What is the cause(s) of positive ozone trends in three megacity clusters in eastern China during 2015-2020?

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Supplementary Figures

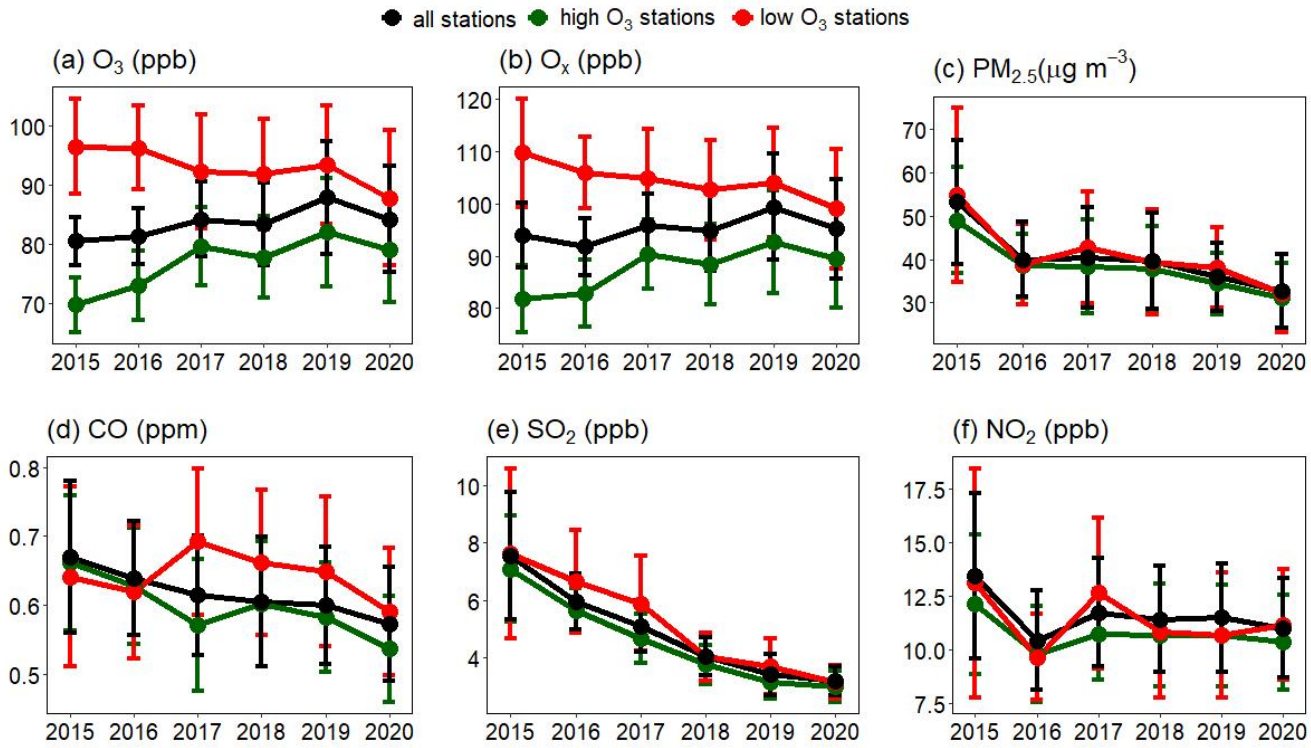

Figure S1. Annual mean concentrations of maximum daily 8-hour average O_3 in YRD during O_3-exceeding days for all stations (black), high O_3 stations (red) and low O_3 stations (green) (a), same as (a) except for Ox (b), $PM_{2.5}$ (c), CO (d), SO_2 (e), NO_2 (f). The criterion of low O_3 stations is 37days, and the number of low O_3 stations is 54.

