

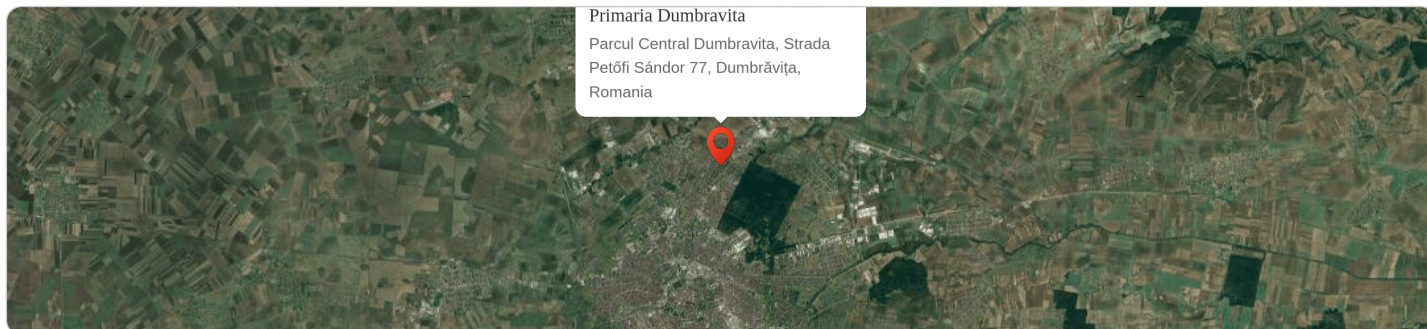
Primaria Dumbravita

MONTHLY AIR-QUALITY REPORT

Timp de la: **01/12/2025, 00:00**
Timp până la: **30/12/2025, 23:59**

Numele dispozitivului: **Primaria Dumbravita**
Locația dispozitivului: **Parcul Central Dumbravita, Strada Petőfi Sándor 77, Dumbrăvița, Romania**

Parametrii: **EAQI , NO₂ , O₃ , SO₂ , PM_{2.5} , PM₁₀ , Wind Speed , Wind Direction , CO , R. Humidity , PM₁ , PM₁₀₀ , Pressure , Temperature**



