# Air Quality Monthly Report

## December, 2024

Department of Environment
Ministry of Environment Forest and Climate Change, Bangladesh.

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**Introduction:**

Department of Environment (DoE), Bangladesh has established a countrywide air quality monitoring (AQM) network. The continuous monitoring of 6 (six) criteria pollutants ($PM_{2.5}$, $PM_{10}$, $SO_2$, CO, NOx and $O_3$) is being done by 31(thirty one) Continuous Air Monitoring Stations (CAMS) and Compact Continuous Air Monitoring Stations (C-CAMS) located in the divisional and industrial districts of the country. The network encompasses all the regions of the country - Dhaka, Narayanganj, Gazipur, Savar, Mymensing, Narsindi in the center, Chittagong in the south-east. Khulna, Cumilla and Barisal in the south, Rajshahi in the west, and Sylhet in the north-east regions, Rangpur in the north west of the country. And C-CAMS are located in Faridpur, Jashore, Satkhira, Bagerhat, Gopalganj, Tangail, Bogura, Tongi, BUET campus, Brahmanbaria, Feni, Noakhali, BSRM (Chattogram), Cox's-Bazar, Nagor Bhaban, Dhaka. The data and information generated from those stations are automatically collected in the central server and are disseminated through DoE website. Air Quality Index (AQI) for each city is calculated and published online daily for notifying the people about the status of air quality in their respective city.

Quality Assurance/Quality Control (QA/QC) methods and procedures are implemented with full documentation and are validated through an international certified calibration reference laboratory. Forms and log sheets document every activity in the air monitoring stations and document all maintenance, calibration, operation and other activities such as all visits to the stations. This monthly report provides an overview and analysis of air quality monitoring data in Bangladesh for the month wise monitoring results.

The report summarizes the data of different CAMS located in different cities of Bangladesh.

## Standards of Ambient Air Quality

The Government of Bangladesh has enacted Air Pollution (Control) Rules – 2022 with ambient air quality standards. This report establishes the Air Quality Index (AQI) followed by USEPA guideline to evaluate air pollution.

Table 1: National Ambient Air Quality Standards (NAAQS) for Bangladesh

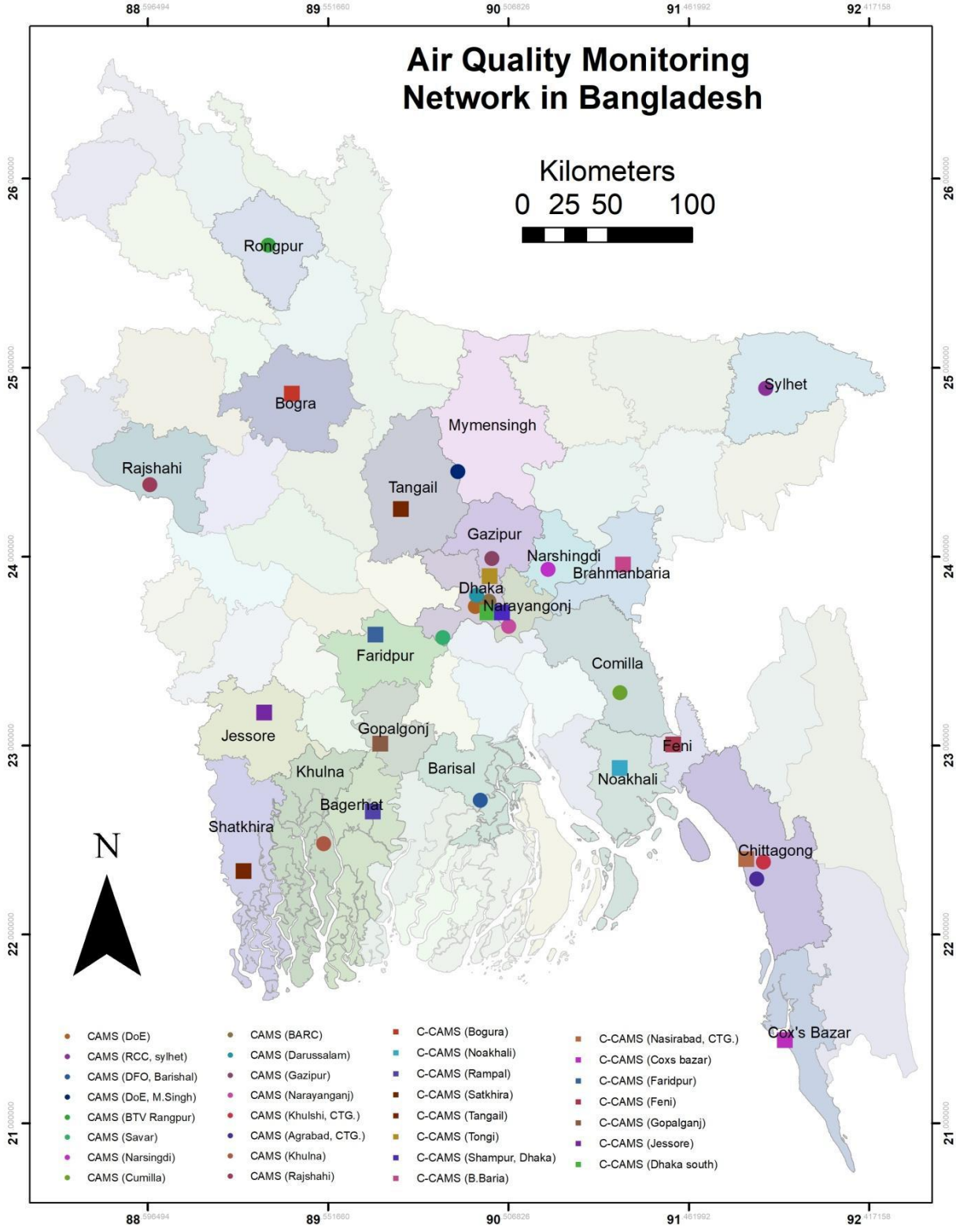
| Pollutant | Limit Value | Averaging time |
|---|---|---|
| CO | 5 mg/m$^3$ | 8 hours[a] |
| | 20 mg/m$^3$ | 1 hour[a] |
| Pb | 0.25 µg/m$^3$ | Annual |
| | 0.50 µg/m$^3$ | 24 hours |
| $NO_x$ | 40 µg/m$^3$ | Annual |
| | 80 µg/m$^3$ | 24 hours |
| $PM_{10}$ | 50 µg/m$^3$ | Annual[b] |
| | 150 µg/m$^3$ | 24 hours[c] |
| $PM_{2.5}$ | 35 µg/m$^3$ | Annual |
| | 65 µg/m$^3$ | 24 hours |
| $O_3$ | 180 µg/m$^3$ | 1 hour[d] |
| | 100 µg/m$^3$ | 8 hours |
| $SO_2$ | | Annual |
| | 80 µg/m$^3$ | 24 hours[a] |