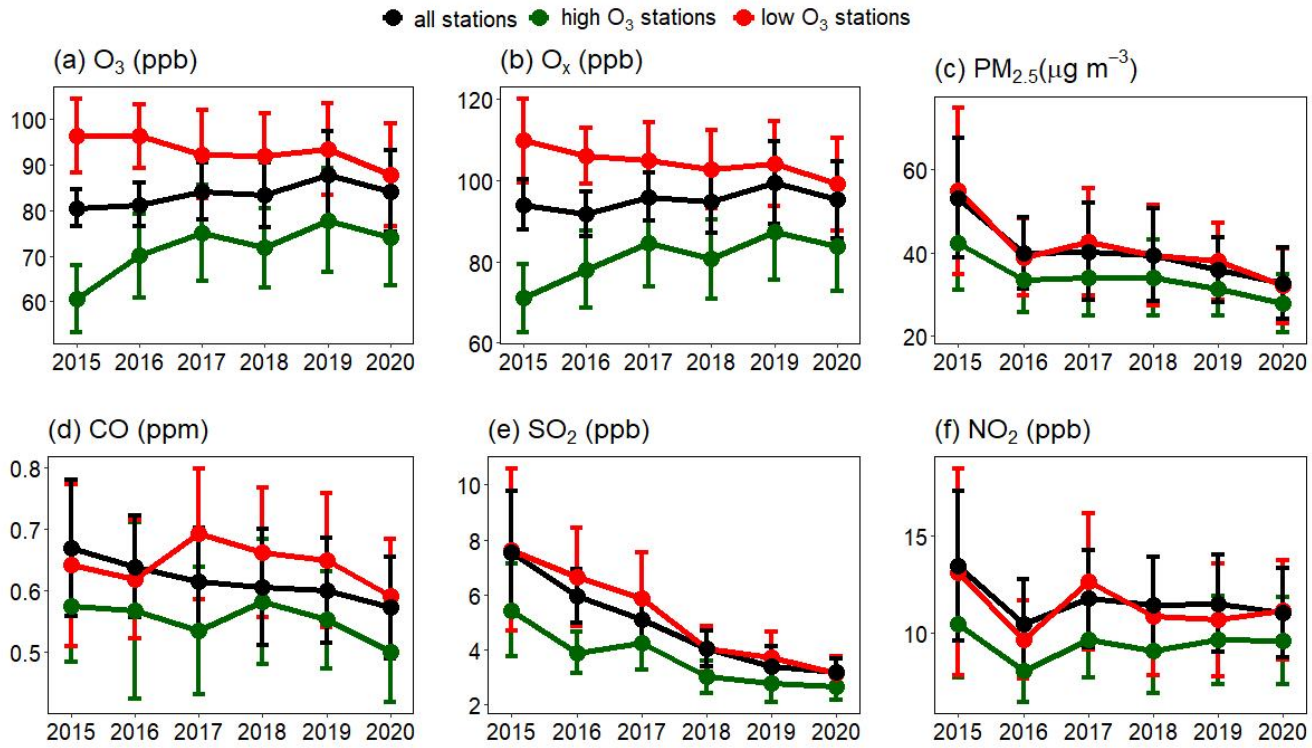

Figure S2. The same as Figure S1, but the criterion of low O_3 stations is 19 days, and the number of low O_3 stations is 15.

