

Air Pollution – Brief Analysis for December 2022

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 December to 31 December 2022 and Jan to December 2022

Section 1 – Data Analysis for period Jan to December 2022

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

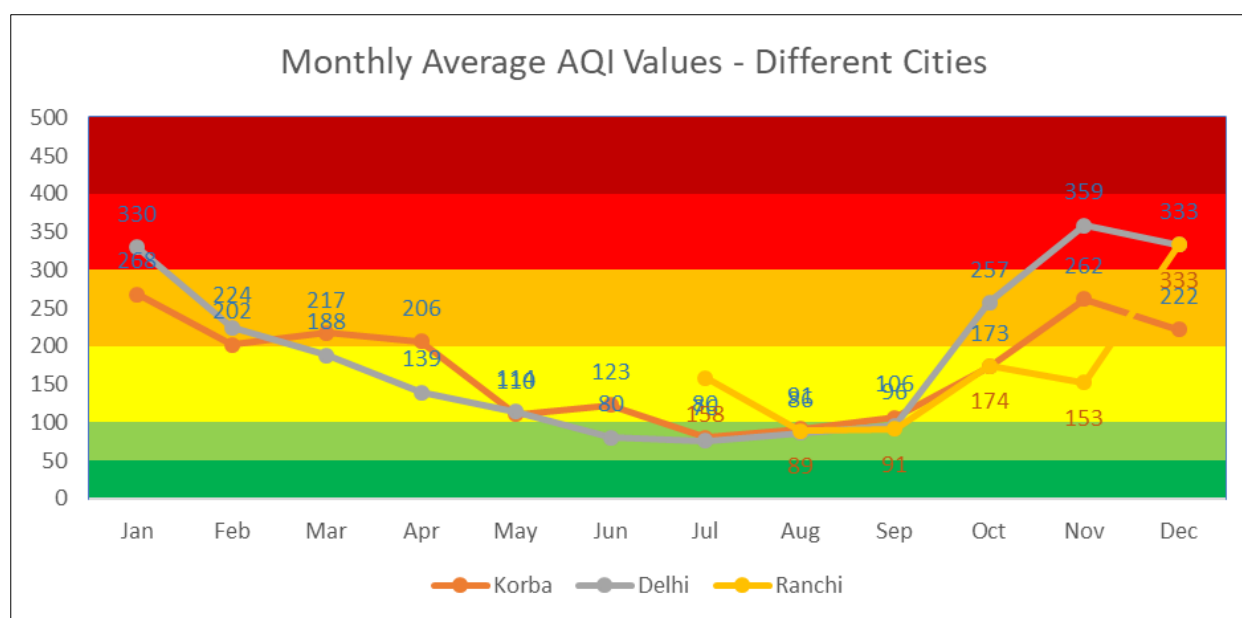


Table and Graph above show the Average Monthly AQI in different Cities. The graph and data clearly showcase the winter months when AQI comes under dangerous levels and summer and monsoon months when the air quality is Satisfactory. It is clear that AQI is showing an increasing trend with the onset of winter. During this period, Delhi recorded the worst AQI in the month of November. Out of 12 months, for 8-month AQI in Delhi was above 100 while Korba had AQI above 100 for 10 months. December Air quality has improved over the previous month figures. The overall data for Korba shows that Korba Air is more polluted than Delhi for longer durations in the year. 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
Korba	19	24	29	36	40	39	37	35	35	30	23	21
Delhi	17	20	26	32	35	36	39	37	36	28	24	18
Ranchi							31	30	29	24	20	18

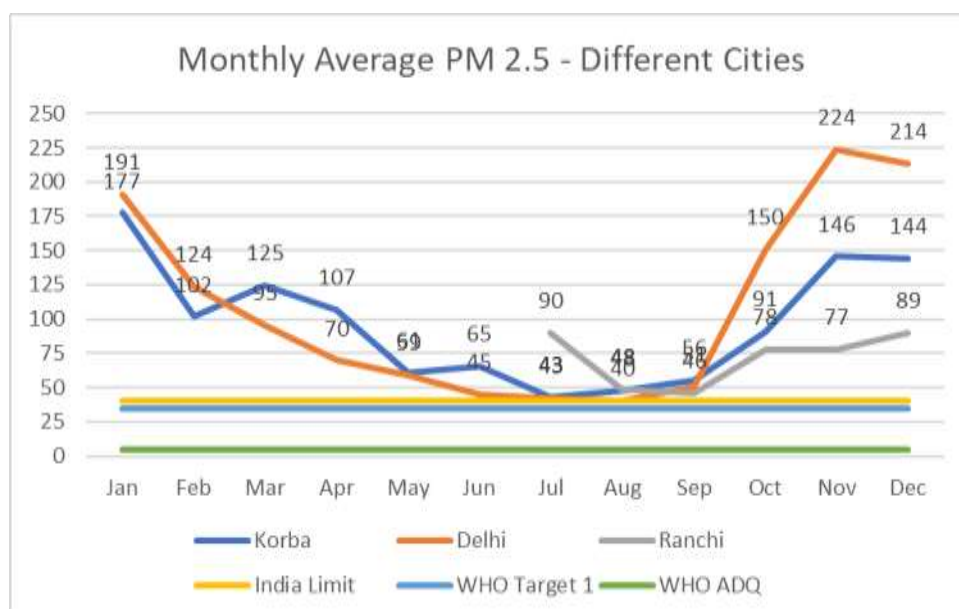
The above table shows the Monthly Average Heat Index for different cities.