Media indicelui de calitate al aerului (ICA): **400**

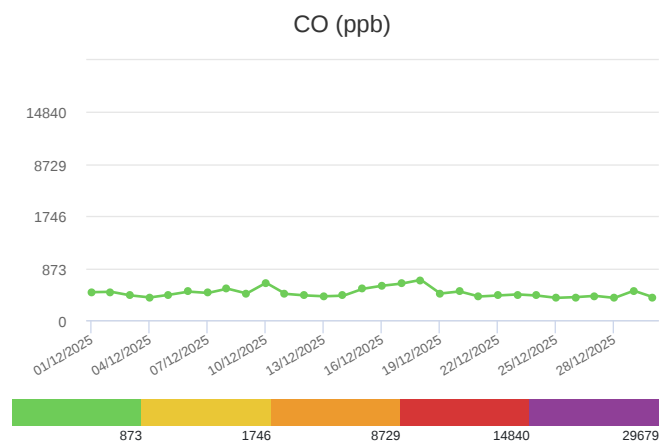
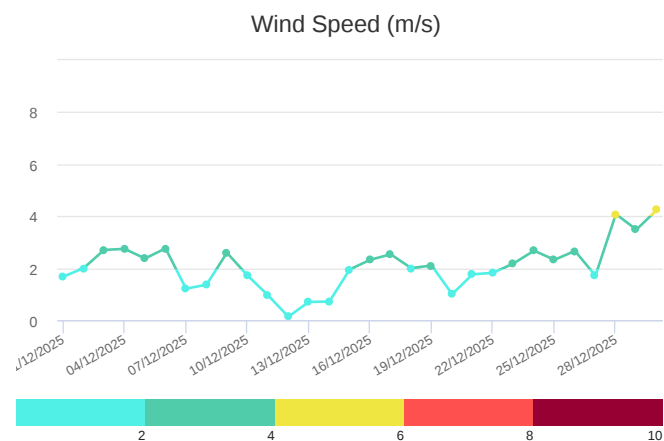
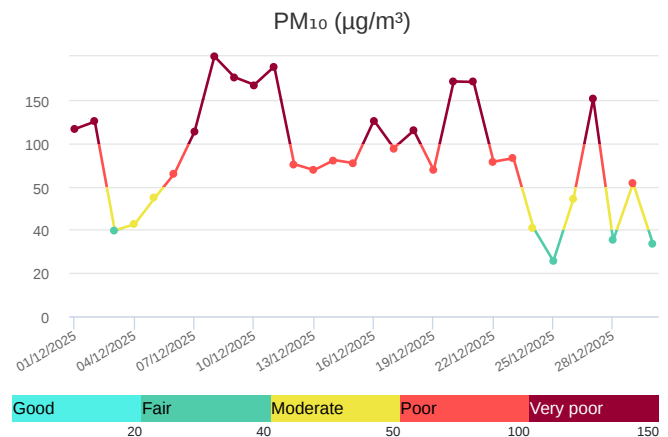
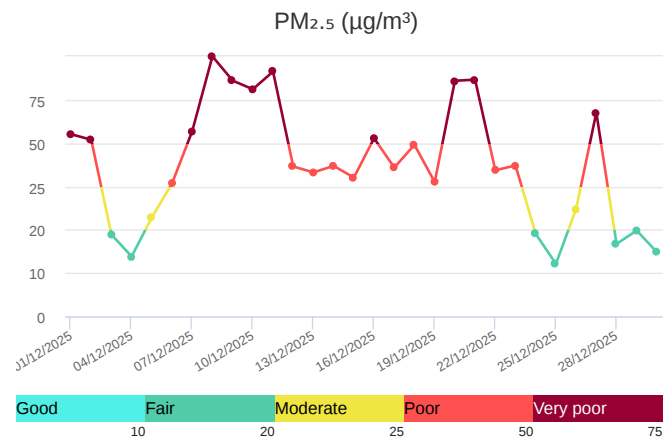
