

## Supporting Information for

### Avoiding high ozone pollution in Delhi, India

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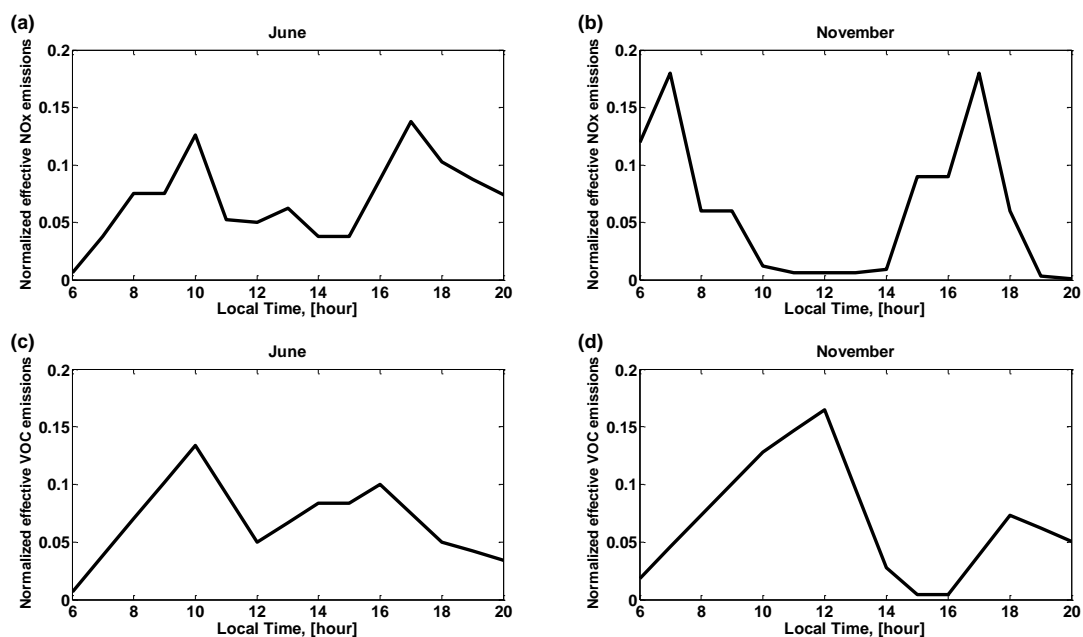
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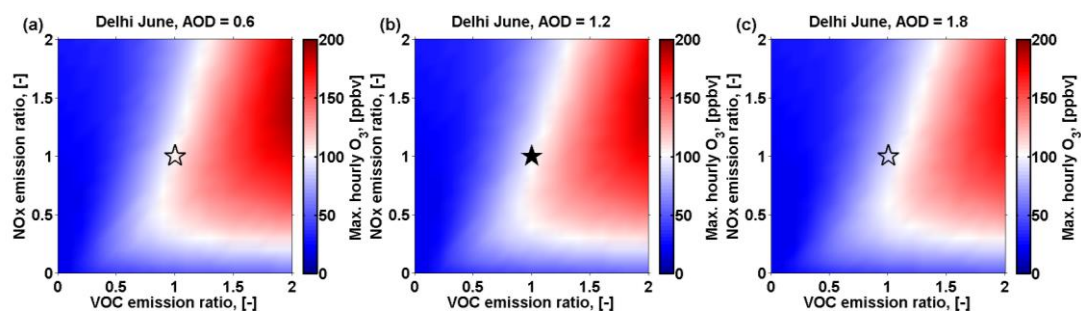
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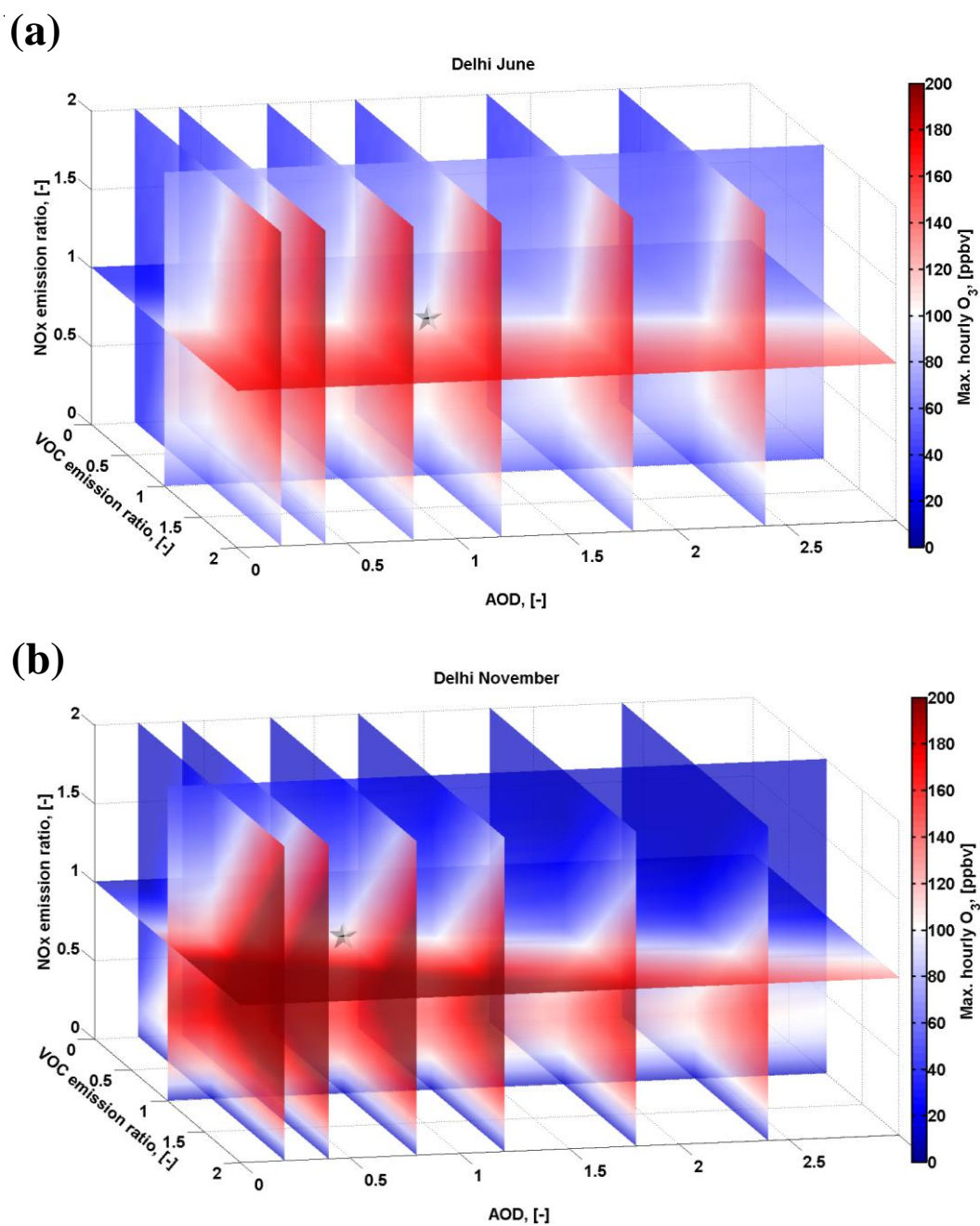
