

Air Pollution – Brief Analysis for March 2023

Below is a brief representation of data captured by portable devices installed in multiple locations in Korba, Delhi and Ranchi. The analysis has been done for two reporting periods – 1 March to 31 March 2023 and Jan 2022 to March 2023

Section 1 – Data Analysis for period Jan 2022 to March 2023

Monthly Average AQI - Different Cities															
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan-23	Feb-23	Mar-23
Korba	268	202	217	206	110	123	80	91	106	173	262	222	259	200	245
Delhi	330	224	188	139	114	80	76	86	96	257	359	333	396	279	198
Ranchi							158	89	91	174	153	333			

Monthly Average AQI Values - Different Cities

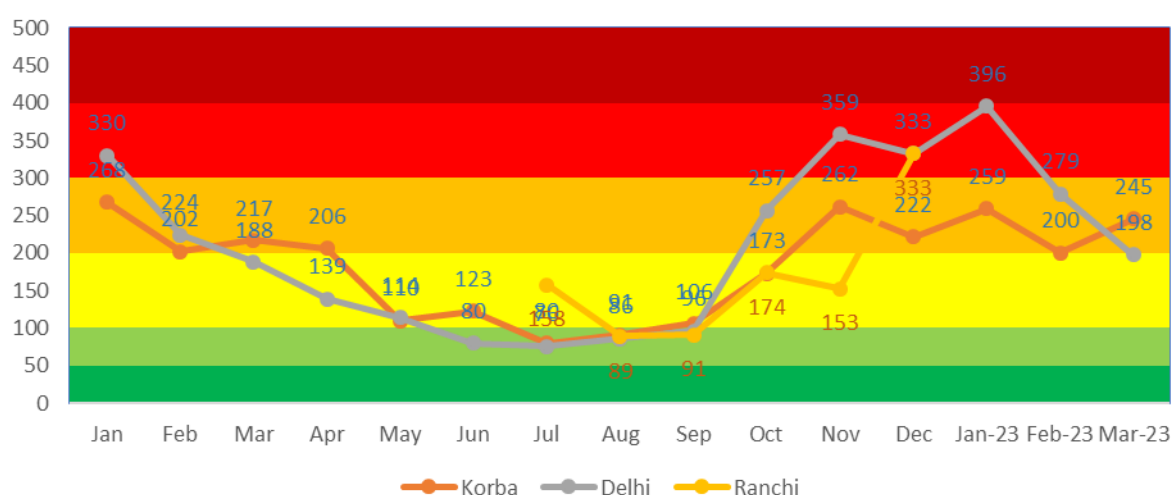


Table and Graph above show the Average Monthly AQI in different Cities. The graph and data clearly showcase the winter months when AQI comes under dangerous levels and summer and monsoon months when the air quality is Satisfactory. It is clear that AQI is showing an increasing trend with the onset of winter and has started decreasing as summer progresses. During this period, Delhi recorded the worst AQI in the month of January 2023. Out of 15 months, for 11-months AQI in Delhi was above 100 while Korba had AQI above 100 for 13 months. March 2023 Air quality has improved over the previous month figures for Delhi while it has deteriorated for Korba. Delhi witnessed incessant rains and high winds during most of the month of March 2023 which resulted in better air quality. The overall data for Korba shows that Korba Air is more polluted than Delhi for longer durations in the year. March 2023 AQI is higher in both Korba and Delhi as compared to March 2022 which shows that the steps for air quality control are not being effective and more work needs to be done. The different colour bands in the graph respond to the AQI categories as stated in the NAAQs (More later in the document)

Monthly Average HI - Different Cities															
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan-23	Feb-23	Mar-23
Korba	19	24	29	36	40	39	37	35	35	30	23	21	21	24	29
Delhi	17	20	26	32	35	36	39	37	36	28	24	18	16	21	25
Ranchi							31	30	29	24	20	18	-	-	-

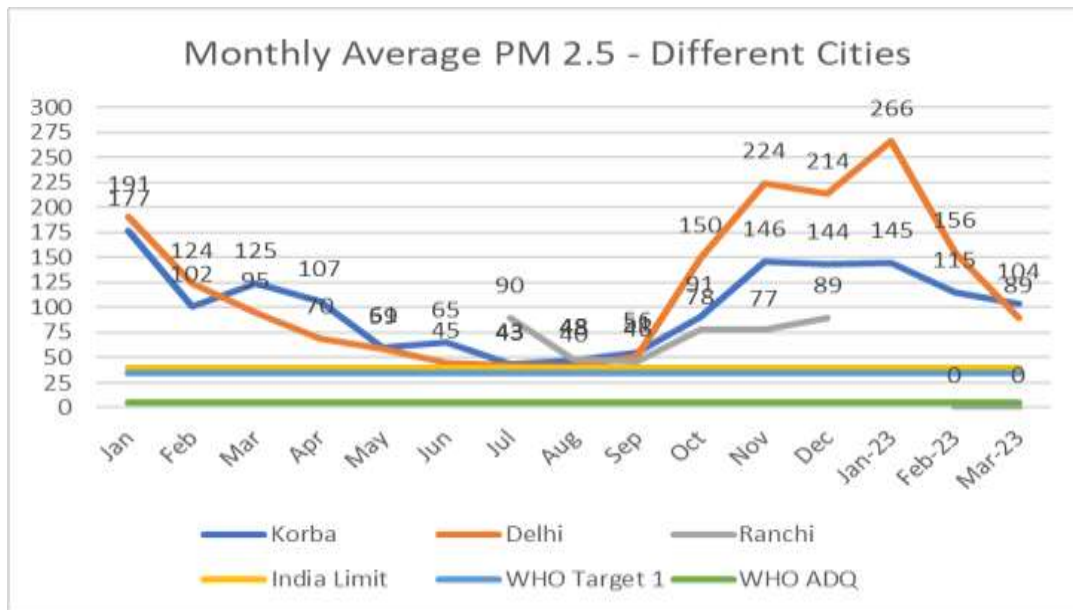
The above table shows the Monthly Average Heat Index for different cities.

Particulate Matter – Particulate matter or PM is the amount of dust particles in the air. These particles can be of different types i.e. organic, metallic etc. There are different sizes for these particles. Particles of size 10 micron are called PM 10. Those between size of 2.5 and 10 micron are called PM 2.5. those between 1 and 2.5 micron are labelled as PM1. The smaller the size of the particles, the easier for it to enter the air stream of the body and cause more impact. NAAQS and WHO (World Health Organisation) have both set limits for amount of such particles in the air for PM 2.5 and PM 10. Below are the limits set. It is clear that the Indian standard is higher than the WHO ADQ standard. There are no standards yet for PM 1 which is considerably more harmful.

	PM 2.5 (ug/m3)	PM 10 (ug/m3)
NAAQS (Annual target)	40	60
WHO Interim target 1	35	70
WHO ADQ Target	5	15

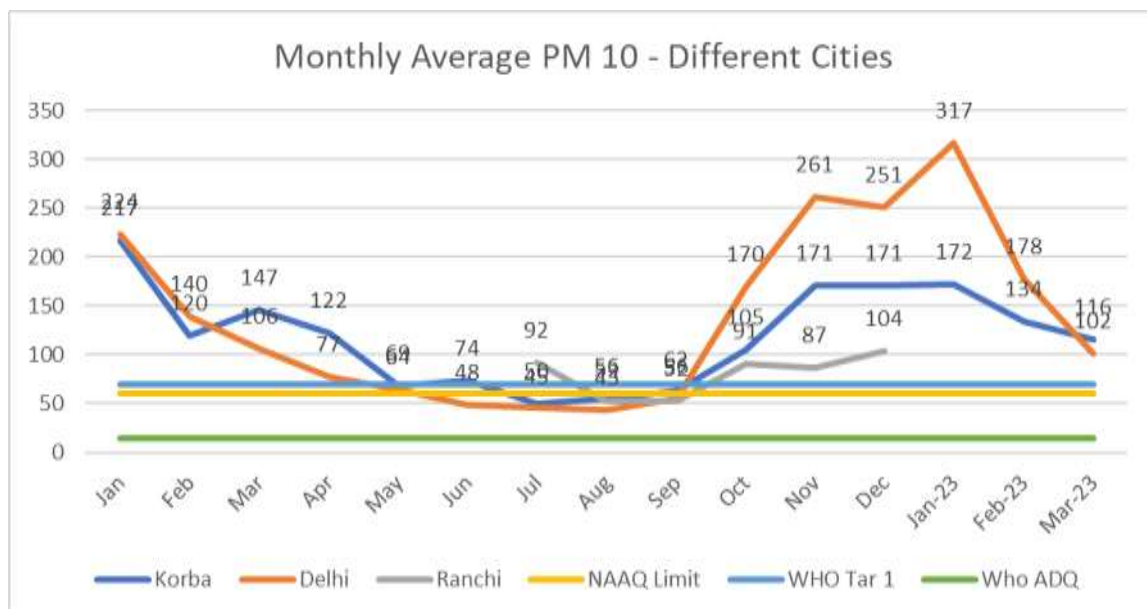
Below is the table and graph showing Monthly Average PM 2.5 values in different cities. In none of the months did any of the cities meet the higher Indian standard. In both Delhi and Korba, the values were more than 4 times the values in some of the months. Only during the monsoon period were the values closer to the standard but were still above. In Delhi and Korba both, the PM 2.5 particles have decreased in comparison to February 2023

Monthly Average PM 2.5 - Different Cities															
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan-23	Feb-23	Mar-23
Korba	177	102	125	107	61	65	43	48	56	91	146	144	145	115	104
Delhi	191	124	95	70	59	45	43	40	51	150	224	214	266	156	89
Ranchi							90	48	46	78	77	89		-	-



The table and graph below show the Monthly Average PM 10 values in different cities. Except for a few months (Highlighted in Green) which were during the monsoon months, none of the cities met the Indian Standards. In comparison with the WHO ADQ standard, none even came close.