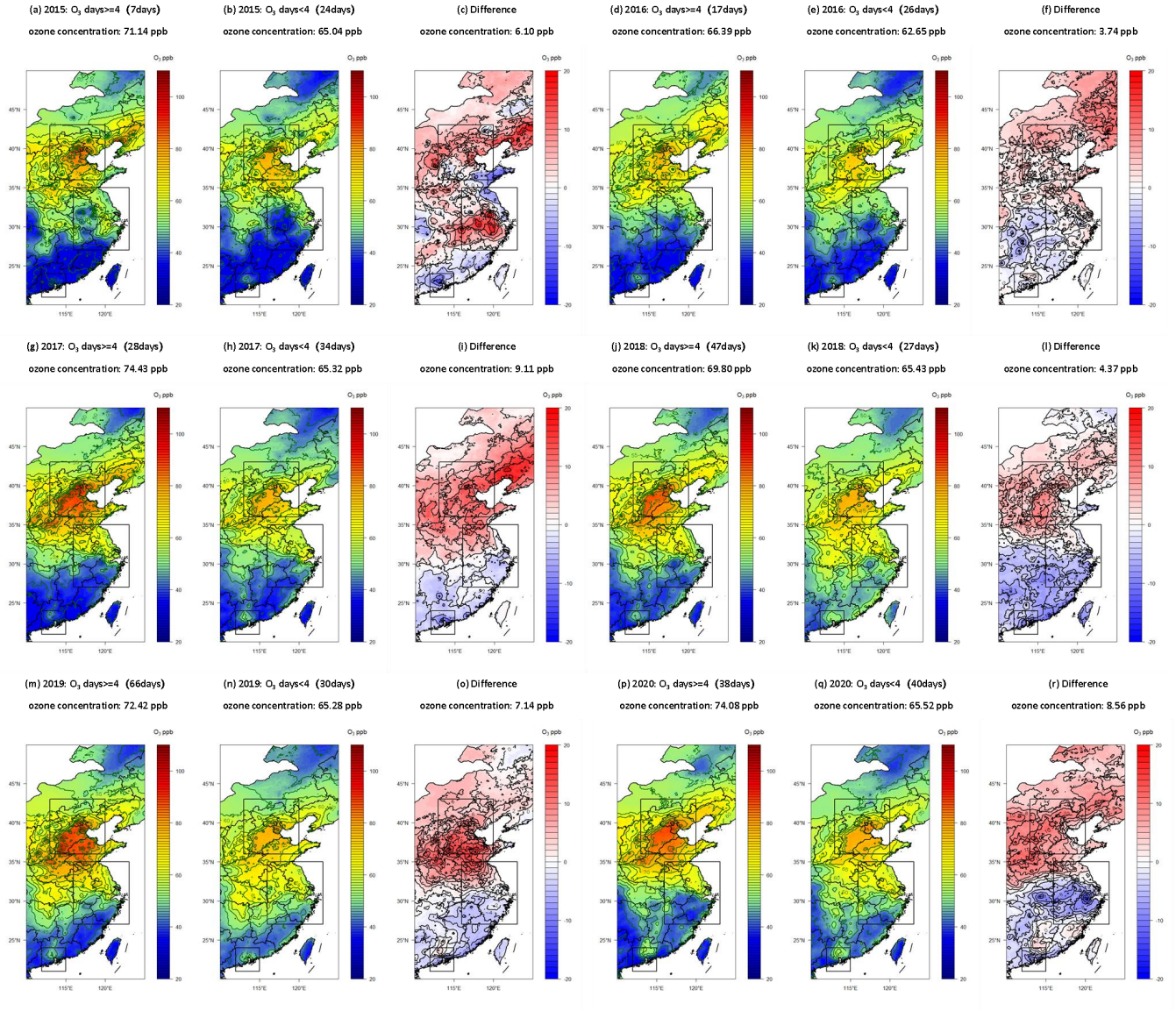

Figure S3. Spatial distribution of daily mean MDA8 O_3 (in ppb per day) of O_3-exceeding days in BTH for O_3 episodes with four or more consecutive O_3-exceeding days, O_3 episodes with less than four consecutive O_3-exceeding days and their difference in 2015–2020.

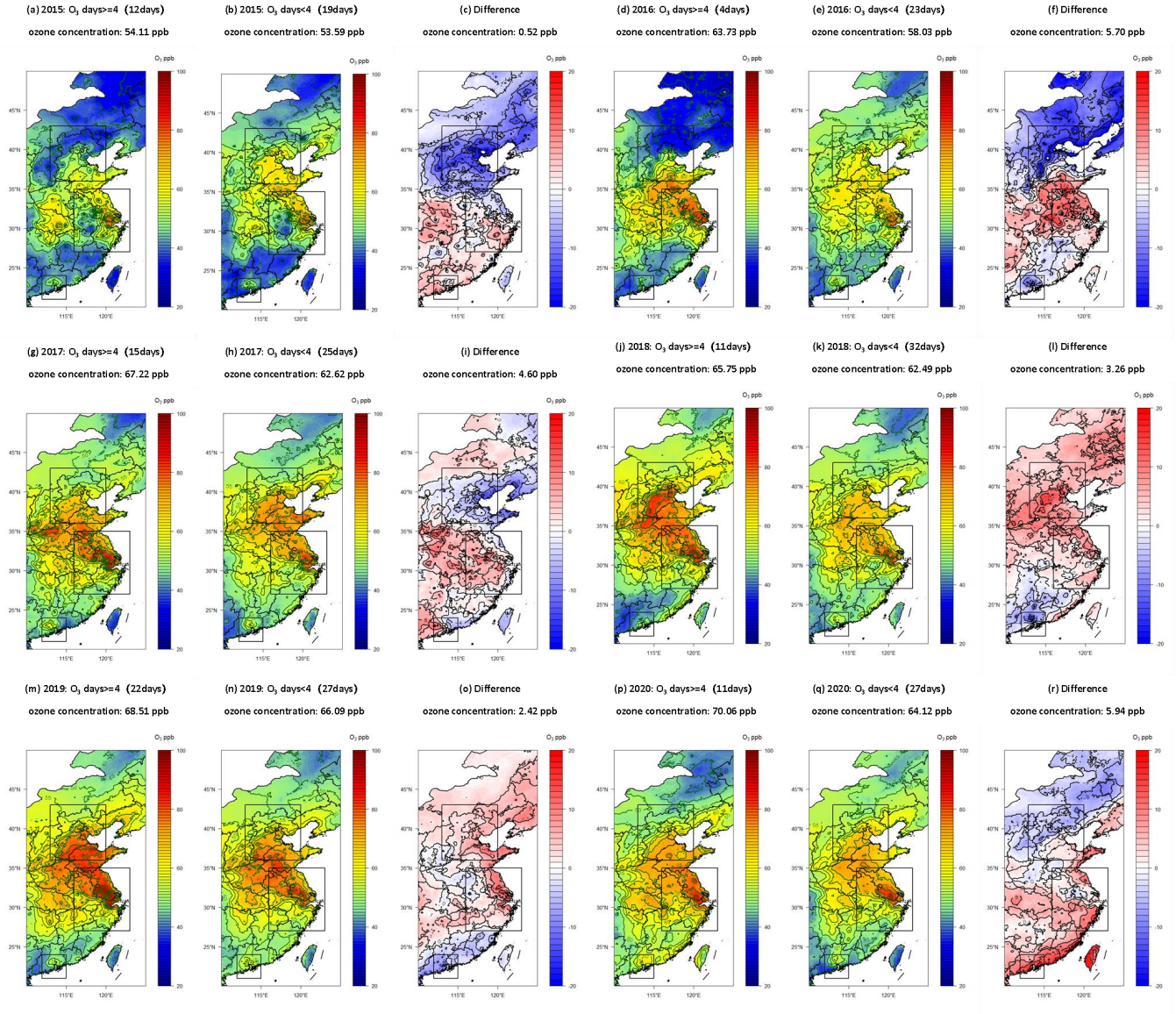

Figure S4. Same as Figure S3, but for YRD.