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 more 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

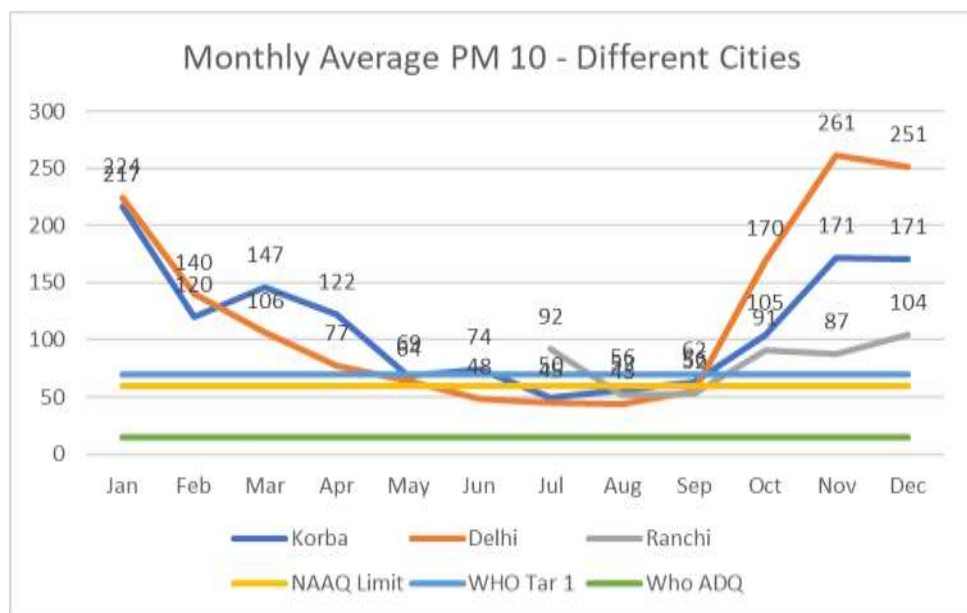
Below is the table and graph showing Monthly Average PM 2.5 values in different cities. In none of the months did any of the cities meet the higher Indian standard. In both Delhi and Korba, the values were more than 4 times the values in some of the months. Only during the monsoon period were the values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

Monthly Average PM 2.5 - Different Cities												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Korba	177	102	125	107	61	65	43	48	56	91	146	144
Delhi	191	124	95	70	59	45	43	40	51	150	224	214
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
Korba	217	120	147	122	69	74	50	56	62	105	171	171
Delhi	224	140	106	77	64	48	45	43	56	170	261	251
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 164 daily intervals as recorded by all devices installed in Korba. The data shows that in all locations more than 60% of the days, AQI has been above 100. Delhi and Korba recorded more than 34% 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 >100	Percent >200
Korba	164	523	962	610	382	132	2773	75%	41%
Delhi	380	759	901	498	355	188	3081	63%	34%
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 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.

		0-50	50-100	100-200	200-300	300-400	>400	Grand Total	Percent >100
Korba	Jan	0	12	36	48	31	6	133	91%
	Feb	0	22	118	102	19	4	265	92%
	Mar	0	28	99	56	29	16	228	88%
	Apr	2	13	72	55	27	6	175	91%
	May	4	70	101	9	0	0	184	60%
	June	3	68	113	21	0	0	205	65%
	July	50	74	46	5	0	0	175	29%
	Aug	58	61	52	13	1	0	185	36%
	Sep	19	68	35	2	0	0	124	30%
	Oct	25	63	127	72	44	13	344	74%
	Nov	3	23	64	115	141	40	386	93%
	Dec	0	21	99	112	90	47	369	94%
Delhi	Jan	0	2	20	88	101	81	292	99%
	Feb	15	32	74	96	85	14	316	85%
	Mar	2	49	172	145	27	0	395	87%
	Apr	10	85	219	59	0	0	373	75%
	May	44	119	187	12	0	0	362	55%
	June	152	134	63	9	3	1	362	21%
	July	76	192	71	5	0	0	344	22%
	Aug	47	83	29	0	0	0	159	18%
	Sep	24	50	38	7	0	0	119	38%
	Oct	10	13	16	31	24	21	115	80%
	Nov	0	0	5	26	57	32	120	100%
	Dec	0	0	7	20	58	39	124	100%

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. Except 1 device in Korba, all other devices have recorded AQI above 100 above 50% of the daily monitored intervals. In one case this number is above 95% which is alarming.