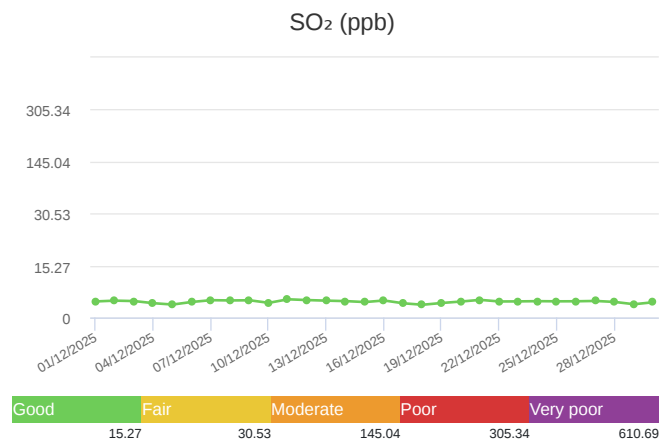
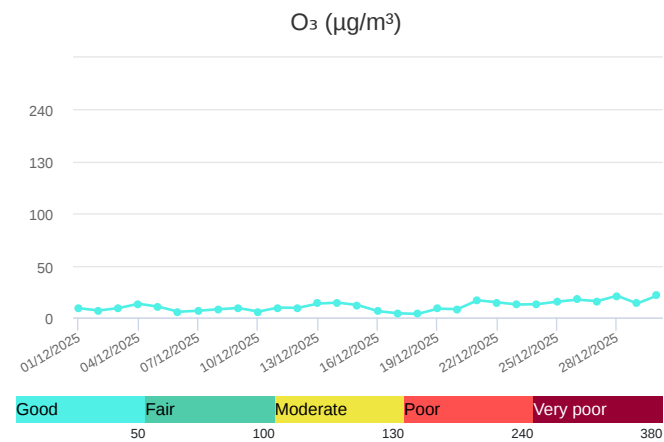
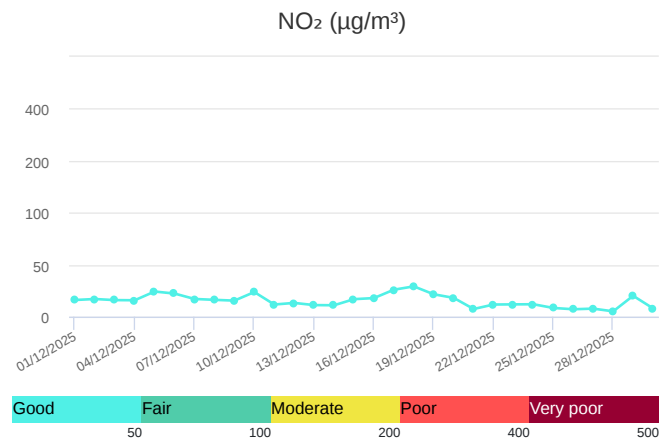
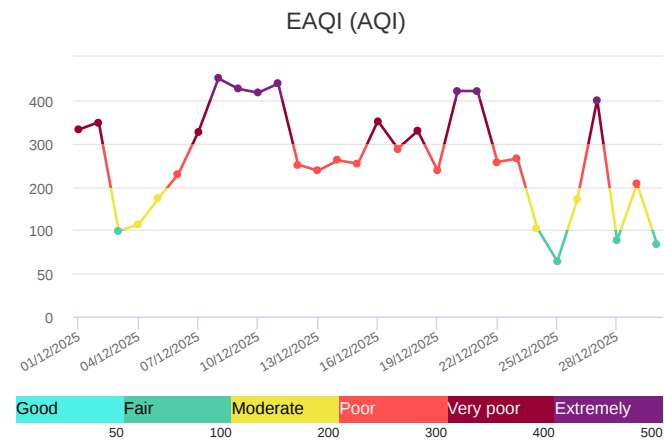
Prezentare generală zilnică: Parametrii indicelui de calitate al aerului (ICA)