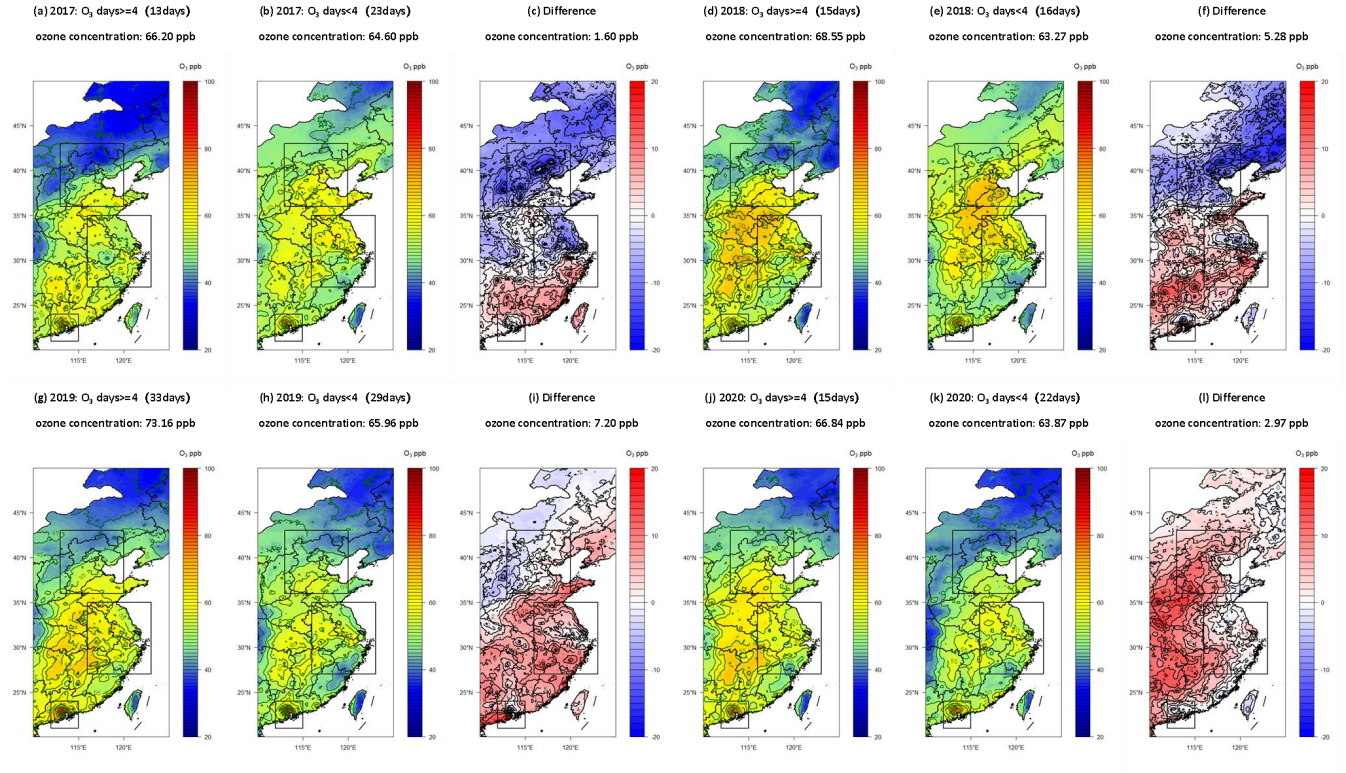

Figure S5. Same as Figure S3, but for PRD.