Monthly Average PM 10 - Different Cities															
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan-23	Feb-23	Mar-23
Korba	217	120	147	122	69	74	50	56	62	105	171	171	172	134	116
Delhi	224	140	106	77	64	48	45	43	56	170	261	251	317	178	102
Ranchi							92	52	52	91	87	104			



Data on AQI categories – Under the NAAQS, AQI categories have been listed which lists the different levels of Air pollution. AQI Classification as per NAAQS -

0-50	51-100	101-200	201-300	301-400	>401
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The Table below shows the AQI Categories for All device's location wise since January 2022. The numbers are daily figures for individual devices which have been added up based on cities. It means that AQI in Korba was between 0-50 on 168 daily intervals as recorded by all devices installed in Korba. The data shows that in all locations more than 65% of the days, AQI has been above 100. Delhi and Korba recorded more than 38% of the intervals with AQI above 200.

Location wise Totals (Since January 2022)									
	0-50	50-100	100-200	200-300	300-400	>400	Grand Total	Percent AQI >100	Percent AQI >200
Korba	168	602	1365	922	589	185	3831	80%	44%
Delhi	381	777	976	614	435	256	3439	66%	38%
Ranchi	4	30	63	11	2	0	110	69%	12%

The Table below show City wise and month wise AQI categories wise information. The numbers are daily figures for individual devices which have been added up based on locations for each month. It means that AQI in Korba was between 50-100 on 12 daily intervals in January 2022 as recorded by all devices installed in Korba. The data shows the severe AQI months for both Korba and Delhi. Atmospheric conditions play a vital role in Air Pollution hence, AQI is Satisfactory in the summer and monsoon month when dispersion of pollutants is high. Weather conditions along with emission sources should be carefully considered and emissions controlled to ensure AQI remains below 100 throughout the year. In Delhi, during March 2023, 88% of recorded AQI intervals were above 100 while the figure is 91% for Korba. In fact, in Delhi, AQI was above 200 for 43% of the recorded intervals. The corresponding figure in March 22 for Delhi was 44%.

		0-50	50-100	100-200	200-300	300-400	>400	Grand Total	Percent >100	Percent >200
Korba	Jan	0	12	36	48	31	6	133	91%	64%
	Feb	0	22	118	102	19	4	265	92%	47%
	Mar	0	28	99	56	29	16	228	88%	44%
	Apr	2	13	72	55	27	6	175	91%	50%
	May	4	70	101	9	0	0	184	60%	5%
	June	3	68	113	21	0	0	205	65%	10%
	July	50	74	46	5	0	0	175	29%	3%
	Aug	58	61	52	13	1	0	185	36%	8%
	Sep	19	68	35	2	0	0	124	30%	2%
	Oct	25	63	127	72	44	13	344	74%	38%
	Nov	3	23	64	115	141	40	386	93%	77%
	Dec	0	21	99	112	90	47	369	94%	67%
	Jan-23	0	9	97	117	113	27	363	98%	71%
	Feb-23	2	38	149	82	38	20	329	88%	43%
	Mar-23	2	32	157	113	56	6	366	91%	48%
Delhi	Jan	0	2	20	88	101	81	292	99%	92%
	Feb	15	32	74	96	85	14	316	85%	62%

	Mar	2	49	172	145	27	0	395	87%	44%
	Apr	10	85	219	59	0	0	373	75%	16%
	May	44	119	187	12	0	0	362	55%	3%
	June	152	134	63	9	3	1	362	21%	4%
	July	76	192	71	5	0	0	344	22%	1%
	Aug	47	83	29	0	0	0	159	18%	0%
	Sep	24	50	38	7	0	0	119	38%	6%
	Oct	10	13	16	31	24	21	115	80%	66%
	Nov	0	0	5	26	57	32	120	100%	96%
	Dec	0	0	7	20	58	39	124	100%	94%
	Jan-23	0	0	3	21	44	56	124	100%	98%
	Feb-23	0	4	17	44	35	12	112	96%	81%
	Mar-23	1	14	55	51	1	0	122	88%	43%

The Table below show Device wise AQI categories wise information. The numbers are daily figures for individual devices which have been added up till date. It means that AQI measured by device number ending with 66644 was between 50-100 on 30 daily intervals.

Device Wise Totals (Selected Devices) – Since January 2022									
	0-50	50-100	100-200	200-300	300-400	>400	Grand Total	Percent >100	Percent >200
861480034766644	12	30	66	39	57	33	237	82.28%	54.43%
861480034786105	17	49	146	128	80	11	431	84.69%	50.81%
861480034775850	36	113	158	88	32	1	428	65.19%	28.27%
861480034777765	4	11	44	33	13	3	108	86.11%	45.37%
861480034765562	38	97	158	61	22	0	376	64.10%	22.07%
861480034757130	24	73	149	39	7	2	294	67.01%	16.33%
862649042673930	1	50	132	80	28	8	299	82.94%	38.80%
861480034765406	0	12	137	133	49	16	347	96.54%	57.06%
861480034774176	6	46	106	73	51	3	285	81.75%	44.56%
862649042685215	23	80	80	12	3	2	200	48.50%	8.50%
861480034766461	21	80	104	103	77	69	454	77.75%	54.85%
861480034784522	42	83	116	71	53	35	400	68.75%	39.75%
862649043466961	47	83	117	78	73	45	443	70.65%	44.24%
861480034785552	40	88	105	84	77	31	425	69.88%	45.18%

Section 2 –Information and Analysis for March 2023

Location wise Information				
Location	Avg PM 2.5	Avg PM 10	Avg AQI	Max AQI
Korba	104	116	245	1903
Delhi	89	102	198	1100
Ranchi	-	-	-	-

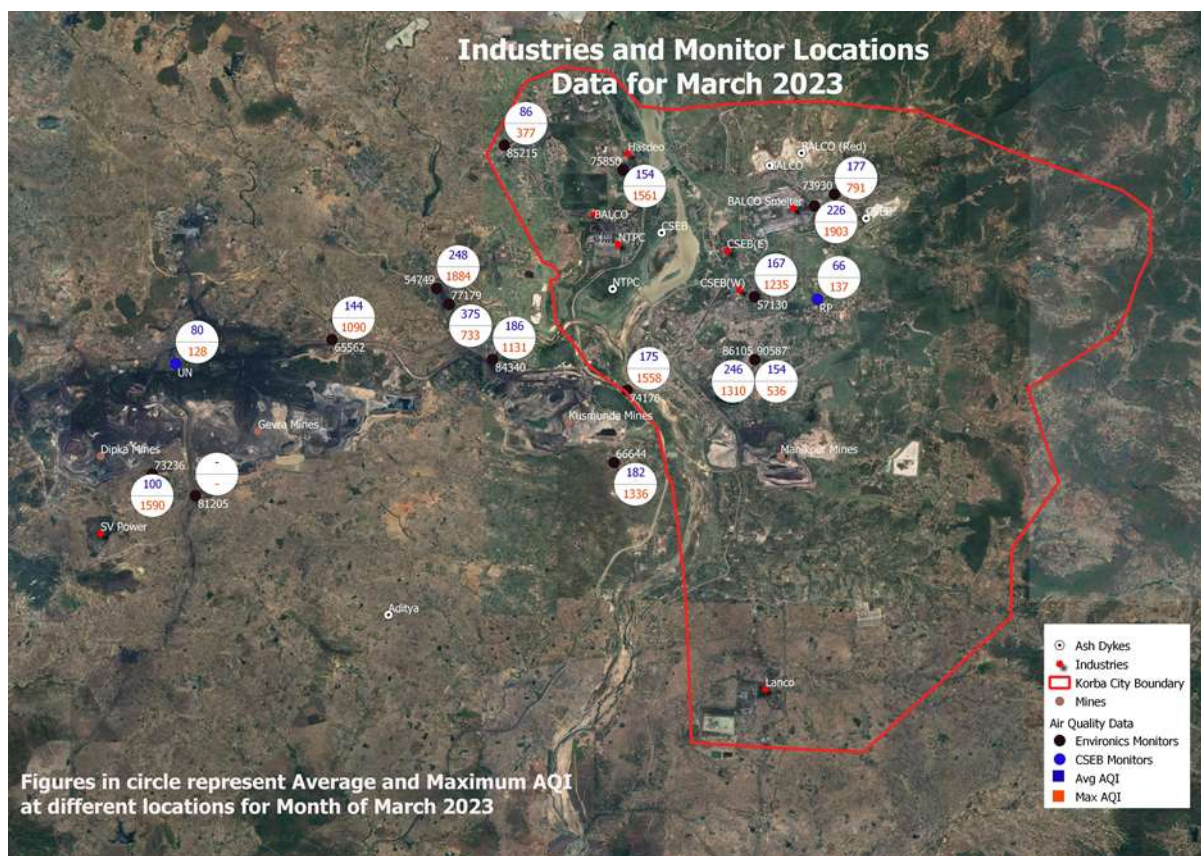
Table above shows the city wise Average PM 2.5, PM 10, AQI and Max AQI for March 2023. During this period Average AQI is highest in Korba and the Max AQI is recorded highest also in Korba and has been recorded just below 2000. Although such high numbers have been recorded only for a few intervals but getting such high number for AQI is a matter of grave concern. In Delhi also, the Max AQI recorded has exceeded 1000 which is a matter of concern and immediate action.