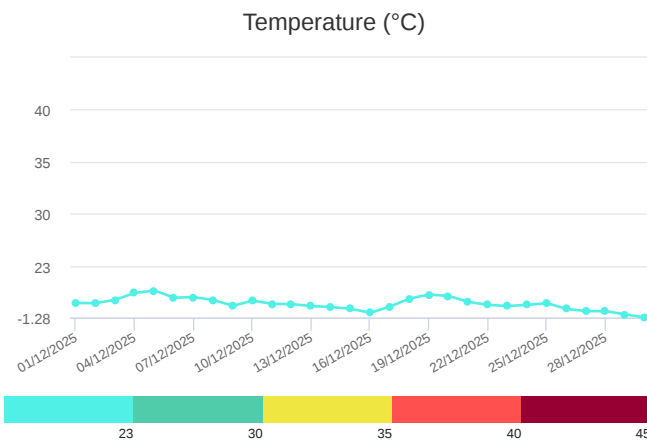
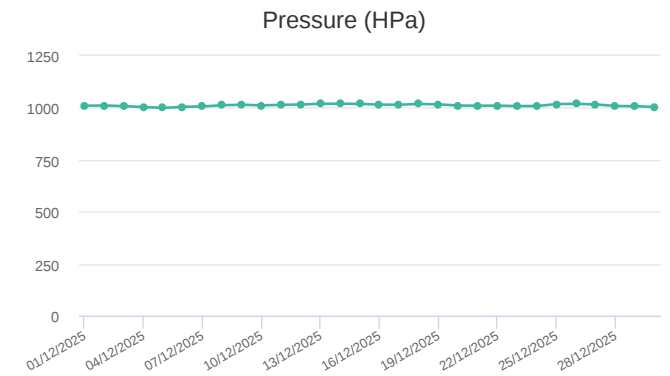
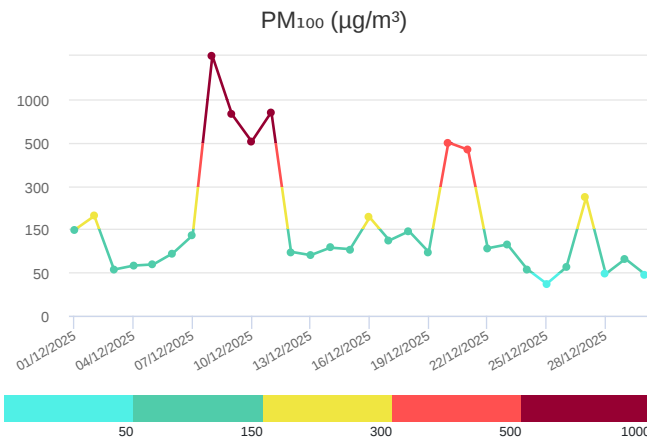
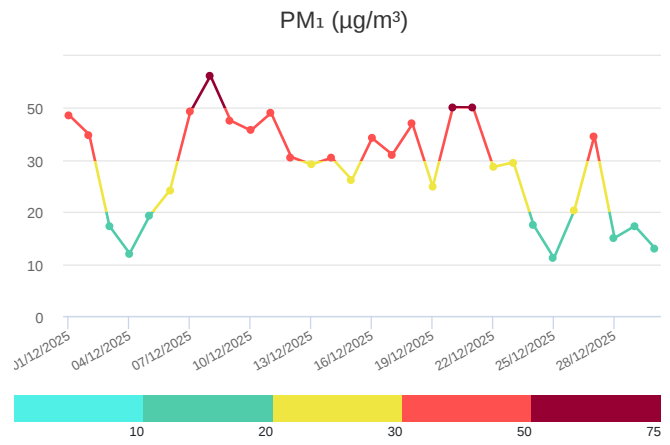
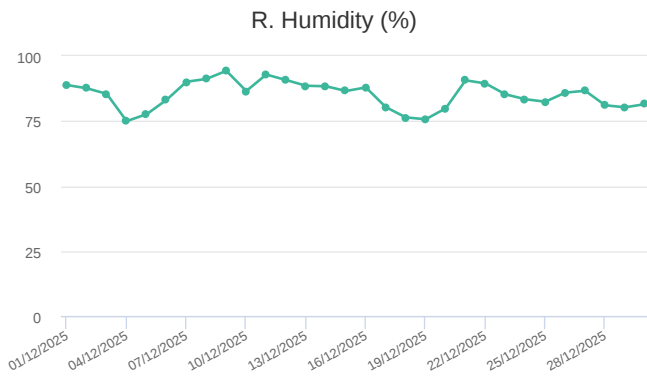
	EAQI AQI	NO ₂ μg/m ³	O ₃ μg/m ³	SO ₂ ppb	PM _{2.5} μg/m ³	PM ₁₀ μg/m ³
Average	400	15.32	11.05	4.66	57.76	151.21
Maximum	450	29.16	21	5.34	227.72	678.06
Date	08/12/2025	18/12/2025	30/12/2025	11/12/2025	08/12/2025	08/12/2025
Minimum	64	5.16	3.47	3.74	12.11	25.51
Date	25/12/2025	28/12/2025	18/12/2025	18/12/2025	25/12/2025	25/12/2025

