Supplement of

Impact of particulate matter reductions on aerosol HO₂ uptake and rising surface ozone pollution in India

Gopalakrishna Pillai Gopikrishnan et al.

Correspondence to:

Daniel M. Westervelt (*danielmw@ldeo.columbia.edu*)

Jayanarayanan Kuttippurath *(jayan@coral.iitkgp.ac.in)*
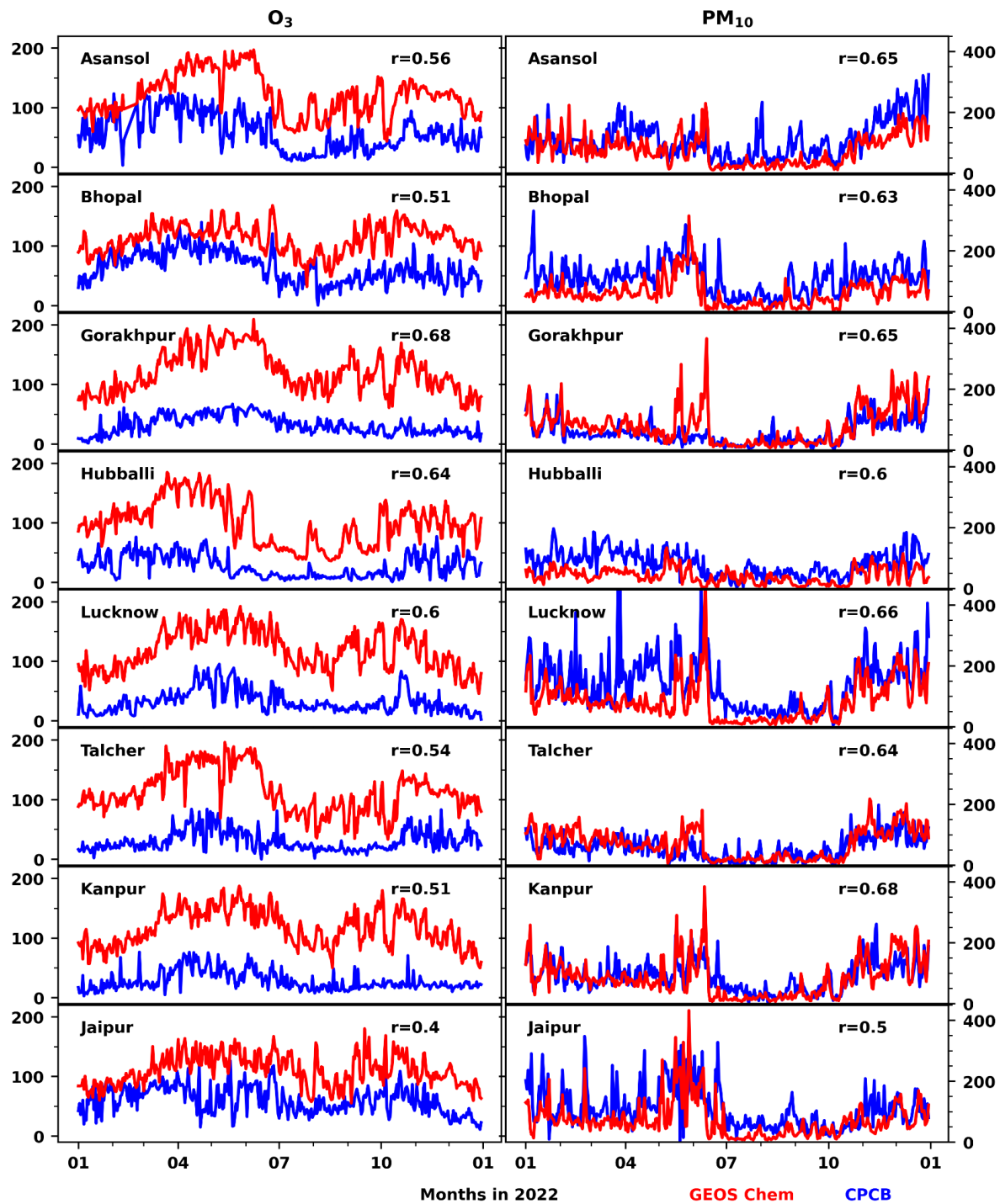
Figure S1: The time series of ozone and PM₁₀ from CPCB ground-based measurements to GEOS-Chem simulations in 2022. Here, r represents the correlation coefficient of the simulated and observed time series.
