

Data Visualisations

SO₂ (Sulfur Dioxide):

- Colorless gas with a pungent odor.
- It is produced by burning fossil fuels containing sulfur, such as coal and oil.
- It can lead to respiratory problems and contribute to the formation of acid rain.

NO₂ (Nitrogen Dioxide):

- Reddish-brown gas that forms when nitrogen oxides (NOx) react with the atmosphere.
- It is primarily released from combustion processes in vehicles and industrial activities.
- It contributes to respiratory issues and the formation of ground-level ozone, which is harmful to health.

RSPM/PM10 (Respirable Suspended Particulate Matter/Particulate Matter with a diameter of 10 micrometers or less):

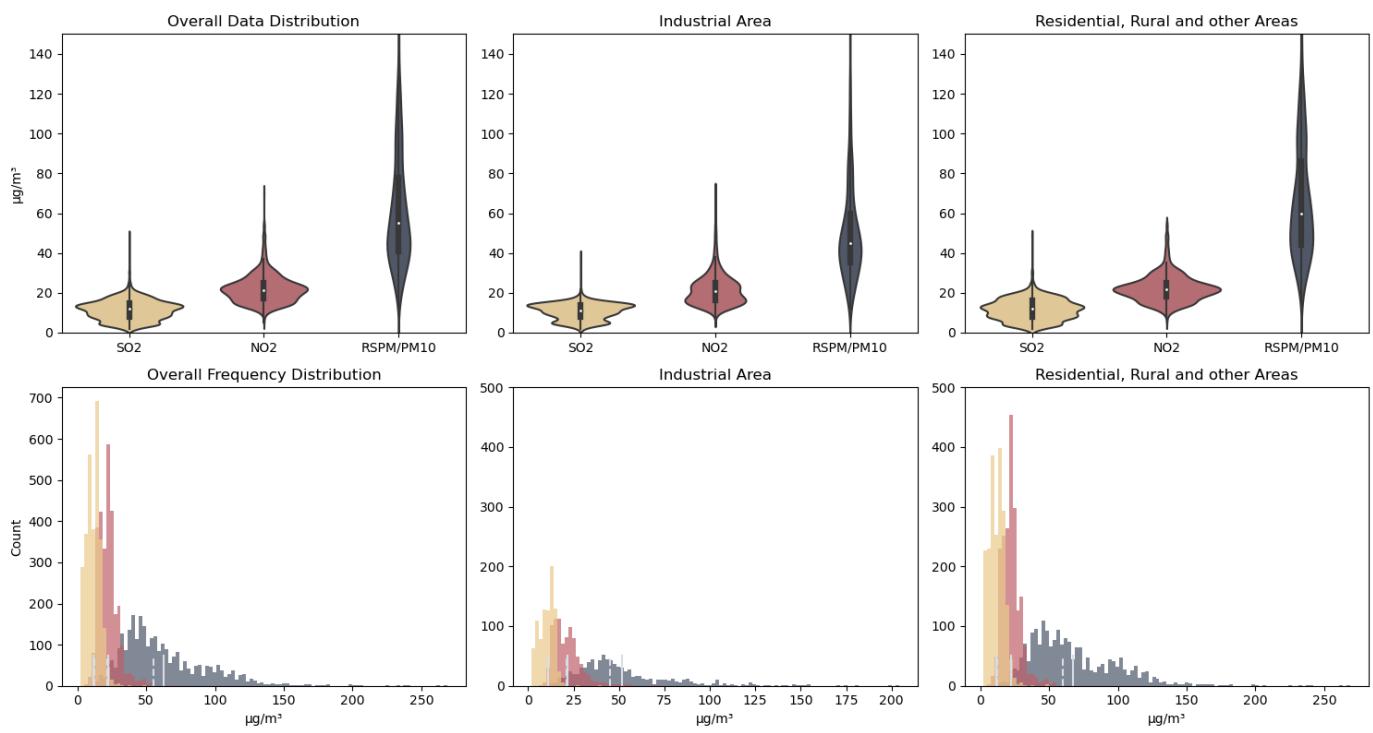
- Tiny solid or liquid particles suspended in the air with a diameter of 10 micrometers or less.
- These particles can come from various sources, including dust, vehicle emissions, construction activities, and industrial processes.
- RSPM/PM10 can be inhaled into the lungs, leading to respiratory problems and other health issues.

UNIT OF MEASUREMENT: $\mu\text{g}/\text{m}^3$ (micrograms per cubic meter)

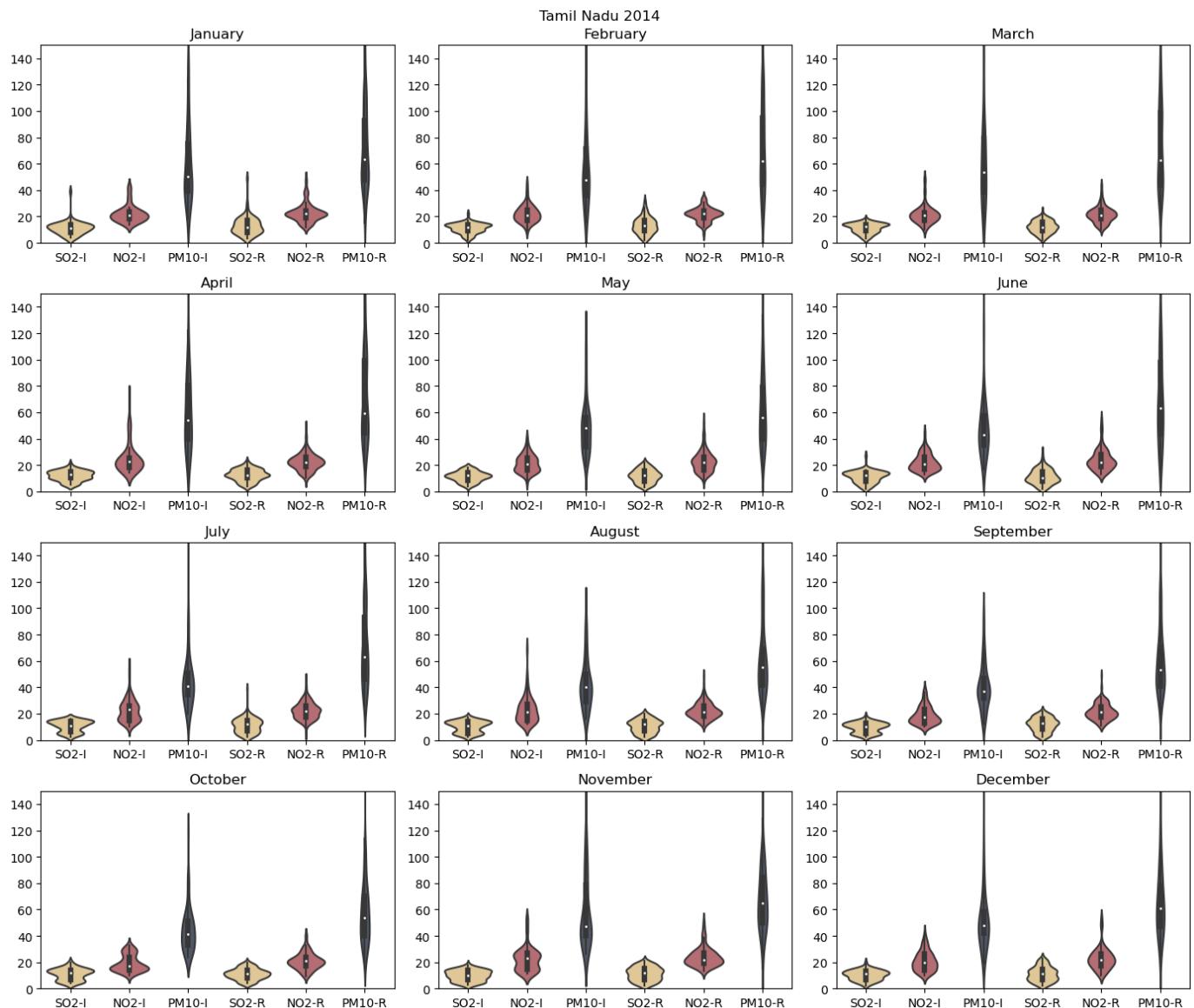
Overall

Frequency & Data Distribution of SO₂, NO₂ & RSPM/PM10

	SO ₂	NO ₂	RSPM/PM10
count	2862.000000	2862.000000	2862.000000
mean	11.506988	22.135220	62.437456
std	5.050855	7.133291	31.277419
min	2.000000	5.000000	12.000000
25%	8.000000	17.000000	41.000000
50%	12.000000	21.500000	55.000000
75%	15.000000	25.000000	78.000000
max	49.000000	71.000000	269.000000

