*Supplement of*

# 2013–2019 increases of surface ozone pollution in China: anthropogenic and meteorological influences

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**Table S1:** MDA8 ozone trends in China[a]

| Regions | JJA 2013–2019 | | | JJA 2013–2017 | | |
|---|---|---|---|---|---|---|
| | OBS | MET | ANTH | OBS | MET | ANTH |
| China | **1.9** (*<0.01*)[a] | **0.7** (*<0.01*) | **1.2** (*<0.01*) | **1.7** (*<0.01*) | 0.4 (*0.22*) | **1.3** (*<0.01*) |
| NCP | **3.3** (*<0.01*) | **1.4** (*0.02*) | **1.9** (*<0.01*) | **2.7** (*0.01*) | 0.7 (*0.43*) | **2.0** (*<0.01*) |
| YRD | **1.6** (*<0.01*) | 0.7 (*0.12*) | **0.9** (*<0.01*) | **1.7** (*0.03*) | 0.2 (*0.82*) | **1.5** (*<0.01*) |
| PRD | **1.1** (*0.03*) | **0.8** (*0.07*) | 0.3 (*0.29*) | 0.6 (*0.44*) | 0.4 (*0.65*) | 0.3 (*0.51*) |
| SCB | 0.7 (*0.23*) | -0.2 (*0.59*) | **1.0** (*<0.01*) | 0.9 (*0.42*) | 0.1 (*0.90*) | 0.8 (*0.20*) |

[a]Observed trends (OBS) are obtained by ordinary linear regression on summer (JJA) mean values of maximum daily 8-h average (MDA8) ozone measured at the sites of the Ministry of Ecology and Environment (MEE) network. The MDA8 ozone data are first averaged spatially over the $0.5° \times 0.625°$ MERRA-2 grid (Figure 2), and then averaged nationally (China) and over four megacity clusters: North China Plan (NCP), Yangtze River Delta (YRD), Pearl River Delta (PRD), Sichuan Basin (SCB). Meteorologically-driven trends (MET) are obtained by fitting the ozone data to a multiple linear regression (MLR) model, and the anthropogenically-driven trends (ANTH) are obtained from the residual. P-values for the trends are in italics; trends in bold are those with p-value smaller than 0.1.
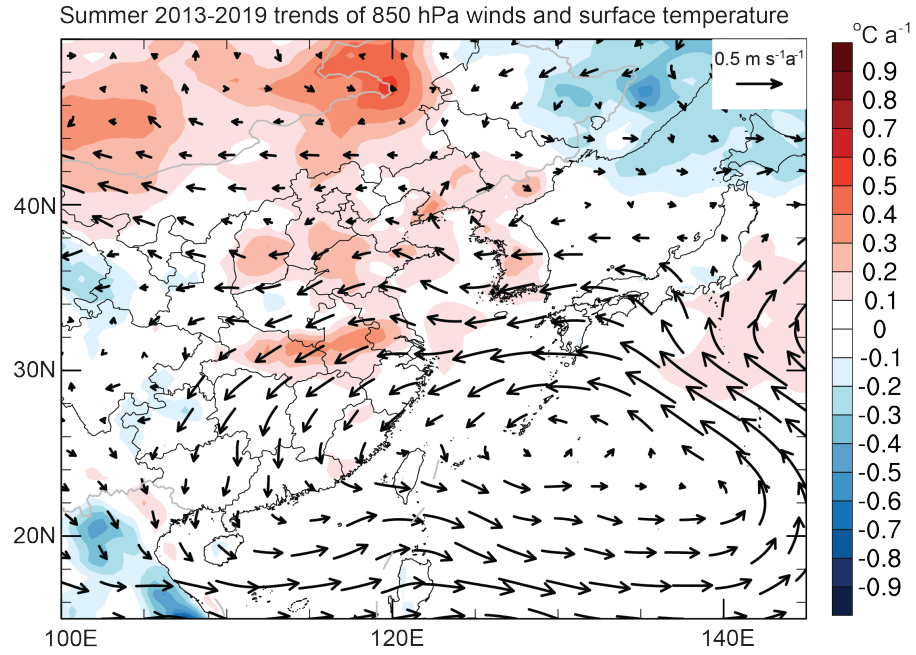
**Figure S1.** Summer mean trends of 850 hPa wind vectors (m s$^{-1}$ a$^{-1}$) and surface daily maximum temperature (°C a$^{-1}$, shaded) over the period 2013–2019. Data are from the MERRA-2 reanalysis.