Prezentare generală zilnică: Alți parametri

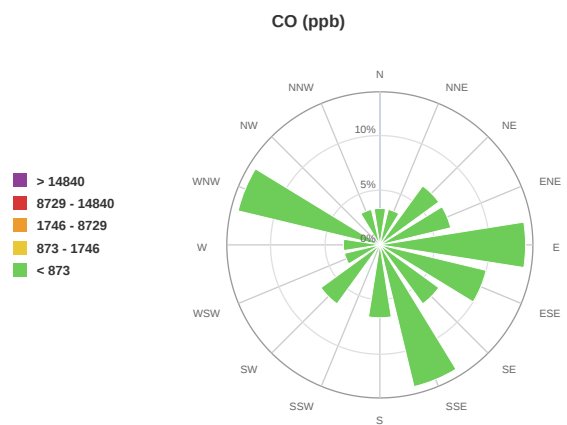
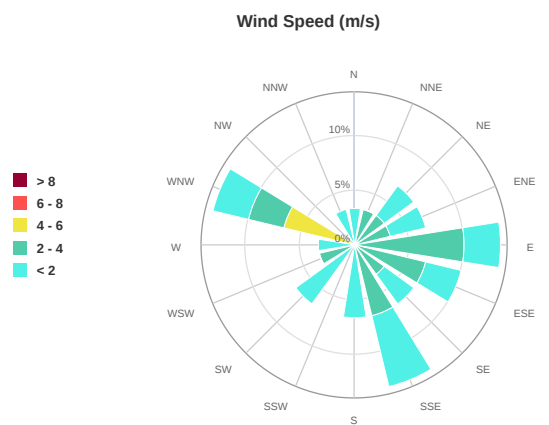
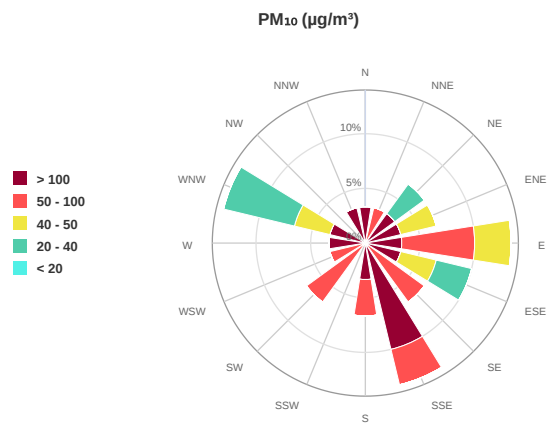
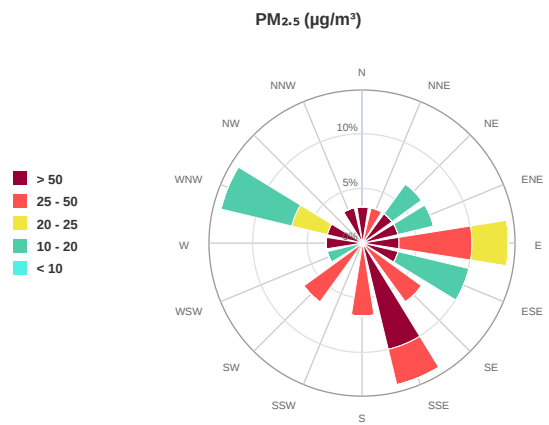
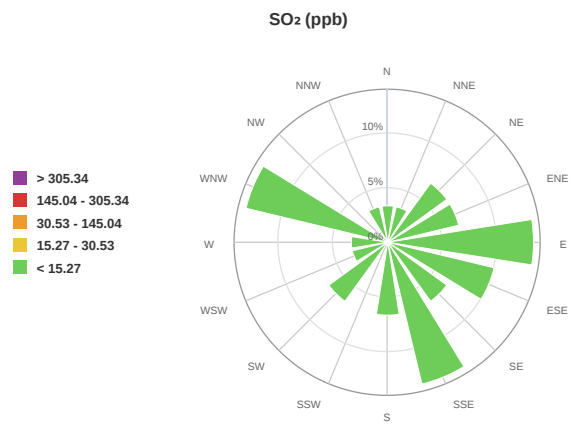
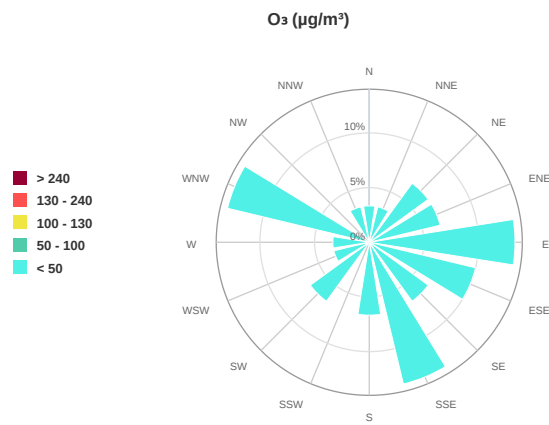
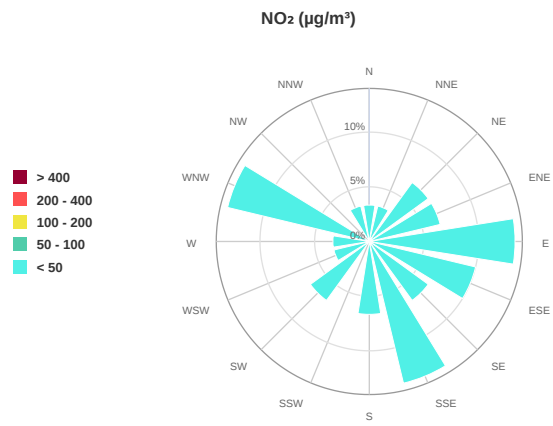
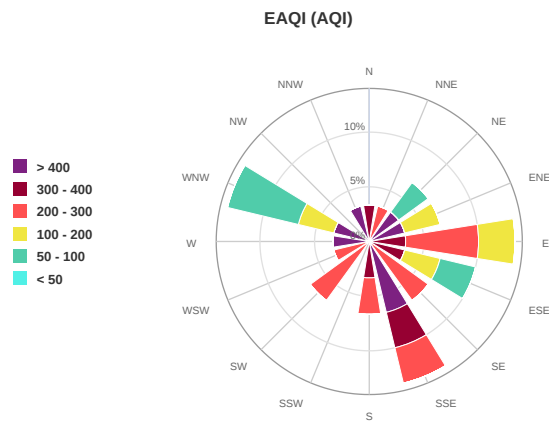
	Wind Speed m/s	Wind Direction degree	Battery %	CO ppb	R. Humidity %	PM ₁ µg/m ³	PM ₁₀₀ µg/m ³	Pressure HPa	Temperature °C
Average	0.43	99.5	100	458.45	85.11	31.9	226.53	1011.87	5.16
Maximum	4.24	300.38	100	675.63	94.3	65.47	1111.02	1019.67	11.32
Date	30/12/2025	30/12/2025	01/12/2025	18/12/2025	09/12/2025	08/12/2025	08/12/2025	14/12/2025	05/12/2025
Minimum	0.13	221.31	100	372.47	74.96	11.14	36.86	999.71	-1.28
Date	12/12/2025	12/12/2025	01/12/2025	28/12/2025	04/12/2025	25/12/2025	25/12/2025	05/12/2025	30/12/2025

