Supplementary Material for

Quantitative impacts of meteorology and precursor emission changes on the long-term trend of ambient ozone over the Pearl River Delta, China and implications for ozone control strategy
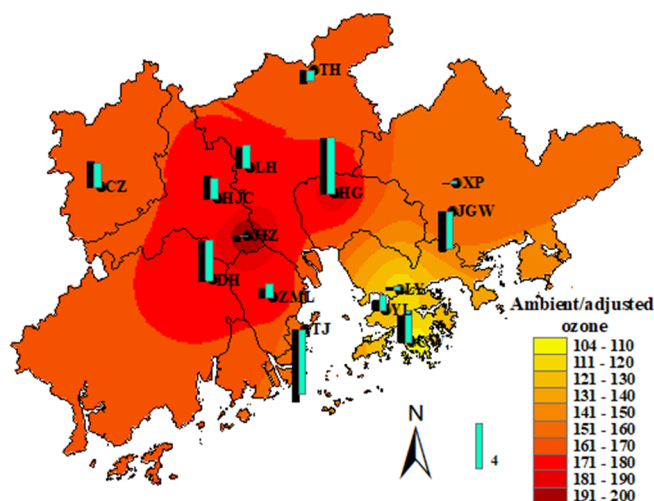
Fig S1. Spatial distribution of averaged ozone concentrations during ozone episodes in the Pearl River Delta and the annual ozone changes (μg m⁻³ year⁻¹) before and after meteorological adjustment over the fourteen monitoring stations during 2007-2017. The bar length in the legend corresponds to an annual increase of 4 μg m⁻³.
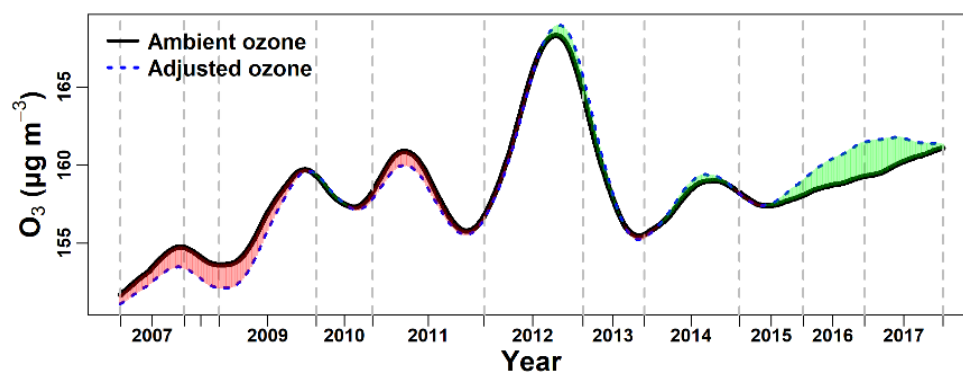
Fig S2. Long-term trends of ambient ozone, meteorologically adjusted ozone, and the meteorological impact in the Pearl River Delta during ozone episodes in 2007-2017.

(a)   (b)   (c)   (d)
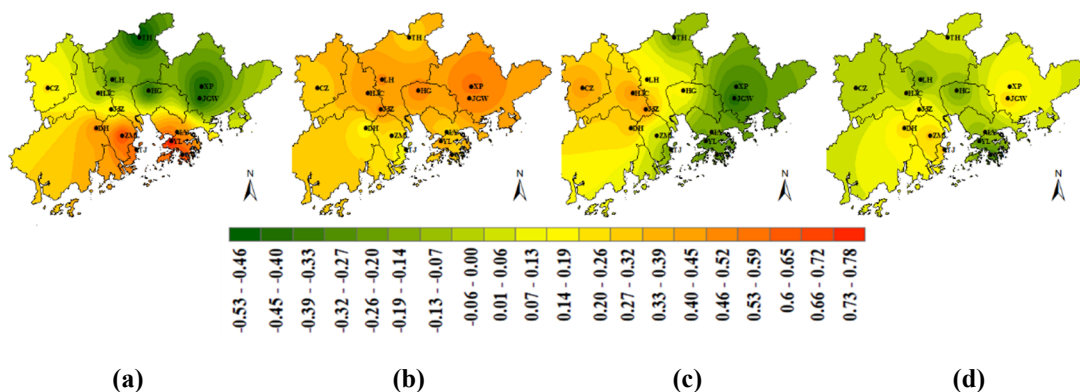
Fig S3. Spatial distribution of principal component loadings (PC1-4: a-d). With positive loadings at all stations, PC2 is assigned to represent impact from non-local emissions. The other three PCs reflect impacts from different local emissions.
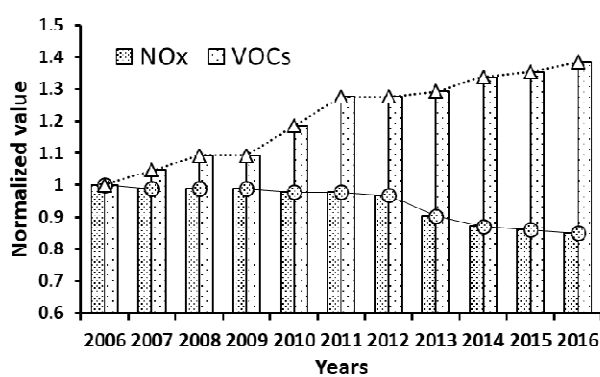
Fig S4. Normalized emissions of pollutants in the Pearl River Delta during 2006-2015. NO$_x$ and VOC emissions are in continuously decreasing and increasing trends respectively. (Manuscript under preparation)
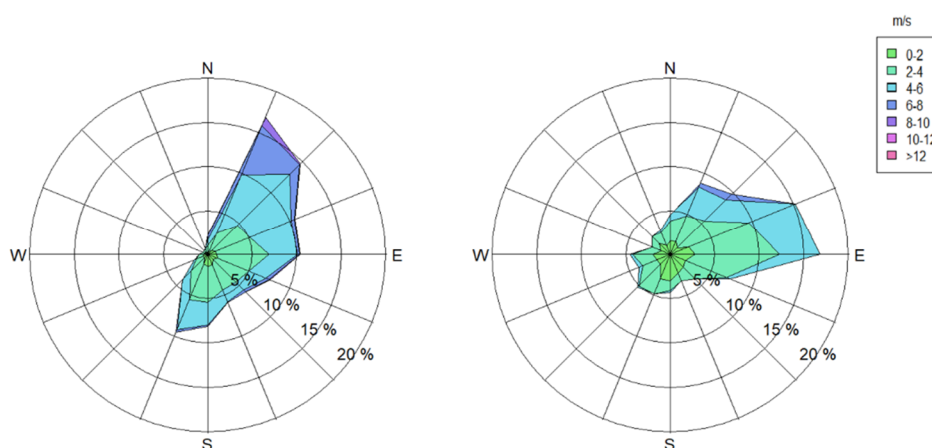
Fig S5. Wind rose under general conditions (left) and during ozone episodes (right) during 2007 and 2017 in the Pearl River Delta.