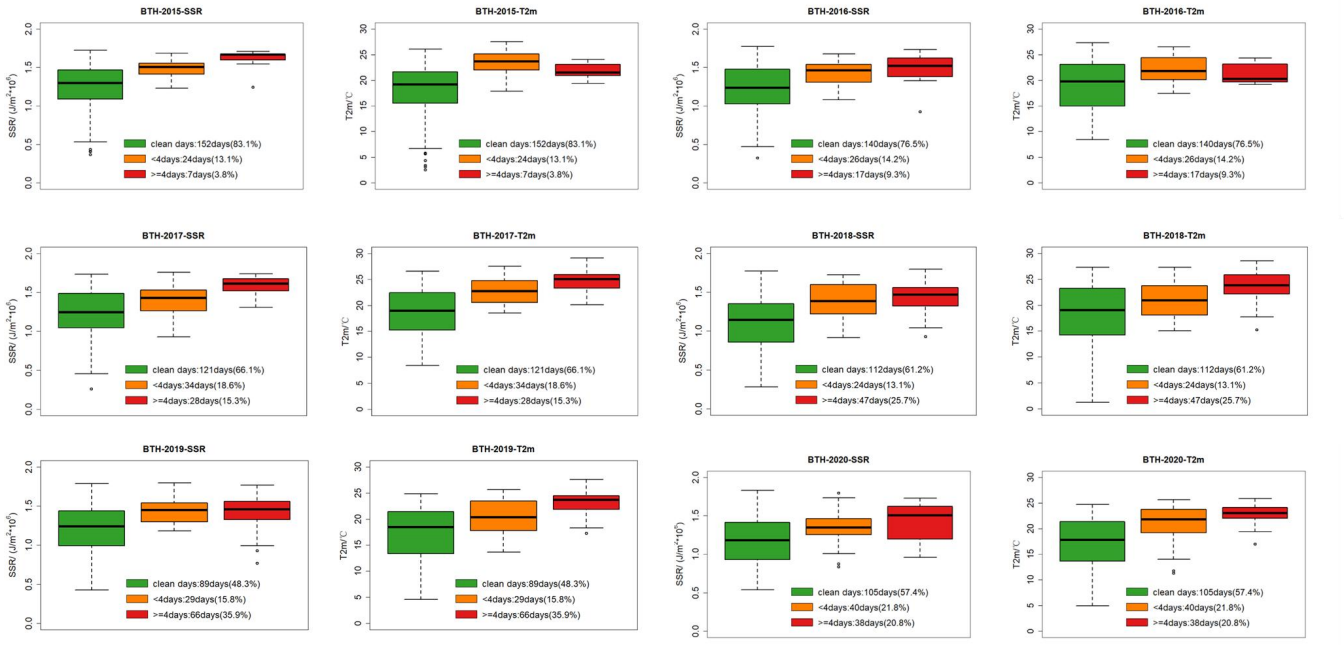

Figure S6. Solar radiation (SSR) and temperature (T2m) at the surface in BTH in April–September 2015–2020 for O_3 episodes with four or more consecutive O_3-exceeding days, clean days (non-O_3-exceeding days) and O_3 episodes with less than four consecutive O_3-exceeding days.

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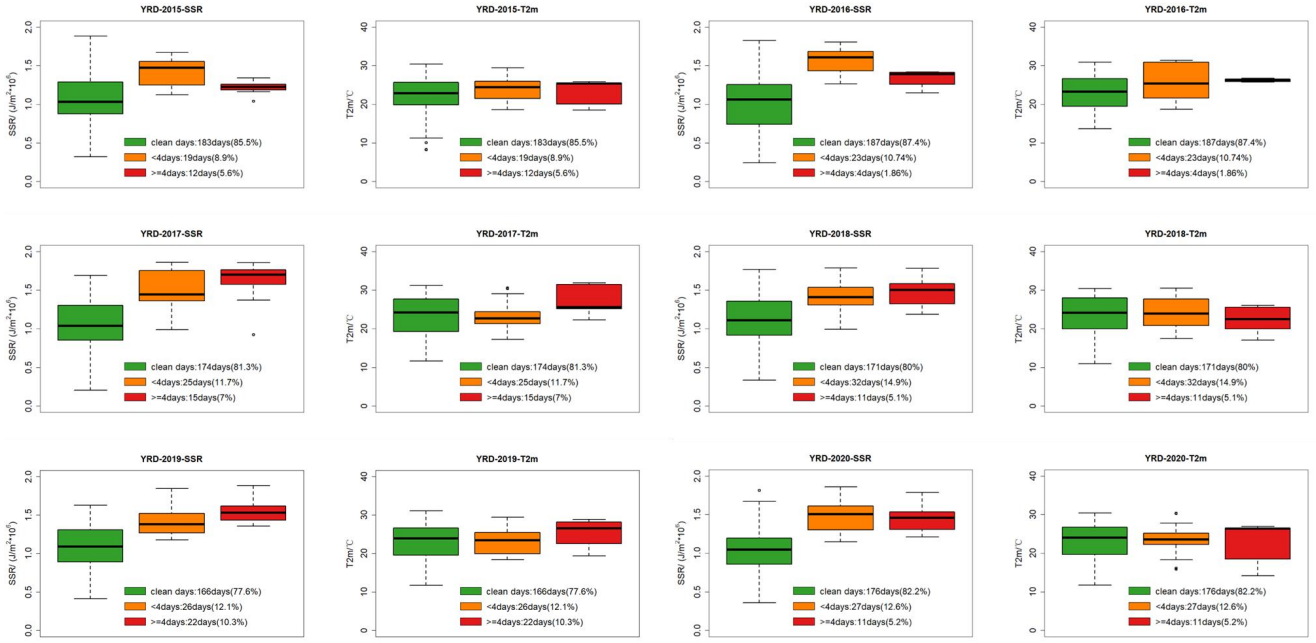

Figure S7. Same as Figure S6, but for YRD in April–October 2015–2020.

