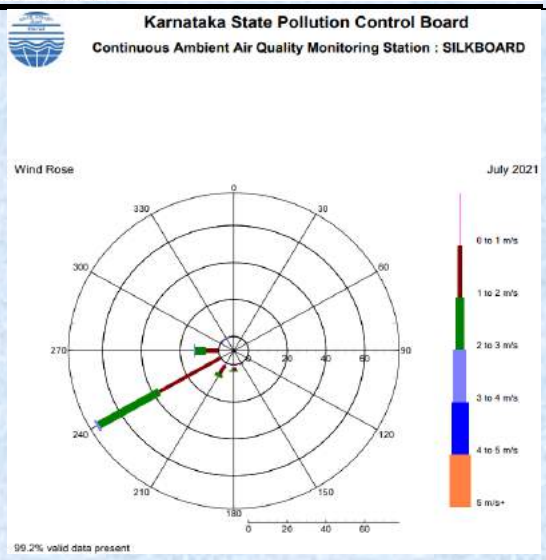
Windrose diagrams: The graphical charts that characterise the speed and direction of wind at the CAAQM Stations.











NATIONAL AMBIENT AIR QUALITY STANDARDS

Sl. No.	Pollutants	Time Weighted Average	Concentration in Ambient Air		Methods of Measurement
			Industrial, Residential Rural and other Areas	Ecologically Sensitive Area (Notified by Central Government)	
1	Sulphur Dioxide (SO_2) µg/m^3	Annual *	50	20	-Improved west and Gaeke Method – Ultraviolet Fluorescence
		24 Hours**	80	80	
2	Nitrogen Dioxide (NO_2) µg/m^3	Annual *	40	30	-Jacob & Hochheiser Modified (NaOH-NaAsO2) Method -Gas phase Chemiluminescence
		24 Hours**	80	80	
3	Particulate Mater (Size less than 10 µm) or PM10 µg/m^3	Annual *	60	60	-Gravimetric -TECOM -Beta attenuation
		24 Hours**	100	100	
4	Particulate Mater (Size less than 10 µm) or PM $_{2.5}$ µg/m^3	Annual *	40	40	-Gravimetric -TECOM -Beta attenuation
		24 Hours**	60	60	
5	Ozone (O_3) µg/m^3	8 Hours *	100	100	-UV Photometric -Chemical Method
		1 Hours**	180	180	
6	Lead (Pb) µg/m^3	Annual *	0.5	0.5	-AAs/ICP Method after sampling on EPM 2000 or equivalent filter paper -ED-XRF using Teflon filter
		24 Hours**	1	1	
7	Carbon Monoxide (CO) µg/m^3	8 Hours *	02	02	-Non dispersive Infrared (NDIR) -Spectroscopy
		1 Hours**	04	04	
8	Ammonia (NH_3) µg/m^3	Annual *	100	100	-Chemiluminescence -Indophenol Blue Method
		24 Hours**	400	400	
9	Benzene (C6H6) µg/m^3	Annual *	05	05	-Gas Chromatography (GC) based continuous analyzer -Adsorption and desorption followed by GC analysis
10	Benzo (a) Pyrene (BaP) µg/m^3	Annual *	01	01	-Solvent extraction followed by HPLC/GC analysis
11	Arsenic (As) µg/m^3	Annual *	06	06	-AAS/ICP Method after sampling on EPM 2000 or equivalent filter paper
12	Nickel (Ni) ng/m^3	Annual *	20	20	-AAS/ICP Method after sampling on EPM 2000 or equivalent filter paper

CAAQM STATIONS

Sl. No.	Stations	Types of activities around location (Residential/ Commercial/ Traffic/Industrial)	Parameters Monitored
1	Hebbal	Sensitive	SO_2, NO_2, PM_{10}, $PM_{2.5}$, NH_3, CO, O_3, Benzene& Meteorological parameters

2	Jayanagar	Commercial	SO_2, NO_2, PM_{10}, $PM_{2.5}$, NH_3, CO, O_3, Benzene& Meteorological parameters
3	KAVIKA	Commercial	SO_2, NO_2, PM_{10}, $PM_{2.5}$, NH_3, CO, O_3, Benzene& Meteorological parameters
4	NIMHANS	Sensitive	SO_2, NO_2, PM_{10}, $PM_{2.5}$, NH_3, CO, O_3, Benzene& Meteorological parameters
5	Silkboard	Residential cum Commercial	SO_2, NO_2, PM_{10}, $PM_{2.5}$, NH_3, CO, O_3, Benzene& Meteorological parameters
6	Nisarga Bhavan	Residential	SO_2, NO_2, PM_{10}, CO
7	City Railway Station	Commercial	SO_2, NO_2, PM_{10}, CO & Meteorological parameters

INFERENCE: The AQI of CAAQMS in Bengaluru was Good and Satisfactory.

Broad guidelines for Public

AQI is an initiative intended to enhance public awareness and involvement in efforts to improve air quality. People can contribute by maintaining vehicles properly (e.g. get PUC checks, replace car air filter, maintain right tyres pressure), following lane discipline & speed limits, avoiding prolong idling and turning off engines at red traffic signals. The following are some of the best practices that are to be followed to maintain/ improve the Air Quality.

1) Avoid using private vehicles, bikes and instead use public transports viz., Public Buses and Metro services.
2) Encourage carpool and use smaller vehicles (e.g. avoid SUVs).
3) Construction projects shall compulsorily put up enclosures and barriers around their project and carry out regular water sprinkling to suppress dust. Air purifier can also be installed to mitigate dust pollution.
4) Road dust management by using mechanized road sweeping and water sprinkling system, etc., The Civic Bodies shall regularly remove the silt and muck dumped on the roadside and pavements, besides levelling & Asphalting of Roads and filling up of potholes should be taken up on top priority.
5) Unnecessary parking of vehicles on roadside junctions and circles should be avoided of around 50 to 100 meters.
6) Avoid open burning of garbage wastes, tree leaves, branches, trash, tyres etc., especially near roadsides, lakes & water bodies, open ground, vacant land & Parks.

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Plant Trees, Save Environment.