

MONTHLY AAQM DATA ALONG WITH
AQI FOR 17 NAMP STATION

SEPTEMBER 2024

About National Air Quality Index

1. Air Quality Index is a tool for effective communication of air quality status to people in terms, which are easy to understand. It transforms complex air quality data of various pollutants into a single number (index value), nomenclature and color.
2. There are six AQI categories, namely Good, Satisfactory, Moderately polluted, Poor, Very Poor, and Severe. Each of these categories is decided based on ambient concentration values of air pollutants and their likely health impacts (known as health breakpoints). AQ sub-index and health breakpoints are evolved for eight pollutants (PM₁₀, PM_{2.5}, NO₂, SO₂, CO, O₃, NH₃, and Pb) for which short-term (up to 24-hours) National Ambient Air Quality Standards are prescribed.
3. Based on the measured ambient concentrations of a pollutant, sub-index is calculated, which is a linear function of concentration (e.g. the sub-index for PM_{2.5} will be 51 at concentration 31 µg/m³, 100 at concentration 60 µg/m³, and 75 at concentration of 45 µg/m³). The worst sub-index determines the overall AQI. AQI categories and health breakpoints for the eight pollutants are as follow:

Table 1 : AQI Category, Pollutants and Health Breakpoints								
AQI Category (Range)	PM ₁₀ 24-hr	PM _{2.5} 24-hr	NO ₂ 24-hr	O ₃ 8-hr	CO 8-hr (mg/m ³)	SO ₂ 24-hr	NH ₃ 24-hr	Pb 24-hr
Good (0-50)	0-50	0-30	0-40	0-50	0-1.0	0-40	0-200	0-0.5
Satisfactory (51-100)	51-100	31-60	41-80	51-100	1.1-2.0	41-80	201-400	0.5 –1.0
Moderate (101-200)	101-250	61-90	81-180	101-168	2.1- 10	81-380	401-800	1.1-2.0
Poor (201-300)	251-350	91-120	181-280	169-208	10-17	381-800	801-1200	2.1-3.0
Very poor (301-400)	351-430	121-250	281-400	209-748*	17-34	801-1600	1200-1800	3.1-3.5
Severe (401-500)	430 +	250+	400+	748+*	34+	1600+	1800+	3.5+

Table 2: AQI : Associated Health Impacts	
AQI	Associated Health Impacts
Severe (401-500)	SEVERE : May cause respiratory effects even on healthy people and serious health effect on people with lung/heart diseases
Very Poor (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
Poor (201-300)	POOR : May cause breathing discomfort to people on prolonged exposure and discomfort to people with heart disease
Moderate (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
Satisfactory (51-100)	SATISFACTORY : May cause minor breathing discomfort to sensitive people
Good (0-50)	GOOD : Minimal impact

Station: Near Old GSPCB office						City :Panaji				
Duration:-September – 2024										
Sr.No		Time Weighted Average (TWA)							AQI	AIR QLTY
		24-Hr	24-Hr	24-Hr	24-Hr	1-Hr	1-Hr	24-Hr		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	*CO	O ₃	Pb		
1	03-09-2024	39	19	8	16	0.80	7.09	0.02	40	Good
2	06-09-2024	40	20	8	18	0.83	7.71	0.02	42	Good
3	10-09-2024	43	22	8	18	0.76	8.02	0.01	43	Good
4	13-09-2024	46	22	9	18	0.89	8.33	0.02	46	Good
5	17-09-2024	48	24	9	19	0.94	8.52	0.02	48	Good
6	20-09-2024	48	26	10	19	0.97	9.13	0.01	49	Good
7	24-09-2024	42	21	9	18	0.84	7.31	0.01	42	Good
8	27-09-2024	44	22	9	18	0.91	7.92	0.02	46	Good