Weekly Average

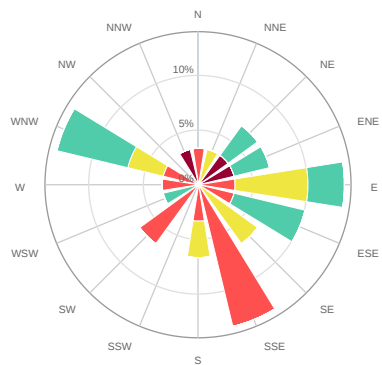




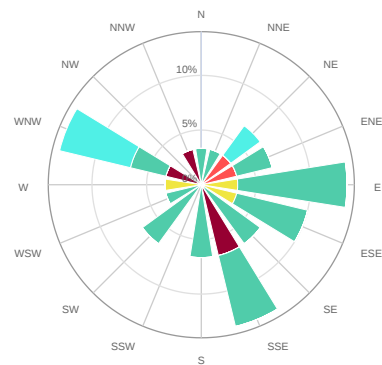
Weekly Average



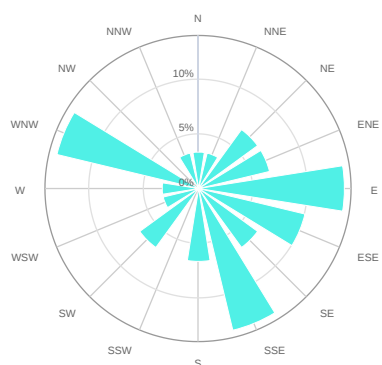
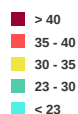
PM₁ (µg/m³)



PM₁₀₀ (µg/m³)



Temperature (°C)



Alerte

No alerts for the selected date and time range

Insights

- 11/12/2025, 23:59 **EAQI Fluctuation: Extremely Poor Air Quality Dominates:** The EAQI frequently falls into the 'Extremely Poor' range, exceeding 400 on multiple days, posing a significant health risk. PM_{2.5} and PM₁₀ are main contributors.
- 30/12/2025, 23:59 **High PM_{2.5} Levels Correlate with Poor EAQI:** Days with EAQI in 'Very Poor' or 'Extremely Poor' categories often exhibit PM_{2.5} levels above 50 µg/m³, reaching as high as 227.72 µg/m³, far exceeding safe limits.
- 30/12/2025, 23:59 **Elevated PM₁₀ Levels Indicate Severe Air Pollution:** PM₁₀ concentrations frequently surpass 100 µg/m³, peaking at 678.06 µg/m³, driving EAQI into 'Very Poor' and 'Extremely Poor' zones.
- 30/12/2025, 23:59 **Inconsistent NO₂ Levels Despite High EAQI:** NO₂ levels remain mostly in 'Good' to 'Fair' range even during periods of 'Very Poor' to 'Extremely Poor' EAQI, suggesting other pollutants are the main drivers.
- 30/12/2025, 23:59 **O₃ Concentration Generally Within Acceptable Levels:** O₃ concentrations generally fall within the 'Good' to 'Fair' ranges, rarely exceeding the 'Moderate' threshold, not a primary concern for air quality.
- 30/12/2025, 23:59 **SO₂ Levels Consistently Low, Minimal Impact on EAQI:** SO₂ levels remain consistently low, within the 'Good' range, and have a minimal impact on the overall EAQI score.
- 15/12/2025, 23:59 **Wind Speed Variability and Air Quality:** Lower wind speeds appear to correlate with worse air quality, likely due to reduced dispersion of pollutants. Noticeable in early December.
- 30/12/2025, 23:59 **Relative Humidity's Influence on Air Quality:** High relative humidity (above 80%) is consistently observed during periods of poor air quality, possibly contributing to increased PM levels.
- 30/12/2025, 23:59 **Temperature Impact on Pollution:** Lower temperatures seem to coincide with periods of higher pollution, potentially due to increased heating activities.
- 10/12/2025, 23:59 **CO (ppb) Peaks During Extremely Poor Air Quality Days:** CO levels spike during the 'Extremely Poor' air quality days, reaching 675.63 ppb, indicating combustion sources are contributing to pollution.
- 30/12/2025, 23:59 **Correlation Analysis: PM_{2.5} and PM₁₀ Drive EAQI:** A strong positive correlation is observed between PM_{2.5} and PM₁₀ levels with the EAQI, confirming their significant influence on air quality.
- 30/12/2025, 23:59 **Fair Air Quality Dates: Best Days of the Month:** The period shows days categorized as 'Fair', representing the best air quality observed during this timeframe, with lower PM concentrations.
- 05/12/2025, 23:59 **Moderate Air Quality Period: A Slight Improvement:** A few days are classified as 'Moderate', showing a temporary decrease in pollution levels compared to the 'Poor' and 'Very Poor' periods.
- 30/12/2025, 23:59 **Pressure Fluctuations Minimal Impact:** Atmospheric pressure fluctuations don't seem to correlate significantly with the EAQI or pollutant levels, suggesting they are not primary factors.
- 30/12/2025, 23:59 **PM₁ Levels Track PM_{2.5}, Contributing to EAQI:** PM₁ levels generally follow the trend of PM_{2.5}, indicating a shared source and contributing to the overall air quality degradation reflected in EAQI.
- 30/12/2025, 23:59 **PM₁₀₀ levels Mirror PM₁₀ Trends:** PM₁₀₀ particulate matter mirrors PM₁₀ levels and suggests common source of particulate pollution in observed values.
- 30/12/2025, 23:59 **Battery Levels: Sensor Integrity Stable:** Consistent 100% battery level indicates reliable data collection from the sensors throughout the period.
- 30/12/2025, 23:59 **Wind Direction Shift and Pollution Sources:** Changes in wind direction might bring pollutants from different sources, affecting composition and concentration of particulate matter.
- 10/12/2025, 23:59 **Poor Visibility Possible:** Extremely poor air quality due to PM_{2.5} levels may drastically reduce visibility.
- 10/12/2025, 23:59 **Health Concerns During Peak Pollution:** During periods when EAQI is extremely poor those with lung and heart conditions may experience severe symptoms.
- 30/12/2025, 23:59 **Particulate Pollution Sources:** Given CO and PM levels, pollution likely due to a mixture of industrial activity and localized combustion.
- 30/12/2025, 23:59 **Lower Temperatures Spike PM_{2.5}:** PM_{2.5} increases when temperatures are low. Temperature is negatively correlated with PM_{2.5}. This suggests pollution from heating.
- 30/12/2025, 23:59 **Lower Temperatures Spike PM₁₀:** PM₁₀ increases when temperatures are low. Temperature is negatively correlated with PM₁₀. This suggests pollution from heating.
- 30/12/2025, 23:59 **Average EAQI = 271:** The average EAQI in december 2025 is 271, in the poor category. This is not healthy.
- 30/12/2025, 23:59 **CO, PM₁, PM_{2.5}, and PM₁₀ are highly correlated:** Pearson correlation results indicate that CO, PM₁, PM_{2.5}, and PM₁₀ are highly correlated with each other.
- 30/12/2025, 23:59 **Relative Humidity is very high in general:** The average Relative Humidity is above 80%. This is a highly saturated environment for air pollution.
- 30/12/2025, 23:59 **Correlation b/w CO and EAQI:** Pearson Correlation of 0.55 between CO and EAQI suggests significant relationship. Higher CO leads to higher EAQI.
- 30/12/2025, 23:59 **Correlation b/w Temp and EAQI:** Pearson Correlation of -0.52 between Temperature and EAQI suggests significant relationship. Lower Temp leads to higher EAQI.