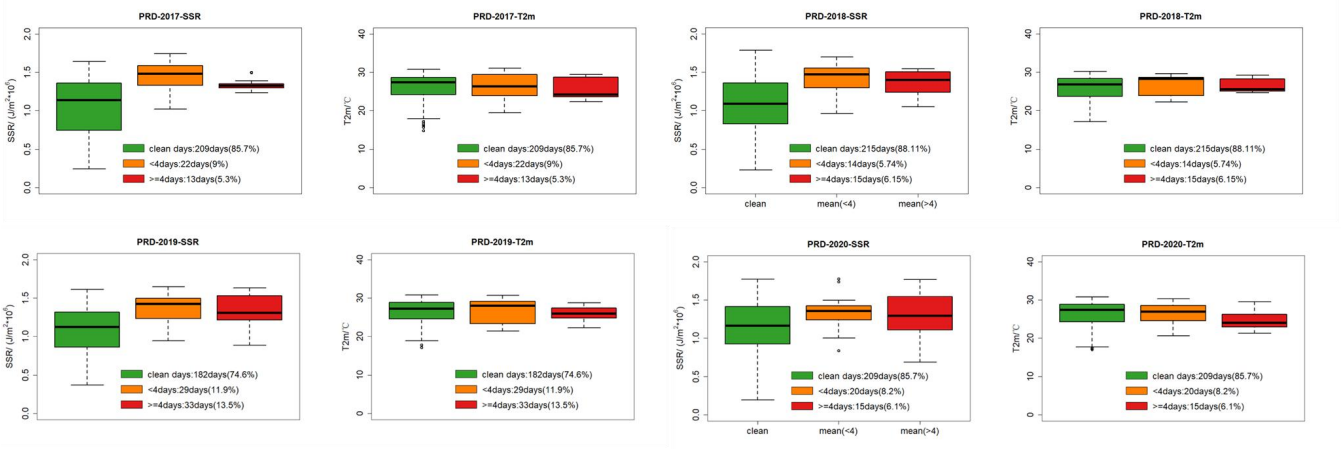

Figure S8. Same as Figure S6, but for PRD in April–November 2017–2020.