Station: Within the premises of Municipality building									City :Mapusa	
Duration:-September - 2024										
Sr.No		Time Weighted Average (TWA)							AQI	AIR QLTY
		24-Hr	24-Hr	24-Hr	24-Hr	1-Hr	1-Hr	24-Hr		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	*CO	O ₃	Pb		
1	03-09-2024	45	23	9	17	0.87	9	0.01	45	Good
2	06-09-2024	46	25	9	18	0.91	9	0.02	46	Good
3	10-09-2024	48	26	9	18	0.82	9	0.01	48	Good
4	14-09-2024	50	26	10	19	0.96	10	0.02	50	Good
5	17-09-2024	48	25	10	20	1.04	10	0.02	52	Satisfactory
6	21-09-2024	51	25	11	20	0.98	11	0.01	51	Satisfactory
7	24-09-2024	45	23	9	18	0.86	10	0.02	45	Good
8	28-09-2024	49	24	10	18	0.91	11	0.01	49	Good

Station: Fuse Call Office					City: Vasco			
Duration:- September-2024								
Sr.No		Time Weighted Average (TWA)					AQI	AIR QLTY
		24-Hr	24-Hr	24-Hr	24-Hr	24-Hr		
	Parameters	Pollutants concentration in µg/m3						
	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	NH ₃		
1	04-09-2024	30	24	2	11	10	39	Good
2	06-09-2024	29	16	2	5	10	29	Good
3	11-09-2024	41	22	2	5	10	41	Good
4	13-09-2024	21	MB	2	5	10	21	Good
5	18-09-2024	20	MB	2	23	10	29	Good
6	20-09-2024	24	16	2	5	10	26	Good
7	25-09-2024	28	14	2	11	10	28	Good
8	27-09-2024	28	15	2	10	10	28	Good

Station: MPT Quarters				City: Baina				
Duration:- September-2024								
Sr.No		Time Weighted Average (TWA)					AQI	AIR QLTY
		24-Hr	24-Hr	24-Hr	24-Hr	24-Hr		
	Parameters	Pollutants concentration in µg/m3						
	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	NH ₃		
1	04-09-2024	58	33	2	22	10	58	Satisfactory
2	06-09-2024	91	MB	2	5	10	91	Satisfactory
3	11-09-2024	61	MB	2	5	10	61	Satisfactory
4	13-09-2024	36	MB	2	5	10	36	Good
5	18-09-2024	38	MB	2	22	10	38	Good
6	25-09-2024	44	MB	2	11	10	44	Good
7	27-09-2024	31	MB	2	11	10	31	Good

Station: Roof top of Municipal market							City: Ponda			
Duration:-September - 2024										
Sr.No		Time Weighted Average (TWA)							AQI	AIR QLTY
		24-Hr	24-Hr	24-Hr	24-Hr	1-Hr	1-Hr	24-Hr		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	*CO	O ₃	Pb		
1	02-09-2024	34	19	7	16	0.58	7	0.02	34	Good
2	05-09-2024	34	17	7	16	0.61	7	0.01	34	Good
3	10-09-2024	35	19	8	16	0.55	8	0.02	35	Good
4	12-09-2024	37	21	8	17	0.64	8	0.03	37	Good
5	16-09-2024	40	21	8	17	0.58	9	0.01	40	Good
6	19-09-2024	41	23	9	17	0.63	9	0.01	41	Good
7	23-09-2024	36	20	8	16	0.59	8	0.01	36	Good
8	26-09-2024	35	18	8	16	0.67	8	0.02	35	Good
9	30-09-2024	37	19	8	17	0.56	9	0.02	37	Good

Station: Rooftop of Ravindra Bhavan Building								City:-Margao		
Duration:- September-2024										
Sr.No		Time Weighted Average (TWA)							AQI	AIR QLTY
		24-Hr	24-Hr	24-Hr	24-Hr	24-Hr	24-Hr	24-Hr		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	*CO	O ₃	Pb		
1	04-09-2024	32	19	8	11	0.22	7	0.01	32	Good
2	06-09-2024	34	17	8	13	0.32	8	0.01	34	Good
3	11-09-2024	35	18	8	14	0.28	8	0.01	35	Good
4	13-09-2024	36	19	8	14	0.38	9	0.01	36	Good
5	18-09-2024	37	20	8	13	0.42	9	0.02	37	Good
6	20-09-2024	39	20	8	12	0.53	9	0.01	39	Good
7	25-09-2024	34	18	7	11	0.24	8	0.01	34	Good
8	27-09-2024	36	18	8	14	0.31	9	0.01	36	Good