- 08/12/2025, 23:59 **PM100 Spikes to 1111**: On 2025-12-08T21:59:59.000Z PM100 spiked to 1111.02 $\mu\text{g}/\text{m}^3$, this is unhealthy.
- 30/12/2025, 23:59 **PM2.5 Average: 51.72 $\mu\text{g}/\text{m}^3$** : On average, the PM2.5 level is 51.72 $\mu\text{g}/\text{m}^3$, which is classified as Very Poor.

Parametrii indicelui de calitate al aerului (ICA)

Weekly Average

To Date	EAQI AQI	NO ₂ µg/m ³	O ₃ µg/m ³	SO ₂ ppb	PM _{2.5} µg/m ³	PM ₁₀ µg/m ³
01/12/2025, 23:59	332	16.05	8.92	4.72	55.07	116.14
02/12/2025, 23:59	349	17.01	6.75	4.94	51.9	124.7
03/12/2025, 23:59	99	15.95	9.08	4.82	18.87	39.66
04/12/2025, 23:59	113	15.79	13.19	4.2	13.81	41.26
05/12/2025, 23:59	173	24.2	10.36	3.8	21.41	47.28
06/12/2025, 23:59	230	22.26	5.57	4.57	26.63	64.96
07/12/2025, 23:59	327	17.05	6.48	5.08	56.87	112.94
08/12/2025, 23:59	450	16.18	7.94	5.01	227.72	678.06
09/12/2025, 23:59	426	15.43	9.12	5.05	142.2	425.09
10/12/2025, 23:59	417	23.69	5.68	4.3	111.85	331.07
11/12/2025, 23:59	438	11.7	9.5	5.34	174.22	553.95
12/12/2025, 23:59	251	13.27	9.32	5.12	36.42	75.59
13/12/2025, 23:59	237	11.17	13.41	4.94	33.04	68.73
14/12/2025, 23:59	261	11.02	14.29	4.81	36.79	80.33
15/12/2025, 23:59	253	16.83	11.88	4.54	30.04	76.7
16/12/2025, 23:59	352	17.92	6.08	4.99	52.73	126.1
17/12/2025, 23:59	288	25.93	4.07	4.17	35.84	94.15
18/12/2025, 23:59	329	29.16	3.47	3.74	48.94	114.4
19/12/2025, 23:59	237	21.53	8.44	4.26	27.44	68.59
20/12/2025, 23:59	421	18.09	8.05	4.69	141.62	372.54
21/12/2025, 23:59	421	7.4	16.62	5.18	145.7	365.95
22/12/2025, 23:59	257	11.72	14.54	4.7	34.25	78.44
23/12/2025, 23:59	265	11.83	12.51	4.74	37.04	82.5
24/12/2025, 23:59	104	11.93	12.81	4.79	19.05	40.42
25/12/2025, 23:59	64	8.41	15.25	4.75	12.11	25.51
26/12/2025, 23:59	170	7.14	17.14	4.76	22.38	46.98
27/12/2025, 23:59	401	7.73	15.73	4.85	67.61	162.25
28/12/2025, 23:59	88	5.16	20.88	4.57	16.71	35.11
29/12/2025, 23:59	207	20.12	13.49	3.9	19.8	53.42
30/12/2025, 23:59	84	8.02	21	4.47	14.8	33.42