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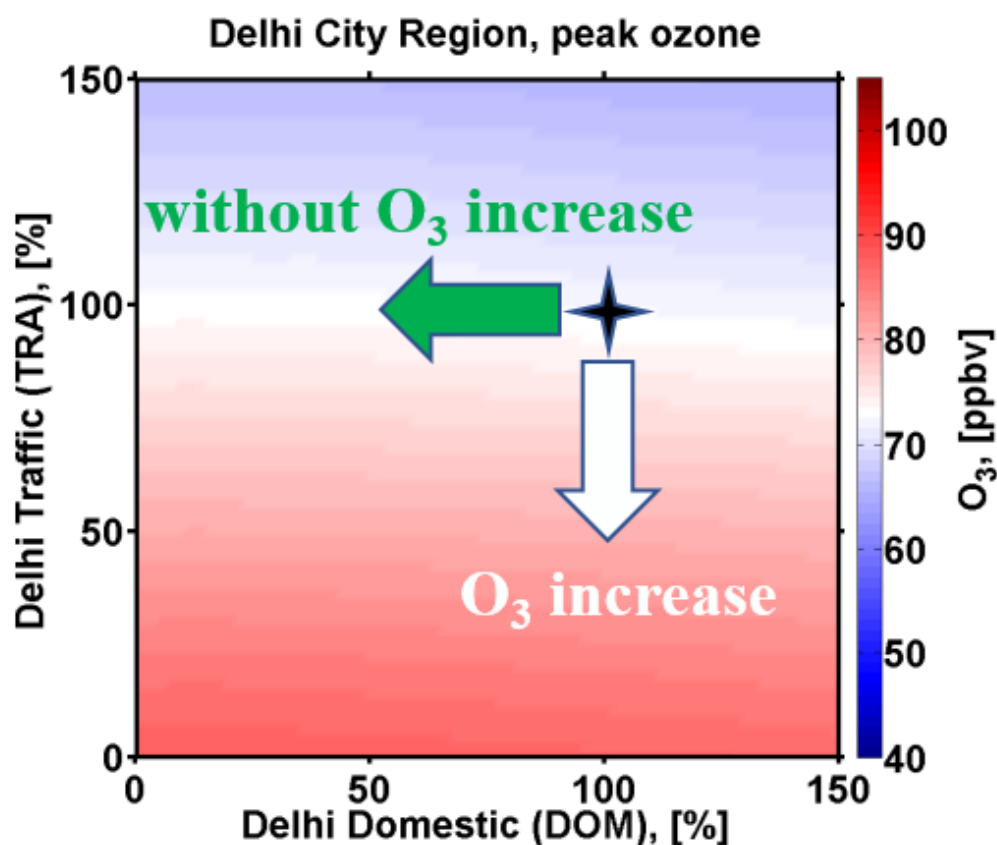
**Figure S1. Diurnal pattern of effective emissions.** (a) NO<sub>x</sub> in June, (b) NO<sub>x</sub> in November, (c) VOC in June, and (d) VOC in November. Only a limited number of VOC species are measured, and therefore we use toluene emissions as a proxy to represent the ozone produce potential of anthropogenic VOCs emissions.