Table 2: Air quality index (AQI) in Bangladesh

| Air quality index (AQI) | Category | | Colour |
|---|---|---|---|
| | In English | In Bangla | |
| 0-50 | Good | ভাল | Green |
| 51-100 | Moderate | মধ্যম | Yellow Green |
| 101-150 | Caution | সাবধানতা/সতর্কীকরণ | Yellow |
| 151-200 | Unhealthy | অস্বাস্থ্যকর | Orange |
| 201-300 | Very Unhealthy | খুব অস্বাস্থ্যকর | Red |
| 301-500 | Extremely Unhealthy/Hazardous | অত্যন্ত অস্বাস্থ্যকর | Purple |

## Location Map of Air Monitoring Station

Figure 1: Locations Map of Continuous Air Monitoring Stations (CAMS) under Department of Environment in Bangladesh.



## Station Information

Table 3: Overview of the locations and capacity of the CAMS

| City | ID | Location | Latitude/ Longitude | Monitoring Capacity | Year of Est. | Type | Inlet & Met tower Height(m) |
|---|---|---|---|---|---|---|---|
| Dhaka | CAMS-1 | Dept of Environment | 23°.77'73.94"N 90°.37'26.03"E | $PM_{10}$, $PM_{2.5}$, $SO_2$, CO, $O_3$ & NOx with Meteorological Parameters | 2012 | UB/Res | 4.8 & 8 |
| | CAMS-2 | Farmgate | 23°.75'94.10"N 90°.38'86.79"E | | 2008 | Rd/Com | 8.8 & 11 |
| | CAMS-3 | Darussalam | 23°.78'07.75"N 90°.35'54.10"E | | 2012 | UB/Com | 8.8 & 11 |
| Gazipur | CAMS-4 | Gazipur | 23°.99'41.28"N 90°.42'23.15"E | | 2012 | SUB | 8.8 & 11 |
| Narayanganj | CAMS-5 | Narayanganj | 23°.62'60.79"N 90°.50'72.00"E | | 2012 | UB industry | 8.8 & 11 |
| Chattogram | CAMS-6 | TV Station, Khulshi | 22°.36'04.87"N 91°.80'04.54"E | | 2006 | UB1 | 4.8 & 7 |
| | CAMS-7 | Agrabad | 22°.32'30.20"N 91°.80'23.36"E | | 2012 | UB/Res | 8.8 & 11 |
| Khulna | CAMS-8 | Boyra | 22°.83'57.75"N 89°.52'90.56"E | | 2008 | UB | 6.8 & 10 |
| Rajshahi | CAMS-9 | Sapura | 24°.38'33.20"N 88°.60'80.07"E | | 2008 | Rd/Res | 6.8 & 10 |
| Sylhet | CAMS-10 | Red Crecent Campus | 24°.88'83.34"N 91°.86'73.47"E | | 2012 | Rd/UB/Res | 13.8 & 15 |
| Barishal | CAMS-11 | DFO Office Campus | 22°.71'02.87"N 90°.36'25.98"E | | 2012 | UB/Res | 6.8 & 10 |
| Mymensingh | CAMS-12 | DoE Office, Divisional Headquarter | 24°.76'24.58"N 90°.40'21.02"E | | 2019 | UB | 8.8 & 11 |
| Rangpur | CAMS-13 | BTV Rangpur Station | 25°.74'73.71"N 89°.22'89.31"E | | 2019 | UB | 8.8 & 11 |
| Savar | CAMS-14 | Atomic Energy Research Institute | 23°.95'37.04"N 90°.27'97.94"E | | 2019 | SUB | 10.8 & 14 |
| Narsingdi | CAMS-15 | Sadar Upazila Complex | 23°.93'24.56"N 90°.71'65.98"E | | 2019 | SUB | 8.8 & 11 |
| Cumilla | CAMS-16 | Court Area | 23°.47'29.88"N 91°.18'06.71"E | | 2019 | UB | 8.8 & 11 |

UB: Urban; Rd: Road; Res: residential; Com: Commercial; SUB: Suburban; Rural: Rural