Alti parametri

Weekly Average

To Date	Wind Speed m/s	Wind Direction degree	Battery %	CO ppb	R. Humidity %	PM ₁ µg/m ³	PM ₁₀₀ µg/m ³	Pressure HPa	Temperature °C
01/12/2025, 23:59	1.67	167.26	100	468.83	88.84	47.25	148.31	1009.93	5.52
02/12/2025, 23:59	2	109.27	100	474.7	87.59	39.76	195.4	1011.02	5.45
03/12/2025, 23:59	2.7	114.9	100	415.02	85.44	17.29	56.57	1008.09	7.03
04/12/2025, 23:59	2.74	104.55	100	380.4	74.96	12.02	65.85	1003.72	10.24
05/12/2025, 23:59	2.37	83	100	424.85	77.6	19.34	68.49	999.71	11.32
06/12/2025, 23:59	2.76	16.08	100	478.69	83.13	24.23	94.52	1004.51	8.01
07/12/2025, 23:59	1.21	358.5	100	455.74	90.1	48.46	135.77	1006.74	8.25
08/12/2025, 23:59	1.36	330.82	100	528	91.18	65.47	1111.02	1012.33	6.87
09/12/2025, 23:59	2.59	157.84	100	447.07	94.3	45.12	823.29	1014.62	4.2
10/12/2025, 23:59	1.72	166.98	100	626.1	86.53	41.36	510.66	1011.8	6.6
11/12/2025, 23:59	0.96	294.66	100	441.02	92.87	48.11	850.79	1014.06	5.13
12/12/2025, 23:59	0.13	221.31	100	414.9	90.75	31.16	97.56	1015.81	4.97
13/12/2025, 23:59	0.7	181.72	100	400.06	88.56	29.13	89.94	1019.38	4.08
14/12/2025, 23:59	0.71	221.44	100	410.53	88.36	30.85	107.21	1019.67	3.63
15/12/2025, 23:59	1.95	134.12	100	525.93	86.55	26.16	103.65	1018.59	2.81
16/12/2025, 23:59	2.32	81.89	100	576.93	87.9	38.39	190.56	1015.24	0.96
17/12/2025, 23:59	2.53	146.69	100	612.65	80.33	32.08	123.95	1014.73	3.85
18/12/2025, 23:59	2	175.1	100	675.63	76.39	43.9	145.16	1018.52	7.58
19/12/2025, 23:59	2.1	128.61	100	446.3	75.67	24.86	96.99	1016.42	9.49
20/12/2025, 23:59	1	67.57	100	481.4	79.84	50.38	499.58	1010.93	8.78
21/12/2025, 23:59	1.76	51.83	100	396.41	90.64	50.26	466.56	1010.01	6.03
22/12/2025, 23:59	1.82	96.41	100	413.71	89.45	28.67	105.84	1010.37	4.61
23/12/2025, 23:59	2.18	86.27	100	431.34	85.26	29.53	114.6	1008.13	4.14
24/12/2025, 23:59	2.67	56.91	100	411.66	83.37	17.42	57.94	1008.55	4.62
25/12/2025, 23:59	2.32	49.28	100	373.3	82.42	11.14	36.86	1017.88	5.45
26/12/2025, 23:59	2.66	301.22	100	386.04	85.91	20.19	62.25	1019.19	2.75
27/12/2025, 23:59	1.71	264.45	100	407.03	86.63	39.24	258.94	1015.9	1.7
28/12/2025, 23:59	4.08	301.91	100	372.47	81.06	15.01	48.31	1008.76	1.71
29/12/2025, 23:59	3.48	238.97	100	493.19	80.26	17.3	81.35	1007.62	0.22
30/12/2025, 23:59	4.24	300.38	100	383.72	81.49	13.04	47.81	1003.92	-1.28

Oizom will not be responsible for Environmental Data accuracy once Validated