Data for individual devices placed at Korba can be seen in below table. Out of 15 devices which worked in Korba in this period 11 devices recorded maximum AQI greater than 1000. Average Monthly AQI is above 100 at all locations except 1. Device placed at Surakachar chowk near the underground Mines recorded the highest Average AQI at 375. 1 device have recorded Average AQI above 300 and another 4 above 200

Location Wise Avg and Max AQI for Devices at Korba			
Device Number	Location	Avg AQI	Max AQI
861480034766644	Village Pali	182	1336
861480034786105	RSS nagar	246	1310
861480034775850	Child Home Darri	154	1561
861480034777765	Sirki. Dipka Rehab Colony	270	1466
861480034765562	Gevra Mines Rehhabilitated Area	144	1090
861480034757130	Korba City, Patharipara	167	1235
862649042673930	Balco Housing Board	177	791
861480034765406	Vijaynagar. Gevra Rehab Colony	226	1903
861480034774176	Old Age Home, Near Sarvmangla Mandir	175	1558
862649042685215	NTPC Jamnipalli Housing Colony	86	377
861480034781205	sarai singar chowk	-	-
861480034777179	Surakachar chowk (underground Mines)	375	733
861480034784340	Kanha Auto repairs, Station road	186	1131
861480034773236	Aryan Public School, Hardi Bazaar	100	1590
862649042690587	BALCO, Beside 1200 MW Power Plant, Ring Road	154	536
861480034754749	Gud Deva	248	1884

The map image below shows the locations of the devices installed in Korba along with the locations of major coal mines, Thermal power plants and ash dykes. The Korba municipal boundary is marked in Red colour. The numbers in the map show the Average and Max AQI for each location along with the device number. Two monitors have been installed by CSEB at Ram Pur and Urja Nagar. Average Monthly AQI for March 2023 recorded by these devices is as below. Devices placed by Environics have been consistently recording higher AQI values. It may be because of placement of devices around Pollution sources which show such stark differences

	Ram Pur	Urja Nagar	ET Devices
March 2023	66	80	245



Map - Install and industrial locations at Korba. Numbers reflect Average and Max AQI of the location for March 2023. Map also shows the location of major coal mines, Thermal Power Plants and Ash Dykes. Korba Municipal Boundary is marked in Red colour

Daily average AQI for Different Cities for March 2023																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Korba	332	308	305	307	169	201	238	211	251	201	301	314	308	304	341	349
Delhi	161	240	136	101	92	166	235	325	147	277	279	274	268	208	256	301

Daily average AQI for Different Cities for March 2023																
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Korba	321	248	277	205	195	200	261	297	303	202	185	283	262	225	139	
Delhi	263	237	243	96	129	269	116	166	101	119	112	114	197	126	70	

The Tables above show Daily Average AQI between different cities for March 2023. Cells where AQI >100 have been highlighted. Other than for three days in Delhi, Air Quality in both Korba and Delhi has been above 100 for the entire month. AQI in Delhi was the lowest at 70 and went up to 279. Even in Korba, AQI has been above 100 for the entire month. Both Korba and Delhi are fighting for the top spot in bad air quality with Delhi edging out Korba. This information in terms of AQI categories can be seen in the table below

	0-50	51-100	101-200	201-300	301-400	>401	Total
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Korba	0	0	4	15	12	0	31
Delhi	0	3	14	12	2	0	31

Table - City wise categories for March 2023

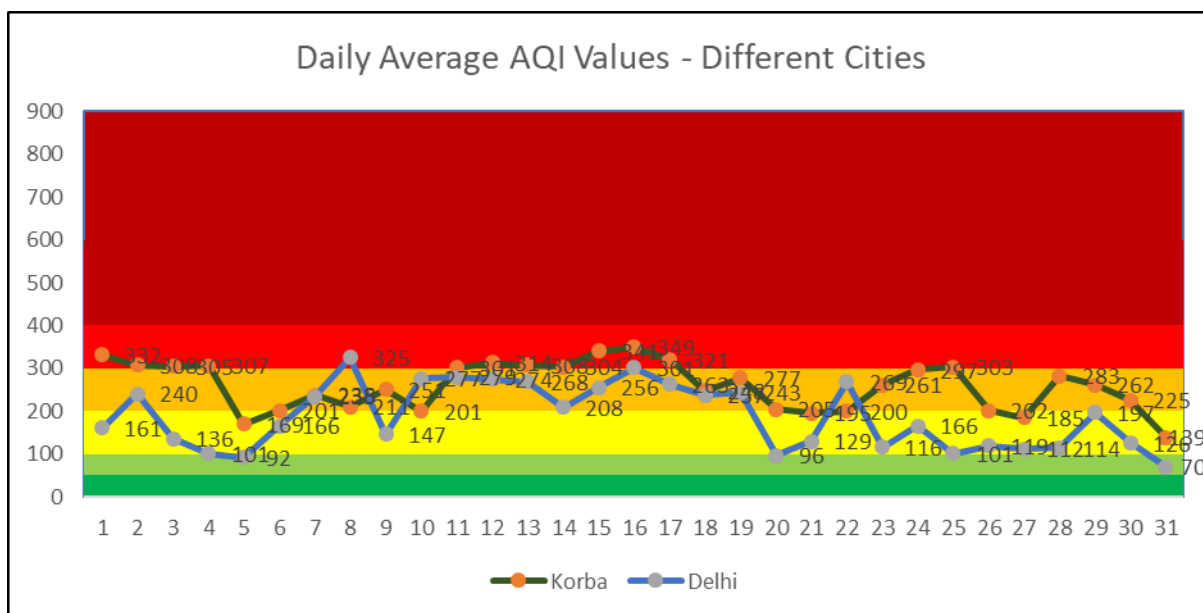


Table below shows the Daily Average AQI for individual devices placed at Korba. Figures above 250 have been marked in Red. The data reads like a sorry state of affairs.

Table – Daily Average AQI at Korba for March 2023 (blank implies device did not work)

Average AQI, Device Wise at Korba for March 2023																
Date	666 44	861 05	758 50	777 65	655 62	571 30	739 30	654 06	741 76	852 15	812 05	771 79	843 40	732 36	905 87	547 49
1		308	254	386	240	187	248	340	293	-	-	401	280	115		399
2		293	165	318	168	164	214	233	198		-	418	214	79		340
3		217	137	334	141	134	182	224	172		-	494	203	93		248
4		205	153	276	102	119	144	196	203		-	505	197	110		350
5		157	80	206	91	76	155	108	118		-	398	118	53		208
6		241	110	191	126	45	189	167	123		-	400	87	68		194
7		224	91	212	101	339	194	136	161		-	390	131	46		232
8		188	142	213	120	245	148	189	113		-	379	146	72		221
9		249	129	252	144	144	199	238	181		-	365	172	72		269
10		226	119	213	112	135	158	150	135		-	377	155	58		187
11		277	188	322	158	192	234	239	227		-	380	209	66		256
12		303	206	321	162	191	272	245	206		-	387	172			296
13		315	190	290	149	216	261	226	200		-	382	193			265
14		272	146	285	162	206	232	233	190		-	385	196			258
15		369	321	337	242	277	330	281	264		-	396	263			334