## Table 4: Overview of the locations and capacity of the C-CAMS

| City | ID | Location | Lat/Lon | Year of Est. | Type | Monitoring Capacity | Inlet & Met tower Height(m) |
|---|---|---|---|---|---|---|---|
| Faridpur | C-CAMS-17 | Sadar, Faridpur (Municipal Office) | 23°.60'64.11"N 89°.83'88.19"E | | SUB | | 9 & 11 |
| Jashore | C-CAMS-18 | Sadar, Jashore (circuit house) | 23°.16'22.16"N 89°.20'63.70"E | | SUB | | 12 & 14 |
| Satkhira | C-CAMS-19 | Shyamnagar, Satkhira | 22°.31'59.96"N 89°.04'31.70"E | | Rural | | 5.2 & 7.2 |
| Bagerhat | C-CAMS-20 | Rampal, Bagerhat (Maytree Super Thermal Power Project) | 22°.59'60.86"N 89°.55'37.20"E | | Rural/Industrial | | 5.7 & 7.7 |
| Gopalganj | C-CAMS-21 | Sadar, Gopalganj | 23°.00'88.53"N 89°.82'91.60"E | | SUB | | 22 & 24 |
| Tangail | C-CAMS-22 | Sadar, Tangail (DoE office) | 24°.24'97.96"N 89°.92'93.57"E | | SUB | | 15 & 17 |
| Bogura | C-CAMS-23 | Sadar, Bogura (DoE Office) | 24°.86'17.79"N 89°.36'11.46"E | | SUB | | 9 & 11 |
| Tongi | C-CAMS-24 | BSCIC, Tongi, Gazipur | 23°.89'41.74"N 90°.41'12.10"E | | Com/ Industrial | $PM_{10}$, $PM_{2.5}$, $SO_2$, CO, $O_3$& NOx with Meteorological Parameters | 18 & 20 |
| BUET | C-CAMS-25 | Department of Chemical Engineering, BUET, Dhaka | 23°.72'75.91"N 90°.39'27.97"E | 2020 | UB | | 10 & 12 |
| Brahmanbaria | C-CAMS-26 | Sadar, B.Baria (municipal Office) | 23°.97'43.71"N 91°.10'97.69"E | | SUB | | 18 & 20 |
| Feni | C-CAMS-27 | Sadar, Feni (DoE Office) | 23°.00'62.97"N 91°.38'13.05"E | | SUB | | 18 & 20 |
| Noakhali | C-CAMS-28 | Maijdi Bazar, Noakhali (DoE Office) | 22°.88'11.48"N 91°.09'69.66"E | | SUB | | 15 & 17 |
| Chattogram BSRM | C-CAMS-29 | BSRM, Nasirabad, Chattogram | 22°.37'28.38"N 91°.81'80.54"E | | UB/Industrial | | 12 & 14 |
| Cox's-Bazar | C-CAMS-30 | Saymon Road, Sadar, Cox's-Bazar (DoE Office) | 21°.44'22.08"N 91°.97'10.83"E | | SUB | | 9 & 11 |
| Nagor Bhaban, Dhaka | C-CAMS-31 | Nagar Bhaban, DSCC, Dhaka | 23°.72'40.75"N 90°.40'91.42"E | | UB/Com | | 13 & 15 |

UB: Urban; Rd: Road; Res: residential; Com: Commercial; SUB: Suburban; Rural: Rural