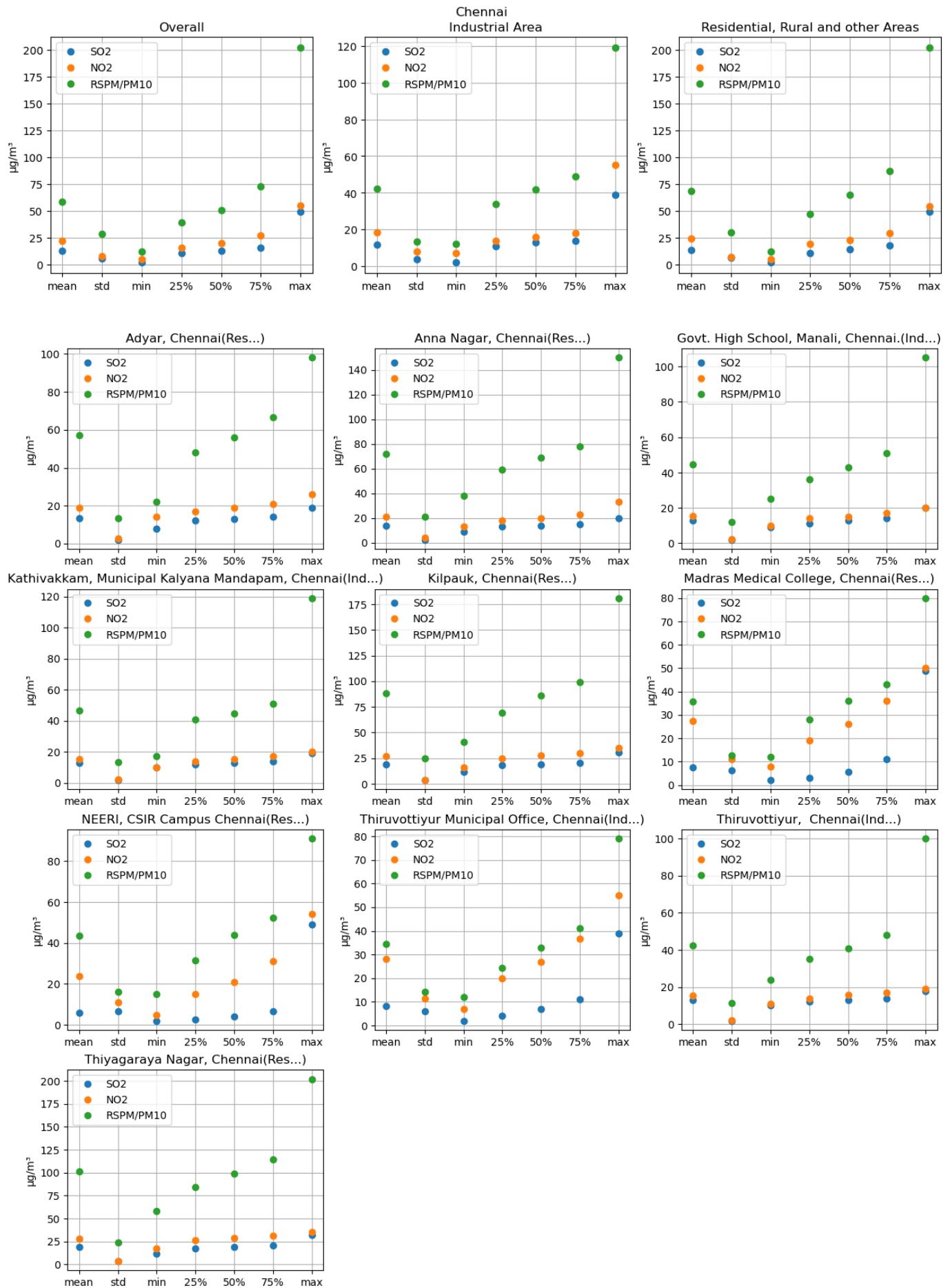


Distribution by month

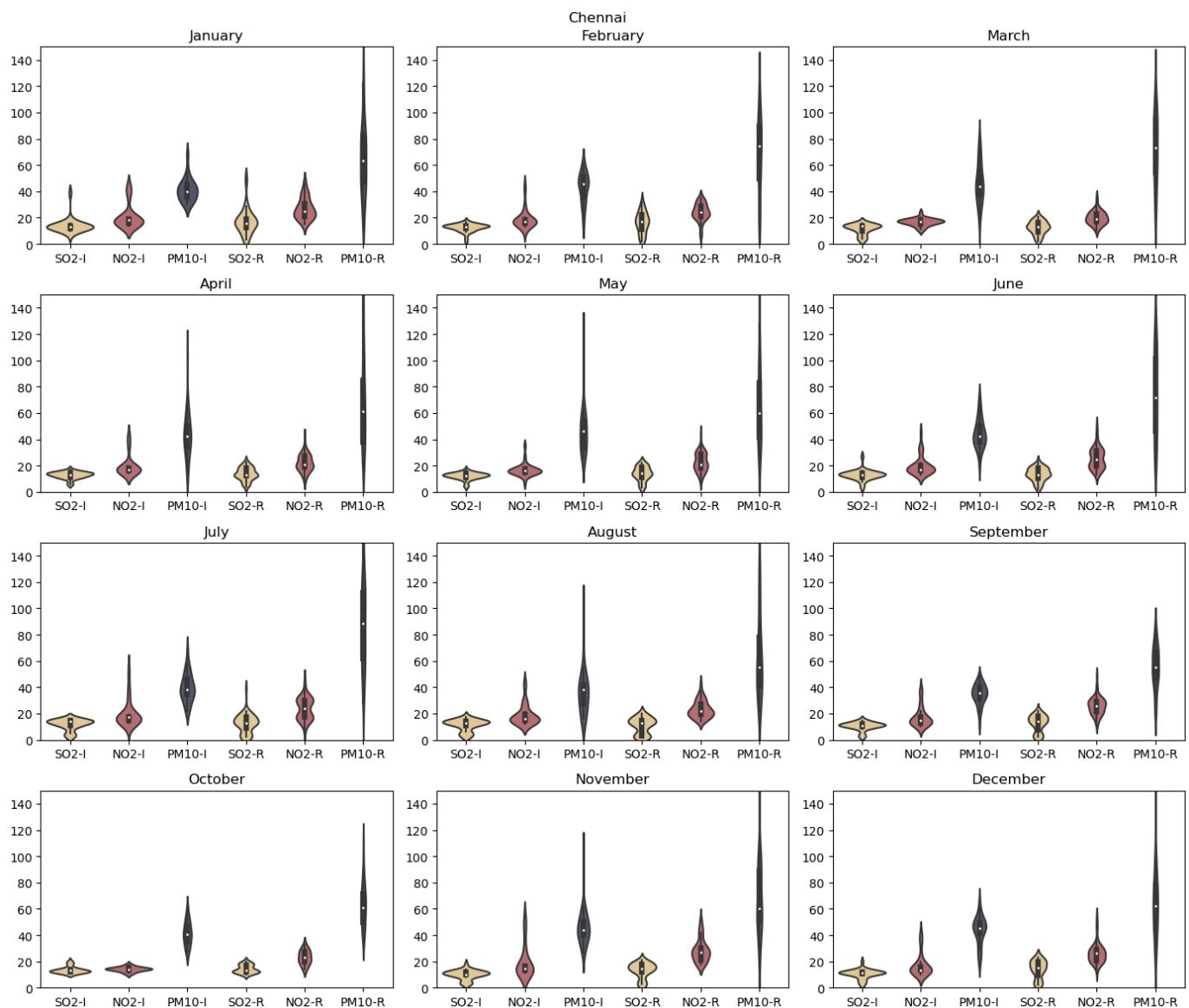


1) Chennai

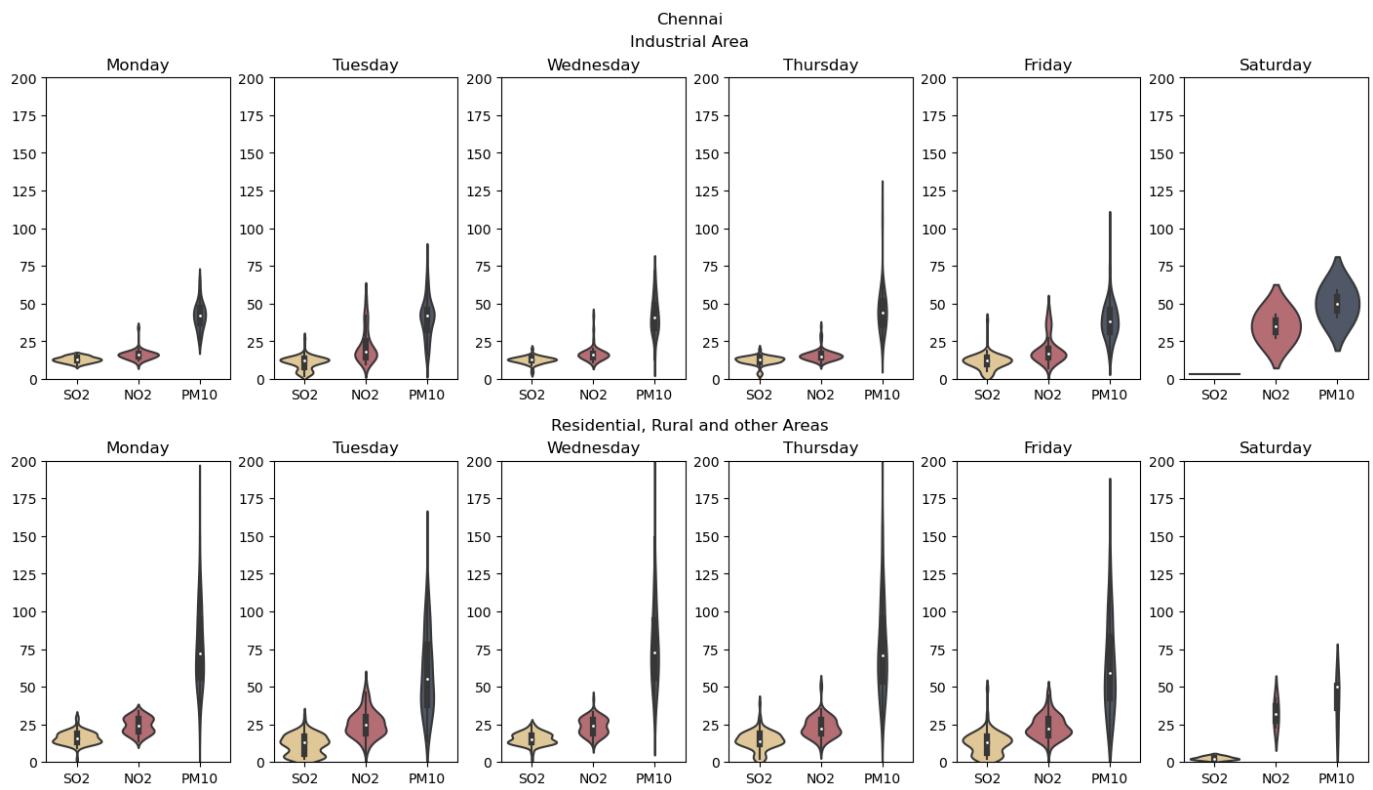
Statistics of SO₂, NO₂, and RSPM/PM10 levels