16		376	268	405	259	273	330	344	287		-	396	274		344
17		311	235	343	234	200	250	297	246		-	365	248		322
18		271	140	268	140	166	196	244	173		-	305	187		246
19		244	153	267	176	113	122	349	191		-	312	180		255
20		162	141	286	138	82	75	236	92		-	316	158		214
21		222	121	211	103	136	143	174	111		-	318	167		171
22		194	160	245	97	84	99	211	82		-	313	151		206
23		266	163	229	96	153	87	247	126		-	338	226		246
24		235	172	276	161	117	101	285	146		-	348	263		313
25		268	157	306	174	271	149	303	177		-	359	220		249
26		210	131	216	96	94	133	182	146		-	358	160		172
27		213	101	195	94	138	122	150	135		-	351	145		148
28	277	198	110	192	102	199	101	167	136		-	365	178	232	536
29	260	263	169	223	120	143	154	197	233	107	-	381	267	159	186
30	162	208	158	290	120	166	156	201	201	91	-	379	151	185	184
31	100	137	85		89	113	98	224	130	73	-	343	96	110	97

Table - AQI Category wise information for individual devices (March 2023)

AQI categories Wise Information for Different Devices - March 2023										
Device Number	Location	0-50	50-100	100-200	200-300	300-400	>400	Grand Total	Percent >100	Percent >200
861480034766644	Korba			2	2			4	100%	50%
861480034786105	Korba			6	19	6		31	100%	81%
861480034775850	Korba		3	23	4	1		31	90%	16%
861480034777765	Korba			3	18	8	1	30	100%	90%
861480034765562	Korba		6	21	4			31	81%	13%
861480034757130	Korba	1	4	19	6	1		31	84%	23%
862649042673930	Korba		4	18	7	2		31	87%	29%
861480034765406	Korba			11	16	4		31	100%	65%
861480034774176	Korba		2	20	9			31	94%	29%
862649042685215	Korba		2	1				3	33%	0%
861480034781205	Korba	-	-	-	-	-	-	-	-	-
861480034777179	Korba					27	4	31	100%	100%
861480034784340	Korba		2	18	11			31	94%	35%
861480034773236	Korba	1	8	5	1			15	40%	7%
862649042690587	Korba		1	2			1	4	75%	25%
861480034754749	Korba			8	16	7		31	100%	74%
861480034766461	Delhi		1	14	16			31	97%	52%
861480034784522	Delhi		3	17	11			31	90%	35%
862649043466961	Delhi	1	6	12	12			31	77%	39%
861480034785552	Delhi		4	12	12	1		29	86%	45%

Time Interval wise Average AQI City wise and Device wise for March 2023 can be seen in table below

Row Labels	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to midnight
Delhi	202	224	121	169
66461	226	250	118	192
66961	185	207	125	177
84522	192	202	98	143
85552	199	237	146	160
Korba	208	227	137	259
54749	251	272	166	301
57130	166	204	102	191
65406	201	239	124	339
65562	134	163	90	191
66644	209	229	104	190
73236	87	99	74	131
73930	205	183	108	210
74176	189	210	89	209
75850	151	174	72	217
77179	362	373	376	388
77765	260	290	163	391
84340	172	202	106	261
85215	96	98	67	88
86105	272	278	141	294
90587	211	173	106	129

Time Interval Wise Maximum AQI at different Cities and devices for March 2023

Row Labels	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to midnight
Delhi	1100	1060	702	995
66461	1100	1060	702	995
66961	383	570	425	458
84522	478	588	475	562
85552	407	476	432	413
Korba	1884	1751	1845	1903
54749	1884	1474	1845	1473
57130	1113	663	1140	1235
65406	1558	1751	1676	1903
65562	474	905	452	1090
66644	342	1336	394	452
73236	406	1131	1590	475
73930	791	560	396	588
74176	1558	998	527	565
75850	748	1561	329	793
77179	692	733	714	717
77765	615	1466	1324	1234
84340	515	1131	551	720
85215	377	300	167	316

86105	933	775	1310	1065
90587	333	335	314	536

Annexure 1 – Device Locations

Device Name / Location	Current City	City
861480034766644	Village Pali	Korba
861480034786105	RSS nagar	Korba
861480034775850	Child Home Darri	Korba
861480034777765	Sirki Village	Korba
861480034765562	Gevra Mines Rehabilitated Area	Korba
861480034757130	Korba City, Patharipara	Korba
862649042673930	Balco Housing Board	Korba
861480034765406	Dipka Mines Main Road	Korba
861480034774176	Old Age Home, Near Sarvmangla Mandir	Korba
862649042685215	NTPC Jamnipalli Housing Colony	Korba
861480034781205	sarai singar chowk	Korba
861480034777179	Surakachar chowk (underground Mines)	Korba
861480034784340	Station road	Korba
861480034773236	Hardi Bazaar	Korba
862649042690587	Near BALCO Main Plant	Korba
861480034754749	Gud Deva	Korba
861480034766461	Delhi	Delhi
861480034784522	Delhi	Delhi
862649043466961	Delhi	Delhi
861480034785552	Delhi	Delhi
861480034766453	Ranchi	Ranchi

Some Graphs and Data for Devices Placed at Korba

- 861480034766644 - Greenvoice Office dadar. Relocated to Village Pali in October

Table - Monthly Average and Max AQI and HI

	Avg AQI	Avg HI	Max AQI	Max HI
Jan	426	19	1994	22
Feb	258	23	1326	34
May	128	40	1150	54
Jun	147	39	1033	54
Jul	85	36	560	50
Aug	102	34	558	53
Sep	163	35	394	53
Oct	312	30	6113	50
Nov	384	23	2001	49
Dec	349	22	1910	47
Jan-23	360	20	1998	28
Mar-23	182	32	1336	42

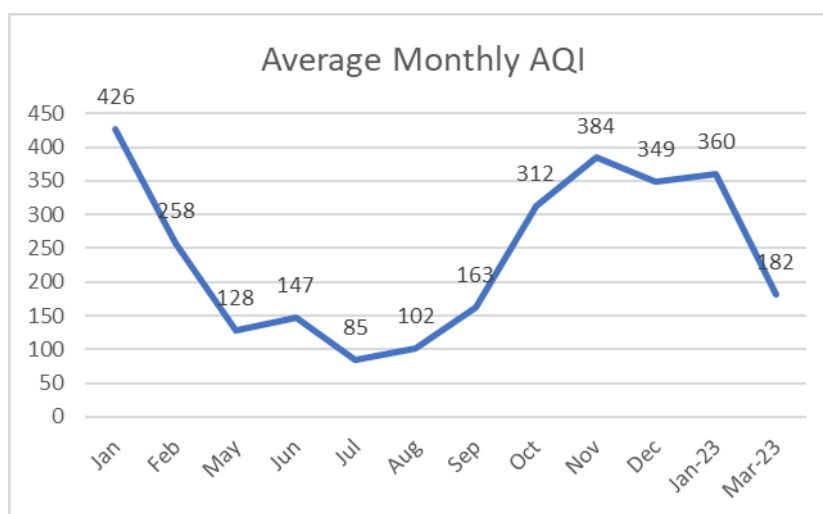


Table - AQI Categories Month Wise

	0-50	50-100	100-200	200-300	300-400	>400	Total
Jan				2	1	1	4
Feb			1	15	5		21
May		7	17				24
Jun		4	24	2			30
Jul	9	12	9				30
Aug	3	7	6	1			17
Sep			2				2
Oct			3	5	13	2	23

Nov					19	11	30
Dec			2	6	13	10	31
Jan-23				6	6	9	21
Mar-23			2	2			4

Table - Max AQI Time Intervals Wise (15 Minute Interval)

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Jan	391		1994	1205
Feb	978	1221	514	1326
May	1003	507	1150	836
Jun	381	677	514	1033
Jul	409	413	560	423
Aug	412	451	369	558
Sep	48	277	327	394
Oct	889	6113	6113	1675
Nov	1538	2001	1988	1726
Dec	1174	1895	1910	1839
Jan-23	983	1954	1878	1998
Mar-23	342	1336	394	452

Table - Avg AQI Time Interval Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Jan	237		340	474
Feb	234	318	121	364
May	132	145	90	148
Jun	141	175	105	167
Jul	62	88	85	103
Aug	74	117	87	131
Sep	26	132	194	187
Oct	241	366	295	343
Nov	338	434	342	424
Dec	308	401	287	398
Jan-23	296	424	294	425
Mar-23	209	229	104	190

Note - The device did not work between 21 Feb to 6 May 2022. Device did not work in Feb 2023

- 861480034786105 - RSS Nagar

Table - Monthly Average and Max AQI and HI

	Avg AQI	Avg HI	Max AQI	Max HI
Jan	298	18	1898	29
Feb	205	22	939	36
Mar	273	29	1225	44
Apr	238	36	1190	52
May	125	39	1205	58
Jun	134	39	1278	58
Jul	81	36	1010	62
Aug	102	34	963	58
Sep	119	34	730	60
Oct	179	29	1125	49
Nov	327	23	1115	38
Dec	317	21	1315	36
Jan-23	312	22	1781	40
Feb-23	217	25	1480	53
Mar-23	246	30	1310	57

