

Supplement of

Hydrochloric acid emission dominates inorganic aerosol formation from ammonia in the Indo-Gangetic Plain during winter

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Supplementary material

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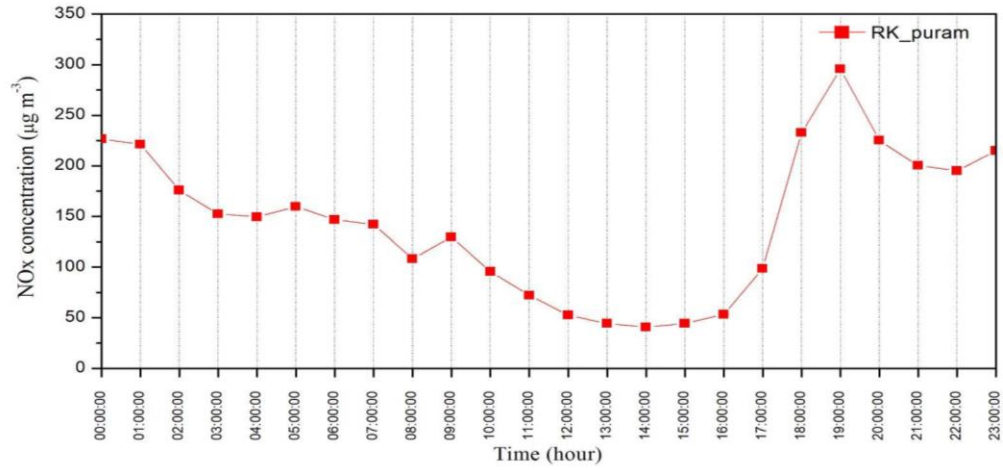


Figure S1. Diurnal variation of NO_x concentration from the nearest CPCB observation station

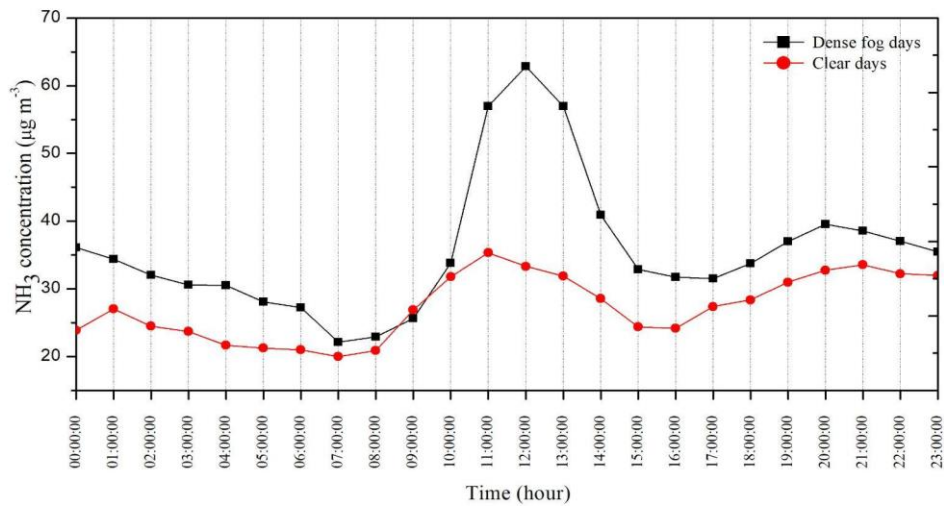


Figure S2. Average diurnal variation of NH₃ concentration during dense fog and clear days

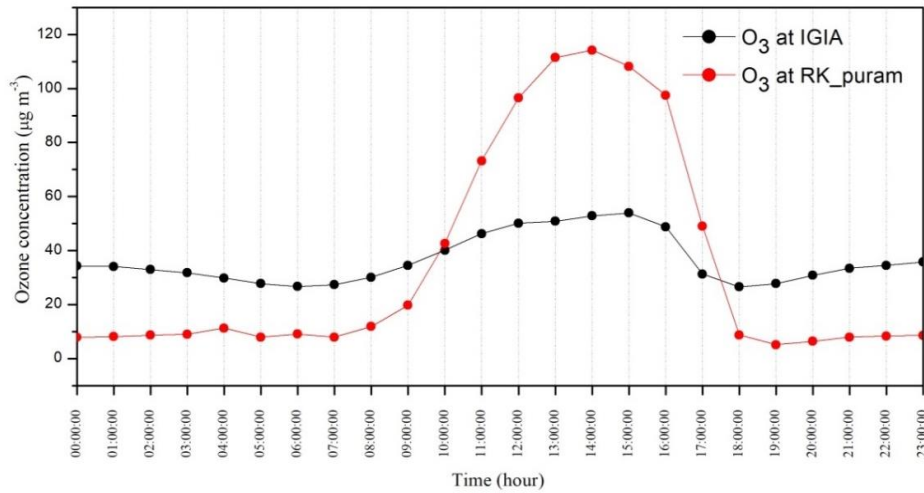


Figure S3. Diurnal variation of ozone concentration from the nearest CPCB observation station

