

**Department of Science, Technology and Environment
Puducherry Pollution Control Committee**

The status of Ambient Air Quality during Lockdown period April 2020 and comparison in the same period last year, 2019 in the UT of Puducherry

Puducherry Pollution Control Committee has carried out manual ambient air quality monitoring at the following six locations to assess air pollution status during the lock down owing to Covid19 pandemic in the U.T. of Puducherry. Air Quality assessment was done for 24 hours (4-hourly sampling for gaseous pollutants and 8-hourly sampling for particulate matter) with a frequency of twice a week.

Location of NAMP Stations

Sl. No.	Location Name	Location Type	Source of Pollution
1	Local Administrative Department Building (LAD), Suffren Street, Puducherry.	Residential area	Vehicle emission and natural dust from road
2	Dept of Science Technology and Environment Building (DSTE), Anna Nagar, Puducherry.	Residential cum Commercial area	Vehicle emission and natural dust from road
3	Electricity Department, Mettupalayam Industrial Estate (PIPDIC), Puducherry.	Industrial area	Industrial Pollution and vehicular pollution.
4	B.Ed. College, Nehru Nagar, Karaikal	Residential area	Vehicle emission and natural dust from road
5	Govt. Tourist Home, Kovilpathu, Karaikal	Residential cum Commercial area	Vehicle emission and natural dust from road
6	PPCL, Polagam, T.R. Pattinam, Karaikal	Industrial area	Industrial Pollution and vehicular pollution.

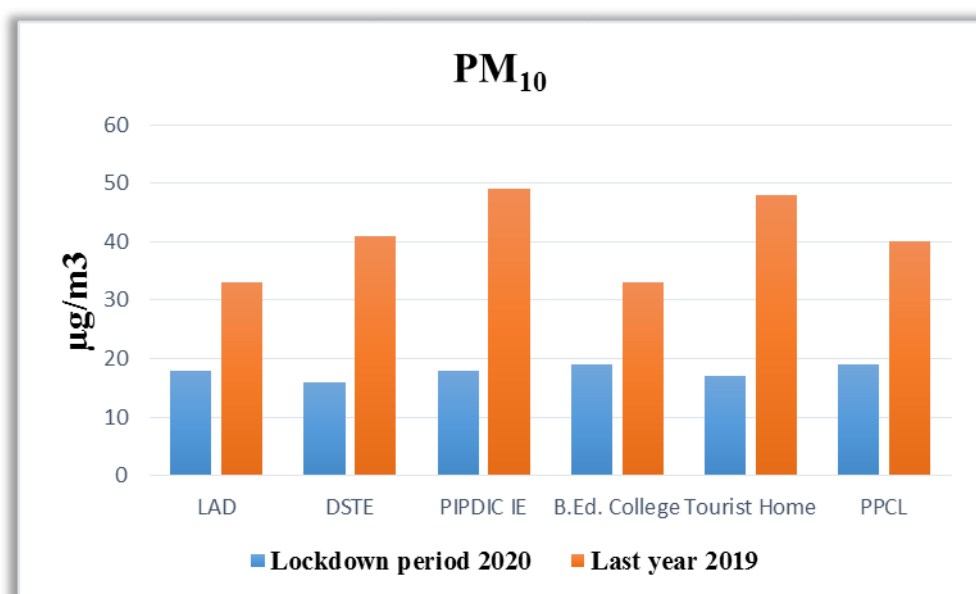
The parameters monitored:

- PM₁₀ (Particulate Matter less than 10 µm),
- Sulphur dioxide (SO₂)
- Nitrogen dioxide (NO₂).

Monthly average of 24 Hourly average concentration of PM₁₀ in each of the above mentioned monitoring stations during the lockdown period(April'1st to April 30th) and during the year 2019(April'1st to April 30th) were compared and the results are as below:

Location	Lockdown period 2020 (April'1 st to April 30 th)	2019 (April'1 st to April 30 th)	% reduction
Local Administrative Department Building (LAD)	18	33	45.5
Dept of Science Technology and Environment Building (DSTE)	16	41	61
Electricity Department, Industrial Estate (PIPDIC),Puducherry	18	49	63.2
B.Ed. College, Karaikal	19	33	42.4
Govt.,Tourist Home, Karaikal	17	48	64.6
PPCL, Karaikal	19	40	52.5

Graph below depicts the 24 hourly average concentration of PM₁₀ measured at six locations in the U.T of Puducherry during lockdown period from April'1st to April 30th and during the year 2019 in the same period.



The Percentage reduction of PM₁₀ in terms of concentration in the six location ranged from 42.4% to 64.6% during the lock down period when compared to the same period last year. The minimum and maximum concentration of PM₁₀ during the lock down period was 16 µg/m³ and 19 µg/m³ respectively. Whereas, the minimum and maximum concentration of PM₁₀ during the same period last year was 33 µg/m³ and 49 µg/m³ respectively.

From the above data, it is inferred that there was significant improvement in air quality during lock down period.

Observation and Results:

- The monitoring results reveal that the 24 Hourly average concentration of Particulate Matter (Size less than 10 µm) - PM₁₀ measured in the six locations were within the prescribed 24 hourly average standard limit of 100 µg/m³
- Monthly average of the 24 hourly average concentration of PM₁₀ measured in the six locations were in the range of 16 – 19 (µg/m³) during the lock down period. The Air Quality Index during the lock down period came under Good category (100%) at all the location in the UT of Puducherry.
- The Percentage reduction of PM₁₀ in terms of concentration in the six location ranged from 42.4% to 64.6% during the lock down period when compared to the same period last year.
- The concentration of SO₂ and NO₂ values were Below Detectable Level in most of the 4 hours sample and only a few of the 4 hours sample had a slightly higher concentration which was still close to the Below Detectable value of SO₂ and NO₂ i.e 2.0 µg/m³ and 4.5 µg/m³ respectively.
- The 24 hourly maximum concentration of SO₂ and NO₂ during the lock down period was 2.1 µg/m³ and 5.2 µg/m³ respectively. Whereas, the maximum concentration of SO₂ and NO₂ during the same period last year was 5.4 µg/m³ and 49 µg/m³ respectively.
- The improvement in the air quality during the lock down period was due to retarded anthropogenic, industrial and construction activities and also because of very few vehicles plying on the roads due to lock down.