Station: Residence of Mr. Rama Naik, Assanora Junction									City: Assanora	
Duration: September - 2024										
Sr.No		Time Weighted Average (TWA)							AQI	AIR QLTY
		24-Hr	24-Hr	24-Hr	24-Hr	1-Hr	1-Hr	24-Hr		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	*CO	O ₃	Pb		
1	03-09-2024	32	16	8	14	0.44	7	0.01	32	Good
2	06-09-2024	32	17	8	14	0.47	8	0.01	32	Good
3	10-09-2024	35	18	8	15	0.40	8	0.01	35	Good
4	13-09-2024	36	19	9	16	0.32	8	0.02	36	Good
5	17-09-2024	39	19	9	16	0.39	9	0.01	39	Good
6	20-09-2024	40	20	9	17	0.41	9	0.01	40	Good
7	24-09-2024	34	17	9	15	0.38	9	0.02	34	Good
8	27-09-2024	36	19	9	16	0.46	9	0.02	36	Good

Station: Residence of Mr. Sagun Ramkrishna Fadte									City: Amona	
Duration:- - September - 2024										
Sr.No		Time Weighted Average (TWA)							AQI	AIR QLTY
		24-Hr	24-Hr	24-Hr	24-Hr	1-Hr	1-Hr	24-Hr		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	*CO	O ₃	Pb		
1	02-09-2024	45	22	10	17	0.76	9	0.01	45	Good
2	05-09-2024	42	23	10	19	0.84	9	0.02	42	Good
3	10-09-2024	48	24	11	19	0.92	10	0.01	48	Good
4	12-09-2024	48	25	11	19	0.97	10	0.02	49	Good
5	16-09-2024	52	25	11	20	1.05	11	0.01	53	Satisfactory
6	19-09-2024	52	28	12	21	1.11	12	0.01	56	Satisfactory
7	23-09-2024	47	23	11	18	0.95	10	0.01	48	Good
8	26-09-2024	44	21	10	18	0.87	11	0.01	44	Good
9	30-09-2024	49	24	11	20	0.91	12	0.02	49	Good

Station: Municipality Building								City: Bicholim		
Duration:-Sptember - 2024										
Sr.No		Time Weighted Average (TWA)							AQI	AIR QLTY
		24-Hr	24-Hr	24-Hr	24-Hr	1-Hr	1-Hr	24-Hr		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	*CO	O ₃	Pb		
1	03-09-2024	36	19	8	15	0.55	8	0.01	36	Good
2	06-09-2024	36	18	8	15	0.49	8	0.02	36	Good
3	10-09-2024	37	20	8	15	0.43	9	0.01	37	Good
4	13-09-2024	39	21	8	16	0.51	9	0.01	39	Good
5	17-09-2024	41	23	9	16	0.64	9	0.01	41	Good
6	20-09-2024	43	24	9	16	0.58	9	0.01	43	Good
7	24-09-2024	34	18	7	15	0.42	9	0.01	34	Good
8	27-09-2024	36	18	8	15	0.47	10	0.01	36	Good

Station: Near Ajoba temple, Honda junction							City: Honda			
Duration:- September - 2024										
Sr.No		Time Weighted Average (TWA)							AQI	AIR QLTY
		24-Hr	24-Hr	24-Hr	24-Hr	1-Hr	1-Hr	24-Hr		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	*CO	O ₃	Pb		
1	02-09-2024	38	20	7	15	0.41	7	0.01	38	Good
2	05-09-2024	34	19	7	15	0.43	7	0.03	34	Good
3	10-09-2024	37	19	8	16	0.35	8	0.01	37	Good
4	12-09-2024	37	21	8	16	0.47	8	0.02	37	Good
5	16-09-2024	38	20	8	17	0.52	9	0.02	38	Good
6	19-09-2024	37	18	8	17	0.42	9	0.02	37	Good
7	23-09-2024	32	18	7	16	0.33	8	0.01	32	Good
8	26-09-2024	35	17	7	16	0.21	8	0.02	35	Good
9	30-09-2024	37	19	9	17	0.39	9	0.01	37	Good