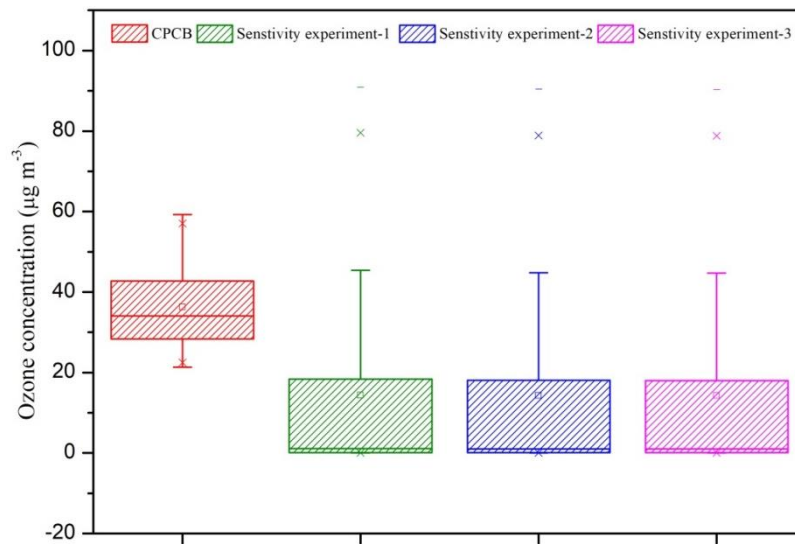


Figure S4. Box-Whiskers plot for ozone concentration from the CPCB observations (red) and simulated by the model in the sensitivity experiment-1 (green), sensitivity experiment-2 (blue), and the sensitivity experiment-3 (pink).

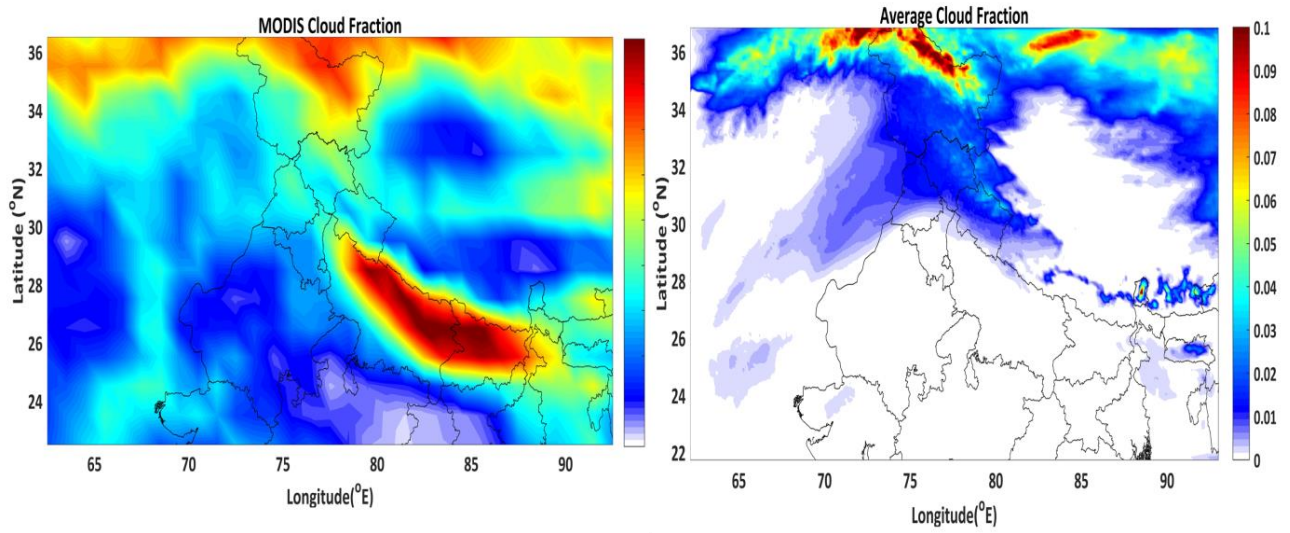


Figure S5. Cloud fraction observed from MODIS satellite (left) and modeled (right)

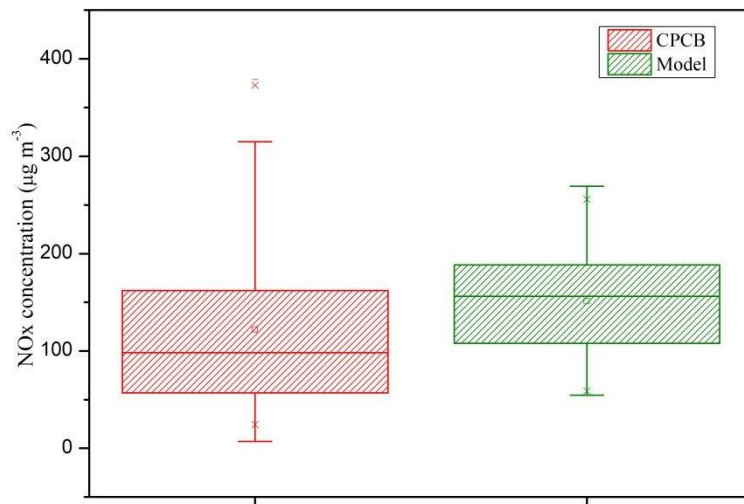


Figure S6. Box-Whiskers plot for NO_x concentration from the CPCB observations (red) and simulated by the model (green).