**Figure S2. Non-linear relationship between NO<sub>x</sub>-VOC-O<sub>3</sub> in June 2018, Delhi.** (a) AOD=0.6; (b) AOD=1.2; (c) AOD=1.8. The base-case is marked by a black solid star. The sensitivity cases, with changes in AOD but not in NO<sub>x</sub> or VOC emissions, are marked by black hollow stars.



**Figure S3. A tomogram of non-linear AOD-NO<sub>x</sub>-VOC-O<sub>3</sub> relationship.** The colours indicate maximum hourly ozone concentration, as a function of NO<sub>x</sub> emission, VOC emission and AOD. (a) June; (b) November. The base case is marked by a black star at the center.



**Figure S4.** The changes of hourly peak ozone concentration over Delhi region, with respect to reduction of emissions from different sectors. Source from Chen et al. (2020), re-use authorized according to the Creative Commons Attribution 4.0 License.

#### Supplementary References:

Chen, Y., Wild, O., Ryan, E., Sahu, S. K., Lowe, D., Archer-Nicholls, S., Wang, Y., McFiggans, G., Ansari, T., Singh, V., Sokhi, R. S., Archibald, A., and Beig, G.: Mitigation of PM<sub>2.5</sub> and ozone pollution in Delhi: a sensitivity study during the pre-monsoon period, *Atmos. Chem. Phys.*, 20, 499-514, 10.5194/acp-20-499-2020, 2020.