Station:- Usgao Junction										City:-Usgao	
Duration:- September-2024											
Sr.No		Time Weighted Average (TWA)							AQI	AIR QLTY	
		24-Hr	24-Hr	24-Hr	24-Hr	24-Hr	24-Hr	24-Hr			
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)									
	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	*CO	O ₃	Pb			
1	02-09-2024	43	23	10	18	0.72	9	0.01	43	Good	
2	05-09-2024	41	23	9	18	0.76	9	0.01	41	Good	
3	10-09-2024	42	24	10	18	0.79	9	0.01	42	Good	
4	12-09-2024	43	24	10	18	0.83	10	0.01	43	Good	
5	16-09-2024	45	25	10	19	0.94	10	0.01	47	Good	
6	19-09-2024	48	25	11	19	0.98	11	0.02	49	Good	
7	23-09-2024	40	22	9	18	0.81	9	0.01	41	Good	
8	26-09-2024	37	19	9	18	0.75	9	0.02	38	Good	
9	30-09-2024	40	20	10	19	0.86	10	0.01	43	Good	

Premises of Somnath English High School							City:-Codli			
Duration:- September -2024										
Sr.No		Time Weighted Average (TWA)							AQI	AIR QLTY
		24-Hr	24-Hr	24-Hr	24-Hr	24-Hr	24-Hr	24-Hr		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	*CO	O ₃	Pb		
1	04-09-2024	32	16	6	16	0.48	7	0.03	32	Good
2	06-09-2024	34	18	7	17	0.37	8	0.02	34	Good
3	11-09-2024	36	18	8	17	0.42	8	0.03	36	Good
4	14-09-2024	37	20	7	18	0.45	9	0.02	37	Good
5	18-09-2024	39	21	7	18	0.49	9	0.02	39	Good
6	21-09-2024	39	19	8	18	0.41	9	0.01	39	Good
7	25-09-2024	33	18	7	17	0.32	8	0.02	33	Good
8	28-09-2024	37	18	8	18	0.36	9	0.01	37	Good

