Atmospheric
Chemistry
and Physics
Discussions

Interactive comment on "Improving regional air quality predictions in the Indo-Gangetic Plain-Case study of an intensive pollution episode in November 2017" *by* Behrooz Roozitalab et al.

Anonymous Referee #3

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In this study, the authors used the WRF-Chem to simulate the pollution episode during Nov 2017 over New Delhi and evaluated the impacts of biomass burning emissions, long-range transport of dust, and dust emissions on simulated PM2.5. The model was evalated by comparing simulated meteorological parameters and simulated AOD and Pm2.5 with MERRA2 data and observational data. This study provides information on the sources that contribute to the severe PM pollution during Nov 2017. The paper is well organized but improvements in presentation are needed. My comments are as follows. 1. In the design of the simulations, why increasing the emissions by 5, 7 or 10 times? Are these numbers chosen only to get a better simulation of PM in Delhi? 2. Why this study chose to evaluate the impacts from only biomass buring and dust? How

about other anthropogenic emissions which is also important source to severe PM2.5 events. 3. This study simulates the haze event during Nov 2017 by adjusting boundary conditions and emissions, how about other haze evenets in India? How to apply the findings of this study in the simulation of other haze events in India?

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