

PART-II

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.

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 a report on 15.04.2020 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 post lockdown period from 22.03.2020 to 07.04.2020

In the second part of the report, air quality data generated for the post lockdown period from 08.04.2020 to 19.04.2020 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, post lockdown period from 22.03.2020 to 7.04.2020 (Lockdown Period-I) and post lockdown period from 8.04.2020 to 19.04.2020 (Lockdown Period-II). The major findings of the study are:

- i. It is evident that as compared to lockdown period-I, air quality in terms of Air Quality Index has deteriorated in all the towns except at Alwar & Kota in post lockdown period-II.
- ii. The average Air quality index of all the cities except Bhiwadi has still remained in satisfactory/Good categories even in the lockdown period-II. However, in case of Bhiwadi the air quality has moved to moderate from earlier satisfactory category, though it is still better than the pre-lockdown period air quality which was in poor category.
- iii. In terms of individual pollutants, Ajmer has noticed very high reduction of 87% for Oxides of Nitrogen and around 60 % in the concentration of PM₁₀ and PM_{2.5} during the lockdown period-II.

- iv. Concentration of PM_{10} under lockdown-II has generally increased at all the stations except at Ajmer, Alwar and Kota as compared to lockdown-I. In case of $PM_{2.5}$ also, the concentration under lockdown Period-II has generally increased at all the stations except at Ajmer, Alwar and Jodhpur.
- v. In case of NO_2 , the concentration has reduced at all the towns in the lockdown period-II as compared to Lockdown period-I except at Jaipur (Shastri Nagar) where it has increased marginally.