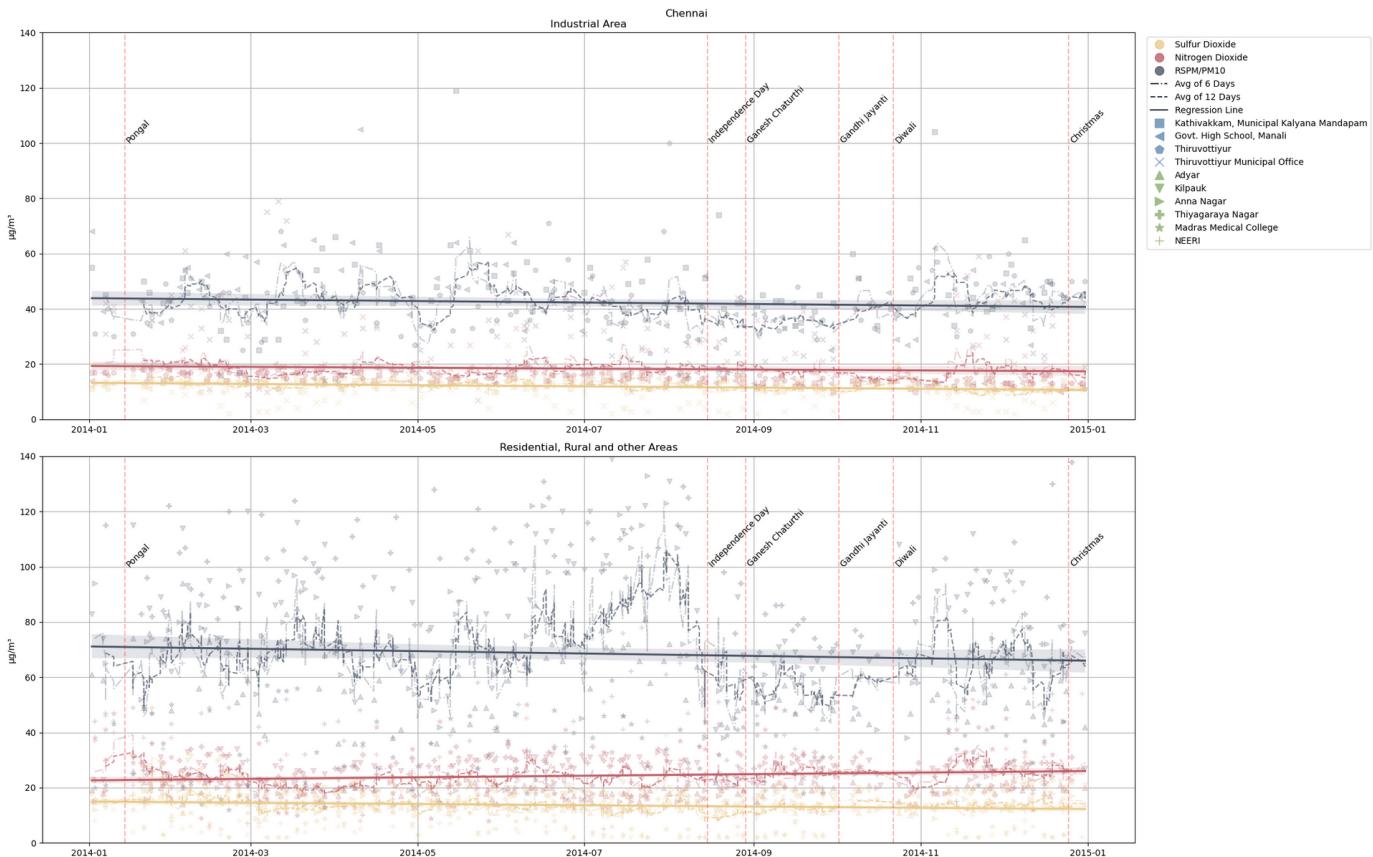
Distribution by Month



Distribution by Weekdays

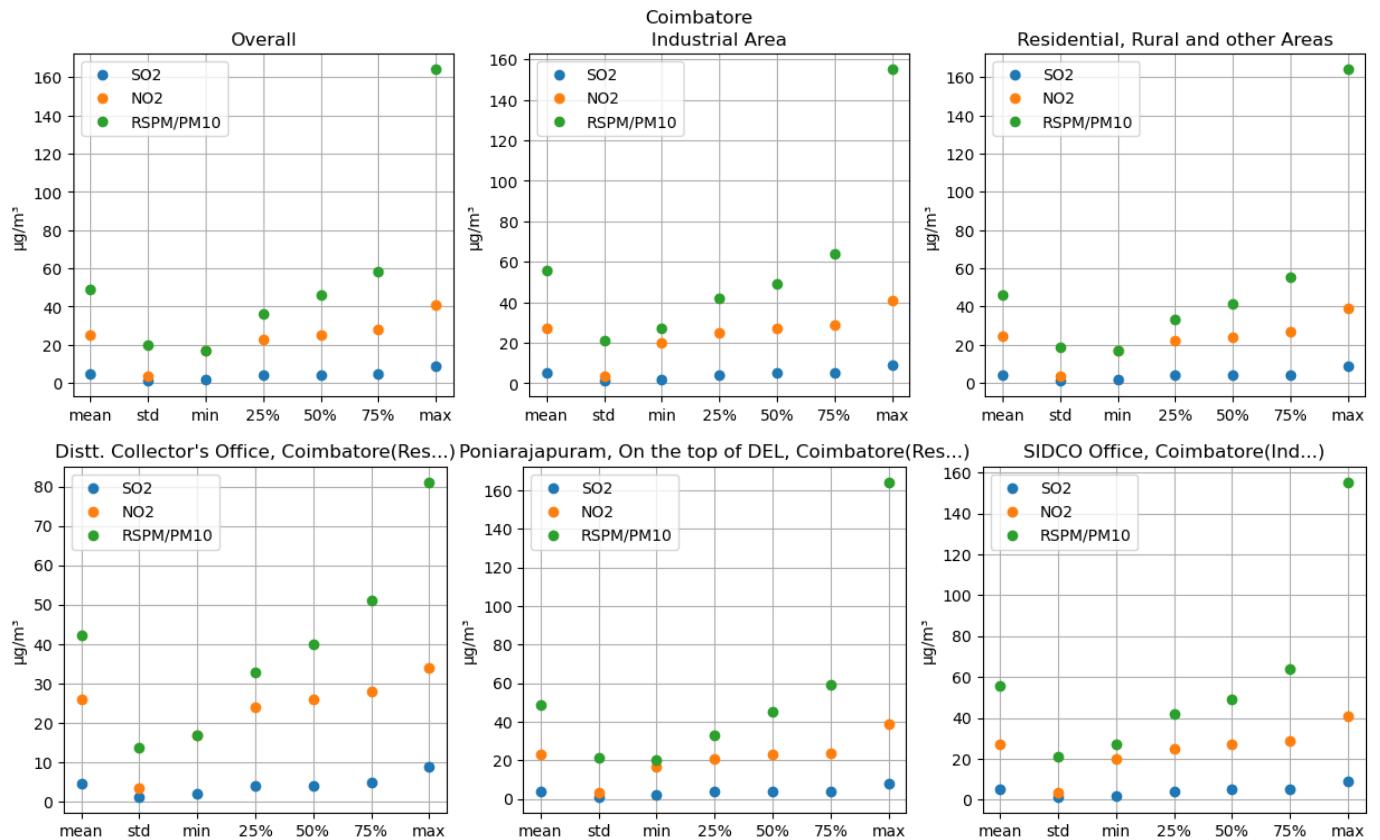


Regression Line

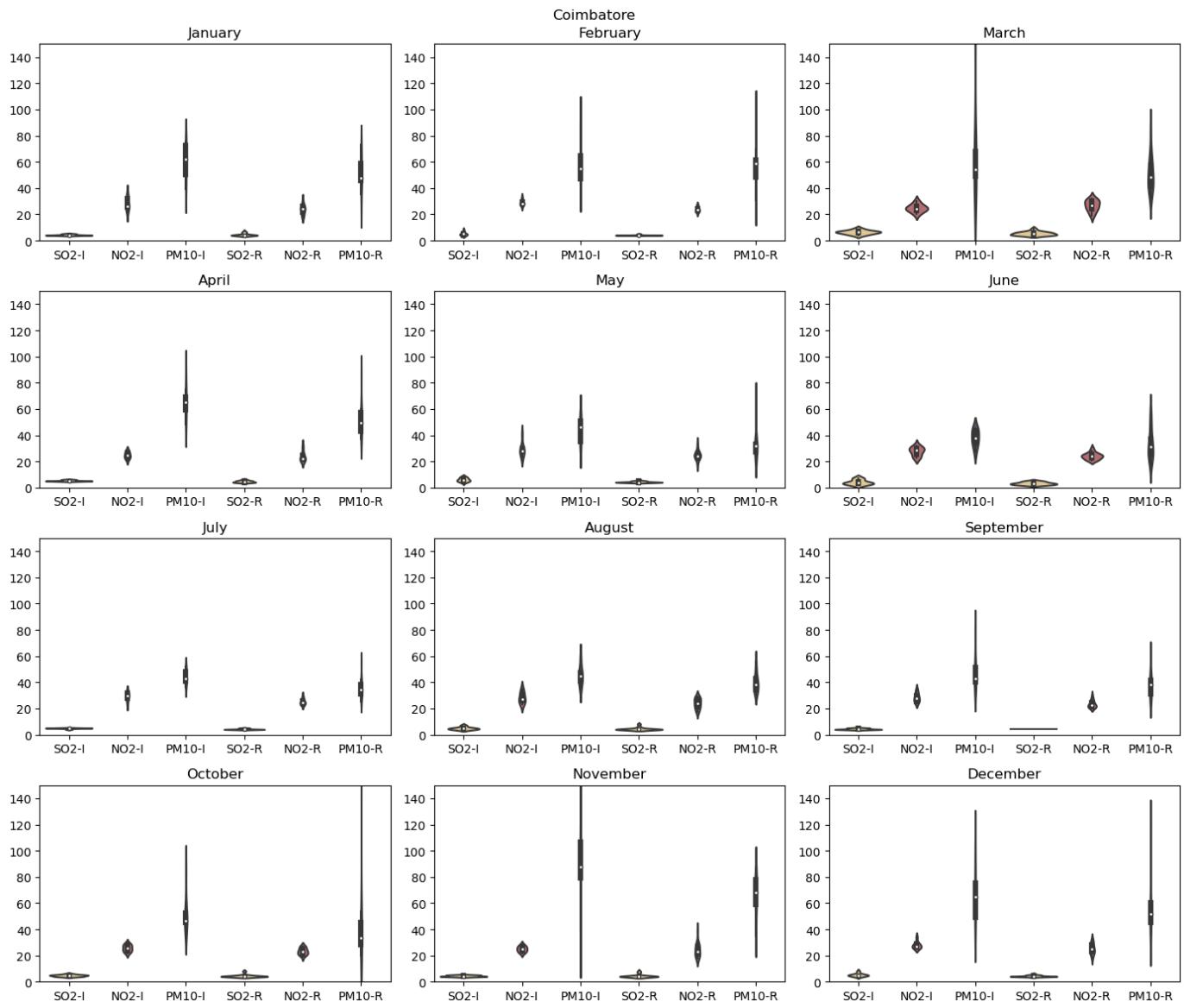


2) Coimbatore

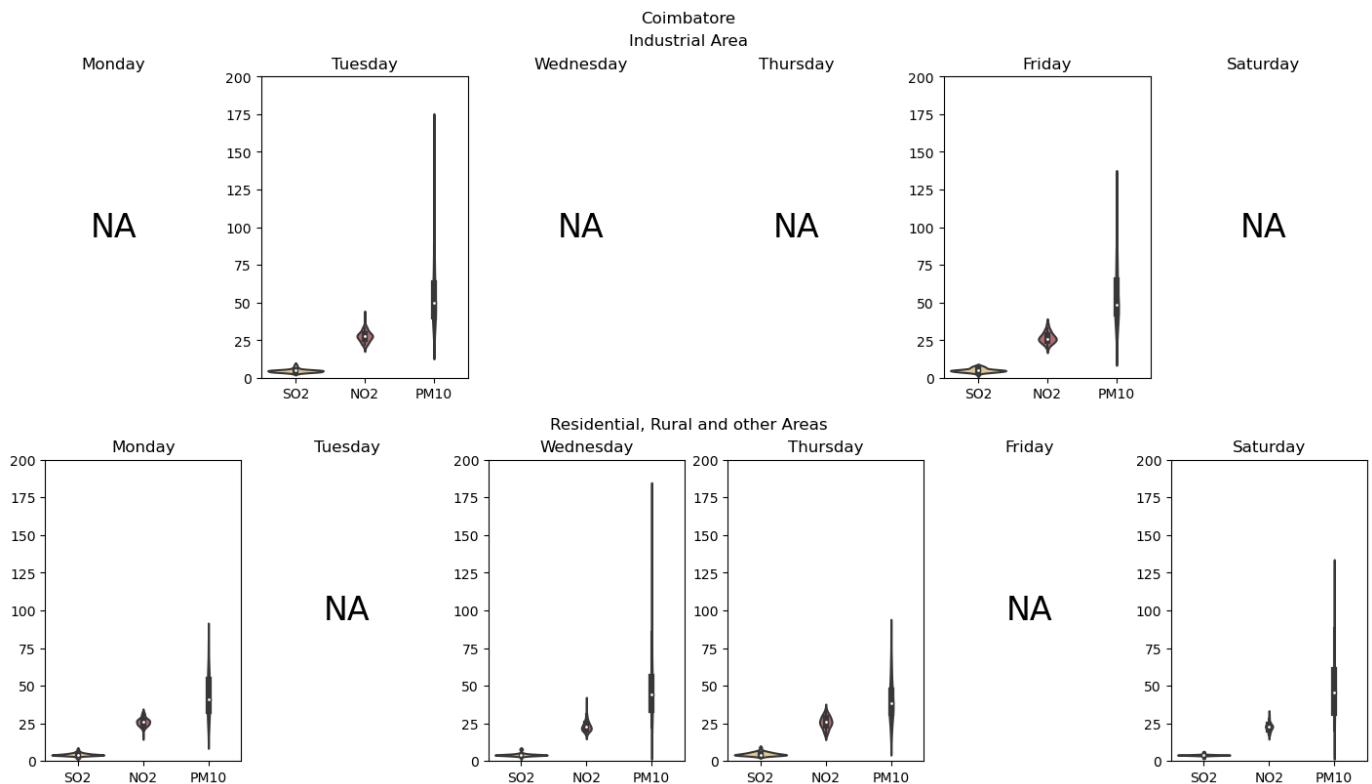
Statistics of SO₂, NO₂, and RSPM/PM10 levels



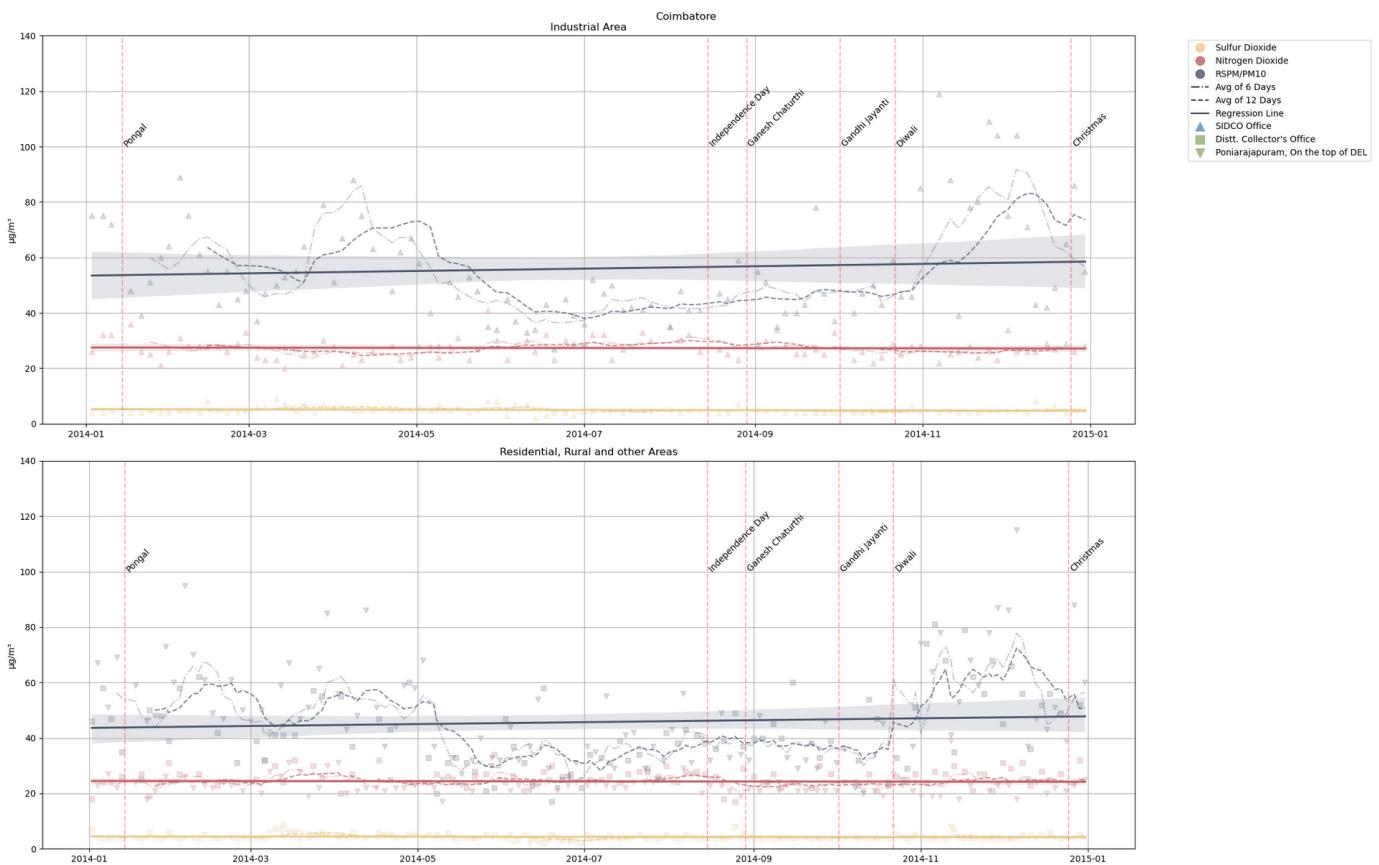
Distribution by Month



Distribution by Weekdays

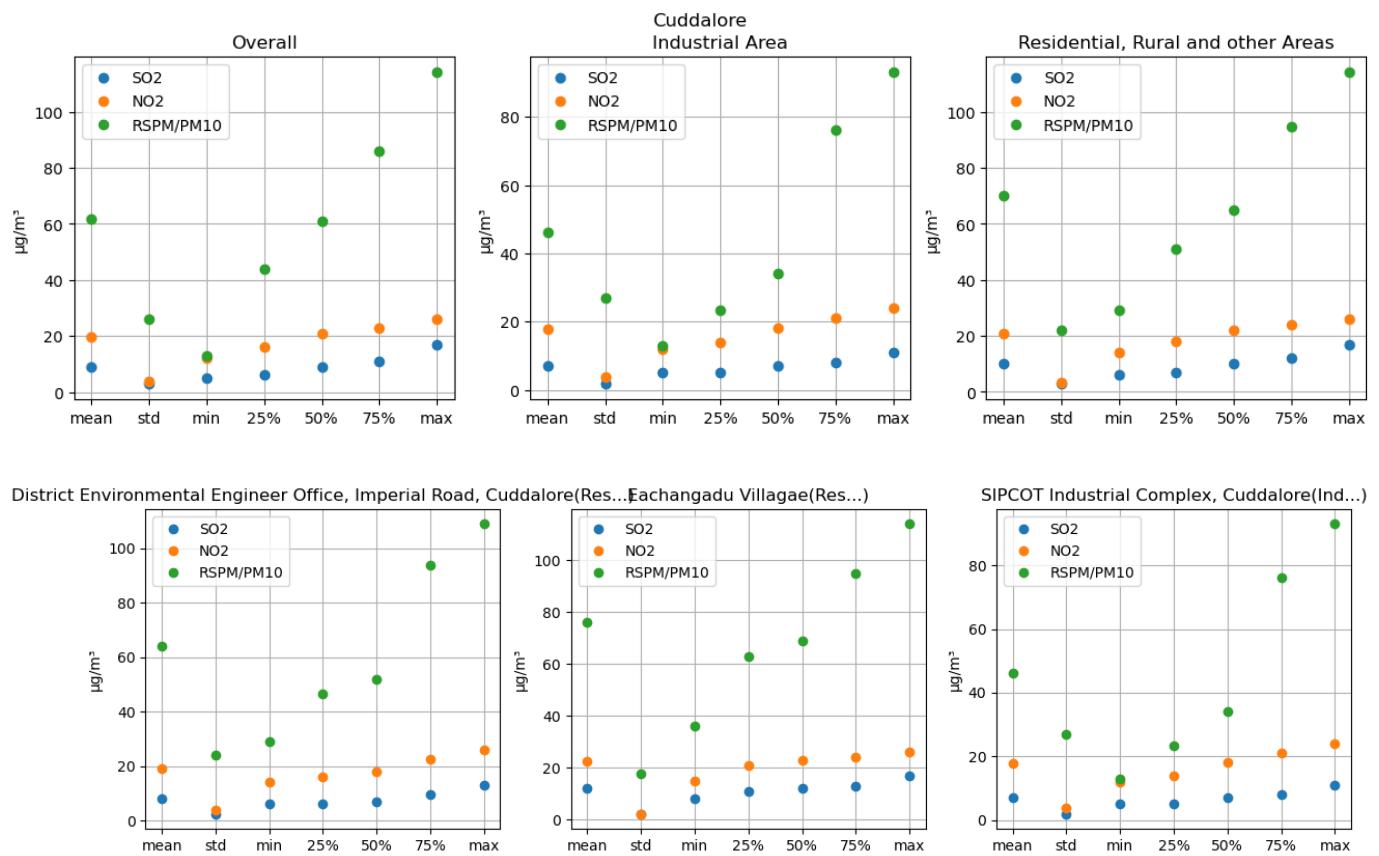


Regression Line

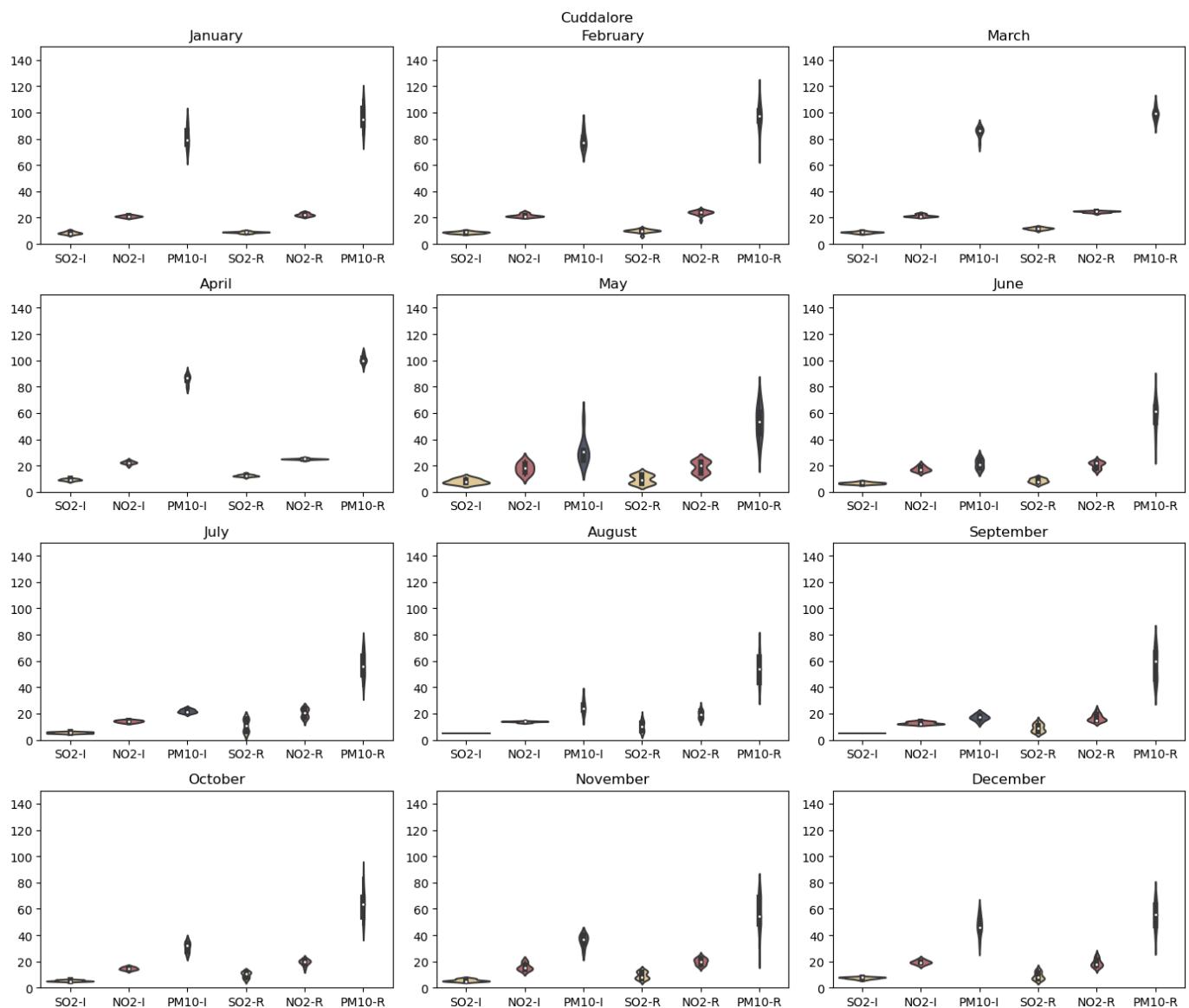


3) Cuddalore

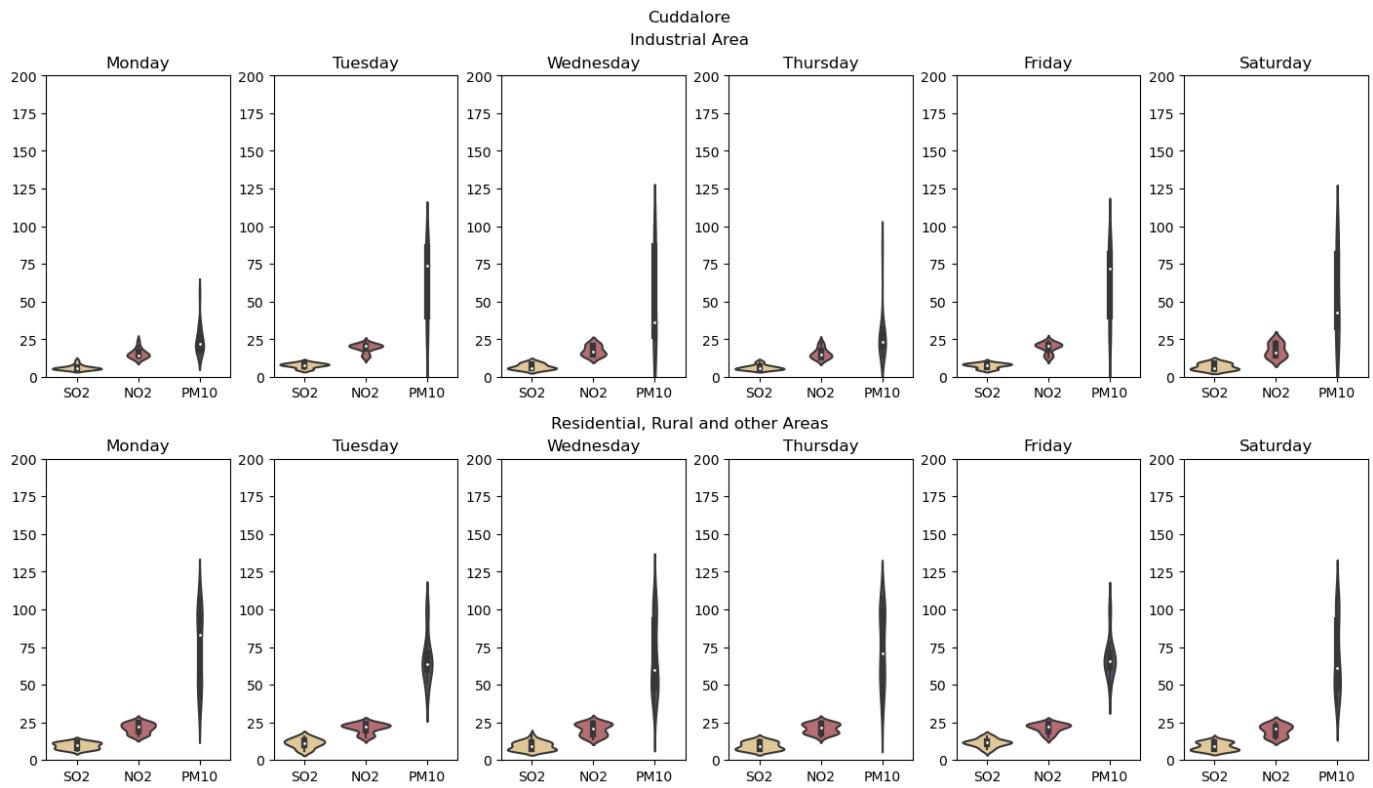
Statistics of SO₂, NO₂, and RSPM/PM10 levels



