

Interactive comment on “Impact of reduced anthropogenic emissions during COVID-19 on air quality in India” by Mengyuan Zhang et al.

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The paper presents the percentage reduction in concentrations of air pollutants (PM_{2.5}, O₃, CO and NO₂ etc.) in India during lockdown period using ground observations (at Delhi, Lucknow, Kolkata, Ahmedabad, Mumbai, Hyderabad, Bangalore and Chennai during 21 February to 24 April 2020) and air quality models (WRF and CMAQ). The paper also described the percent reduction in secondary inorganic aerosols/species of PM_{2.5} over the region. A quick search on the web shows numerous studies on these lines published in the various reputed journals over Delhi and other locations of India. Some of them are cited in the present papers. A comprehensive study on the air quality of India during and before lockdown period has been carried by Kumar et al. (2020) in Sustainable Cities and Society (2020): 102382 and

C1

they have also compared most of the recent studies.

The only advantage of this manuscript is that the authors have used the 7 stations ground based observation datasets (PM_{2.5}, O₃, CO and NO₂ etc.), validated the WRF and CMAQ models and extrapolated the pollutants for the country. This advantage gives the merit for publication of the paper in journal. However, the following points may also be considered before publication in ACP.

Authors are suggested to search all the recent articles published on these line in various journal over Indian and other region of the globe and make a summary Table and include in Introduction section. Also highlights how the present study is different from the previous studies as well new scientific information are going to be add in existing knowledge.

A number of publications are published recently on temporary reduction of concentrations of pollutants over India and other country during lockdown period. Hence, the present paper should be scientifically different and should add new information for scientific community.

Conclusion sections may be improved with avoiding the repetitive information from the abstract.

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C2