Device Wise Totals (Selected Devices) – Since January 2022								
	0-50	50-100	100-200	200-300	300-400	>400	Grand Total	Percent >100
861480034766644	12	30	64	31	51	24	212	80.19%
861480034786105	17	48	129	81	58	8	341	80.94%
861480034775850	35	102	108	71	21	1	338	59.47%
861480034777765	4	11	41	9	2	0	67	77.61%
861480034765562	38	83	111	48	18	0	298	59.40%

861480034757130	23	64	92	27	6	2	214	59.35%
862649042673930	0	42	83	57	19	8	209	79.90%
861480034765406	0	12	115	100	33	11	271	95.57%
861480034774176	6	41	62	44	39	3	195	75.90%
862649042685215	23	71	70	10	3	2	179	47.49%
861480034766461	21	79	87	77	54	46	364	72.53%
861480034784522	42	79	95	41	38	15	310	60.97%
862649043466961	46	76	98	50	49	34	353	65.44%
861480034785552	40	82	87	52	59	17	337	63.80%
861480034766453	4	30	63	11	2	0	110	69.09%

Section 2 –Information and Analysis for December 2022

Location wise Information				
Location	Avg PM 2.5	Avg PM 10	Avg AQI	Max AQI
Korba	144	171	251	1974
Delhi	214	251	352	1423
Ranchi	89	104	170	1886

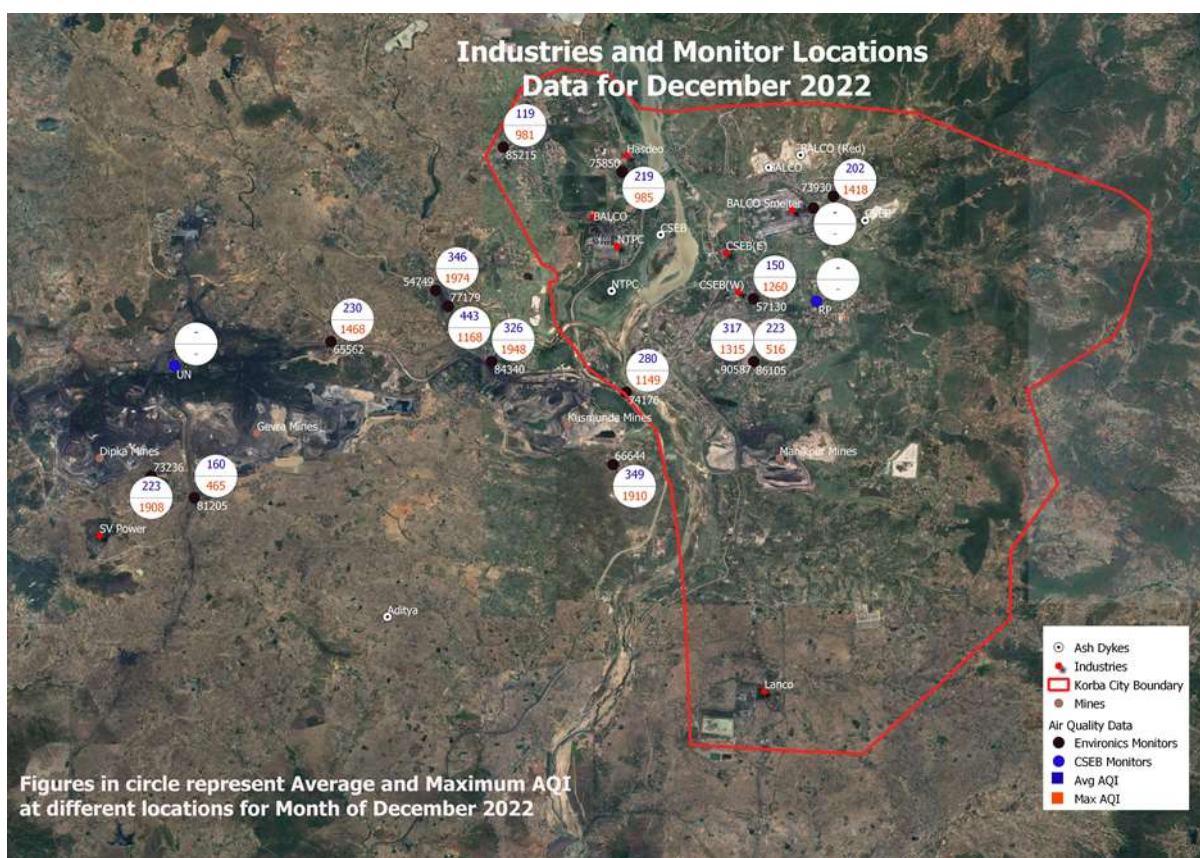
Table above shows the city wise Average PM 2.5, PM 10, AQI and Max AQI for December 2022. During this period Average AQI is highest in Delhi although the Max AQI is recorded highest in Korba and has been recorded just below 2000. Although such high numbers have been recorded only for a few intervals but getting such high number for AQI is a matter of grave concern. In Delhi and Ranchi also, the Max AQI recorded has crossed 1400 which is a matter of concern and immediate action.