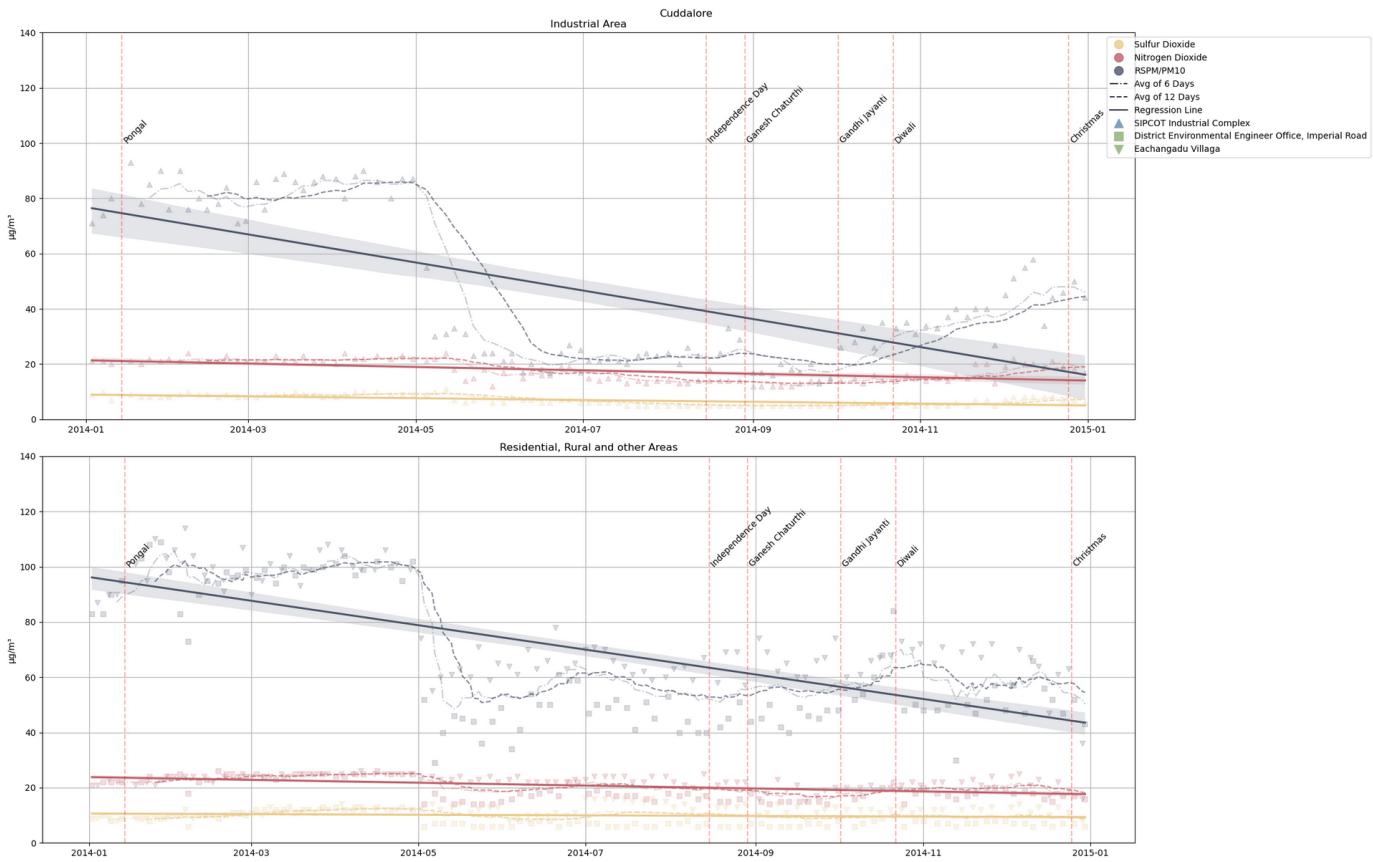
Distribution by Month



Distribution by Weekdays

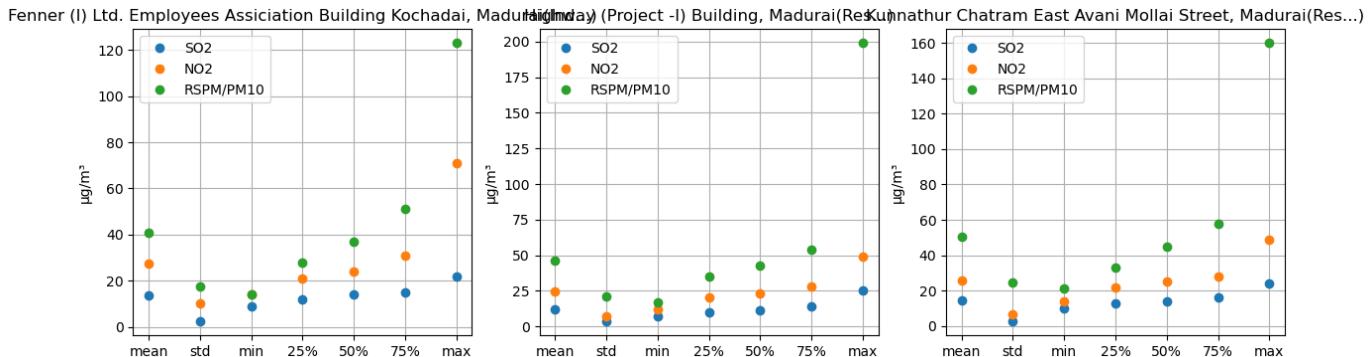
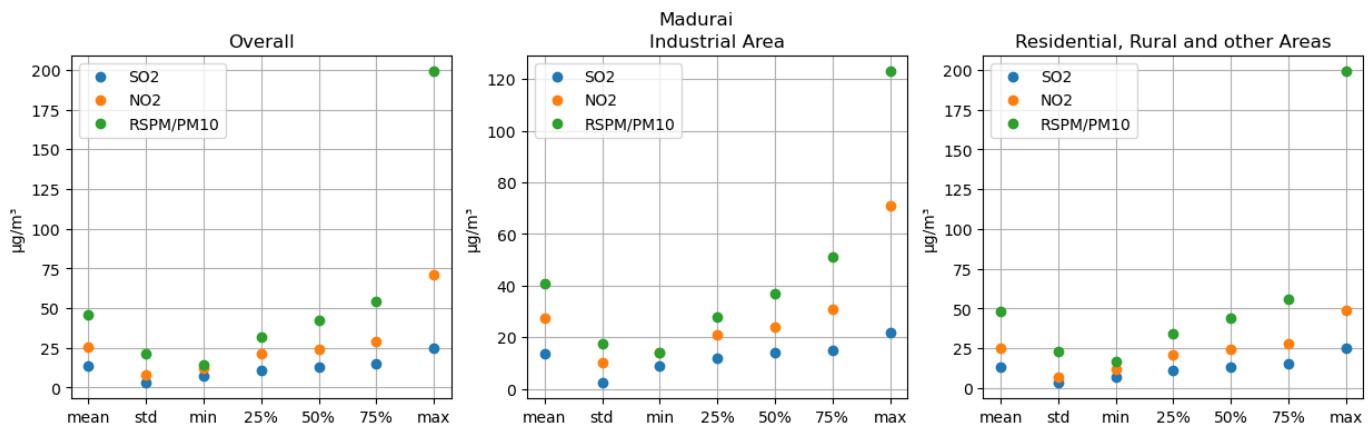


Regression Line

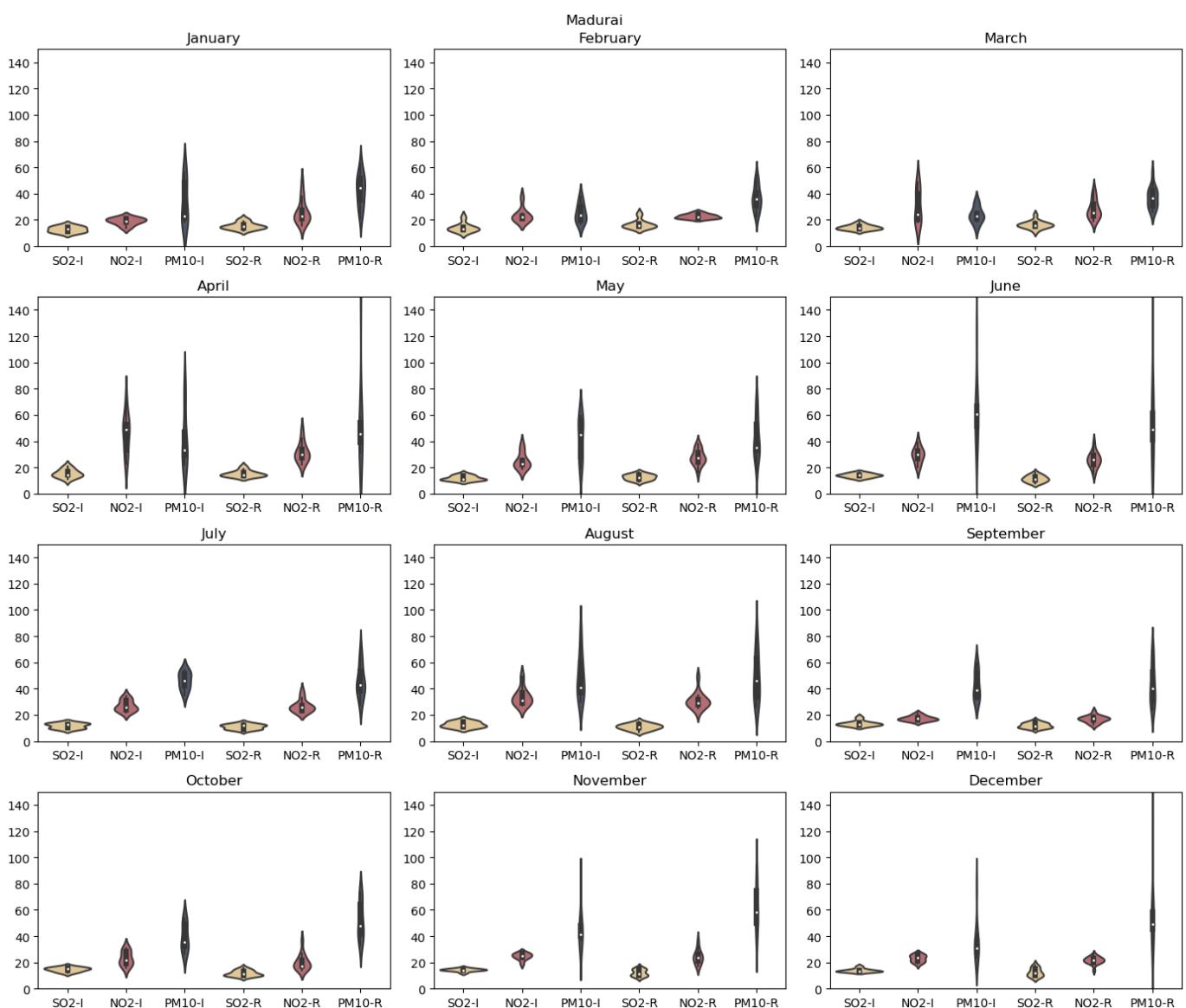


4) Madurai

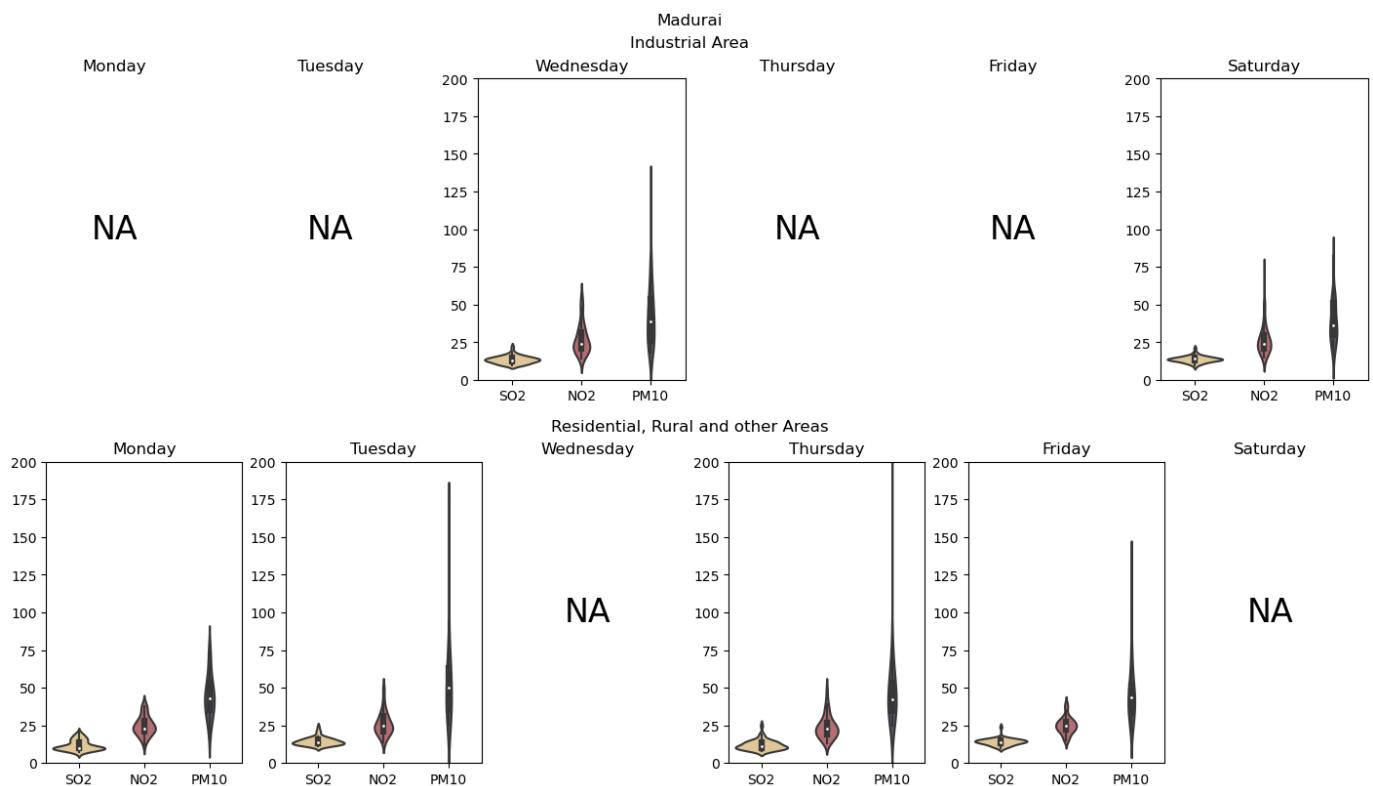
Statistics of SO₂, NO₂, and RSPM/PM10 levels