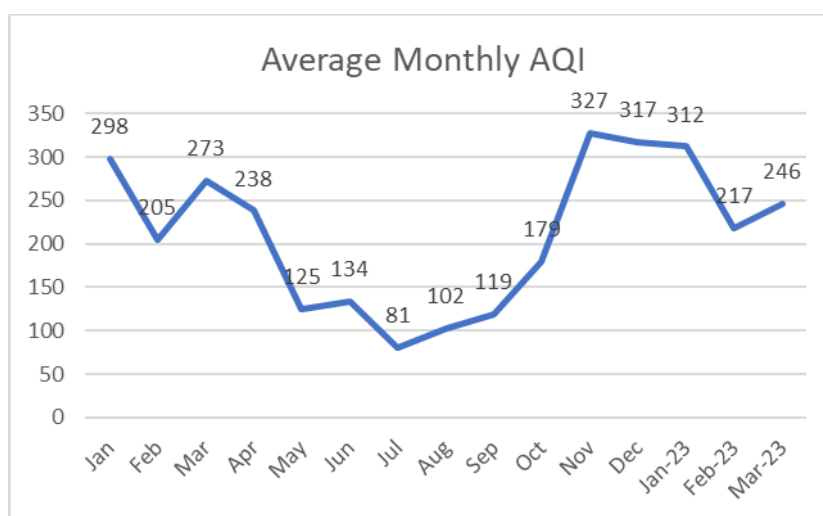


Table - AQI Categories Month Wise

	0-50	50-100	100-200	200-300	300-400	>400	Total
Jan				11	9		20
Feb			14	12	2		28
Mar			12	7	8	4	31
Apr			6	18	5	1	30
May		6	25				31
Jun		3	26	1			30
Jul	9	14	7				30
Aug	5	11	11	2			29
Sep	2	7	19	2			30
Oct	1	7	8	15			31

Nov			7	22	1	30
Dec		1	6	12	2	21
Jan-23		1	14	13	3	31
Feb-23	1	10	14	3		28
Mar-23		6	19	6		31

Table - Max AQI Time Intervals Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Jan	554	758	1898	1593
Feb	562	918	582	939
Mar	1060	1068	1225	1048
Apr	845	1103	1190	1118
May	628	1040	1030	1205
Jun	625	1118	1278	970
Jul	709	635	1010	505
Aug	359	963	394	629
Sep	330	578	377	730
Oct	494	705	363	1125
Nov	765	853	1115	1115
Dec	1203	1130	1180	1315
Jan-23	1033	844	840	1781
Feb-23	1144	1018	1095	1480
Mar-23	933	775	1310	1065

Table - Avg AQI Time Interval Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Jan	258	344	209	383
Feb	170	265	109	278
Mar	287	328	141	337
Apr	232	288	134	298
May	105	156	97	142
Jun	114	173	100	151
Jul	58	86	75	102
Aug	82	103	74	148
Sep	94	140	84	156
Oct	158	188	123	247
Nov	311	355	238	404
Dec	306	362	209	389
Jan-23	313	348	219	374
Feb-23	195	248	111	311
Mar-23	272	278	141	294

- 861480034775850 - Child Home Darri

	Avg AQI	Avg HI	Max AQI	Max HI
Jan	293	19	694	28
Feb	175	23	1574	41
Mar	194	30	723	49
Apr	159	35	586	55
May	76	39	545	58
Jun	88	38	1225	59
Jul	65	34	466	54
Aug	77	33	726	57
Sep	80	33	547	54
Oct	134	30	1511	53
Nov	252	24	1275	43
Dec	219	22	985	41
Jan-23	232	22	928	43
Feb-23	141	25	998	45
Mar-23	154	28	1561	49

Table - Monthly Average and Max AQI and HI

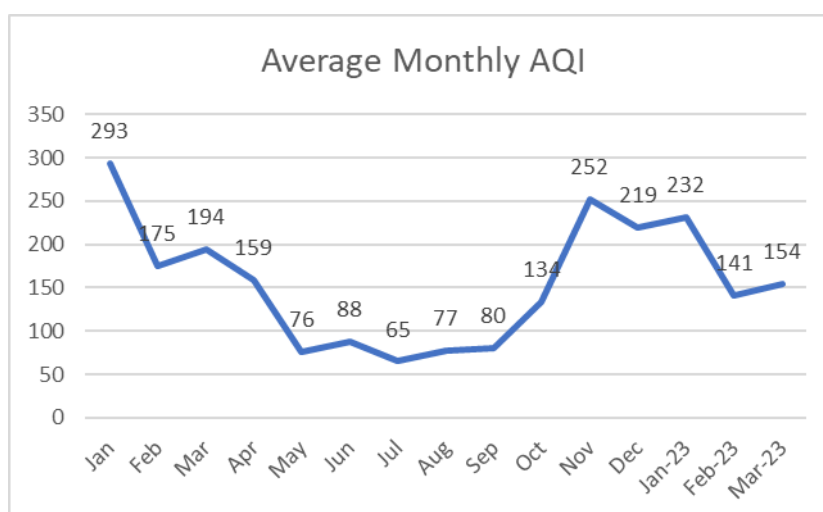


Table - AQI Categories Month Wise

	0-50	50-100	100-200	200-300	300-400	>400	Total
Jan		1		8	4	1	14
Feb		1	18	8	1		28
Mar		5	12	9	5		31
Apr		2	22	4	2		30
May	3	21	3				27
Jun	2	17	11				30
Jul	12	13	3				28
Aug	12	11	8				31
Sep	5	18	4				27

Oct	1	9	18	3			31
Nov			4	22	4		30
Dec		4	5	17	5		31
Jan-23			13	9	9		31
Feb-23	1	8	14	4	1		28
Mar-23		3	23	4	1		31

Table - Max AQI Time Intervals Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Jan	411	562	501	694
Feb	426	876	368	1574
Mar	582	723	418	628
Apr	469	586	333	583
May	367	417	436	545
Jun	433	1225	297	963
Jul	378	369	305	466
Aug	381	445	306	726
Sep	311	514	381	547
Oct	423	420	849	1511
Nov	393	675	751	1275
Dec	607	602	728	985
Jan-23	432	789	768	928
Feb-23	870	998	512	565
Mar-23	748	1561	329	793

Table - Avg AQI Time Interval Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Jan	272	327	224	346
Feb	148	201	87	263
Mar	195	222	102	259
Apr	172	195	73	198
May	68	91	50	95
Jun	73	113	59	107
Jul	38	71	57	87
Aug	57	75	62	116
Sep	57	87	71	106
Oct	108	119	98	207
Nov	257	259	163	332
Dec	229	227	128	293
Jan-23	225	249	152	301
Feb-23	123	150	65	216
Mar-23	151	174	72	217

- 861480034777765- Sikri Village (Relocated to sikri in Feb 2023)

Table - Monthly Average and Max AQI and HI

	Avg AQI	Avg HI	Max AQI	Max HI
Jan	194	18	1543	28
Feb	157	22	1371	47
Mar	137	28	1281	43
Jul	43	42	103	52
Aug	91	38	694	51
Feb-23	303	26	1875	37
Mar-23	270	27	1466	42

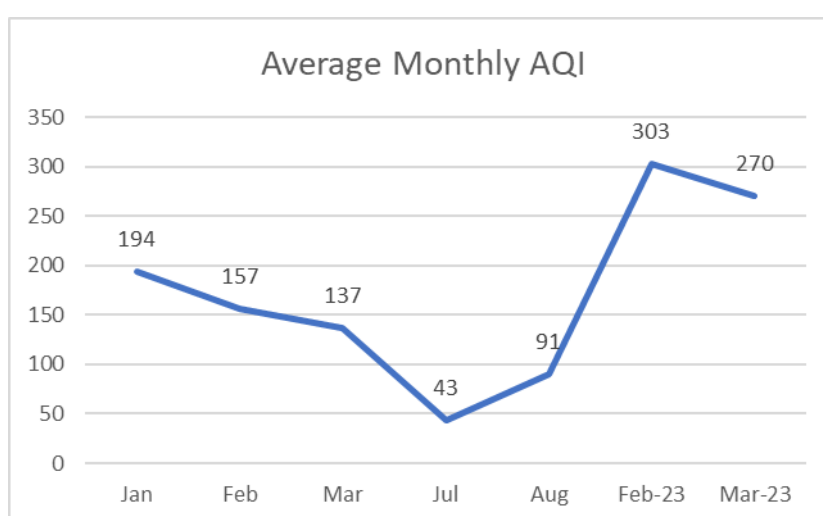


Table - AQI Categories Month Wise

	0-50	50-100	100-200	200-300	300-400	>400	Total
Jan			7	3	1		11
Feb		3	16	5			24
Mar		4	14	1	1		20
Jul	1						1
Aug	3	4	4				11
Feb-23				6	3	2	11
Mar-23			3	18	8	1	30

Table - Max AQI Time Intervals Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Jan	464	700	1543	1501
Feb	458	1179	1145	1371
Mar	405	884	392	1281
Jul	67	68	103	97