Data for individual devices placed at Korba can be seen in below table. Out of 14 devices which worked in Korba in this period 10 devices recorded maximum AQI greater than 1000. Average Monthly AQI is above 100 at all locations. Device placed at Surakachar chowk near the underground Mines recorded the highest Average AQI at 443 while device at NTPC Housing Colony was the cleanest at 119 but still above the Satisfactory range. The device at Gud Deva (Coal Siding) which is also close to the Surakachar underground mines has also repeatedly recorded high AQI values. 5 devices have recorded Average AQI above 300 and another 6 above 200

Location wise Avg and Max AQI for devices placed at Korba			
Device Number	Location	Avg	Max
861480034766644	Village Pali	349	1910
861480034786105	RSS nagar	317	1315
861480034775850	Child Home Darri	219	985
861480034765562	Gevra Mines Rehabilitated Area	230	1468
861480034757130	Korba City, Patharipara	150	1260
861480034765406	RSS Nagar	202	1418
861480034765406	Near Dipka Main Road	-	-
861480034774176	Old Age Home, Near Sarvmangla Mandir	280	1149
862649042685215	NTPC Jamnipalli Housing Colony	119	981
861480034781205	sarai singar chowk	160	465

861480034777179	Surakachar chowk (underground Mines)	443	1168
861480034784340	Kanha Auto repairs, Station road	326	1948
861480034773236	Aryan Public School, Hardi Bazaar	223	1908
862649042690587	Near BALCO Power Plant	223	516
861480034754749	Gud Deva (Coal Siding)	346	1974

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. These devices have not worked for a single day in December 2022.



Map - Install and industrial locations at Korba. Numbers reflect Average and Max AQI of the location for December 2022. 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 December 2022																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Korba	314	318	324	323	323	258	266	264	271	298	311	257	221	134	142	162
Delhi	404	407	451	448	357	379	304	293	355	422	305	246	195	171	201	268
Ranchi	196	203	193	163	163	132	156	198	209	169	200	102	92			

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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Korba	171	219	272	269	272	214	278	299	286	302	282	227	162	217	181
Delhi	365	458	435	373	369	349	401	360	322	340	370	351	367	450	366
Ranchi											385	182	82		

The Tables above show Daily Average AQI between different cities for December 2022. Cells where AQI >100 have been highlighted. Only the device at Ranchi recorded AQI below 100 on 2 days. Other than that, the Air Quality in all three cities has been above 100 for the entire month. AQI in Delhi was the lowest at 171 and highest at 458. AQI was above 400 for 9 days in the month (More than in November). Even in Korba, AQI has been above 200 for the entire month except for 6 days. 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

City	0-50	51-100	101-200	201-300	301-400	>401	Not Work	Total
Korba	0	0	6	18	7	0	0	31
Delhi	0	0	2	4	16	9	0	31
Ranchi	0	2	11	2	1	0	15	31