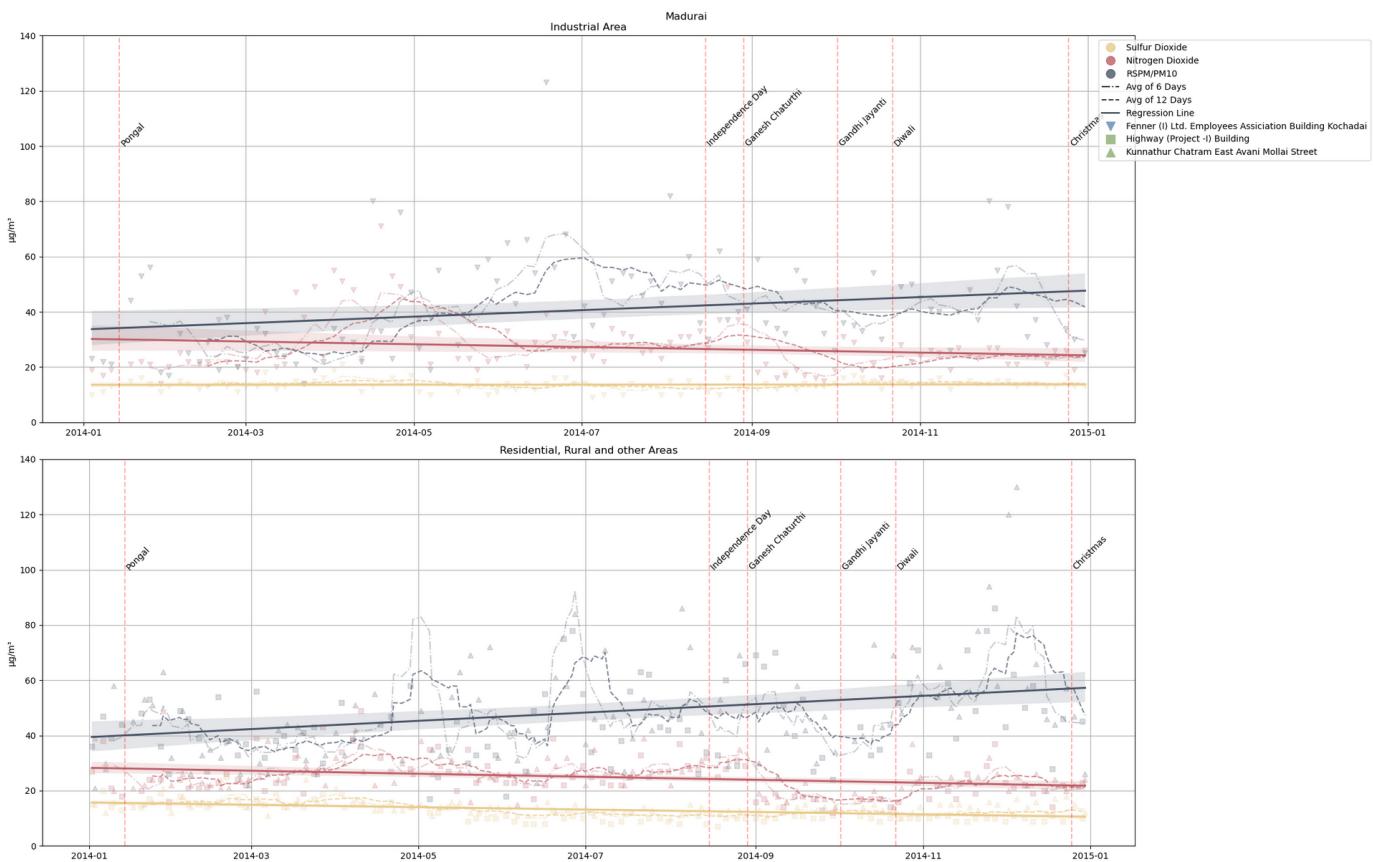
Distribution by Month



Distribution by Weekdays

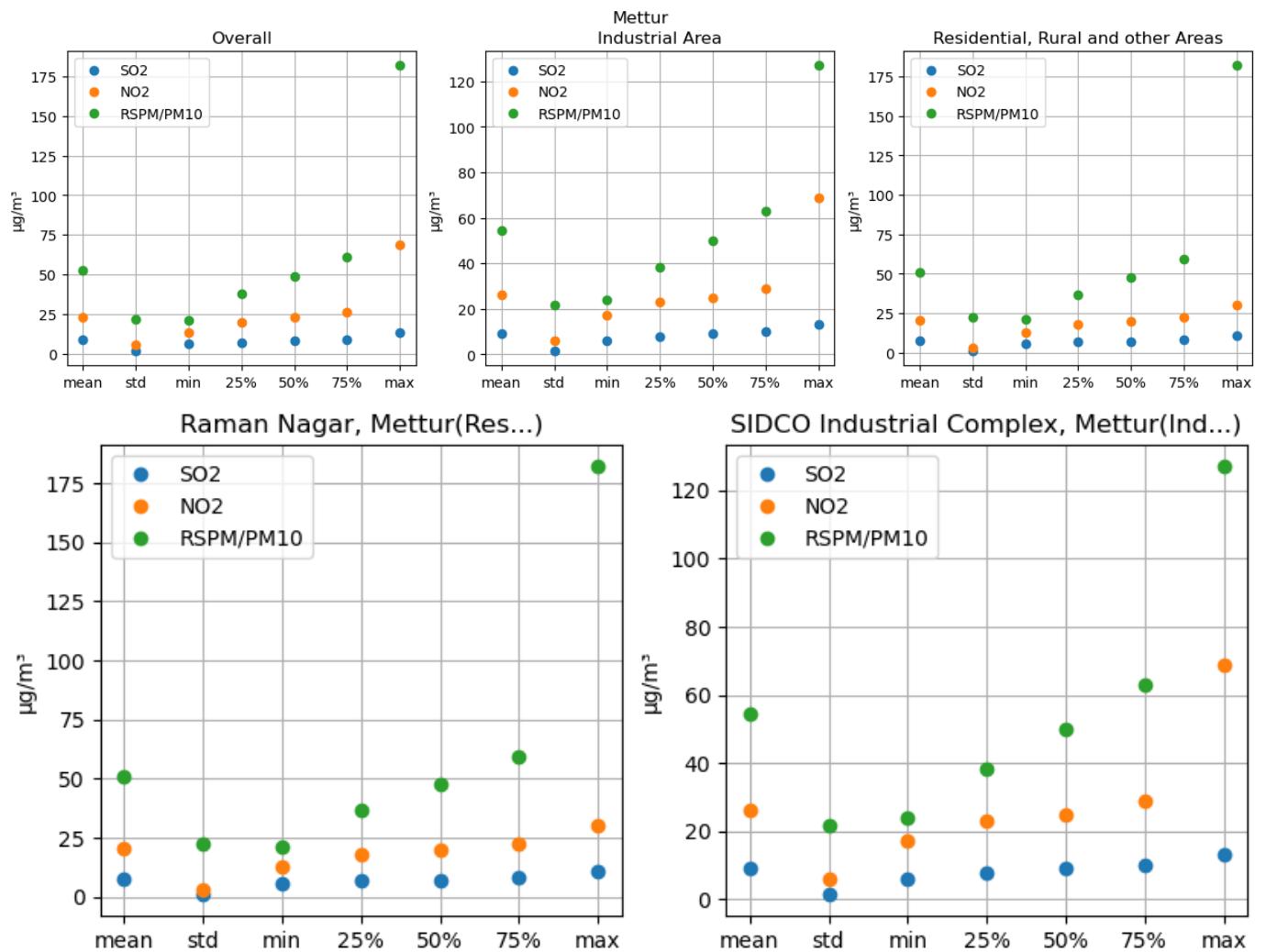


Regression Line

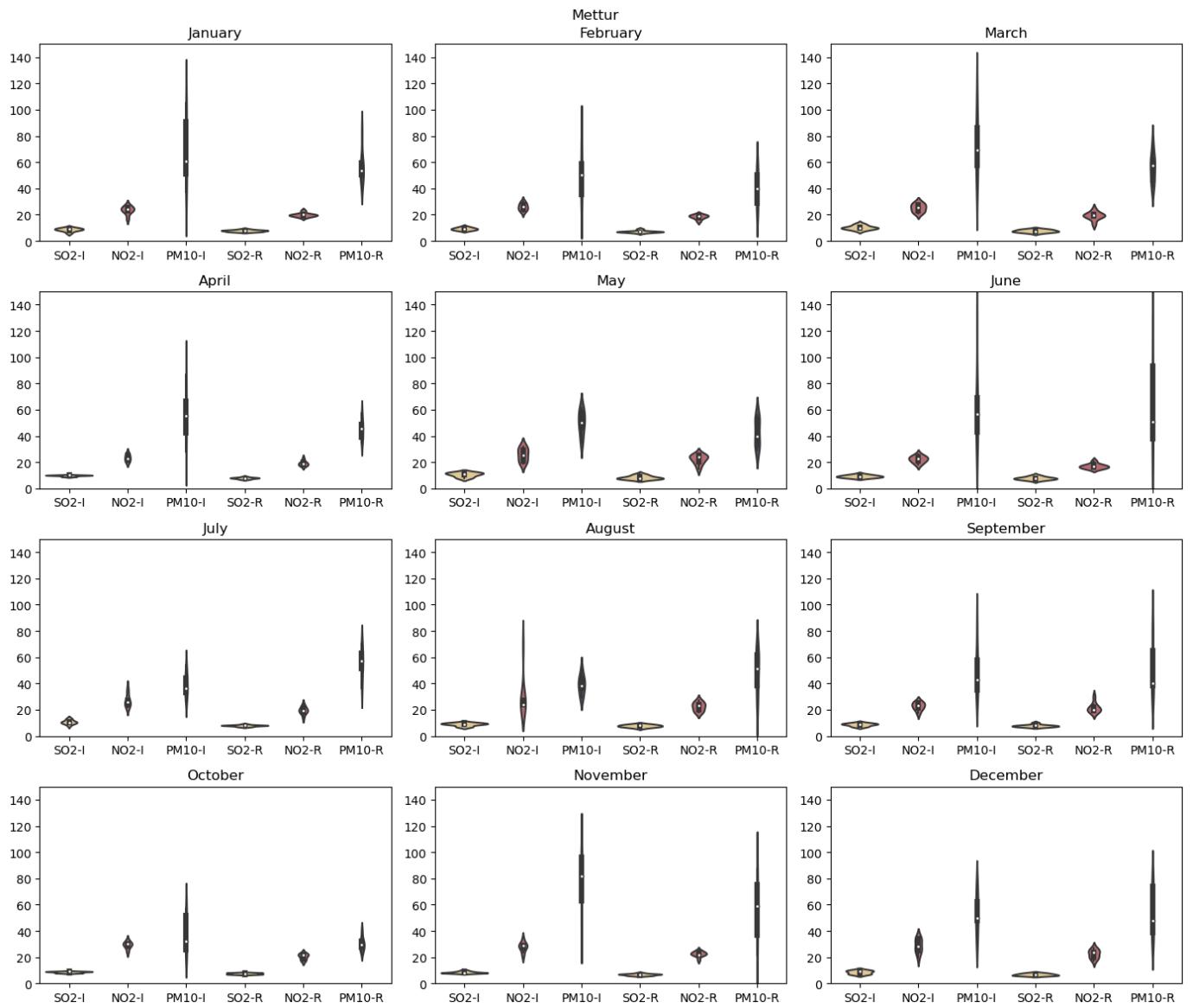


5) Mettur

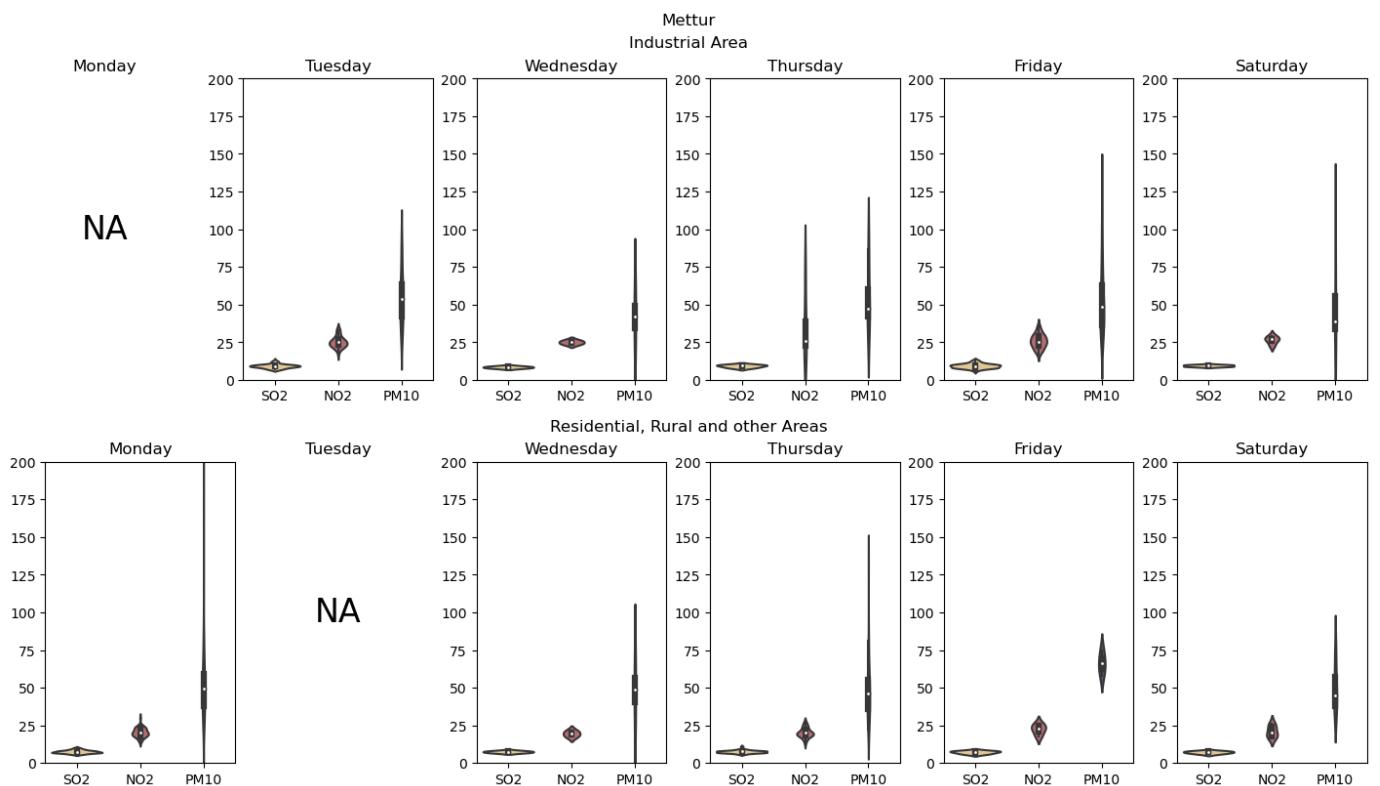
Statistics of SO2, NO2, and RSPM/PM10 levels