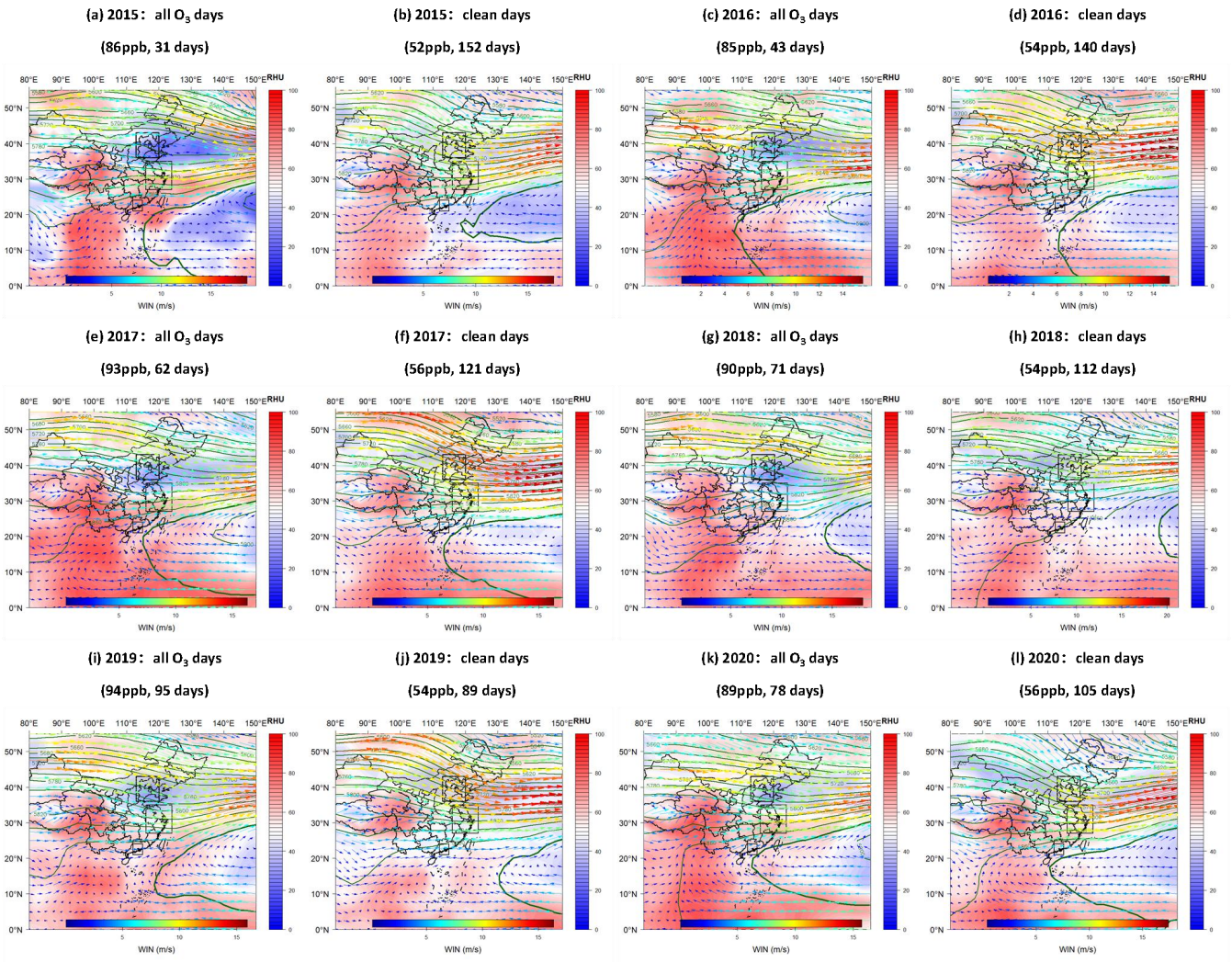

Figure S9. Composite 500 hPa geopotential height contours, humidity and winds in BTH in April-September for O_3-exceeding days and clean days in 2015–2020.