Table - City wise categories for December 2022

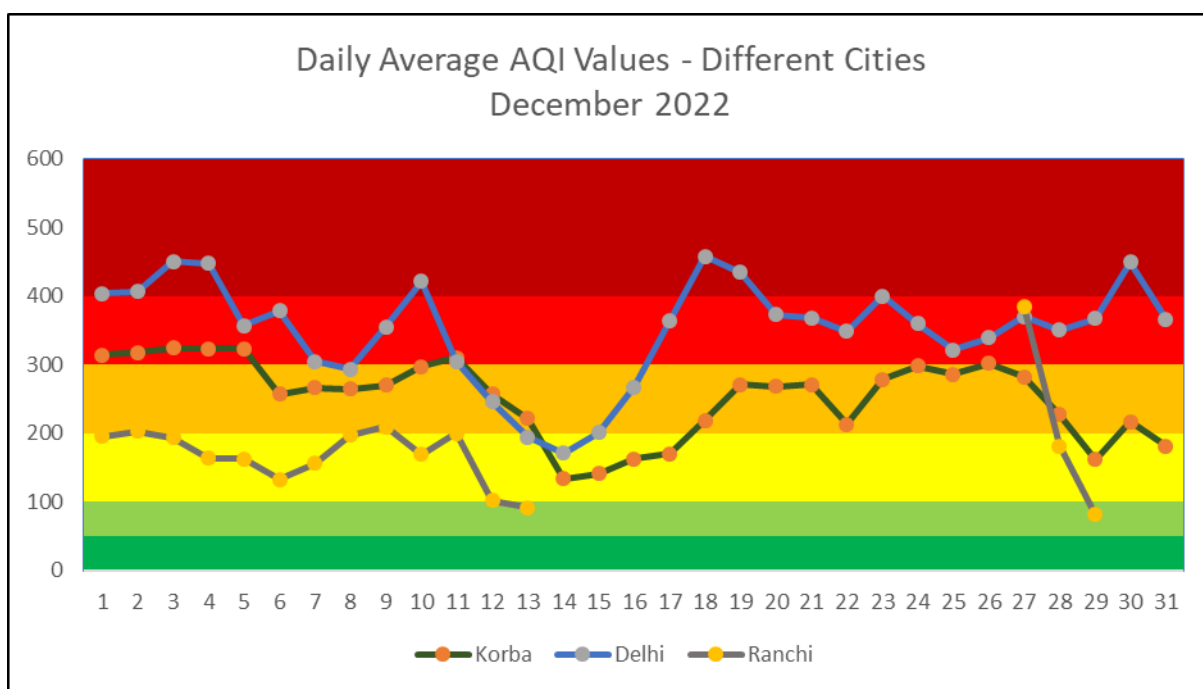


Table below shows the Daily Average AQI for individual devices placed at Korba. Figures above 250 have been marked in Red. The data reads like a sorry state of affairs. Only 2 locations 57130 and 85215 did not record any interval above 250. Both of these are residential locations. 81205 also did not record any interval above 250 but this device worked for only 6 days in the month. Location 54749 recorded Average AQI of 491 on 24 December. This is located near the underground mine near a busy commercial road.

Average AQI, Device Wise at Korba for December 2022															
Date	66644	86105	75850	65562	57130	73930	65406	74176	85215	81205	77179	84340	73236	90587	54749
1	415	376	317		168	270	-	367	167	202	469	366	302	350	385
2	434	373	325	327	161	278	-	359	167	157	489	456	305	296	445
3	421	385	330	342	173	302	-	369	182	165	475	388	323	325	406
4	419	393	326	345	182	276	-	383	191	151	463	420	309	328	439
5	395	403	305	326	226	276	-	357	153		465	418	242	311	433
6	323	324	240		162	210	-	328	115	119	418	343	226	264	319
7	412	324	235		158	259	-	322	120	115	453	413	232	245	286
8	324	300	223		181	281	-	294	113		410	303	229	224	336
9	362	296	247		186	213	-	299	102		418	371	227	266	323
10	377	326	280		126	223	-	370	145		487	383	260	276	405
11	398	325	287		164	235	-	390	129		474	396	259	291	454
12	385	244	227		142	176	-	311	98		464	357	229	199	325
13	303		149		113	156	-	289	83		396	352	171	198	271
14	180		76		58	103	-	149	76		363	142	97	97	157
15	191		86	127	76	91	-	193	74		372	150	92	94	174
16	223		91	103	87	110	-	194	83		380	219	103	133	286
17	217		111	120	138	150	-	186	78		388	208	114	124	253
18	285		203	199	151	182	-	221	117		404	248	183	222	256
19	378		252	233	180	194	-	279			412	347	245	232	
20	405		228	217	153	203	-	322			439	353	208	207	
21	350		213	210	143	232	-	257			457	356	211	252	383
22	303		113	168	101	153	-	244			431	240	161	186	310
23	360	404	245	245	142	151	-	331			452	345	204	162	382
24	426	311	272	242	145	198	-	270			443	403	384	205	491
25	457	304	260	307	138	194	-	194				409	308	217	465
26	438	345	279	293	149	223	-	240				413	310	268	459
27	376	325	256	291	223	234	-	296	132			368	290	271	333
28	291	270	205	241	185	218	-	235	134			276	203	185	320
29	290	165	97	135		149	-	172	80			239	103	137	289
30	420	250	164	141		175	-	240	70			324	204	134	379
31	270	209	102	174		155	-	226	55			255	160	158	285

Table – Daily Average AQI at Korba for December 2022 (blank implies device did not work)

Table - AQI Category wise information for individual devices (December 2022)

AQI categories Wise Information for Different Devices - December 2022										
Device Number	Location	0-50	50-100	100-200	200-300	300-400	>400	Grand Total	Percent >100	Percent >200
861480034766644	Korba			2	6	13	10	31	100%	94%
861480034786105	Korba			1	6	12	2	21	100%	95%
861480034775850	Korba		4	5	17	5		31	87%	71%
861480034777765	Korba	-	-	-	-	-	-	-	-	-
861480034765562	Korba			8	8	5		21	100%	62%

861480034757130	Korba		3	23	2			28	89%	7%
862649042673930	Korba		1	14	15	1		31	97%	52%
861480034765406	Korba	-	-	-	-	-	-	-	-	-
861480034774176	Korba			6	13	12		31	100%	81%
862649042685215	Korba		9	14				23	61%	0%
861480034781205	Korba			5	1			6	100%	17%
861480034777179	Korba					5	19	24	100%	100%
861480034784340	Korba			2	7	15	7	31	100%	94%
861480034773236	Korba		2	7	15	7		31	94%	71%
862649042690587	Korba		2	10	15	4		31	94%	61%
861480034754749	Korba			2	7	11	9	29	100%	93%
861480034766461	Delhi				4	10	17	31	100%	100%
861480034784522	Delhi			2	7	18	4	31	100%	94%
862649043466961	Delhi			2	4	13	12	31	100%	94%
861480034785552	Delhi			3	5	17	6	31	100%	90%
861480034766453	Ranchi		2	10	3	1		16	88%	25%

The above table shows that the AQI was above 200 for 1 location in Korba and Delhi for the entire month. Only Ranchi had cleaner air although 84% of the time AQI was above 100 here as well.