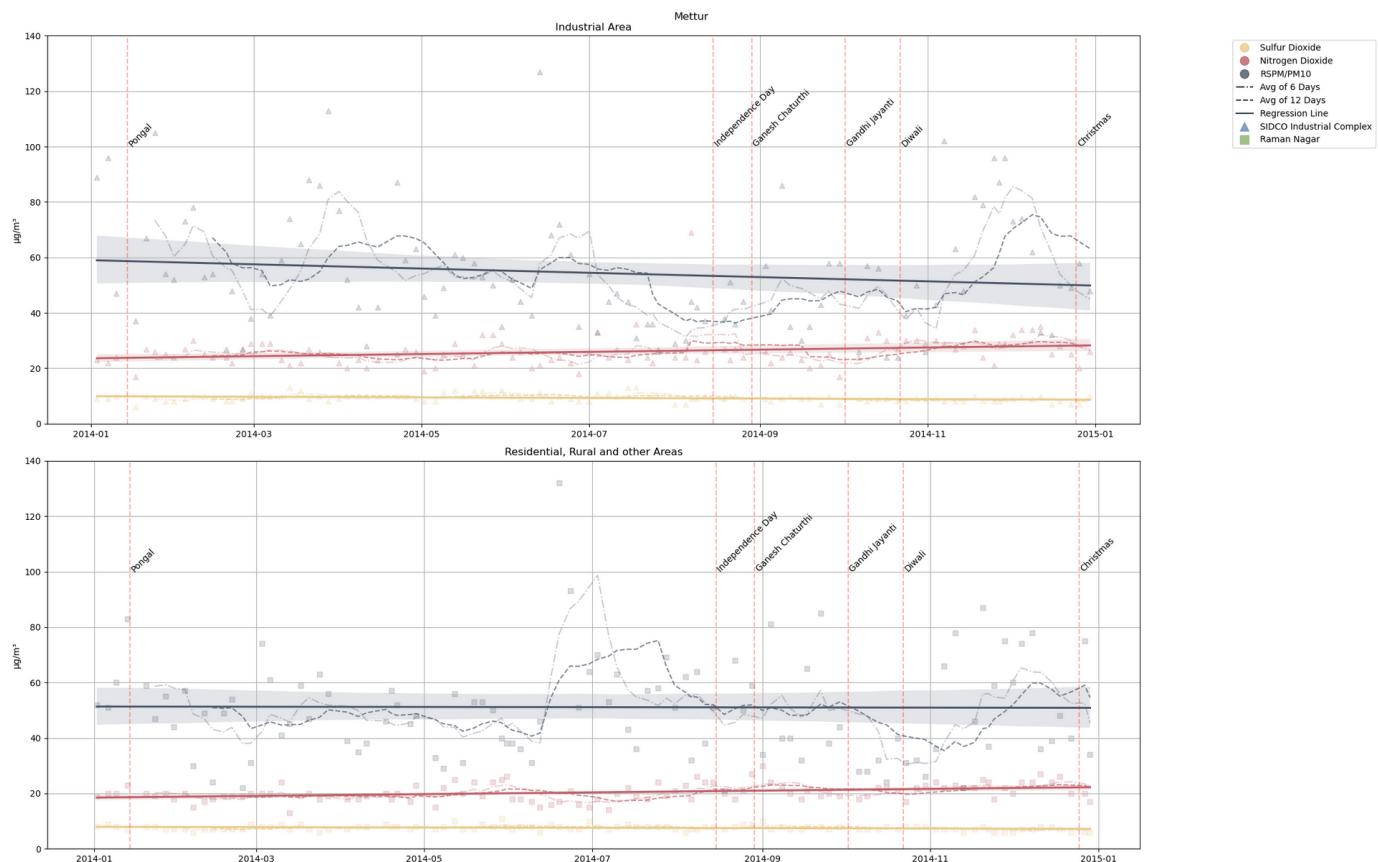
Distribution by Month



Distribution by Weekdays

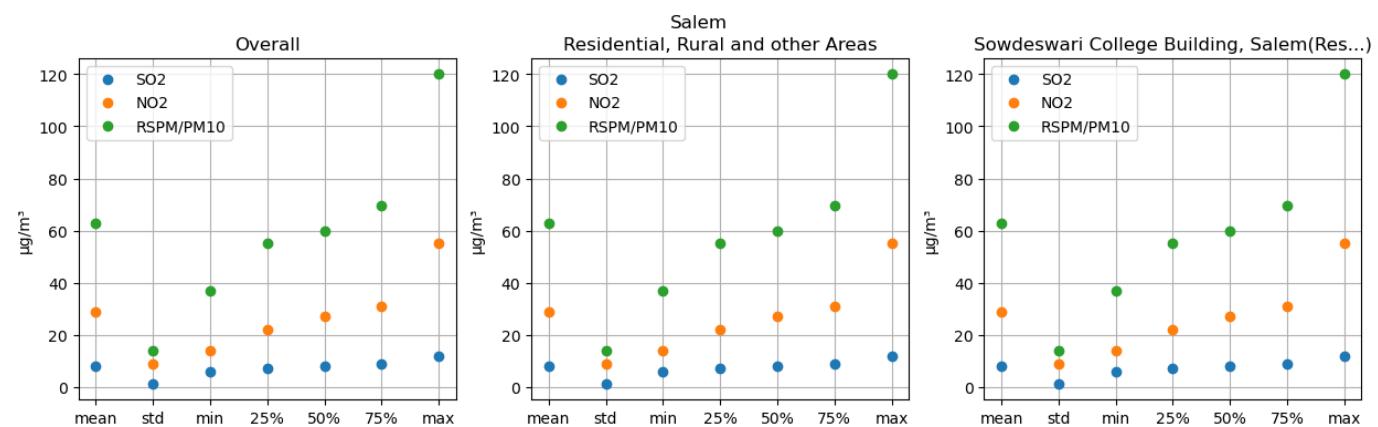


Regression Line

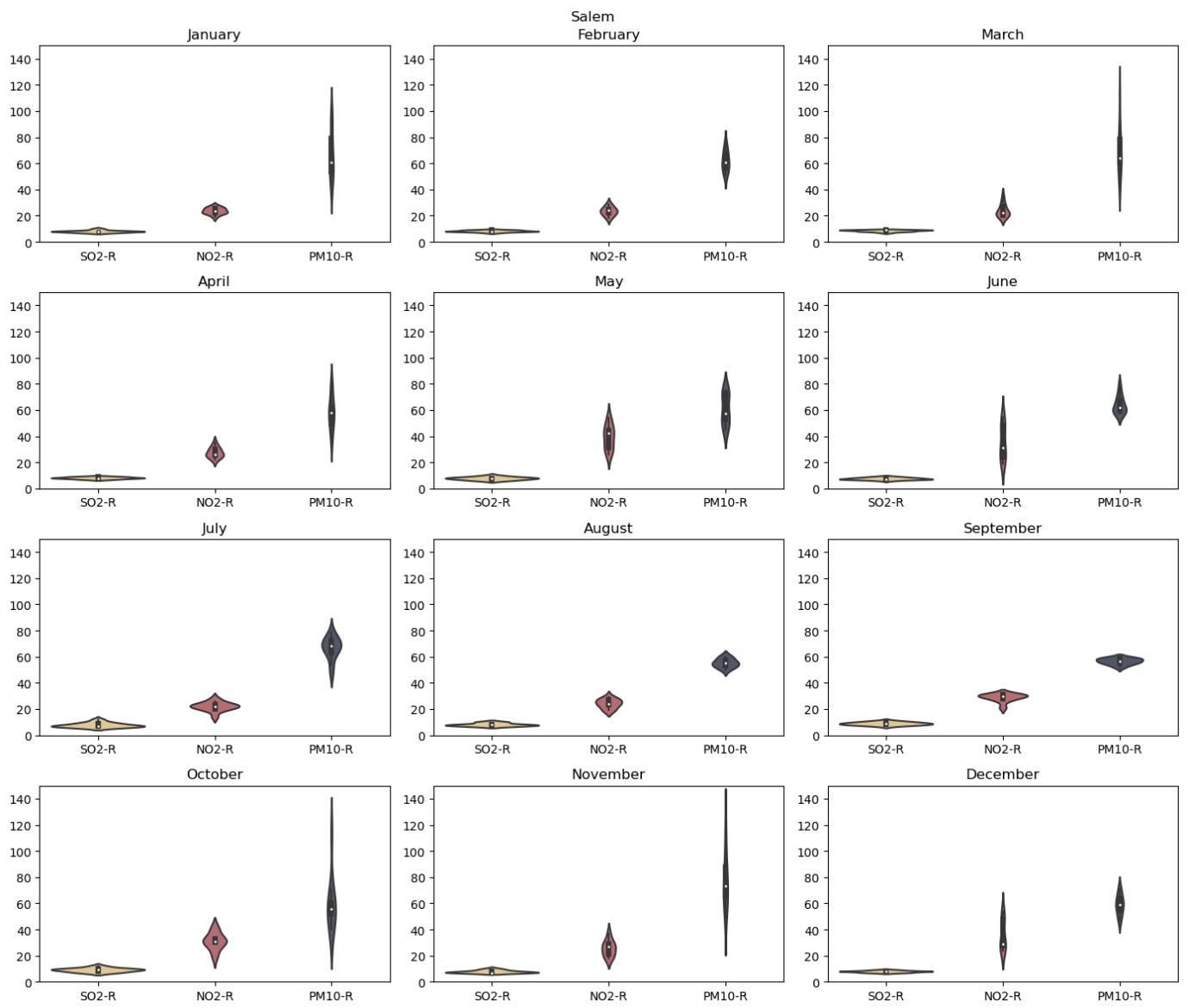


6) Salem

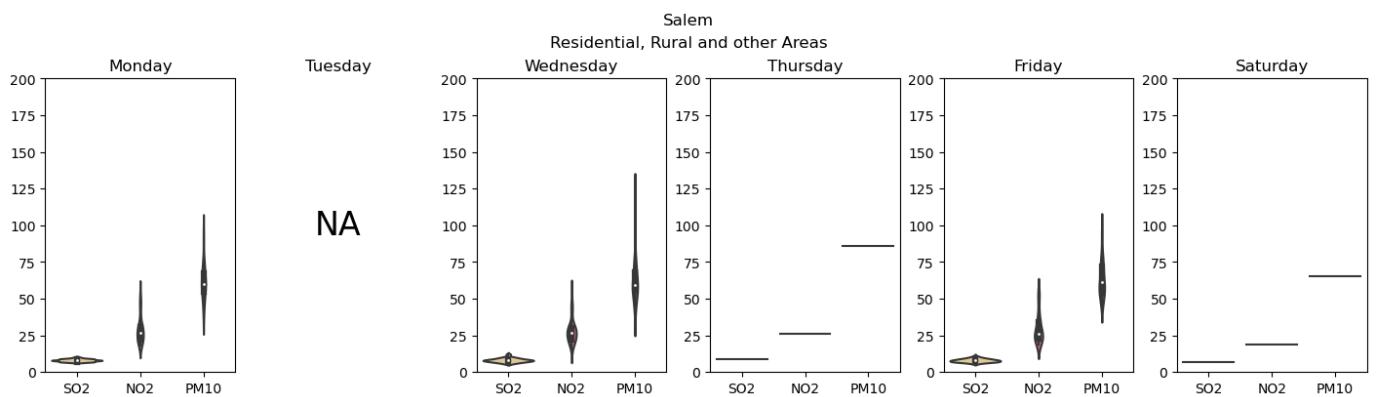
Statistics of SO₂, NO₂, and RSPM/PM10 levels