# Summary of Components
## Month of December, 2024

### Table 5: Summary of components, Month of December, 2024

| Parameter | Summary | DoE | BARC | Darus-salam, Dhaka | Gazipur | Narayanganj | TV-Station, Chattagram | Agrabad, Chattagram | Sylhet | Khulna | Rajshahi | Barisal | Savar | Mymensingh | Rangpur | Cumilla | Narshingdi |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $SO_2$ -24 hr | Average | 3.1 | 7.7 | DNA | 12.9 | 6.2 | 35.1 | 8.4 | 2.3 | 17.7 | 2.4 | 5.2 | 8.5 | 1.7 | 3.7 | 5.5 | 7.4 |
| | Max | 10.4 | 20.8 | DNA | 23.3 | 13.2 | 128.5 | 9.8 | 2.8 | 42.9 | 6.4 | 7.3 | 15.0 | 2.2 | 9.0 | 17.4 | 22.9 |
| | Min | 1.0 | 1.0 | DNA | 8.0 | 2.4 | 2.6 | 7.2 | 1.0 | 1.3 | 0.6 | 4.7 | 2.5 | 1.1 | 0.8 | 0.8 | 1.1 |
| | Excedance(Days) | 0.0 | 0.0 | DNA | 0.0 | 0.0 | 12.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Data capture(%) | 16.1 | 100.0 | DNA | 48.4 | 100.0 | 74.2 | 100.0 | 74.2 | 35.5 | 100.0 | 100.0 | 83.9 | 100.0 | 83.9 | 67.7 | 100.0 |
| NO2 -24 hr | Average | 15.1 | 51.9 | 7.9 | DNA | 4.4 | 2.7 | 6.3 | 24.1 | 2.1 | 3.5 | DNA | 9.8 | 4.1 | 3.8 | 4.0 | 4.6 |
| | Max | 29.7 | 126.9 | 12.2 | DNA | 8.2 | 4.1 | 7.9 | 24.1 | 2.4 | 10.8 | DNA | 17.7 | 5.4 | 7.4 | 4.0 | 19.7 |
| | Min | 0.7 | 19.0 | 5.9 | DNA | 3.9 | 0.2 | 3.1 | 23.9 | 1.7 | 0.4 | DNA | 0.7 | 3.2 | 1.4 | 3.8 | 0.6 |
| | Excedance(Days) | 0.0 | 10.0 | 0.0 | DNA | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | DNA | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Data capture(%) | 51.6 | 100.0 | 80.6 | DNA | 100.0 | 83.9 | 100.0 | 80.6 | 100.0 | 45.2 | DNA | 93.5 | 64.5 | 83.9 | 100.0 | 100.0 |
| CO-8hr | Average | 3.1 | 2.1 | 2.8 | DNA | 2.2 | 2.2 | 9.5 | 2.2 | 1.9 | 2.4 | DNA | 1.6 | 1.1 | 2.0 | 2.2 | 1.0 |
| | Max | 4.6 | 5.4 | 4.6 | DNA | 19.9 | 8.9 | 26.9 | 3.8 | 2.4 | 3.8 | DNA | 2.7 | 4.5 | 5.8 | 4.2 | 3.1 |
| | Min | 2.2 | 1.0 | 1.9 | DNA | 0.1 | 0.0 | 0.8 | 1.5 | 1.4 | 0.2 | DNA | 0.6 | 0.4 | 0.1 | 1.1 | 0.3 |
| | Excedance(Hour) | 29.0 | 21.0 | 16.0 | DNA | 66.0 | 35.0 | 615.0 | 0.0 | 0.0 | 0.0 | DNA | 0.0 | 1.0 | 7.0 | 1.0 | 0.0 |
| | Data capture(%) | 87.9 | 99.1 | 57.5 | DNA | 99.1 | 72.2 | 99.1 | 90.7 | 99.1 | 98.4 | DNA | 87.0 | 99.1 | 80.9 | 99.1 | 99.1 |
| $O_3$-8hr | Average | #DIV/0! | 11.5 | 1.1 | 7.4 | 30.6 | 18.4 | DNA | 0.6 | 21.7 | 4.4 | DNA | 6.4 | 7.7 | 3.2 | DNA | 7.1 |
| | Max | 0.0 | 53.3 | 2.2 | 12.0 | 160.2 | 176.9 | DNA | 0.7 | 39.8 | 18.1 | DNA | 22.4 | 24.6 | 17.0 | DNA | 80.9 |
| | Min | 0.0 | 0.5 | 0.7 | 5.8 | 7.2 | 3.7 | DNA | 0.1 | 2.4 | 0.1 | DNA | 0.1 | 0.5 | 0.1 | DNA | 0.1 |
| | Excedance(Hour) | 0.0 | 2.0 | 0.0 | 0.0 | 73.0 | 12.0 | DNA | 0.0 | 0.0 | 0.0 | DNA | 0.0 | 0.0 | 0.0 | DNA | 2.0 |
| | Data capture(%) | 0.0 | 99.1 | 79.6 | 98.9 | 97.3 | 79.0 | DNA | 71.6 | 99.1 | 46.4 | DNA | 85.9 | 99.1 | 76.5 | DNA | 89.1 |
| $PM_{2.5}$ -24hr | Average | 157.8 | 132.3 | 201.9 | 199.3 | 147.4 | 91.6 | DNA | 85.2 | 111.9 | 145.2 | 49.8 | 191.6 | 128.6 | 125.4 | 136.4 | 165.4 |
| | Max | 239.0 | 194.5 | 331.6 | 274.7 | 250.6 | 229.1 | DNA | 128.0 | 196.5 | 198.9 | 386.6 | 322.2 | 217.2 | 218.6 | 218.1 | 265.2 |