Aug	335	408	499	694
Feb-23	544	1875	628	1609
Mar-23	615	1466	1324	1408

Table - Avg AQI Time Interval Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Jan	164	209	100	306
Feb	133	174	81	234
Mar	122	126	76	220
Jul	36	41	40	59
Aug	61	101	101	102
Feb-23	268	310	165	464
Mar-23	256	302	171	355

- 861480034765562 - Gevra Mines Rehabilitated Area

Table - Monthly Average and Max AQI and HI

	Avg AQI	Avg HI	Max AQI	Max HI
Jan	350	20	1168	27
Feb	185	23	1640	39
Mar	212	29	1515	48
Apr	238	35	1040	52
May	98	38	1300	56
Jun	109	38	1156	52
Jul	66	36	939	56
Aug	69	35	633	49
Sep	74	36	1110	55
Oct	99	31	883	54
Nov	185	25	1220	38
Dec	230	23	1468	31
Jan-23	210	21	1228	28
Feb-23	131	25	1473	37
Mar-23	144	29	1090	40

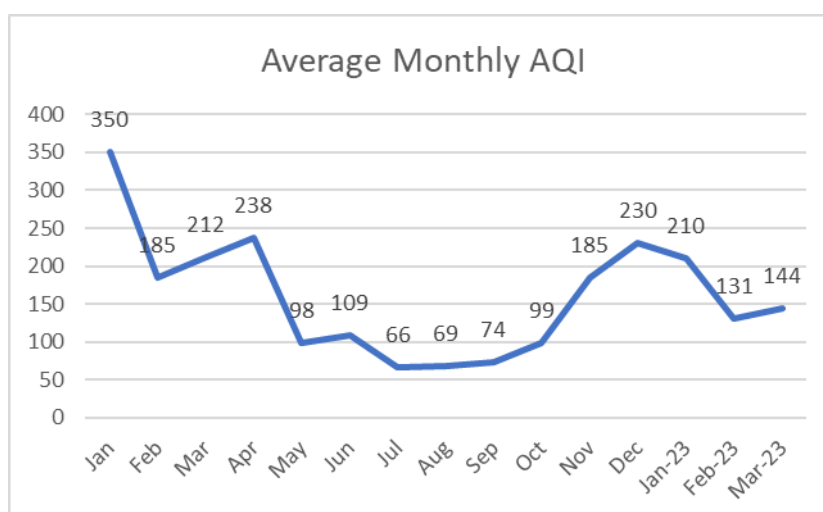


Table - AQI Categories Month Wise

	0-50	50-100	100-200	200-300	300-400	>400	Total
Jan					1		1
Feb			17	9	1		27
Mar		1	14	10	6		31
Apr			7	13	5		25
May	1	14	13				28
Jun		15	14	1			30
Jul	11	17	3				31
Aug	15	11	5				31
Sep	6	15	3				24

Oct	5	10	16				31
Nov			11	7			18
Dec			8	8	5		21
Jan-23		1	9	5	4		19
Feb-23		7	17	4			28
Mar-23		6	21	4			31

Table - Max AQI Time Intervals Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Jan			267	1168
Feb	750	1448	1248	1640
Mar	550	1515	1415	1064
Apr	1040	546	463	1020
May	330	970	798	1300
Jun	1114	598	358	1156
Jul	522	939	619	673
Aug	277	633	409	485
Sep	227	450	1110	728
Oct	883	706	585	443
Nov	362	589	1220	414
Dec	428	1468	1164	993
Jan-23	1015	568	993	1228
Feb-23	675	1135	1473	417
Mar-23	474	905	452	1090

Table - Avg AQI Time Interval Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Jan			81	519
Feb	179	194	99	271
Mar	214	231	126	278
Apr	265	284	140	249
May	93	111	69	120
Jun	110	125	70	131
Jul	46	85	62	72
Aug	51	79	65	84
Sep	50	87	80	82
Oct	75	100	83	147
Nov	150	187	155	257
Dec	210	242	159	313
Jan-23	200	221	158	275
Feb-23	101	116	76	222
Mar-23	134	163	90	191

- 861480034757130 - Korba City

Table - Monthly Average and Max AQI and HI

	Avg AQI	Avg HI	Max AQI	Max HI
Jan	393	19	1984	24
Feb	252	23	1243	46
Mar	275	25	413	31
Apr	165	37	1305	50
May	119	40	1210	59
Jun	132	39	445	53
Jul	96	36	1965	53
Aug	58	34	1455	44
Sep	71	35	1278	45
Oct	85	32	3158	44
Nov	158	22	885	41
Dec	150	22	1260	37
Jan-23	157	23	1463	39
Feb-23	137	24	1283	42
Mar-23	167	28	1235	47

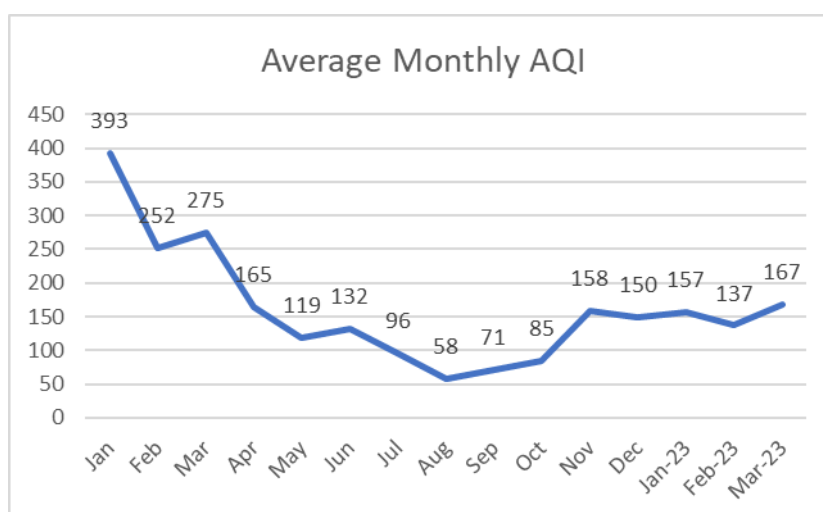


Table - AQI Categories Month Wise

	0-50	50-100	100-200	200-300	300-400	>400	Total
Jan			2	1	3	1	7
Feb		1	3	21	3		28
Mar			1			1	2
Apr			5				5
May		7	17				24
Jun		3	12	1			16
Jul	3	6	3	1			13
Aug	12	11	2				25
Sep	5	22	3				30

Oct	3	10	7				20
Nov		1	14	1			16
Dec		3	23	2			28
Jan-23			18	3			21
Feb-23		5	20	3			28
Mar-23	1	4	19	6	1		31

Table - Max AQI Time Intervals Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Jan	367	387	1984	1369
Feb	368	923	1243	1011
Mar	0	137		413
Apr	598	955	328	1305
May	933	1210	1175	389
Jun	207	445	429	435
Jul	808	1233	1965	385
Aug	948	468	1348	1455
Sep	1100	435	673	1278
Oct	609	3158	1303	1280
Nov	306	885	810	585
Dec	1260	1185	918	885
Jan	320	1463	1273	1048
Feb-23	335	1238	1283	821
Mar-23	1113	663	1140	1235

Table - Avg AQI Time Interval Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Jan	282	364	334	445
Feb	209	328	127	340
Mar		137		413
Apr	117	244	87	212
May	97	134	104	140
Jun	93	159	112	162
Jul	52	95	128	114
Aug	40	49	56	82
Sep	43	76	64	100
Oct	51	103	72	114
Nov	107	209	100	215
Dec	114	194	102	189
Jan	100	198	109	213
Feb-23	88	173	79	196
Mar-23	166	204	102	191

- 862649042673930- Balco Housing Area

Table - Monthly Average and Max AQI and HI

	Avg AQI	Avg HI	Max AQI	Max HI
Jan	240	17	770	26
Feb	137	23	958	52
Mar	215	31	1059	62
Apr	181	38	703	70
May	86	44	335	76
Jun	86	42	306	77
Oct	73	44	123	53
Nov	221	20	1005	43
Dec	202	21	1418	44
Jan-23	218	21	565	46
Feb-23	160	23	1368	51
Mar-23	177	29	791	64