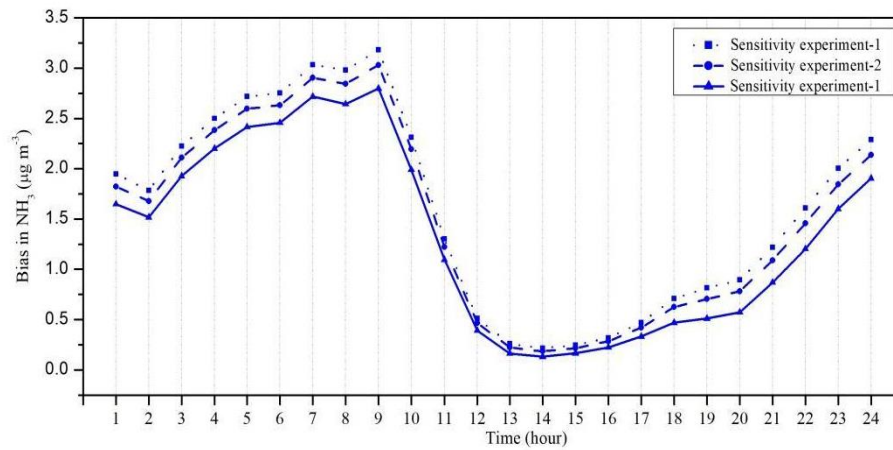


Figure S7. Bias between MARGA and simulated NH₃ for the three sensitivity experiments.

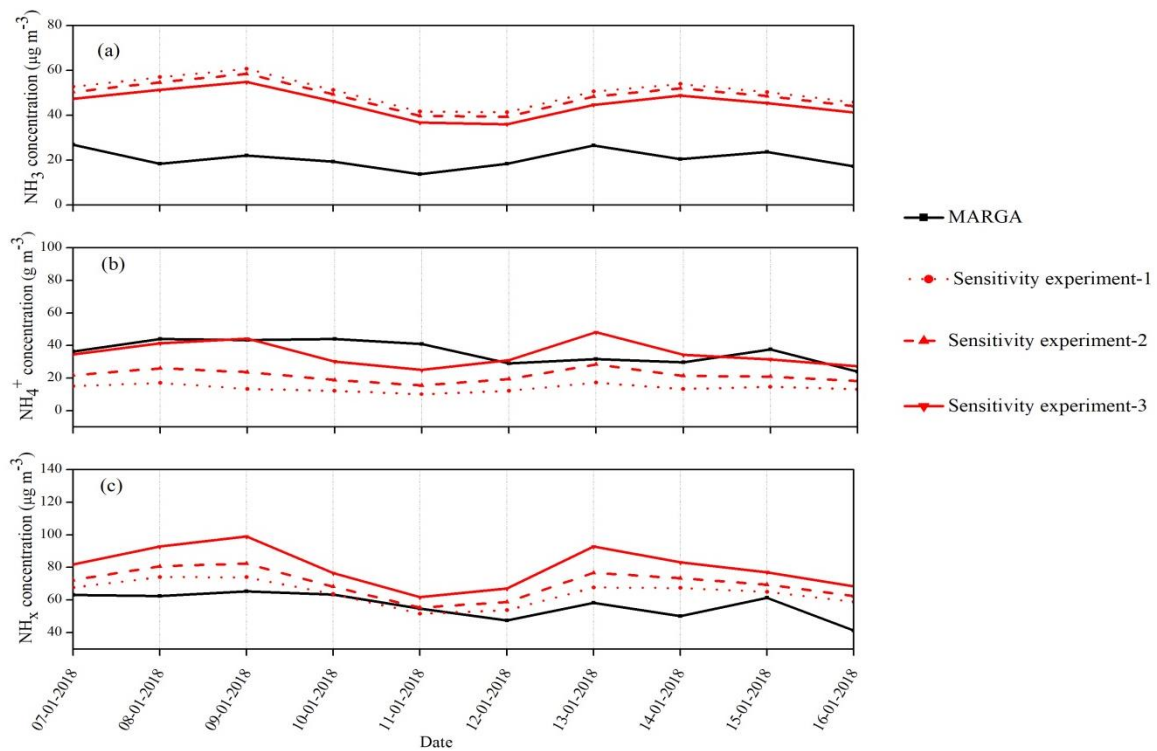


Figure S8. Temporal variation in the daily mean (a) NH₃ concentration (b) NH₄⁺ concentration and (c) Total ammonia (NH_x) for MARGA measurements (black), sensitivity experiment-1 (red dotted), sensitivity experiment-2 (red dash) and sensitivity experiment-3 (red solid).