| | Min | 87.8 | 78.1 | 116.9 | 105.4 | 52.2 | 7.4 | DNA | 43.4 | 21.0 | 64.3 | 26.4 | 100.1 | 38.3 | 33.0 | 44.7 | 114.5 |
| | Excedance(Days) | 31.0 | 31.0 | 23.0 | 25.0 | 30.0 | 14.0 | DNA | 24.0 | 26.0 | 30.0 | 1.0 | 29.0 | 28.0 | 19.0 | 30.0 | 31.0 |
| | Data capture(%) | 100.0 | 100.0 | 74.2 | 80.6 | 100.0 | 67.7 | DNA | 90.3 | 100.0 | 100.0 | 100.0 | 93.5 | 100.0 | 80.6 | 100.0 | 100.0 |
| $PM_{10}$ -24hr | Average | 123.5 | 262.9 | 279.8 | 295.8 | 270.7 | 117.9 | DNA | 175.1 | 239.4 | 272.4 | DNA | 309.2 | 218.9 | 267.9 | 225.4 | DNA |
| | Max | 188.3 | 386.2 | 374.2 | 604.4 | 385.4 | 183.0 | DNA | 227.9 | 380.1 | 357.9 | DNA | 519.2 | 360.3 | 416.2 | 317.3 | DNA |
| | Min | 72.1 | 161.8 | 206.5 | 135.0 | 144.2 | 47.8 | DNA | 102.0 | 108.7 | 145.3 | DNA | 70.4 | 111.4 | 168.6 | 110.9 | DNA |
| | Excedance(Days) | 4.0 | 31.0 | 8.0 | 23.0 | 30.0 | 2.0 | DNA | 26.0 | 29.0 | 24.0 | DNA | 18.0 | 28.0 | 26.0 | 27.0 | DNA |
| | Data capture(%) | 83.9 | 100.0 | 25.8 | 77.4 | 100.0 | 35.5 | DNA | 93.5 | 100.0 | 80.6 | DNA | 61.3 | 100.0 | 83.9 | 100.0 | DNA |
| Solar rad. 1hr | Average | 28.91 | 222.76 | 44.3 | 0.2 | 173.0 | 1020.5 | 118.9 | 4.8 | 205.3 | 806.2 | 80.2 | 225.2 | 217.0 | 286.8 | 212.1 | 262.2 |
| | Max | 161.47 | 619.1 | 1020.0 | 0.9 | 542.0 | 2563.7 | 560.5 | 5.1 | 1281.5 | 892.5 | 402.1 | 607.1 | 585.1 | 706.8 | 553.7 | 722.7 |
| | Min | 8.61 | 0.1 | 1005.7 | 0.0 | 0.1 | 63.8 | 7.3 | 3.8 | 0.1 | 754.6 | 6.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| | Data capture(%) | 91.94 | 60 | 46 | 11 | 43 | 18 | 98 | 90 | 71 | 98 | 99 | 46.9 | 22.7 | 38.0 | 53.6 | 45.7 |
| Relative Humidity 1hr | Average | 60.16 | 46.6 | 68.0 | DNA | 92.4 | 41.6 | 61.5 | 39.7 | 89.9 | 90.1 | 86.9 | 67.6 | 84.1 | 82.4 | 78.8 | 39.3 |
| | Max | 88.85 | 78.1 | 97.4 | DNA | 93.0 | 63.0 | 99.4 | 39.8 | 99.9 | 92.5 | 89.0 | 99.5 | 99.4 | 99.8 | 100.0 | 86.2 |
| | Min | 28.50 | 15.0 | 20.0 | DNA | 63.0 | 30.0 | 21.2 | 39.6 | 75.4 | 88.4 | 63.6 | 22.5 | 21.5 | 40.0 | 23.6 | 15.0 |
| | Data capture(%) | 91.67 | 80.5 | 79.4 | DNA | 98 | 58 | 97 | 90 | 97 | 98 | 99 | 88.3 | 59.5 | 78.8 | 31.3 | 89.9 |
| Ambient Temp. 1hr | Average | 24.27 | 18.3 | 25.0 | DNA | 21.2 | 24.5 | 21.0 | DNA | 21.6 | 17.4 | 24.8 | 19.1 | 19.8 | 18.2 | 19.4 | 19.1 |
| | Max | 35.74 | 25.2 | 32.0 | DNA | 30.4 | 34.9 | 33.0 | DNA | 28.9 | 27.8 | 33.6 | 27.6 | 27.6 | 26.5 | 28.9 | 28.4 |
| | Min | 11.60 | 10.1 | 7.1 | DNA | 12.8 | 16.9 | 7.1 | DNA | 14.7 | 10.3 | 16.2 | 12.8 | 13.1 | 11.5 | 11.9 | 8.6 |
| | Data capture(%) | 91.67 | 99.6 | 34 | DNA | 97 | 69 | 57 | DNA | 100 | 98 | 99 | 87.8 | 47.0 | 78.1 | 100.0 | 91.0 |
| Rainfall 1hr | Average | DNA | DNA | DNA | 0.01 | DNA | 31.91 | 0.01 | DNA | DNA | DNA | 0.22 | DNA | DNA | DNA | DNA | DNA |
| | Max | DNA | DNA | DNA | 0.02 | DNA | 33.07 | 0.04 | DNA | DNA | DNA | 0.73 | DNA | DNA | DNA | DNA | DNA |
| | Min | DNA | DNA | DNA | 0.01 | DNA | 7.12 | 0.01 | DNA | DNA | DNA | 0.01 | DNA | DNA | DNA | DNA | DNA |
| | Data capture(%) | DNA | DNA | DNA | 18.15 | DNA | 52.69 | 7.26 | DNA | DNA | DNA | 77.42 | DNA | DNA | DNA | DNA | DNA |