Time Interval wise Average AQI City wise and Device wise for December 2022 can be seen in table below

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to midnight
Korba	245	277	178	332
54749	303	319	279	483
57130	114	194	102	189
65562	210	242	159	313
66644	308	401	287	398
73236	223	248	134	287
73930	178	202	136	294
74176	302	307	171	336
75850	229	227	128	293
77179	436	438	395	487
81205	146	173	125	199
84340	286	332	197	478
85215	99	141	91	141
86105	306	362	209	389
90587	222	251	151	269
Ranchi	164	207	108	204
Delhi	384	344	275	420
66461	419	390	310	452
66961	373	336	272	464
84522	360	317	248	392
85552	383	335	266	372

Time Interval Wise Maximum AQI at different Cities and devices for December 2022

	Midnight to 6 AM	6 AM to 12 Noon	12 Noon to 6 PM	6 PM to midnight
Korba	1884	1948	1974	1933
54749	1884	1744	1974	1933
57130	1260	1185	918	885
65562	428	1468	1164	993
66644	1174	1895	1910	1839
73236	562	878	507	1908
73930	477	534	843	1418
74176	805	828	474	1149
75850	607	602	728	985
77179	585	826	916	1168
81205	353	405	465	448
84340	841	1948	1121	1714
85215	353	418	380	981
86105	1203	1130	1180	1315

90587	394	516	418	508
Ranchi	444	814	348	1886
Delhi	876	1078	1173	1423
66461	700	1078	1173	1041
66961	720	1011	549	1423
84522	876	611	729	1379
85552	694	635	575	820

Annexure 1 – Device Locations

Device Name / Location	Current City	City
861480034766644	Village Pali	Korba
861480034786105	RSS nagar	Korba
861480034775850	Child Home Darri	Korba
861480034777765	-	Korba
861480034765562	Gevra Mines Rehabilitated Area	Korba
861480034757130	Korba City, Patharipara	Korba
862649042673930	Balco Housing Board	Korba
861480034765406	RSS Nagar	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	RSS Nagar	Korba
861480034754749	Gud Deva	Korba
861480034766461	Delhi	Delhi
861480034784522	Deli-RS	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

