

Air Quality Data Analysis Report

1. Basic Data Overview

Total Records: 503

Total Columns: 11

Missing Values:

Column	Missing Values
Country	0
State	0
City	0
Station	0
Last Update	0
Latitude	0
Longitude	0
Pollutant ID	0
Pollutant Min	3
Pollutant Max	3
Pollutant Avg	3

2. Summary Statistics

Statistic	Latitude	Longitude	Pollutant Min	Pollutant Max	Pollutant Avg
Count	503.000000	503.000000	503.000000	503.000000	503.000000
Mean	22.134027	78.662043	14.588469	56.055666	40.159046
Std Dev	5.607419	4.873129	14.834265	45.837198	32.503732
Min	8.514909	70.909168	1.000000	1.000000	1.000000
25%	18.650506	75.455450	5.000000	22.000000	18.000000
Median	23.002657	77.393848	11.000000	46.000000	34.000000
75%	26.795166	80.630666	20.000000	77.000000	54.000000
Max	34.066206	94.636574	133.000000	326.000000	251.000000

3. Top 5 Cleanest and Most Polluted Cities

Top 5 Cleanest Cities (Lowest Average AQI):

City	Average AQI
Silchar	1.0
Chhapra	1.0
Ranipet	1.0
Srinagar	2.0
Hassan	2.0

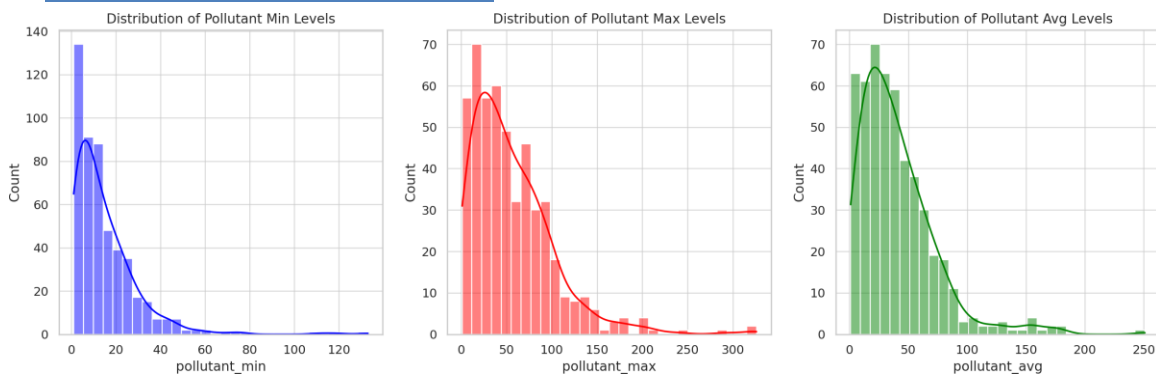
Top 5 Most Polluted Cities (Highest Average AQI):

City	Average AQI
Nanded	134.0
Ramanagara	152.0
Byasanagar	174.0
Ahmednagar	178.0
Cuttack	179.0

4. Most Common Pollutant

The most frequently recorded pollutant is: ****OZONE****

5. Distribution of Pollutants



- Pollutant Min: Concentrated in lower values (1-20) with few outliers.
- Pollutant Max: Shows a wider range with extreme values.
- Pollutant Avg: Mostly lower, with occasional peaks.

6. Geographical Distribution of OZONE

The map illustrates the geographical spread of the most common pollutant after filling in missing values.

Visual representation highlights regions with the highest and lowest OZONE concentrations.