CAMS= Continuous Air Monitoring Station, NAAQS=National Ambient Air Quality Standard, a=Refurbisment CAMS, PM= Particulate Matter

DNA= Data Not Available

## Table 6: Air Quality Index (AQI) Month of December

| Date | Dhaka | Chattogram | Gazipur | Narayanganj | Sylhet | Khulna | Rajshahi | Barishal | Savar | Mymensingh | Rangpur | Cumilla | Norshindi |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01-12-2024 | 188 | DNA | 176 | 220 | 187 | 115 | 141 | 61 | DNA | 172 | 210 | 127 | 190 |
| 02-12-2024 | 171 | 179 | 190 | 205 | 126 | 155 | 181 | DNA | DNA | 169 | 244 | 162 | 182 |
| 03-12-2024 | 176 | 177 | 195 | 199 | 155 | 161 | 180 | DNA | 173 | 166 | 185 | 171 | 190 |
| 04-12-2024 | 228 | DNA | 258 | 268 | 164 | 200 | 317 | 104 | 254 | 177 | 165 | 171 | 204 |
| 05-12-2024 | 335 | DNA | 324 | 366 | 178 | 246 | 317 | 139 | 342 | 248 | 187 | 222 | 300 |
| 06-12-2024 | 208 | 251 | 252 | 383 | 162 | 187 | 195 | 114 | 222 | 191 | DNA | 209 | 289 |
| 07-12-2024 | 189 | DNA | 285 | 288 | 178 | 185 | 269 | 102 | 222 | 188 | DNA | 186 | 185 |
| 08-12-2024 | 220 | 239 | 290 | 357 | 164 | 178 | 262 | 126 | 271 | 191 | DNA | 245 | 202 |
| 09-12-2024 | 287 | DNA | DNA | 366 | 120 | 191 | 233 | 111 | 311 | 168 | DNA | 220 | 192 |
| 10-12-2024 | 216 | DNA | 244 | 280 | 162 | 195 | 210 | 121 | 221 | 150 | 119 | 127 | 209 |
| 11-12-2024 | 202 | DNA | 217 | 301 | 176 | 178 | 192 | 104 | 211 | 107 | 115 | DNA | 199 |
| 12-12-2024 | 199 | DNA | 205 | 272 | 181 | 177 | 267 | 98 | 185 | 171 | DNA | 193 | 194 |
| 13-12-2024 | 226 | DNA | 219 | 294 | 174 | 180 | 213 | 112 | 198 | 195 | DNA | 158 | 190 |
| 14-12-2024 | 244 | DNA | 189 | 310 | 167 | DNA | 221 | 126 | 265 | DNA | DNA | 162 | 181 |
| 15-12-2024 | 218 | 200 | 273 | 290 | 161 | 185 | 185 | 126 | 246 | 190 | DNA | 159 | 188 |
| 16-12-2024 | 225 | DNA | 303 | 345 | 153 | 185 | 230 | 122 | 266 | 200 | DNA | 171 | 209 |
| 17-12-2024 | 205 | DNA | 305 | 366 | 116 | 185 | 242 | 108 | 264 | 205 | DNA | 186 | 234 |
| 18-12-2024 | 190 | DNA | 307 | 257 | 161 | 185 | 173 | 109 | 251 | 270 | DNA | 234 | 231 |
| 19-12-2024 | 230 | DNA | DNA | 355 | 169 | 185 | 172 | 110 | 271 | 168 | DNA | 219 | 239 |
| 20-12-2024 | 254 | DNA | DNA | 331 | 173 | 185 | 196 | 108 | 280 | 169 | DNA | 245 | 255 |
| 21-12-2024 | 218 | DNA | DNA | 366 | 229 | 185 | 184 | 106 | 265 | 167 | DNA | 268 | 259 |
| 22-12-2024 | 231 | DNA | 191 | 348 | DNA | 185 | 242 | 108 | 273 | 196 | 197 | 189 | 201 |
| 23-12-2024 | 223 | DNA | 322 | 269 | DNA | 185 | 219 | DNA | 318 | 196 | 251 | 177 | 224 |
| 24-12-2024 | 216 | DNA | 250 | 279 | 160 | 185 | 178 | 101 | 228 | 198 | 186 | 183 | 195 |
| 25-12-2024 | 210 | DNA | 232 | 299 | 172 | 185 | 191 | 105 | 231 | 201 | 206 | 216 | 200 |
| 26-12-2024 | 179 | DNA | 194 | 235 | 161 | 126 | 192 | 91 | DNA | 192 | 256 | 183 | 205 |
| 27-12-2024 | 172 | DNA | 195 | 211 | 153 | 110 | 186 | 100 | DNA | 174 | 239 | 177 | 199 |
| 28-12-2024 | 191 | 193 | 257 | 288 | 156 | DNA | 174 | 109 | DNA | 194 | 227 | 196 | DNA |
| 29-12-2024 | 203 | 230 | 304 | 291 | 175 | 198 | 187 | DNA | DNA | 216 | 259 | 255 | 281 |
| 30-12-2024 | 226 | 195 | 232 | 248 | 221 | 186 | 200 | 101 | DNA | 212 | 268 | 192 | 243 |
| 31-12-2024 | 211 | 195 | 232 | 248 | 221 | 186 | 200 | 101 | DNA | 212 | 268 | 192 | 243 |