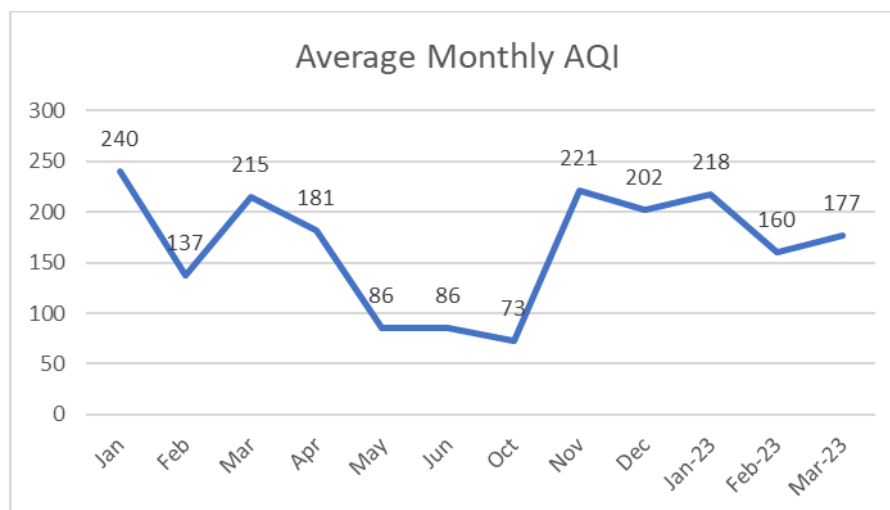


Table - AQI Categories Month Wise

	0-50	50-100	100-200	200-300	300-400	>400	Total
Jan			5	15	8	3	31
Feb		6	18	4			28
Mar		7	10	8	2	4	31
Apr		2	19	5	3	1	30
May		15	6				21
Jun		10	6				16
Oct		1					1
Nov			5	10	5		20
Dec		1	14	15	1		31
Jan-23			14	11	6		31
Feb-23	1	4	17	5	1		28
Mar-23		4	18	7	2		31

Table - Max AQI Time Intervals Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Jan	475	770	352	701
Feb	364	836	277	958
Mar	1059	1019	394	824
Apr	703	559	336	519
May	240	328	240	335
Jun	300	306	233	302
Oct		123		
Nov	451	471	925	1005
Dec	477	534	843	1418
Jan	465	427	420	565
Feb-23	1368	614	328	951
Mar-23	791	560	396	588

Table - Avg AQI Time Interval Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Jan	215	292	128	307
Feb	118	169	76	186
Mar	252	248	117	242
Apr	190	229	109	197
May	85	85	77	96
Jun	94	112	59	81
Oct		73		
Nov	177	222	171	312
Dec	178	202	136	294
Jan	223	213	158	276
Feb-23	205	154	75	201
Mar-23	205	183	108	210

- 861480034765406 - Kusmunda Mines Area

Table - Monthly Average and Max AQI and HI

	Avg AQI	Avg HI	Max AQI	Max HI
Jan	221	18	1555	25
Feb	258	25	1683	52
Mar	260	32	1774	60
Apr	319	37	1921	49
May	179	40	1996	61
Jun	200	40	1969	55
Jul	157	37	1984	50
Aug	168	36	1955	53
Sep	184	41	452	44
Oct	176	30	8675	42
Nov	279	24	1948	31
Jan-23	342	23	1979	33
Feb-23	236	24	1980	36
Mar-23	226	28	1903	48

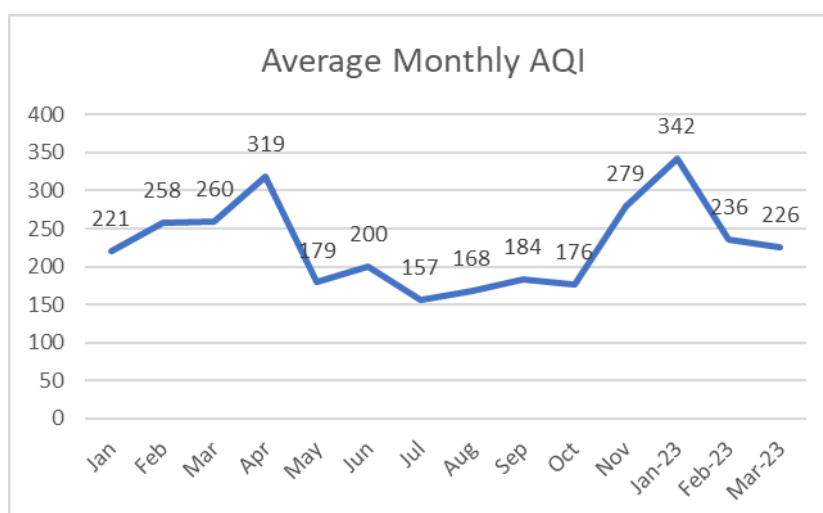


Table - AQI Categories Month Wise

	0-50	50-100	100-200	200-300	300-400	>400	Total
Jan		1	8	7	4		20
Feb			5	17	4	1	27
Mar			10	9	2	5	26
Apr				14	12	4	30
May			20	9			29
Jun			14	16			30
Jul		6	21	4			31
Aug		4	16	10	1		31
Sep			2				2
Oct		1	17	2	1		21
Nov			2	12	9	1	24
Jan_23			1	6	5	5	17

Feb-23			10	11	7		28
Mar-23			11	16	4		31

Table - Max AQI Time Intervals Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Jan	434	497	580	1555
Feb	590	1428	1683	1646
Mar	660	1371	1234	1774
Apr	936	1921	1816	1725
May	508	1730	1996	1013
Jun	681	1969	1853	1169
Jul	492	1984	1786	1261
Aug	427	1955	1853	946
Sep	270	452	308	414
Oct	427	835	766	8675
Nov	457	720	1489	1948
Jan	881	1733	876	1979
Feb-23	1155	1219	1648	1980
Mar-23	1558	1751	1676	1903

Table - Avg AQI Time Interval Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Jan	181	234	119	342
Feb	170	283	159	421
Mar	183	304	174	383
Apr	265	402	245	367
May	116	249	169	182
Jun	117	291	210	183
Jul	65	241	179	139
Aug	83	219	200	169
Sep	103	241	164	292
Oct	99	159	101	340
Nov	201	276	210	445
Jan	294	383	212	478
Feb-23	189	192	100	458
Mar-23	201	239	124	339

Note- Device did not work in December 2022

- 861480034774176 - Old Age Home near Sarvmangla Mandir

Table - Monthly Avg and Max AQI and HI

	Avg AQI	Avg HI	Max AQI	Max HI
Feb	116	21	686	51
Mar	199	28	1043	52
Apr	165	34	666	51
May	73	37	438	50
Jul	35	39	318	44
Sep	93	31	367	41
Oct	176	31	1419	56
Nov	322	24	1138	46
Dec	280	23	1149	41
Jan_23	257	22	1749	43
Feb-23	188	25	1464	44
Mar-23	175	28	1558	50

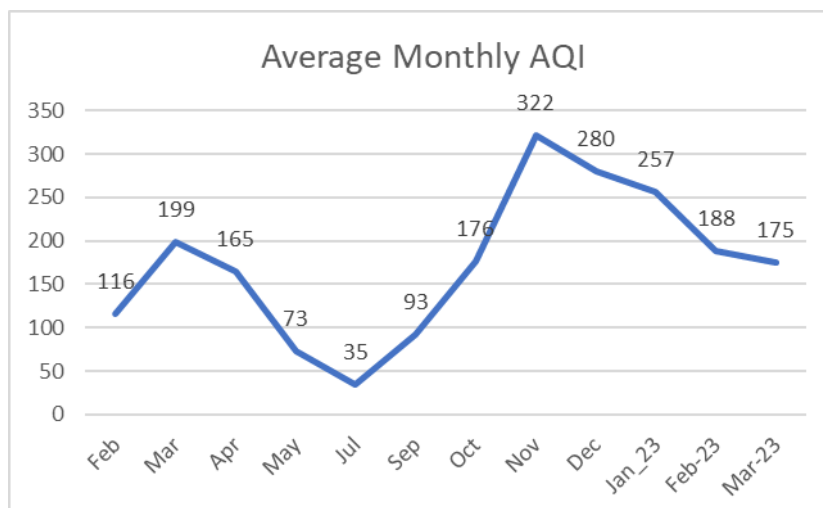


Table - AQI Categories Month Wise

	0-50	50-100	100-200	200-300	300-400	>400	Total
Feb		10	14	1			25
Mar		10	7	8	3	3	31
Apr		5	15	6	2		28
May	2	9	3				14
Jul	4	1					5
Sep		2	1				3
Oct		4	16	8			28
Nov				8	22		30
Dec			6	13	12		31
Jan_23			8	13	10		31
Feb-23		3	16	7	2		28
Mar-23		2	20	9			31

Table - Max AQI Time Intervals Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Feb	383	556	514	686
Mar	1043	939	385	856
Apr	666	592	329	437
May	263	438	273	280
Jul	17	95	43	318
Sep	283	367	342	338
Oct	626	1061	1419	550
Nov	1138	988	431	728
Dec	805	828	474	1149
Jan	504	924	1749	700
Feb-23	655	1400	1464	713
Mar-23	1558	998	527	565

Table - Avg AQI Time Interval Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Feb	106	126	65	165
Mar	249	209	91	244
Apr	192	200	81	187
May	77	79	58	79
Jul	13	25	16	52
Sep	58	143	72	101
Oct	174	200	114	215
Nov	343	343	232	367
Dec	302	307	171	336
Jan	262	287	169	303
Feb-23	172	228	88	246
Mar-23	189	210	89	209