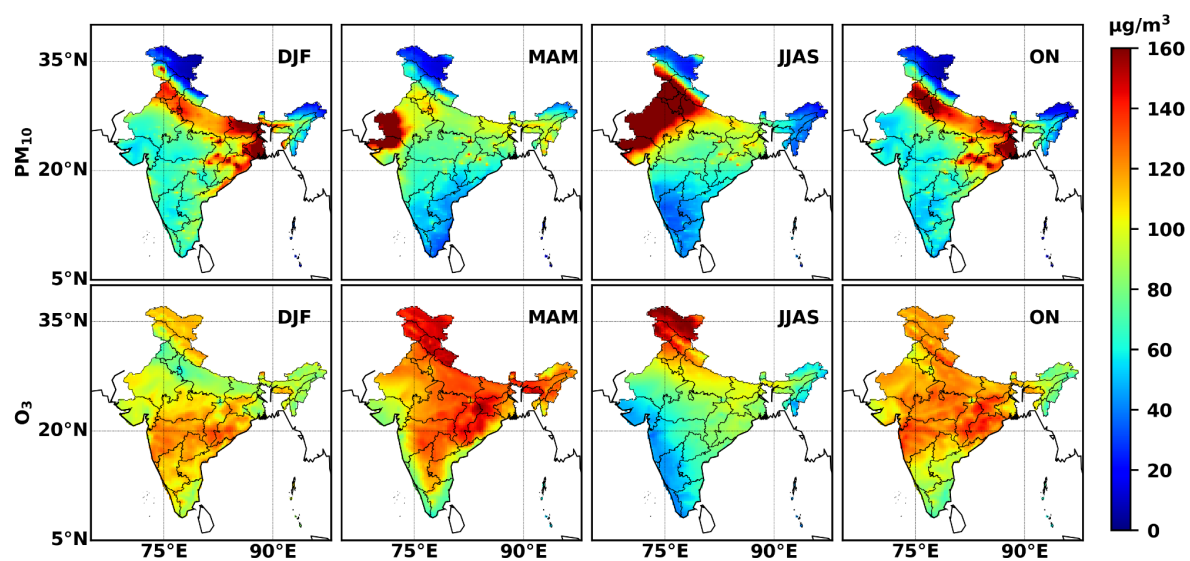
Figure S2. Seasonal distribution of (Top) PM$_{10}$ and (Bottom) Ozone for the year 2018
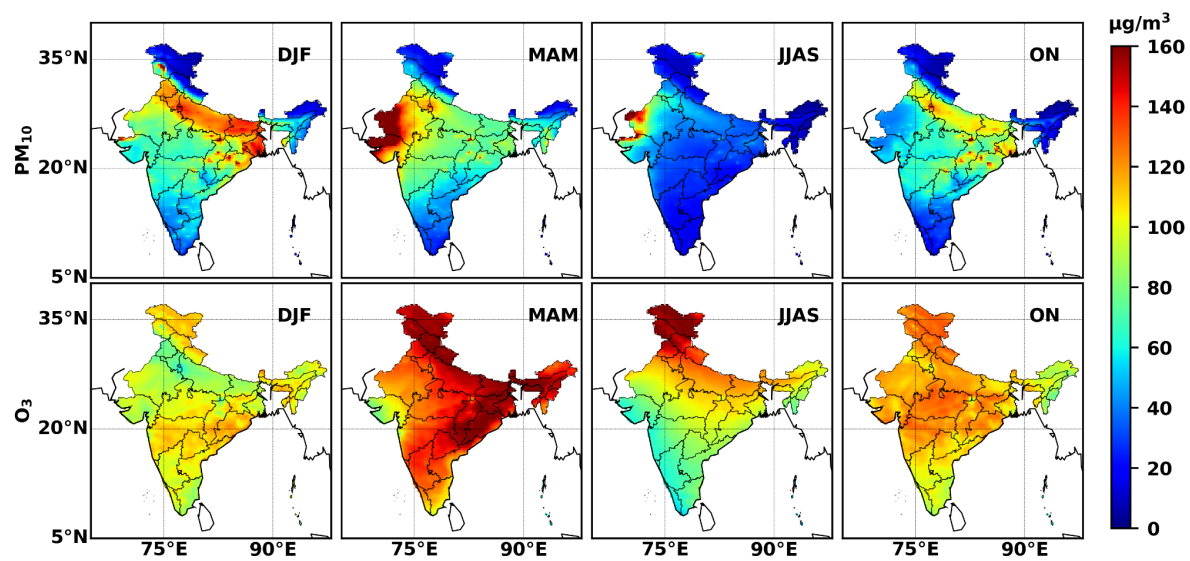
Figure S3. Seasonal distribution of (Top) PM₁₀ and (Bottom) Ozone for the year 2022
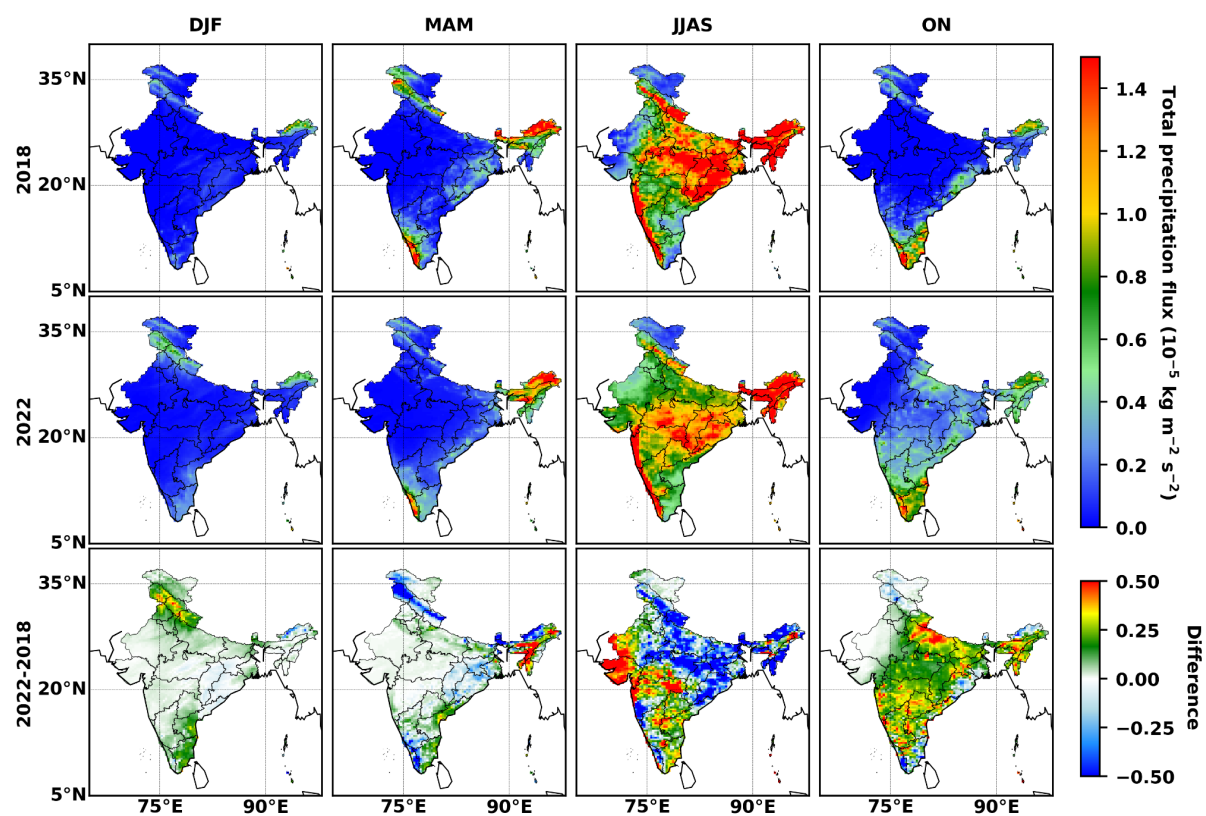
Figure S4: The seasonally averaged total surface precipitation flux in India