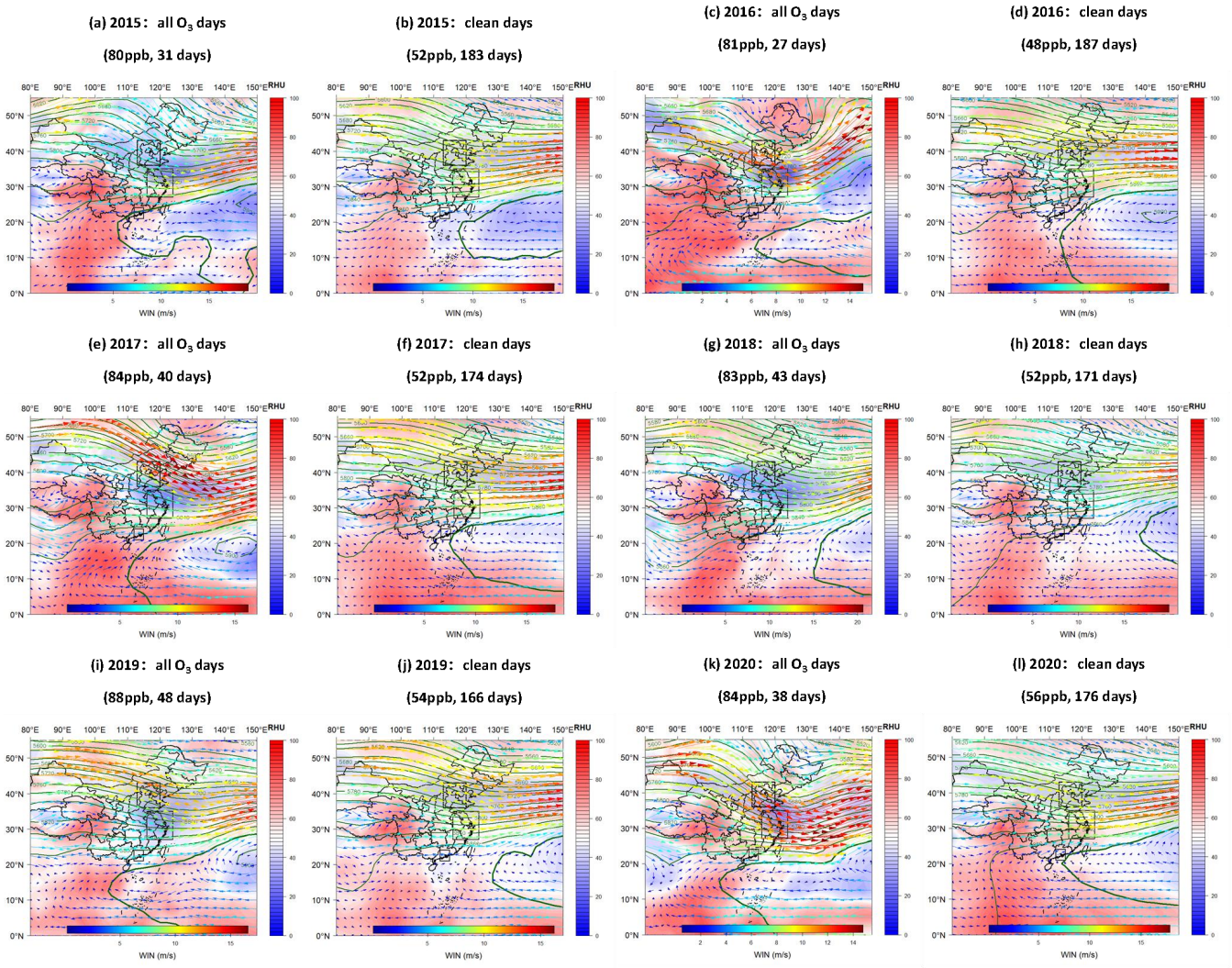

Figure S10. Composite 500 hPa geopotential height contours, humidity and winds in YRD in April–October for O_3-exceeding days and clean days in 2015–2020.

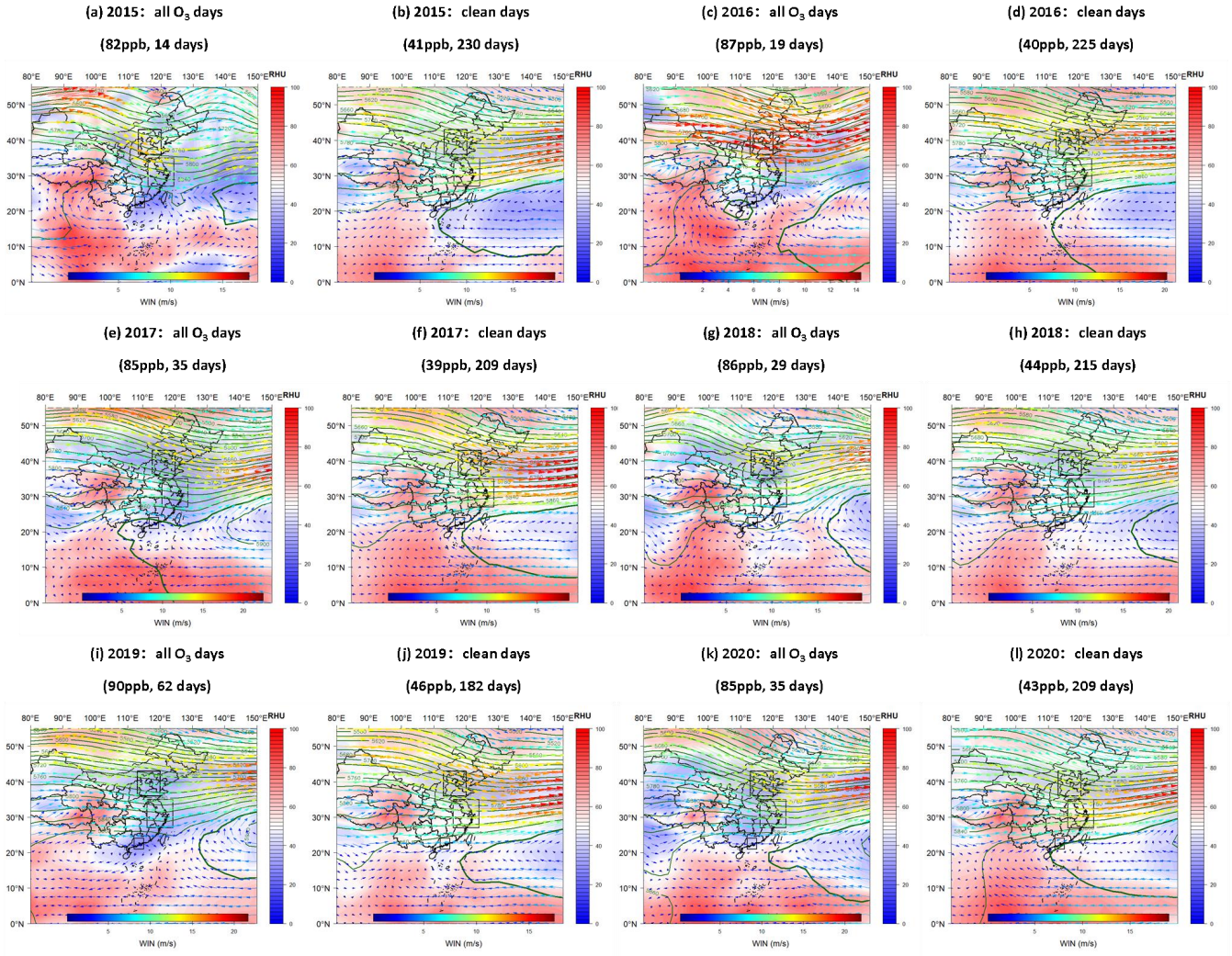

Figure S11. Composite 500 hPa geopotential height contours, humidity and winds in PRD in April–November for O_3-exceeding days and clean days in 2015–2020.