- 862649042685215 - NTPC Jamnipalli

Table - Monthly Avg and Max AQI and HI

	Avg AQI	Avg HI	Max AQI	Max HI
Feb	152	22	1369	33
Mar	193	28	1343	43
Apr	179	36	764	51
Jun	84	37	537	56
Jul	72	34	338	51
Aug	37	34	365	50
Sep	66	34	383	52
Oct	61	29	496	46
Nov	99	21	568	32
Dec	119	21	981	29
Jan	133	18	1275	28
Mar-23	86	30	377	45

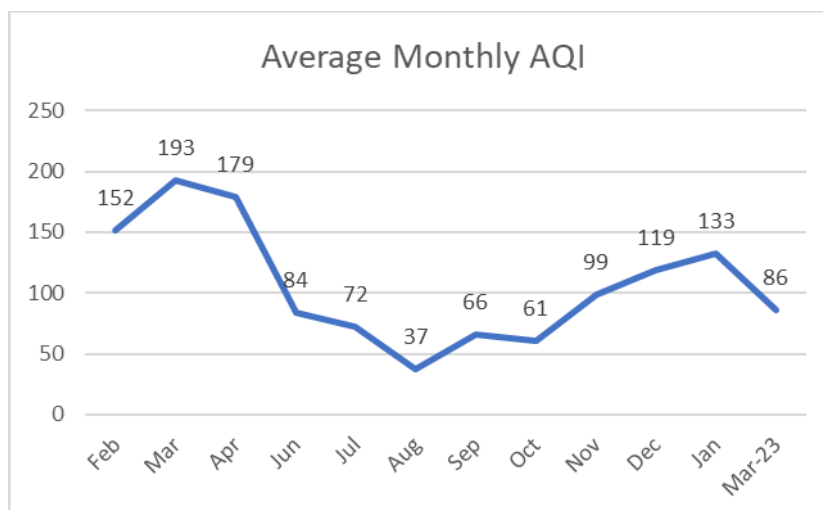


Table - AQI Categories Month Wise

	0-50	50-100	100-200	200-300	300-400	>400	Total
Feb		1	19	3			23
Mar		6	11	6	3	2	28
Apr			10	1			11
Jun	1	16	6				23
Jul	1	5					6
Aug	8	2					10
Sep	1	4	1				6
Oct	12	12	1				25
Nov		16	8				24
Dec		9	14				23
Jan		7	9	2			18
Mar-23		2	1				3

Table - Max AQI Time Intervals Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Feb	351	619	313	1369
Mar	718	861	346	1343
Apr	385	443	431	764
Jun	458	365	336	537
Jul	150	287	338	325
Aug	167	365	163	314
Sep	200	383	157	341
Oct	325	429	335	496
Nov	326	360	442	568
Dec	353	418	380	981
Jan	372	1275	489	591
Feb-23				
Mar-23	377	300	167	316

Table - Avg AQI Time Interval Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Feb	139	176	83	207
Mar	186	231	111	243
Apr	187	238	86	207
Jun	78	108	61	90
Jul	46	70	77	100
Aug	29	41	35	42
Sep	65	56	47	96
Oct	50	61	54	76
Nov	86	101	83	121
Dec	99	141	91	141
Jan	115	154	109	151
Feb-23				
Mar-23	96	98	67	88

- 861480034781205 sarai singar chowk – Installed in October 2022

Table – Monthly Average and Max AQI and HI

	Avg AQI	Avg HI	Max AQI	Max HI
Oct	236	27	2491	44
Nov	267	23	821	39
Dec	160	21	465	29

Table – AQI Categories Month Wise

	0-50	50-100	100-200	200-300	300-400	>400	Total
Oct		1	4	6	10	1	22
Nov			8	6	16		30
Dec			5	1			6

Table – Max AQI Time Intervals Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Oct	517	571	623	2491
Nov	656	821	768	813
Dec	353	405	465	448

Table – Avg AQI Time Interval Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Oct	220	225	174	303
Nov	263	273	224	311
Dec	146	173	125	199

Note – Device did not work in January, February, March 2023

- 861480034777179 Surakachar chowk (underground Mines) – Installed in October 2022

Table - Monthly Avg and Max AQI and HI

	Avg AQI	Avg HI	Max AQI	Max HI
Oct	370	29	1371	45
Nov	428	22	1620	36
Dec	443	21	1168	30
Jan	382	22	850	32
Feb-23	404	23	1180	35
Mar-23	375	27	733	46

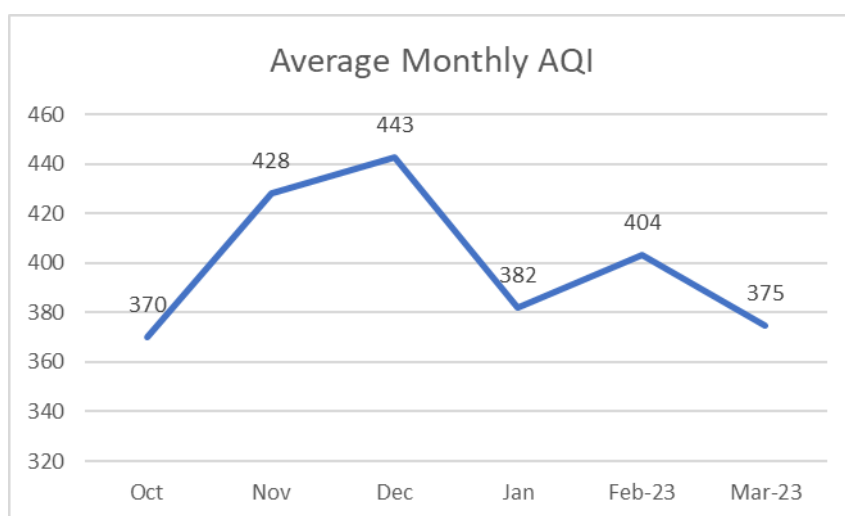


Table - AQI Categories Month Wise

	0-50	50-100	100-200	200-300	300-400	>400	Total
Oct			1	3	17	6	27
Nov					9	21	30
Dec					5	19	24
Jan					17		17
Feb-23					11	17	28
Mar-23					27	4	31

Table - Max AQI Time Intervals Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Oct	646	701	652	1371
Nov	804	1228	948	1620
Dec	585	826	916	1168
Jan	483	610	546	850
Feb-23	586	1180	668	710
Mar-23	483	610	546	850

Table - Avg AQI Time Interval Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Oct	332	355	342	439
Nov	383	425	459	459
Dec	436	438	395	487
Jan	368	384	361	412
Feb-23	400	405	386	423
Mar-23	368	384	361	412

- 861480034784340 Kanha Auto repairs, Station road – Installed in October 2022

Table - Monthly Avg and Max AQI and HI

	Avg AQI	Avg HI	Max AQI	Max HI
Oct	218	27	2295	46
Nov	331	21	1300	31
Dec	326	20	1948	29
Jan	281	19	1666	30
Feb-23	202	23	1369	32
Mar-23	186	27	1131	43

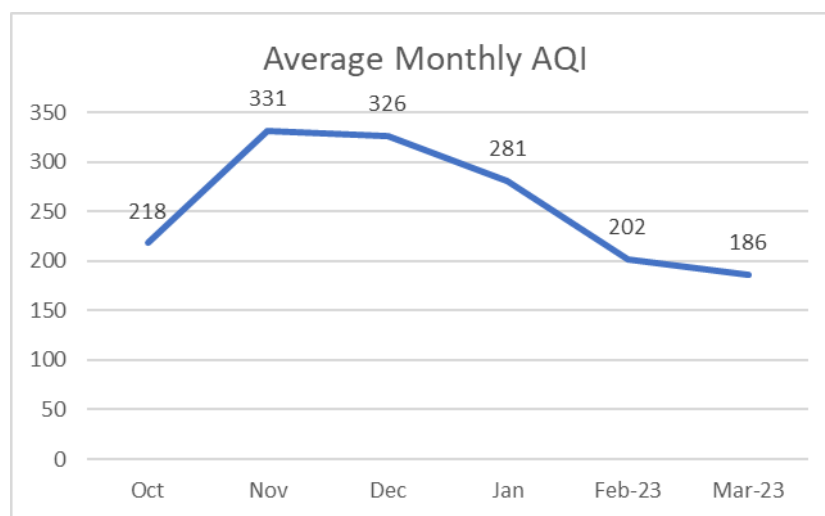


Table - AQI Categories Month Wise

	0-50	50-100	100-200	200-300	300-400	>400	Total
Oct			9	13		1	23
Nov			2	5	14	4	25
Dec			2	7	15	7	31
Jan			3	11	16	1	31
Feb-23		1	12	14	1		28
Mar-23		2	18	11			31

Table - Max AQI Time Intervals Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Oct	674	1083	1083	2295
Nov	808	1073	1029	1300
Dec	841	1948	1121	1714
Jan	552	1666	603	1165
Feb-23	623	597	389	1369

Mar-23	515	1131	551	720
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Table - Avg AQI Time Interval Wise

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to Midnight
Oct	148	209	163	347
Nov	285	325	257	451
Dec	286	332	197	478
Jan	232	312	191	379
Feb-23	181	199	78	342
Mar-23	172	202	106	261