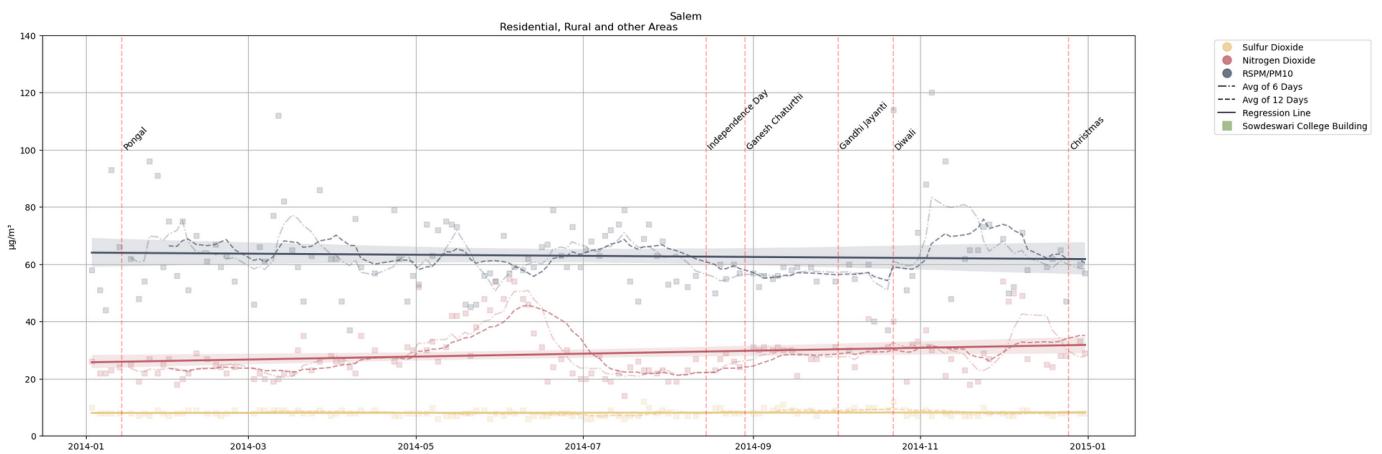
Distribution by Month



Distribution by Weekdays

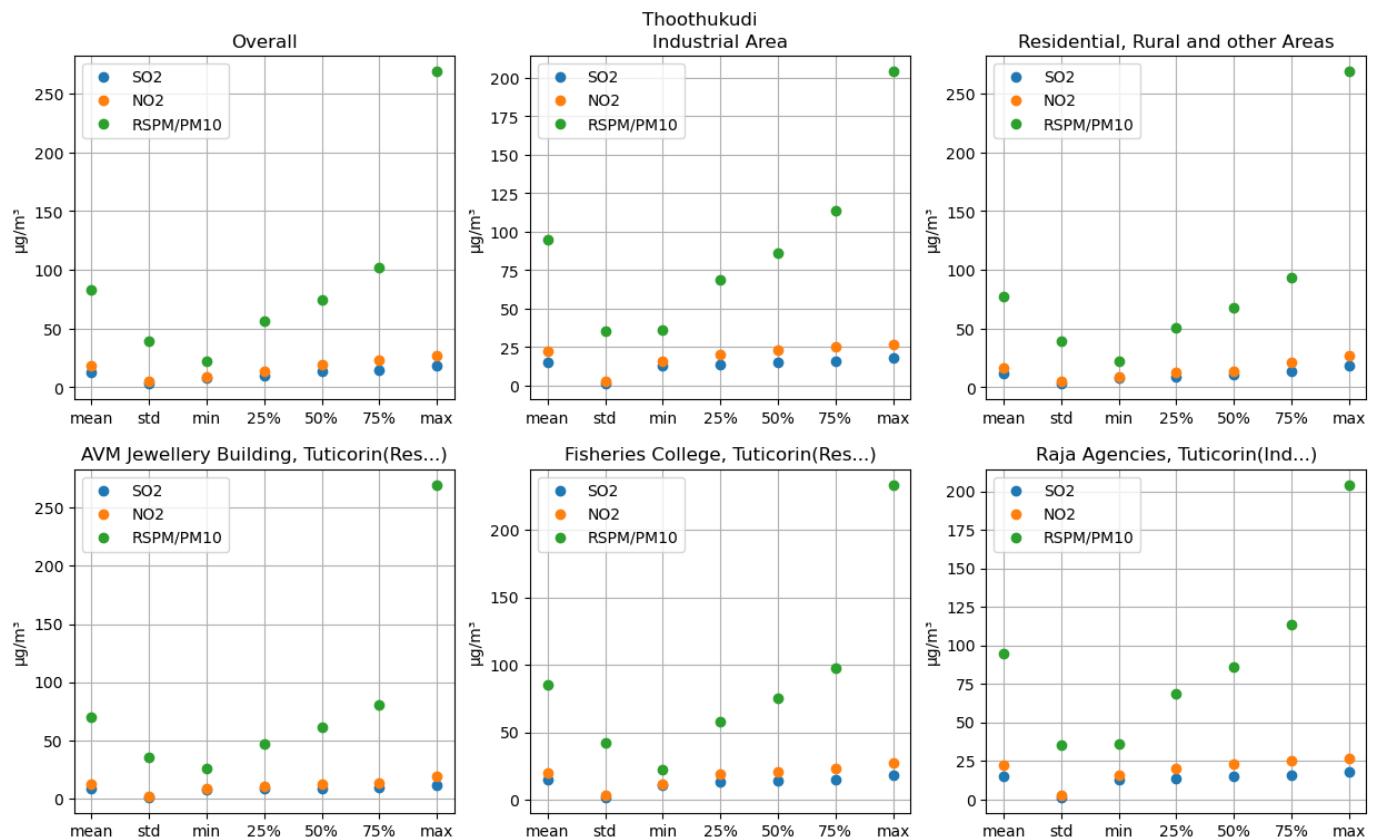


Regression Line

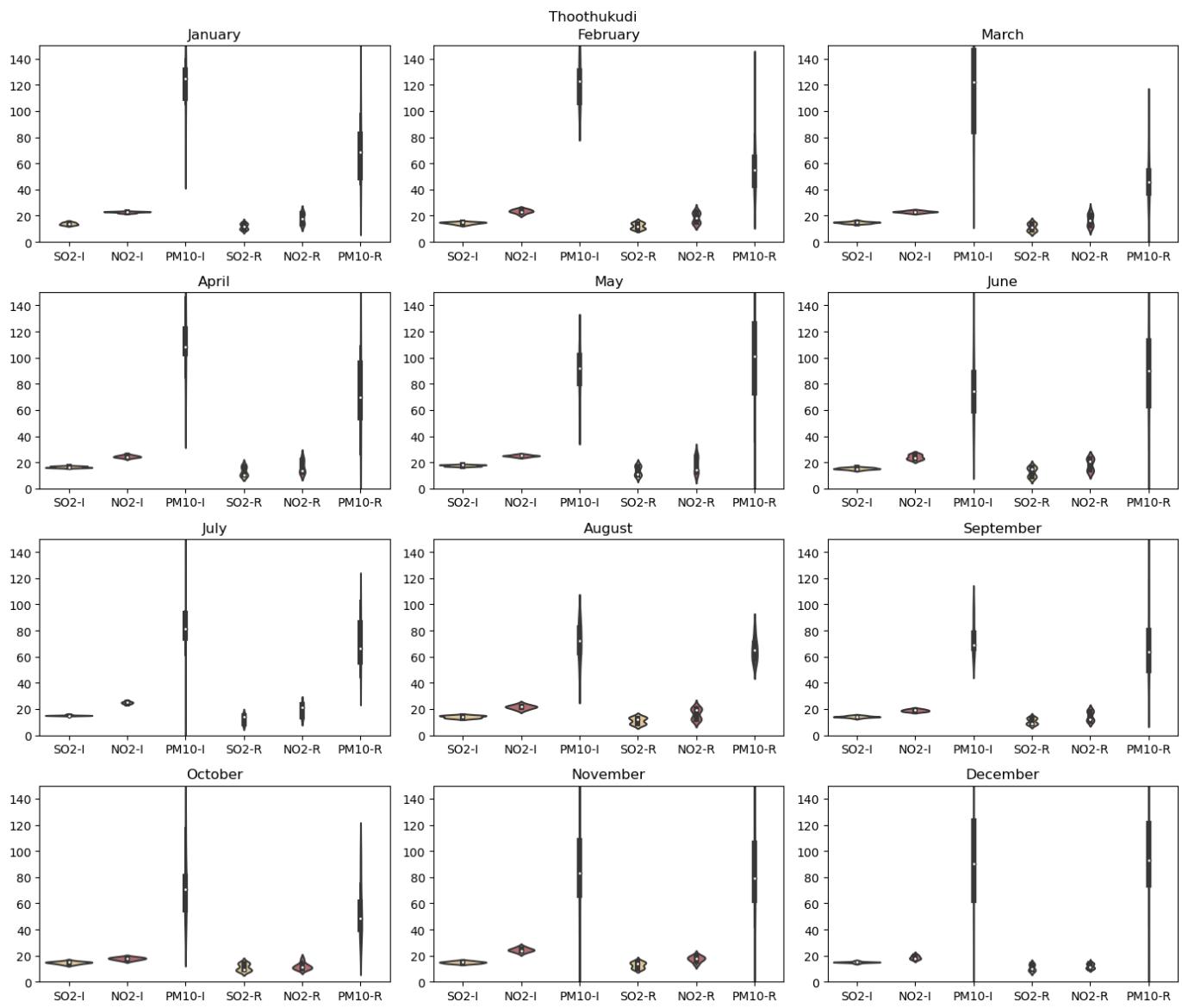


7) Thoothukudi

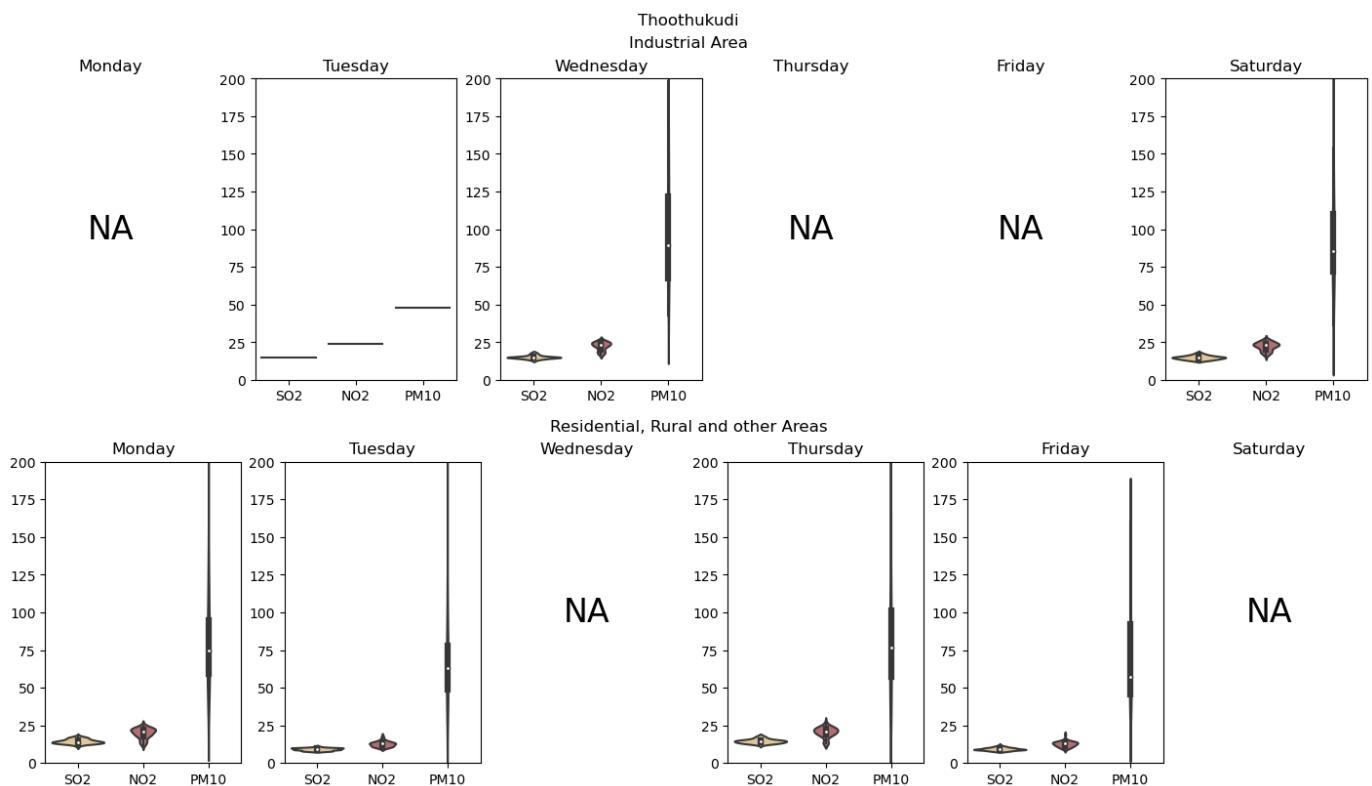
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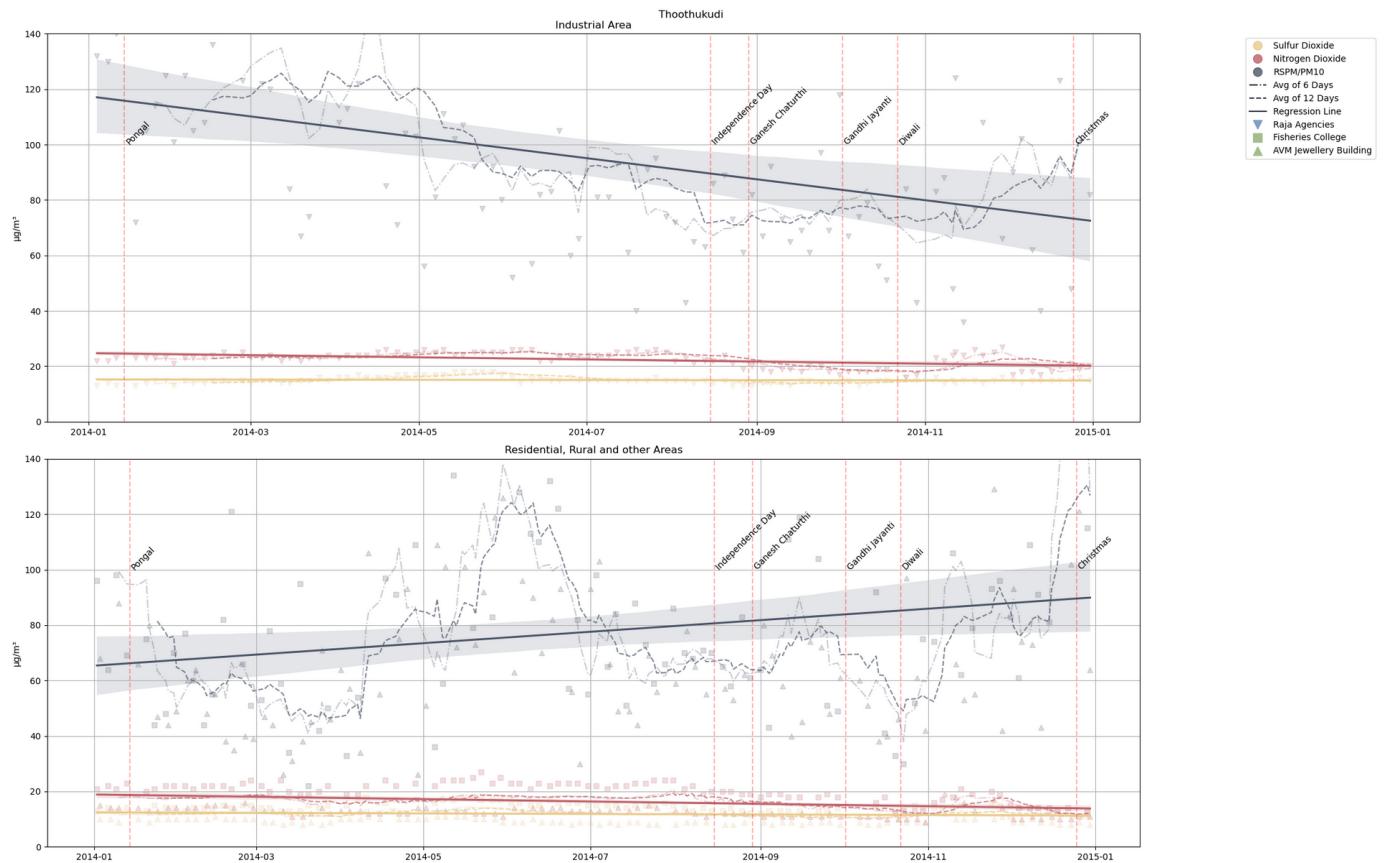
Distribution by Month