for the years (top) 2018 and (middle) 2022. (bottom) The change in total precipitation flux in 2022 when compared to that of 2018.
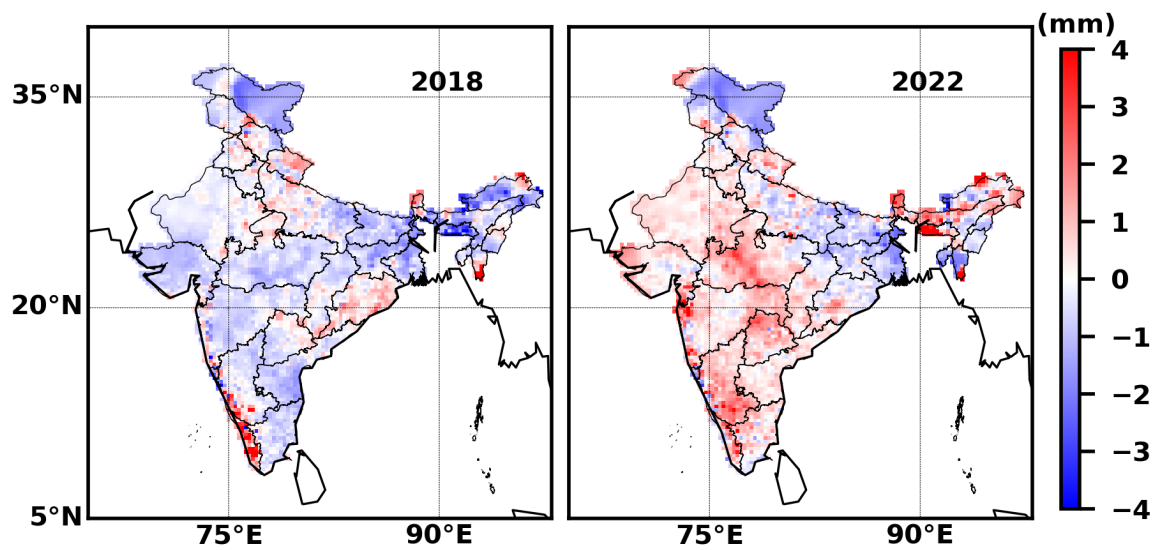
Figure S5: The annual rainfall difference in India for the years 2018 and 2022 when compared to the long period average (LPA; 1971–2020), from the India Meteorological Department gridded rainfall dataset.