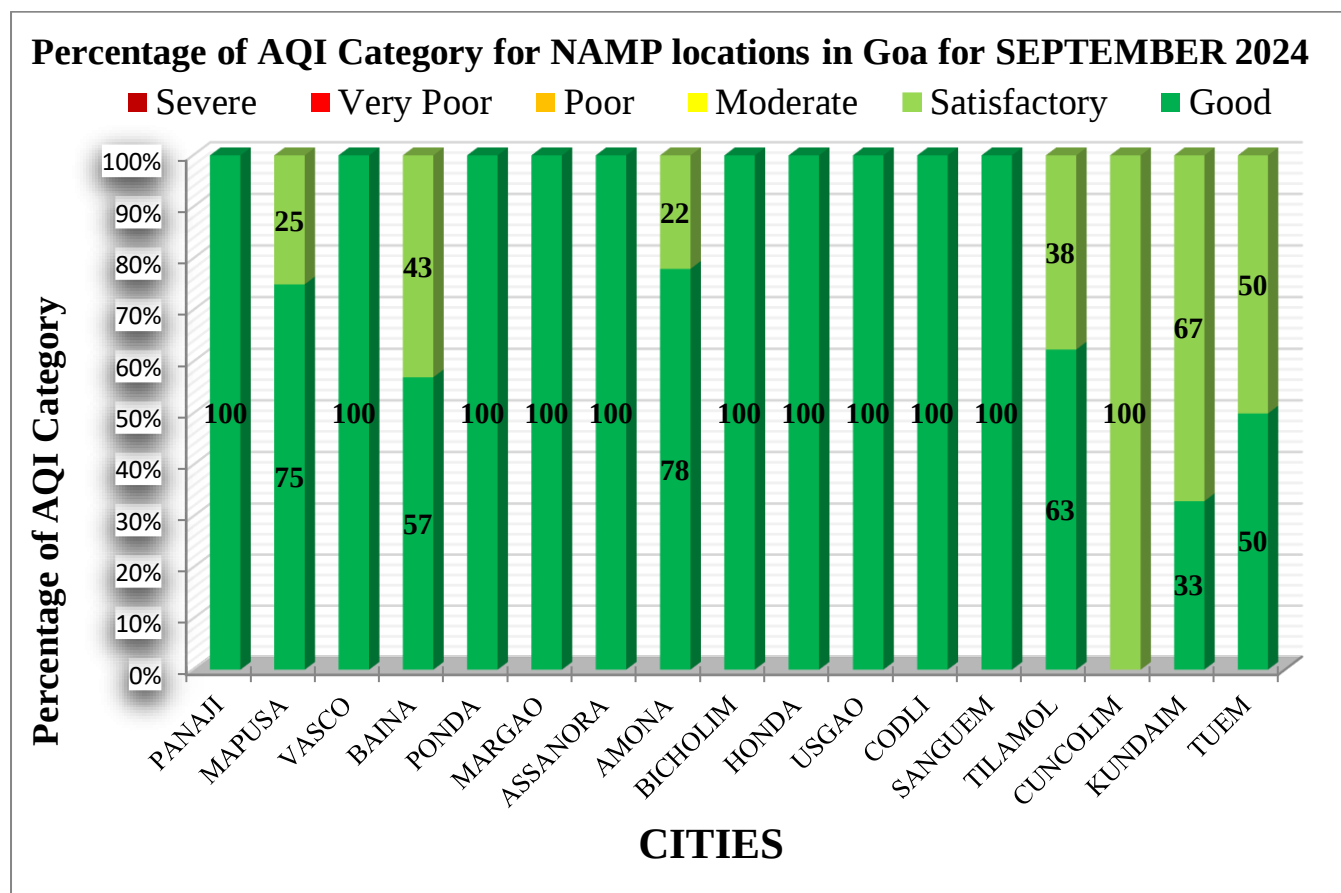
Station: Rooftop of Sanguem Municipality Building							City: Sanguem			
Duration:- September-2024										
Sr.No		Time Weighted Average (TWA)							AQI	AIR QLTY
		24-Hr	24-Hr	24-Hr	24-Hr	24-Hr	24-Hr	24-Hr		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	*CO	O ₃	Pb		
1	04-09-2024	33	17	8	15	0.29	7	0.02	33	Good
2	06-09-2024	34	17	8	15	0.25	7	0.02	34	Good
3	11-09-2024	34	18	8	16	0.33	8	0.02	34	Good
4	14-09-2024	36	19	8	16	0.30	8	0.02	36	Good
5	18-09-2024	36	19	8	17	0.42	9	0.02	36	Good
6	21-09-2024	37	20	9	17	0.49	9	0.01	37	Good
7	25-09-2024	33	16	8	16	0.28	8	0.02	33	Good
8	28-09-2024	34	18	8	16	0.31	8	0.02	34	Good

Station: Tilamol Junction					City: Tilamol						
Duration:- September-2024											
Sr.No		Time Weighted Average (TWA)							AQI	AIR QLTY	
		24-Hr	24-Hr	24-Hr	24-Hr	24-Hr	24-Hr	24-Hr			
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)									
	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	*CO	O ₃	Pb			
1	04-09-2024	43	24	9	14	0.95	7.7	0.02	48	Good	
2	06-09-2024	44	23	10	23	0.92	8.0	0.02	46	Good	
3	11-09-2024	46	24	11	15	0.86	8.3	0.02	46	Good	
4	14-09-2024	48	25	11	13	1.01	8.6	0.02	51	Satisfactory	
5	18-09-2024	50	25	11	14	1.13	9.1	0.01	57	Satisfactory	
6	21-09-2024	52	26	12	17	1.17	9.7	0.01	59	Satisfactory	
7	25-09-2024	45	22	10	13	0.94	9.4	0.02	47	Good	
8	28-09-2024	48	23	11	14	0.97	10.1	0.01	49	Good	