Distribution by Weekdays

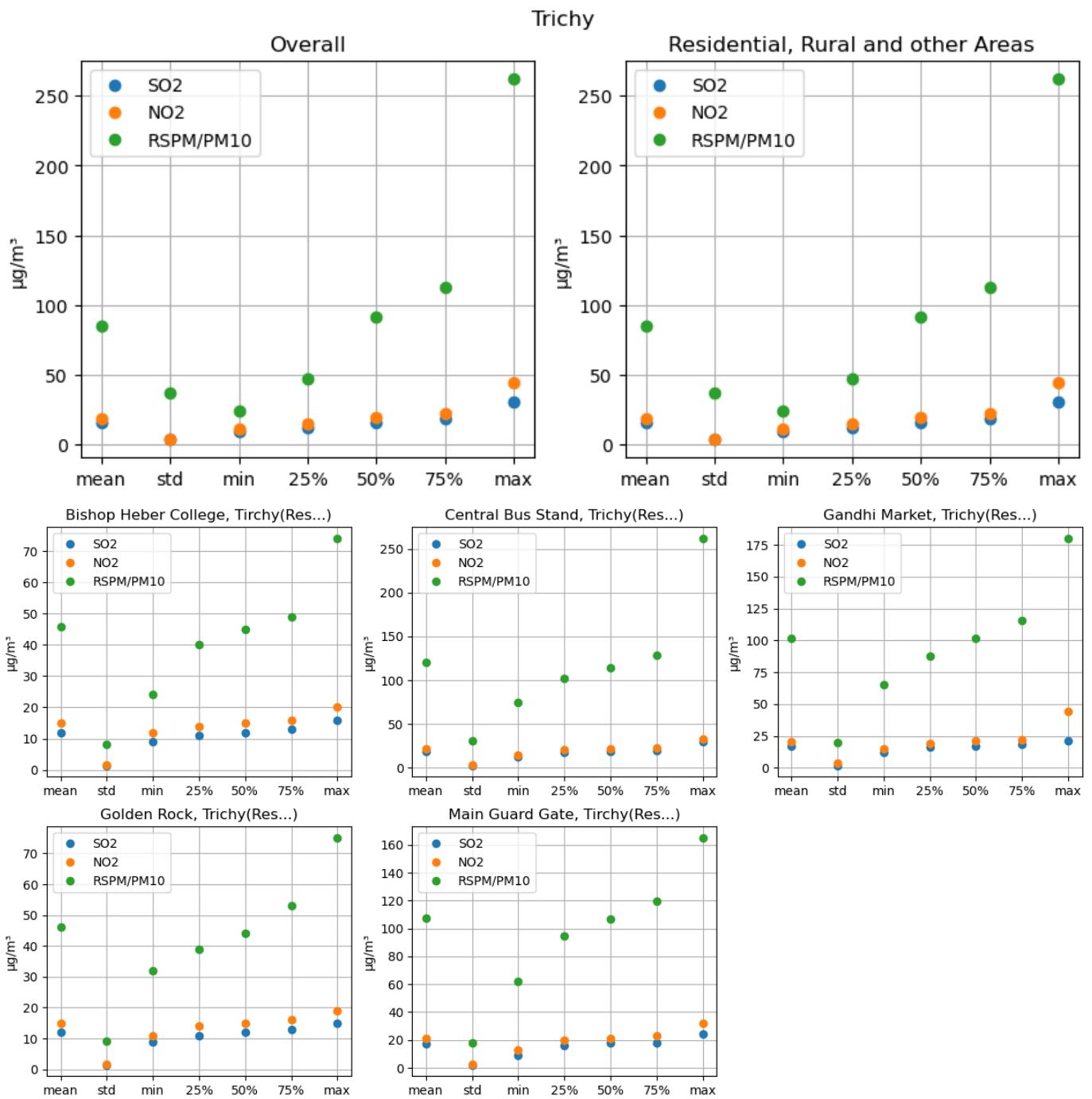


Regression Line

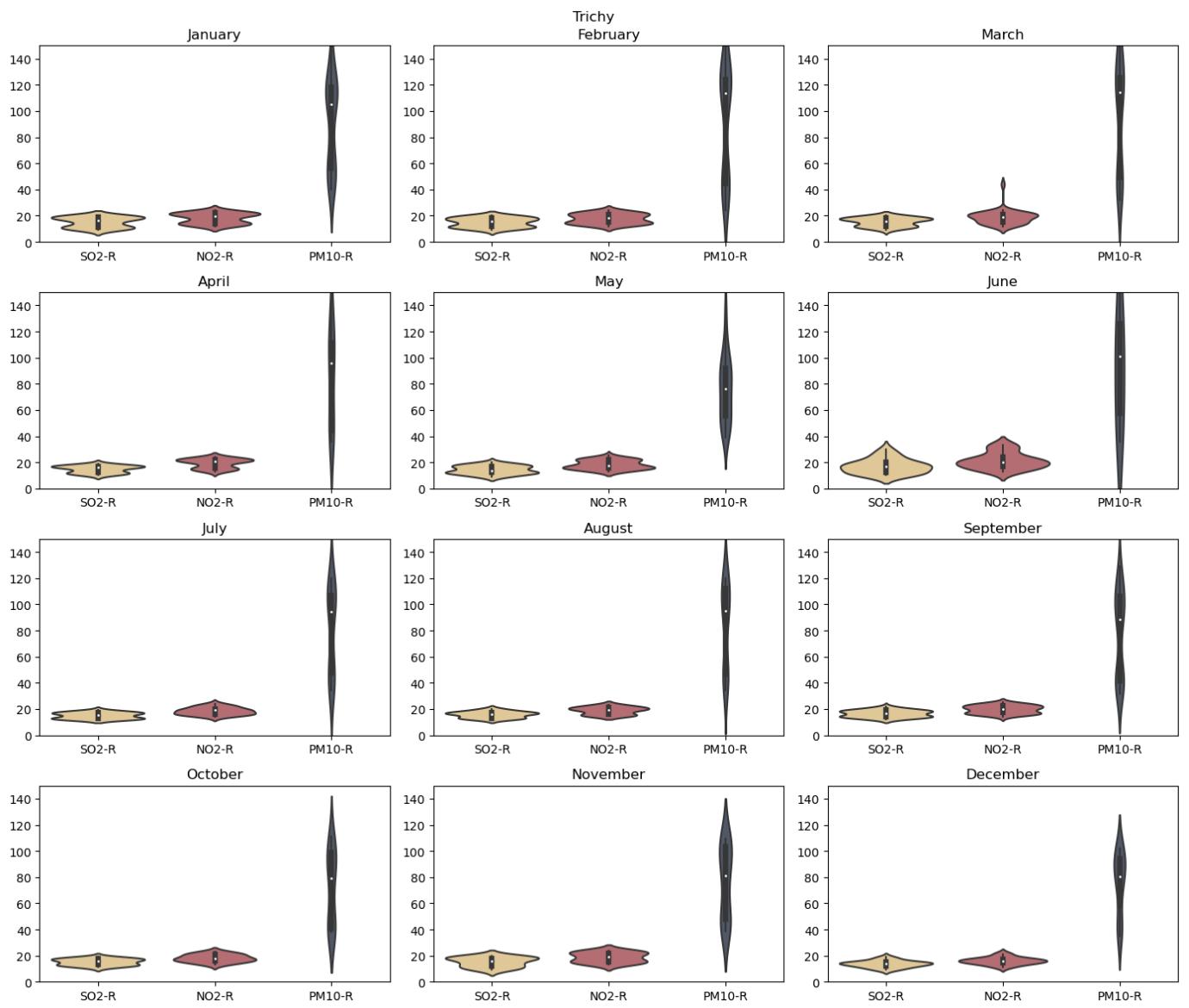


8) Trichy

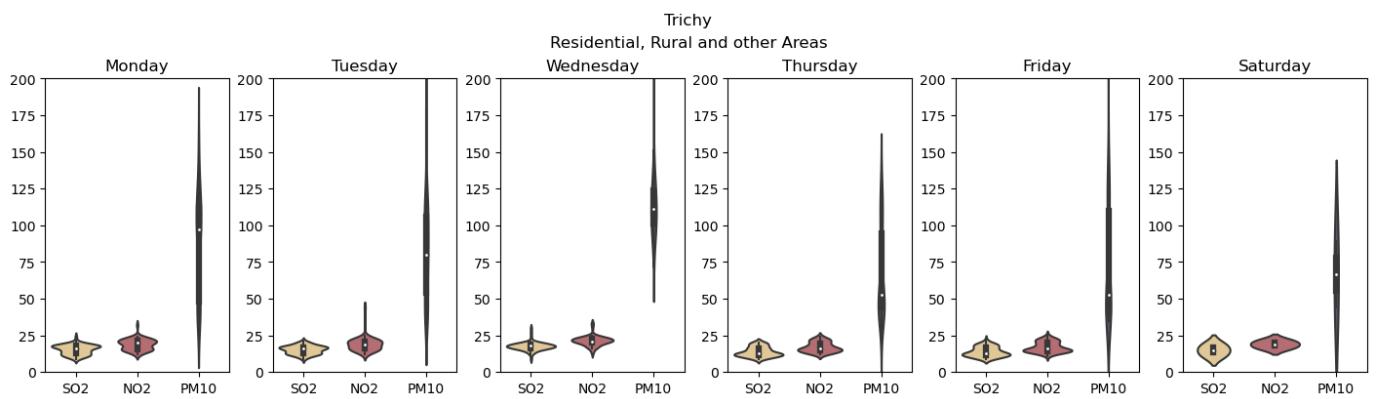
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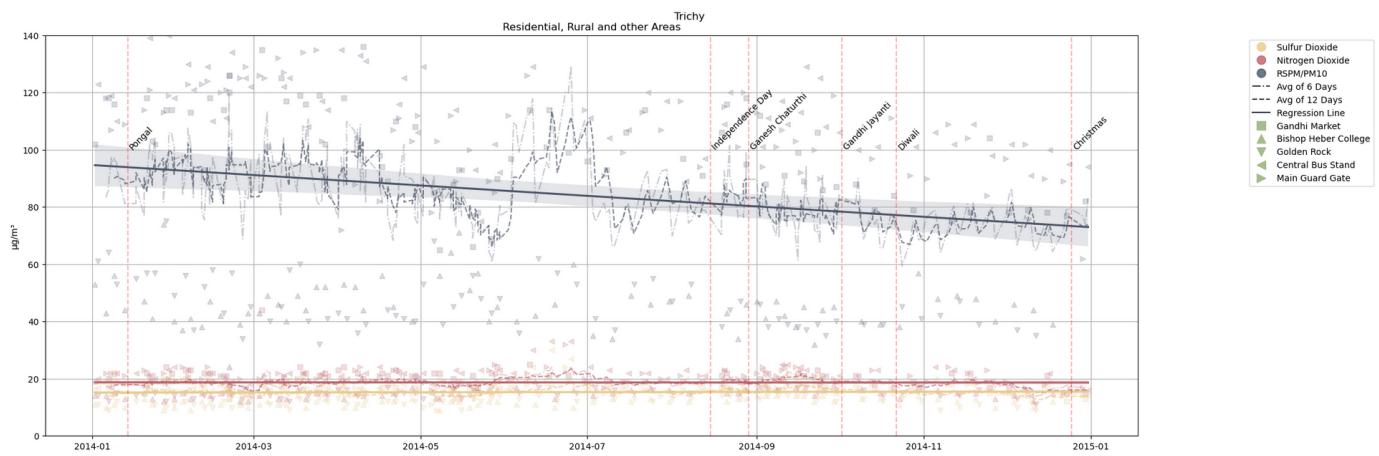
Distribution by Month



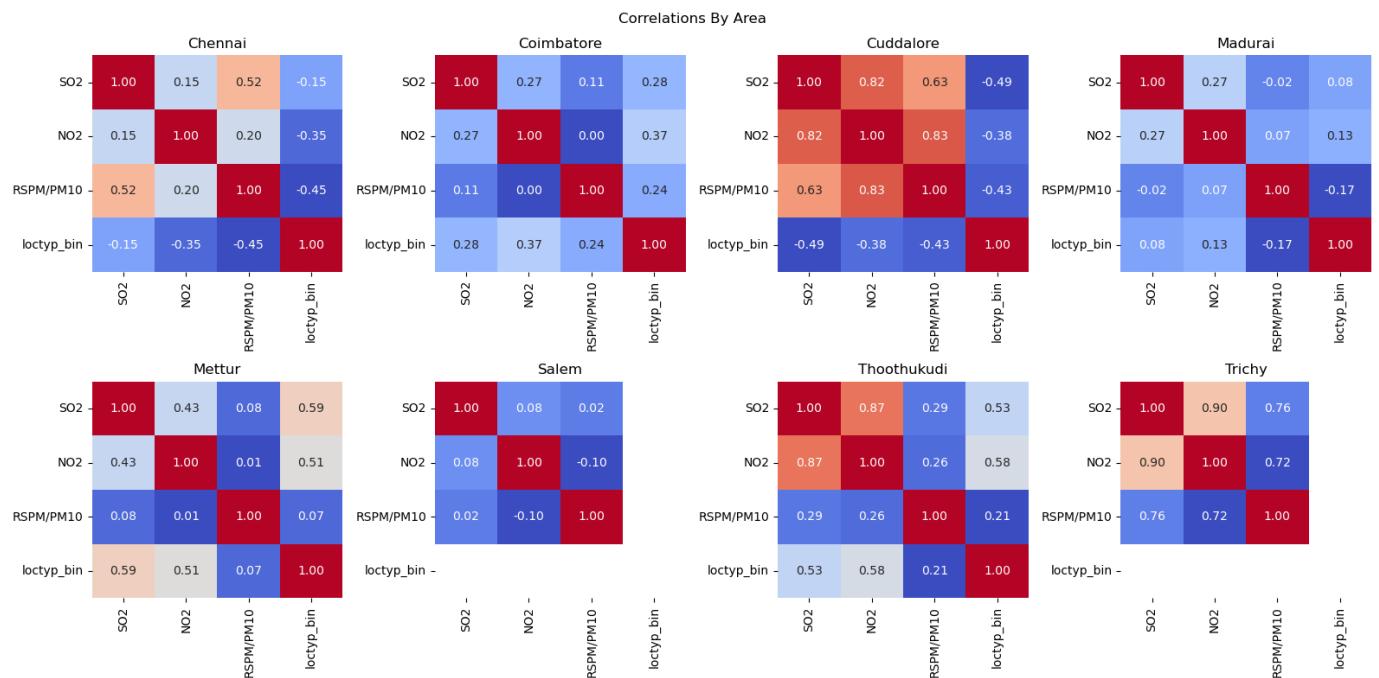
Distribution by Weekdays

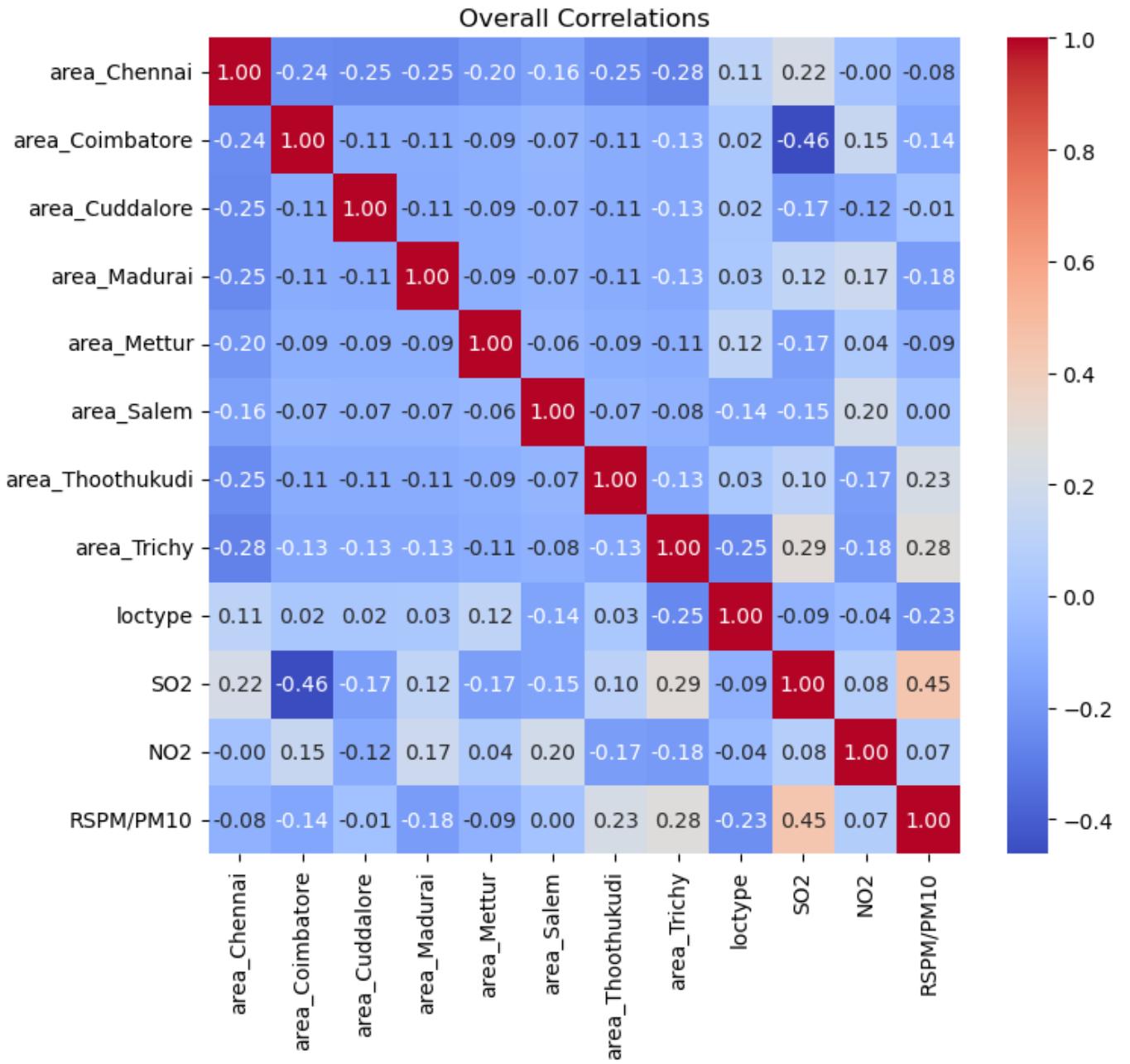


Regression Line



Heat Map of Correlations between SO₂, NO₂, Location Type & PM10.





Geo Spatial Heatmap