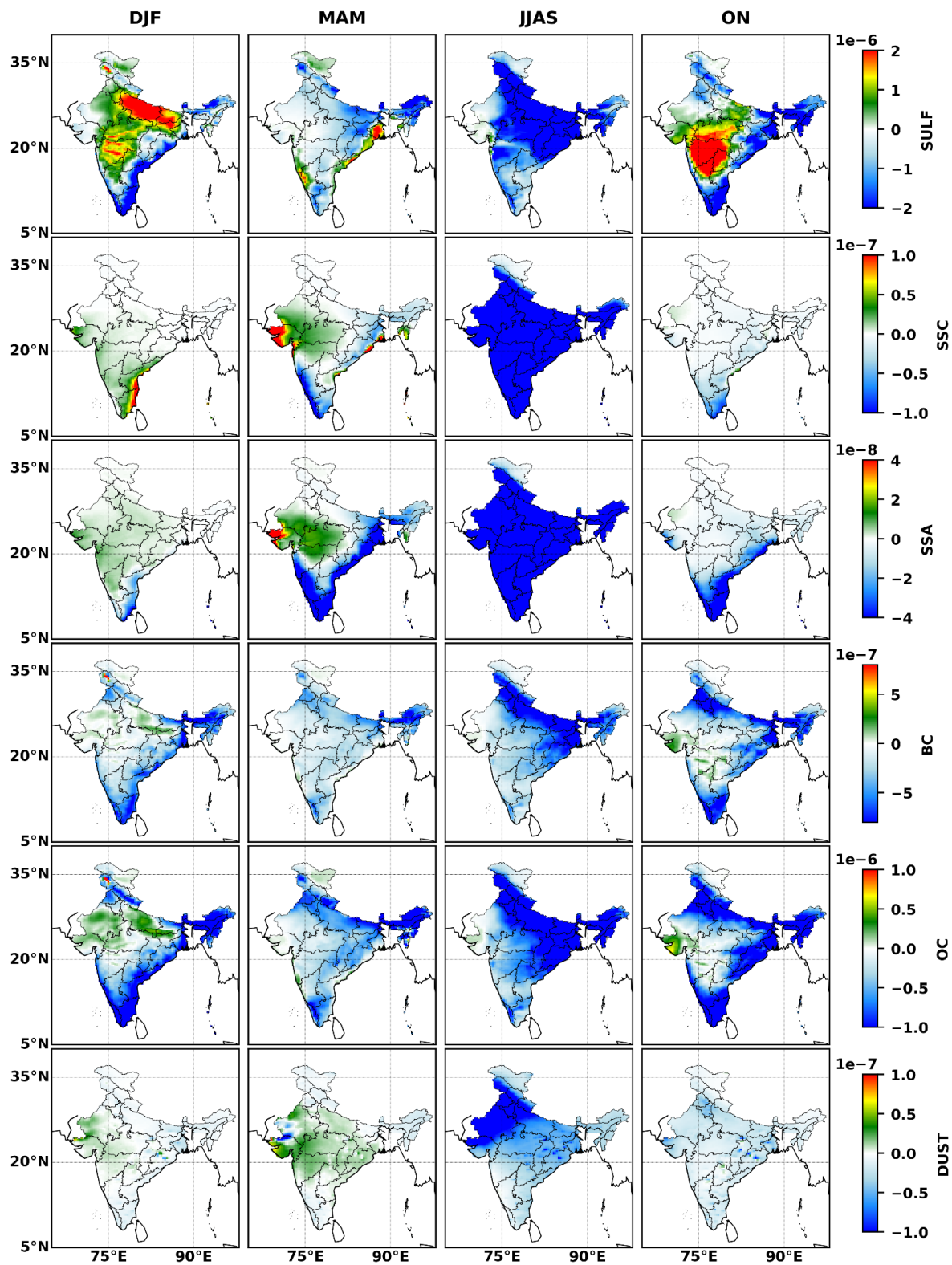
Figure S6. Difference in Aerosol surface area based on their sources in 2022 when compared to that of 2018.