**Table 7: Graphical representation of 24 hr. average of Sulfur-Di-Oxide ($SO_2$).**

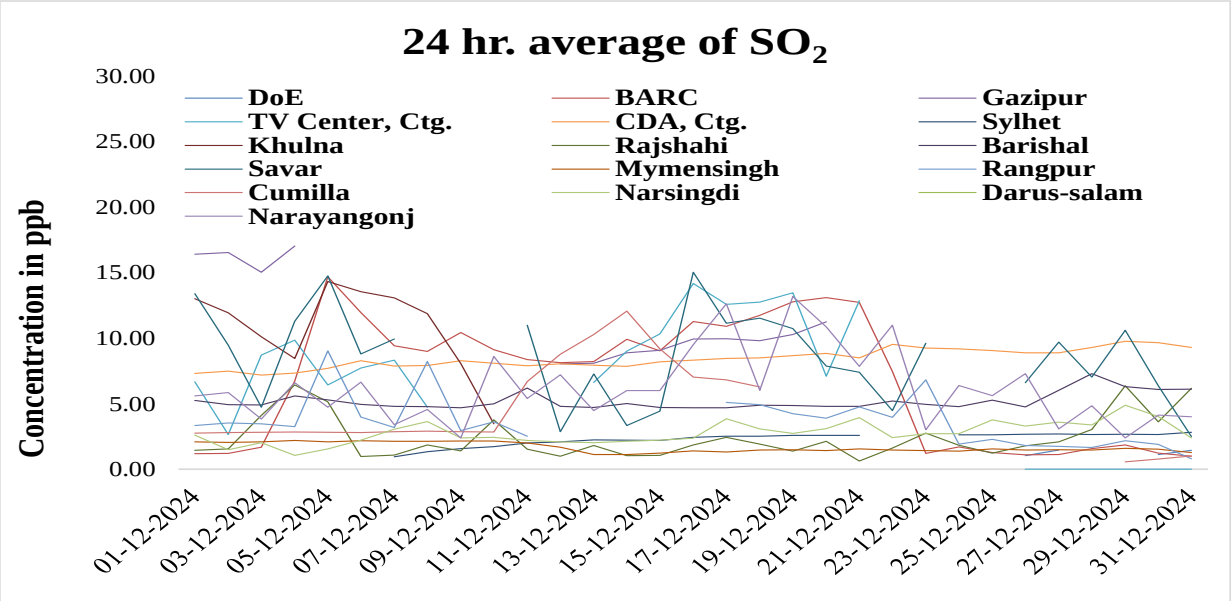



**Table 8: Graphical representation of 24 hr. average of Nitrogen-Di-Oxide ($NO_2$).**

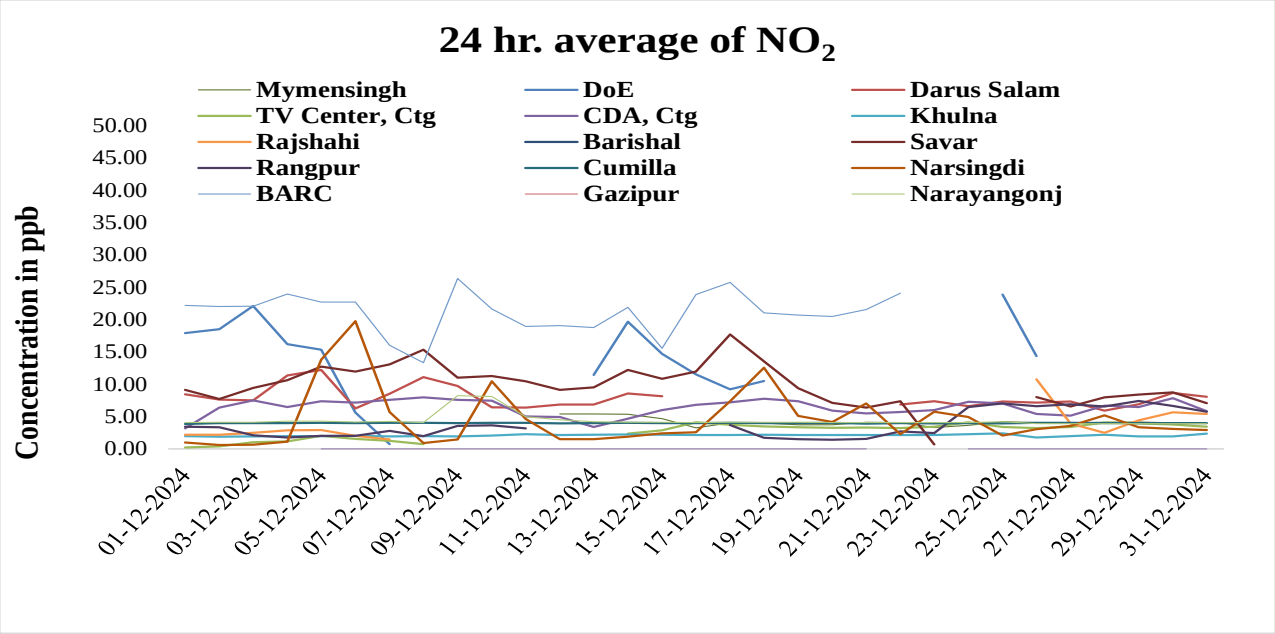


**Table 9: Graphical representation of 8 hr. average of Carbon Mono-Oxide (CO)**

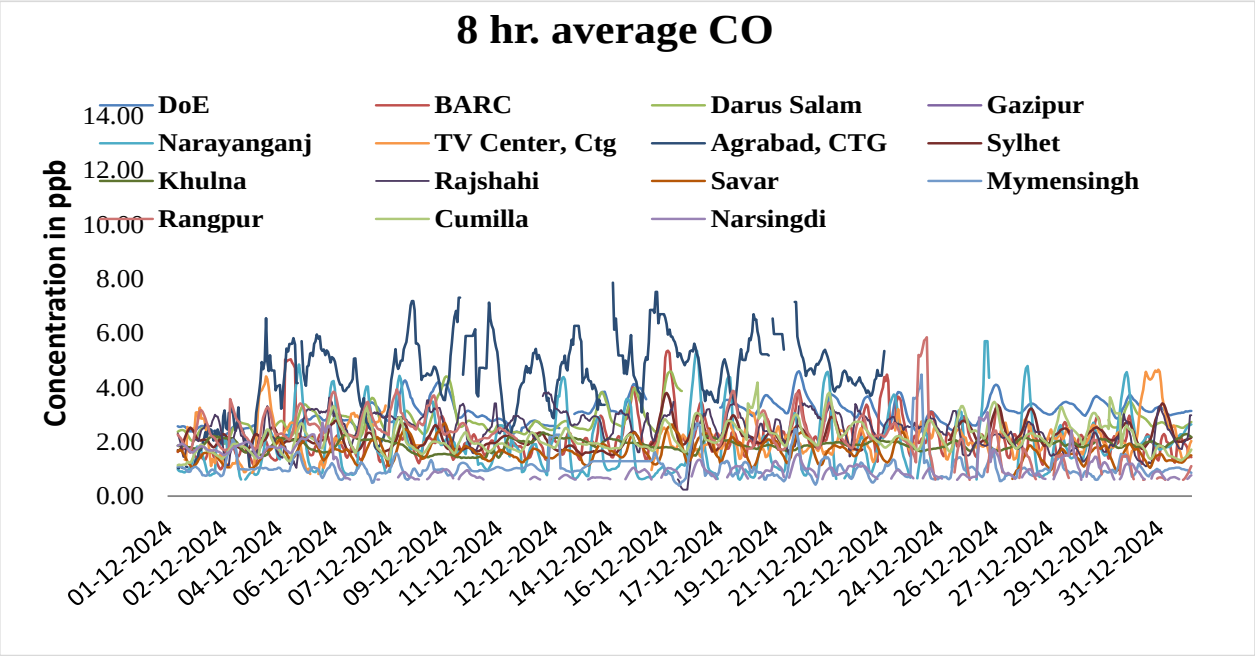