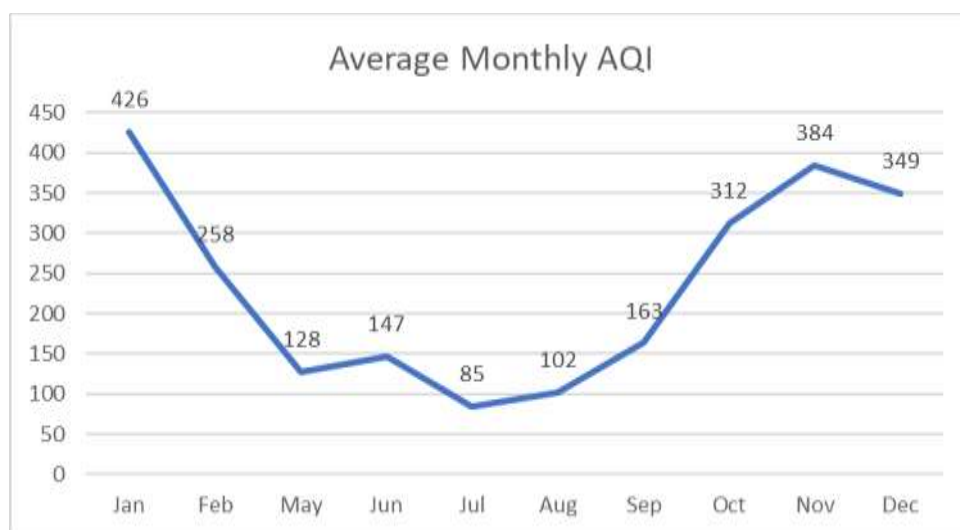


Table - AQI Categories Month Wise

	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

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

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

Note - The device did not work between 21 Feb to 6 May 2022 –

- 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

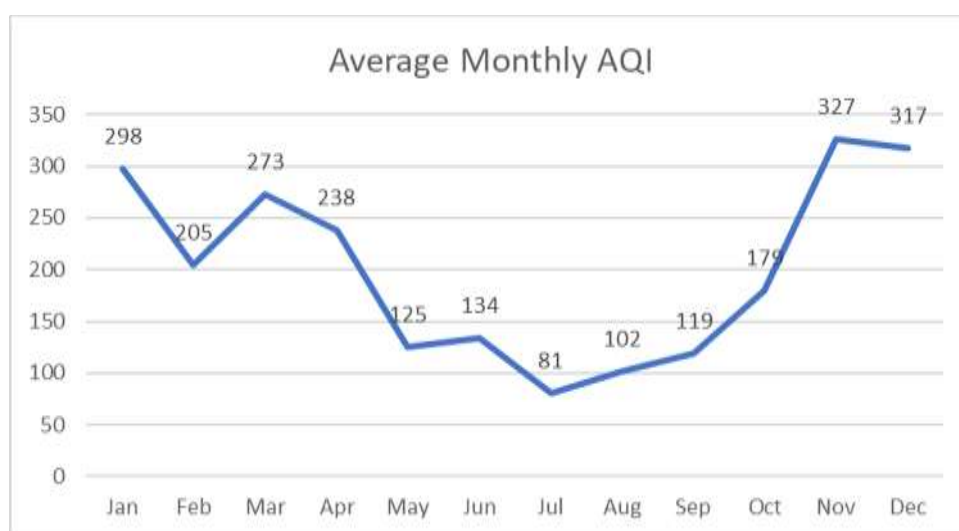


Table - AQI Categories Month Wise

	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

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

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

- 861480034775850 - Child Home Darri

Table - Monthly Average and Max AQI and HI

	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



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

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
Nov	393	675	751	1275
Dec	607	602	728	985
Aug	381	445	306	726
Sep	311	514	381	547
Oct	423	420	849	1511

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
Nov	257	259	163	332
Dec	229	227	128	293
Aug	57	75	62	116
Sep	57	87	71	106
Oct	108	119	98	207