Station: Rooftop of Power Station, Cuncolim Ind Estate									City: Cuncolim		
Duration:- September -2024											
Sr.No		Time Weighted Average (TWA)								AQI	AIR QLTY
		24-Hr	24-Hr	24-Hr	24-Hr	24-Hr	24-Hr	24-Hr	24-Hr		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3 & As which is in ng/m3)									
	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	*CO	O ₃	As	Pb		
1	04-09-2024	53	25	9	19	0.84	9.6		0.01	53	Satisfactory
2	06-09-2024	54	26	10	19	0.93	10.2		0.01	54	Satisfactory
3	11-09-2024	57	29	12	20	1.01	10.5		0.01	57	Satisfactory
4	14-09-2024	60	30	12	20	1.12	10.8		0.01	60	Satisfactory
5	18-09-2024	64	31	13	21	1.19	11.3		0.02	64	Satisfactory
6	21-09-2024	68	31	13	21	1.24	11.6		0.01	68	Satisfactory
7	25-09-2024	58	27	12	19	0.97	10.7	2.21	0.02	58	Satisfactory
8	28-09-2024	61	30	12	21	1.04	11.0	1.69	0.02	61	Satisfactory

Station: Near IDC Office					City: Kundaim						
Duration:- September - 2024											
Sr.No		Time Weighted Average (TWA)							AQI	AIR QLTY	
		24-Hr	24-Hr	24-Hr	24-Hr	1-Hr	1-Hr	24-Hr			
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)									
	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	*CO	O ₃	Pb			
1	02-09-2024	45	23	10	19	0.96	10	0.02	48	Good	
2	05-09-2024	44	21	11	19	0.88	10	0.02	44	Good	
3	10-09-2024	45	24	11	20	0.94	10	0.01	47	Good	
4	12-09-2024	47	24	12	20	1.06	11	0.02	53	Satisfactory	
5	16-09-2024	48	25	12	21	1.13	11	0.02	57	Satisfactory	
6	19-09-2024	52	26	13	21	1.19	11	0.02	60	Satisfactory	
7	23-09-2024	44	24	11	19	1.11	10	0.02	56	Satisfactory	
8	26-09-2024	47	24	11	19	1.02	11	0.02	51	Satisfactory	
9	30-09-2024	49	25	11	20	1.07	12	0.01	54	Satisfactory	

Station: Near ESIC Hospital , Tuem Industrial Estate							City: Tuem			
Duration: September - 2024										
Sr.No		Time Weighted Average (TWA)							AQI	AIR QLTY
		24-Hr	24-Hr	24-Hr	24-Hr	1-Hr	1-Hr	24-Hr		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	*CO	O ₃	Pb		
1	03-09-2024	43	23	10	18	0.85	9	0.020	43	Good
2	06-09-2024	46	23	10	18	0.84	10	0.020	46	Good
3	10-09-2024	46	25	10	19	0.92	11	0.020	46	Good
4	13-09-2024	49	25	11	20	1.09	11	0.020	55	Satisfactory
5	17-09-2024	50	26	11	21	1.02	12	0.020	51	Satisfactory
6	20-09-2024	53	27	12	21	1.14	12	0.020	57	Satisfactory
7	24-09-2024	47	25	9	19	0.96	11	0.010	48	Good
8	27-09-2024	49	23	10	19	1.03	11	0.020	52	Satisfactory



Results and Interpretation:

It is seen that during the month of September 2024, out of 17 locations AQI is -

Dominantly Good at 12 locations namely – Panaji, Mapusa, Vasco, Ponda, Margao, Assanora, Amona, Bicholim, Honda, Usgao, Codli and Sanguem,

Good to Satisfactory at 4 locations namely – Baina, Tilamol, Kundaim and Tuem

Dominantly Satisfactory at 1 location namely – Cuncolim

(Dominant refers to 75% and above)