**Table 10: Graphical representation of 8 hr. average of Ozone ($O_3$)**

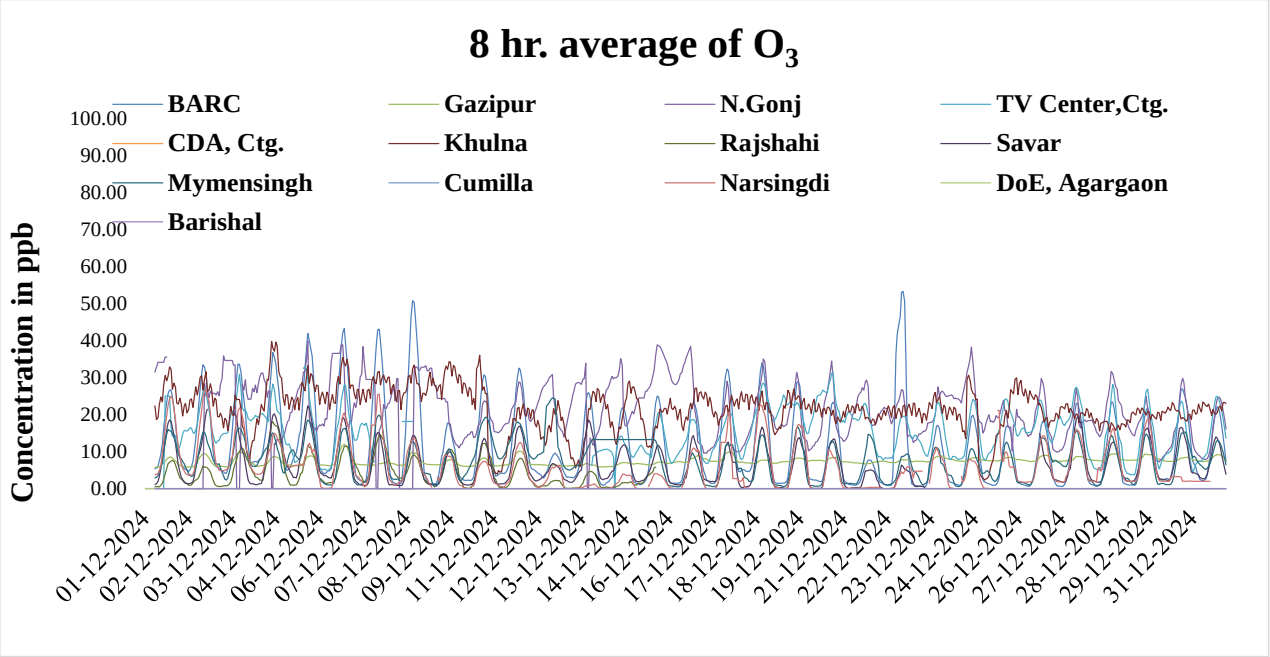


**Table 11: Graphical representation of 24 hr. average concentration of $PM_{10}$.**

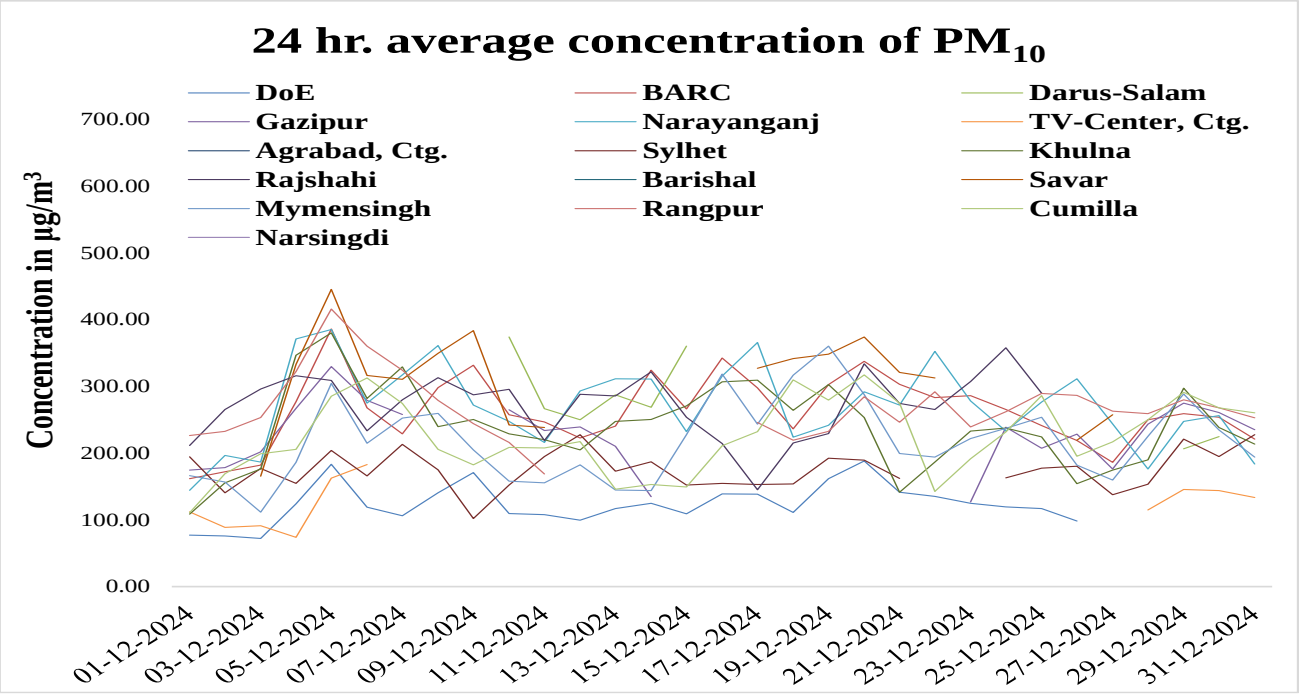
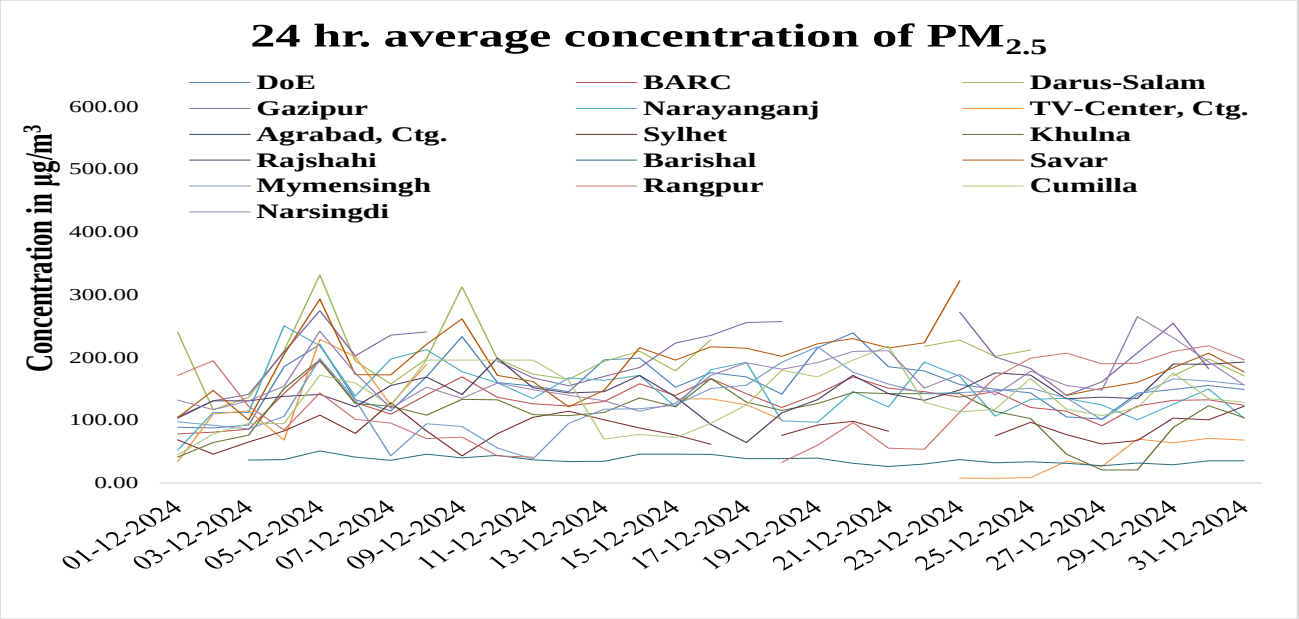



**Table 12: Graphical representation of 24 hr. average concentration of $PM_{2.5}$.**

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