- 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

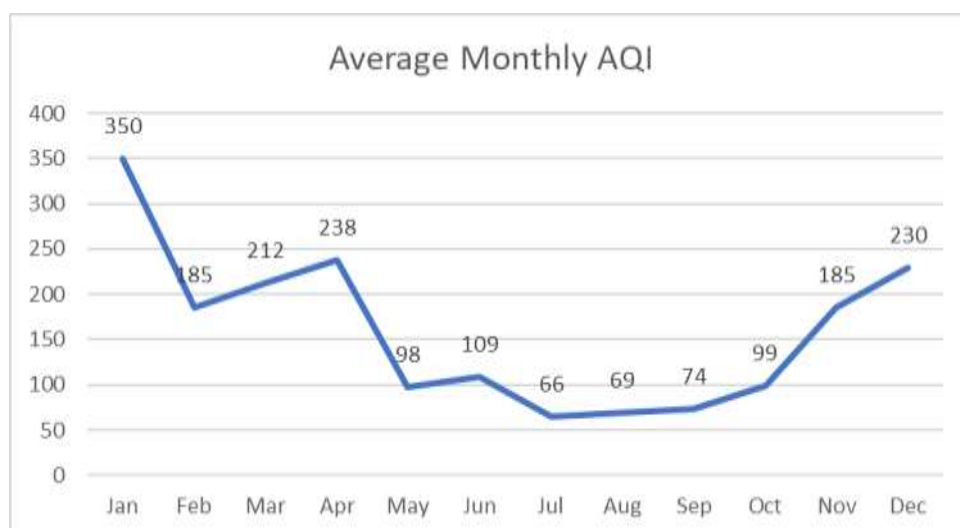


Table - AQI Categories Month Wise

	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

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

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

- 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

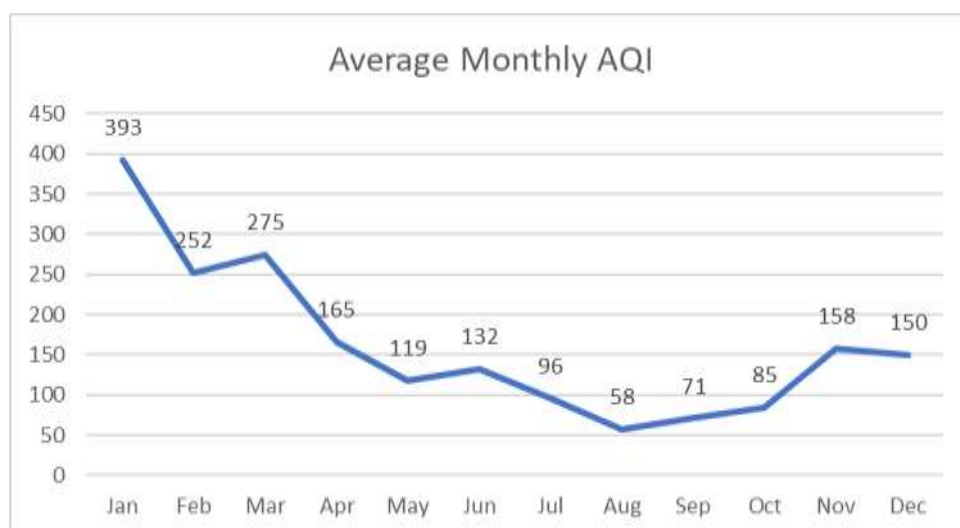


Table - AQI Categories Month Wise

	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

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		137		413
Apr	598	955	328	1305
May	933	1210	1175	389
Jun	207	445	429	435
Jul	808	1233	1965	385
Oct	609	3158	1303	1280
Nov	306	885	810	585
Dec	1260	1185	918	885
Aug	948	468	1348	1455
Sep	1100	435	673	1278

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
Oct	51	103	72	114
Nov	107	209	100	215
Dec	114	194	102	189
Aug	40	49	56	82
Sep	43	76	64	100

- 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

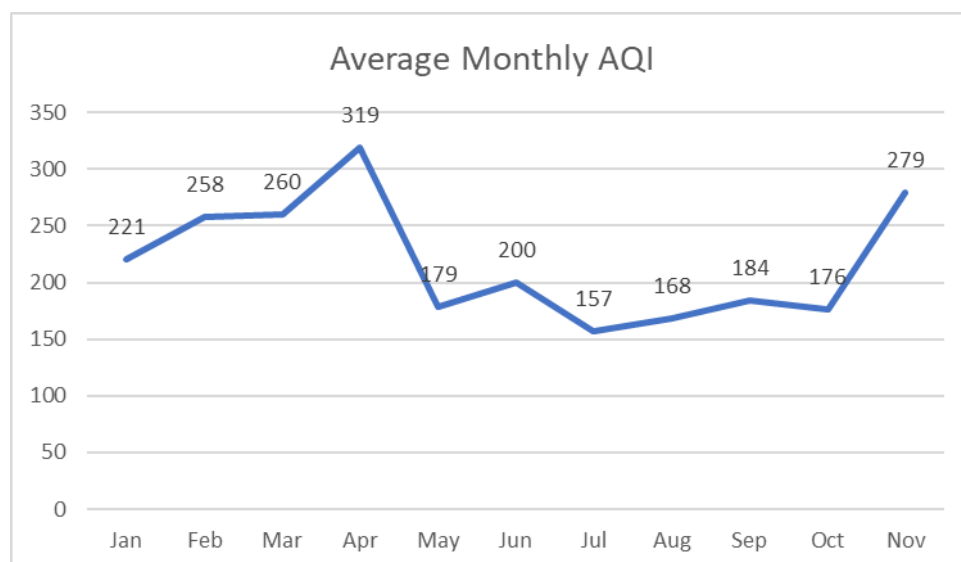


Table - AQI Categories Month Wise

	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
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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

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

Note- Device did not work in December 2022

- 861480034774176 - Balco Township, Relocated to Old Age Home near Sarvmangla Mandir in October

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



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

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

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

- 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

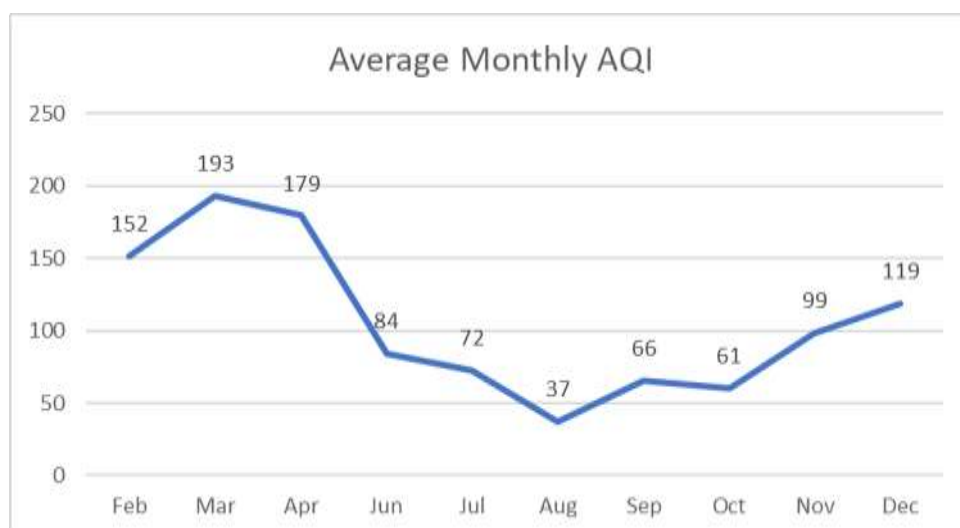


Table - AQI Categories Month Wise

	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

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

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

- 861480034781205 sarai singar chowk – Installed in October 2022

Table - Monthly Avg 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

- 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

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

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

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

- 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

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

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

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