

PART-III

BRIEF NOTE ON IMPACT OF LOCKDOWN DUE TO COVID-19 PANDEMIC ON AMBIENT AIR QUALITY OF RAJASTHAN

In order to combat with the threatening spread of COVID-19 pandemic, lockdown in the state of Rajasthan was imposed from 22nd to 31st March, 2020 by the Hon'ble Chief Minister of Rajasthan. As a result of stringent travel restrictions and shutting down of non-essential activities including those of air polluting sectors, air quality improvement has been noted in many towns and cities across the State. The major sectors contributing to air pollution are transport, industries, power plants, construction activities, biomass & refuse burning, road dust re-suspension and residential activities.

Rajasthan State Pollution Control Board has a network of ten continuous ambient air quality monitoring stations (CAAQMS) in the state namely, three stations at Jaipur and one station each at Alwar, Ajmer, Bhiwadi, Jodhpur, Kota, Pali & Udaipur. Rajasthan State Pollution Control Board had earlier published reports on 15.04.2020 and 24.04.2020 in which impact of lockdown on ambient air quality of the state was analysed using the data generated from the CAAQMS for pre-lockdown period from 15.03.2020 to 21.03.2020 and during lockdown period from 08.04.2020 to 19.04.2020 respectively.

In the third series of the report, air quality data generated during lockdown period from 20.04.2020 to 03.05.2020 has been studied and further analysis has been made with respect to the Air Quality Index (AQI) and prominent pollutants such as PM₁₀, PM_{2.5} and Nitrogen Dioxide for all the three periods i.e. pre-lockdown period, during lockdown period i.e. from 22.03.2020 to 19.04.2020 and modified lockdown period i.e. from 20.04.2020 to 03.05.2020.

The Noise levels during the period of Pre-lockdown and lockdown in Jaipur city have also been studied and analysed in the report to draw useful conclusions.

The major findings of the study are:

- i. It is evident that as compared to lockdown period, air quality in terms of Air Quality Index has remained 'Satisfactory' during modified lockdown period at all the towns except at Jodhpur where it has worsened to 'Moderate' Category.
- ii. In comparison to the periods of lockdown, air quality has worsened during the period of modified lockdown at Bhiwadi, Jaipur (Adarsh Nagar), Jaipur (Police Commissionerate), Jaipur (Science Park), Jodhpur and Udaipur. However, at Ajmer, Alwar, Kota and Pali, improvement in air quality in modified lockdown period has been noticed as compared to the lockdown period.

- iii. Likewise, the concentration of PM_{10} and $PM_{2.5}$ under modified lockdown has also increased at Bhiwadi, Jaipur (Police Commissionerate), Jaipur (Science Park), Jodhpur and Udaipur.
- iv. The concentration of NO_2 , under modified lockdown has increased at all the stations except at Bhiwadi, Jaipur (Police Commissionerate) and Pali.
- v. The noise level during Lockdown period has decreased at all monitored locations except at Science Park, Shastri Nagar during night time.
- vi. Despite the lockdown, the Noise levels have exceeded the prescribed standards at all locations except Nagar Nigam Office, Patel Marg, Mansarovar (Day time), Science Park, Shastri Nagar (day time), Gali No. 3, Raja Park (Day & night time), and Near Kotwali Thana, ChhotiChaupar (day & night time).