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Supplement of

Mobile monitoring of urban air quality at high spatial resolution by low-cost sensors: impacts of COVID-19 pandemic lockdown

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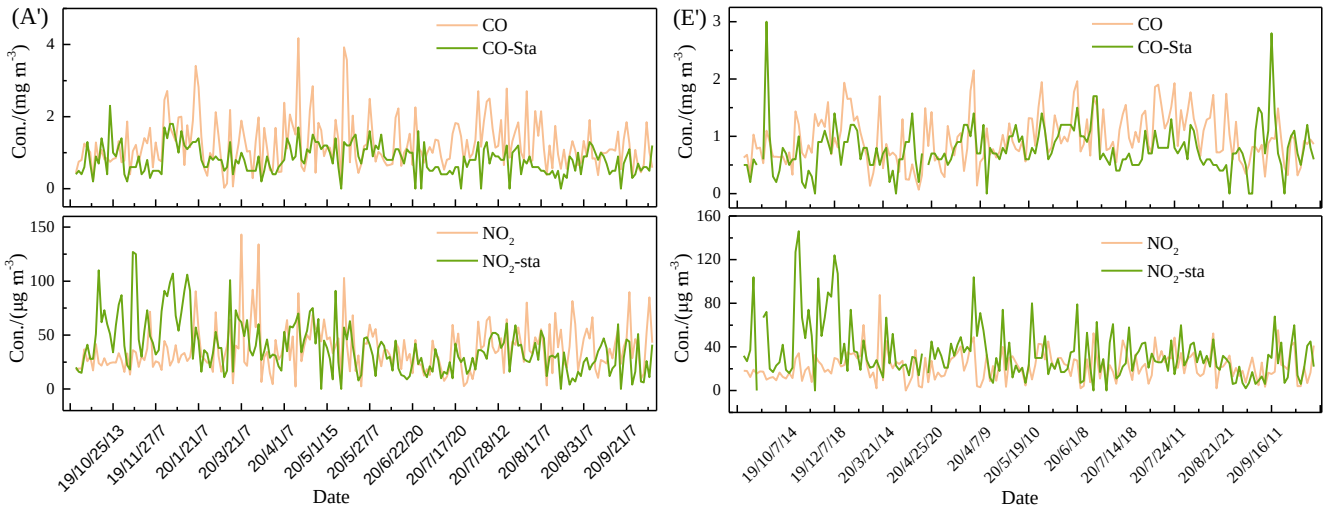

Figure S1. Time series of three pollutants at two pollution observation points (A' and E'). CO-Sta and NO_2-Sta represent the concentrations of pollutants observed at state-operated air quality observation stations in Nanjing. Date format: year/month/day/hour.

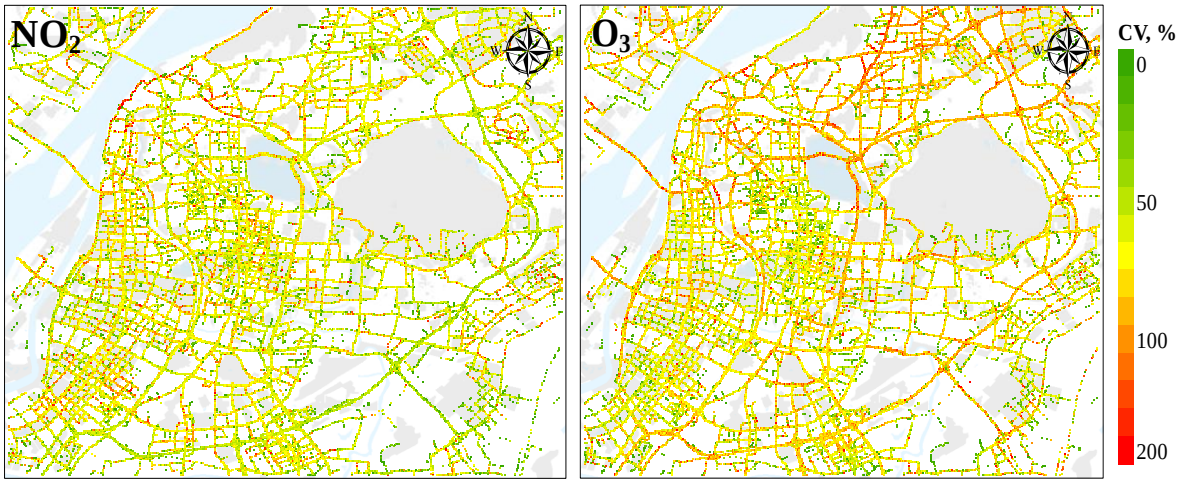

Figure S2. Spatial distribution of coefficient of variation for NO_2 and O_3 in 50 m grids in research domain. © OpenStreetMap contributors 2019. Distributed under a Creative Commons BY-SA License.

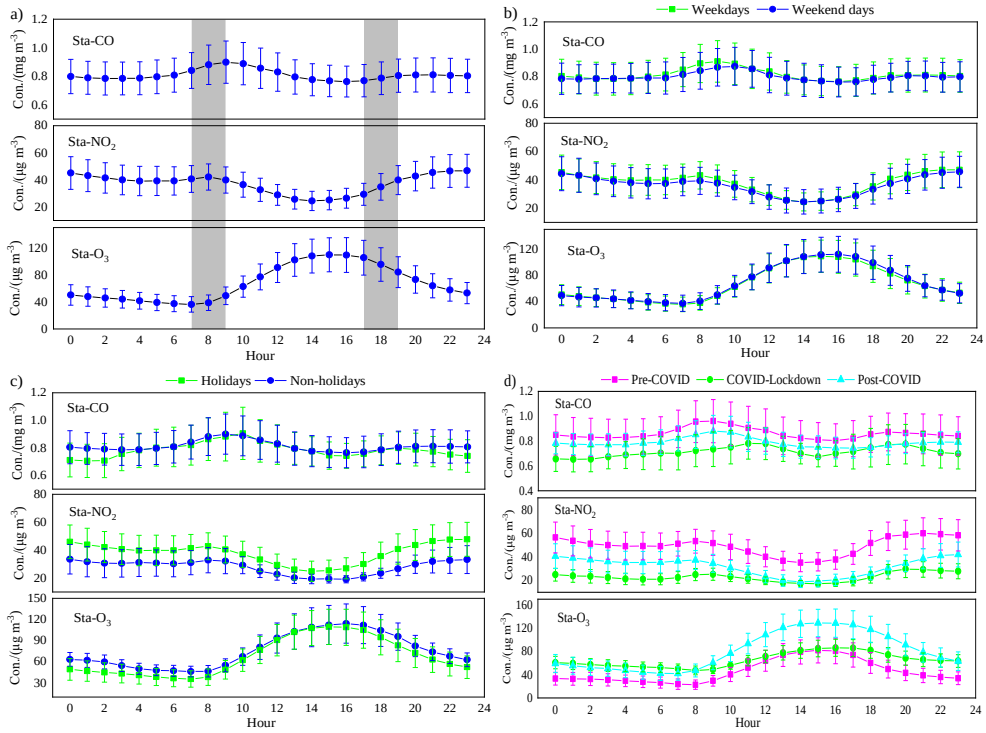

Figure S3. Diurnal cycles of three pollutant concentrations measured in rush/non-rush hours, weekdays/weekend days, holidays/non-holidays, and different stage of the COVID-19 pandemic by the stations sites data. Error bars show the standard deviation of observations. Gray areas represent the rush hours, and the other represents the non-rush hours.

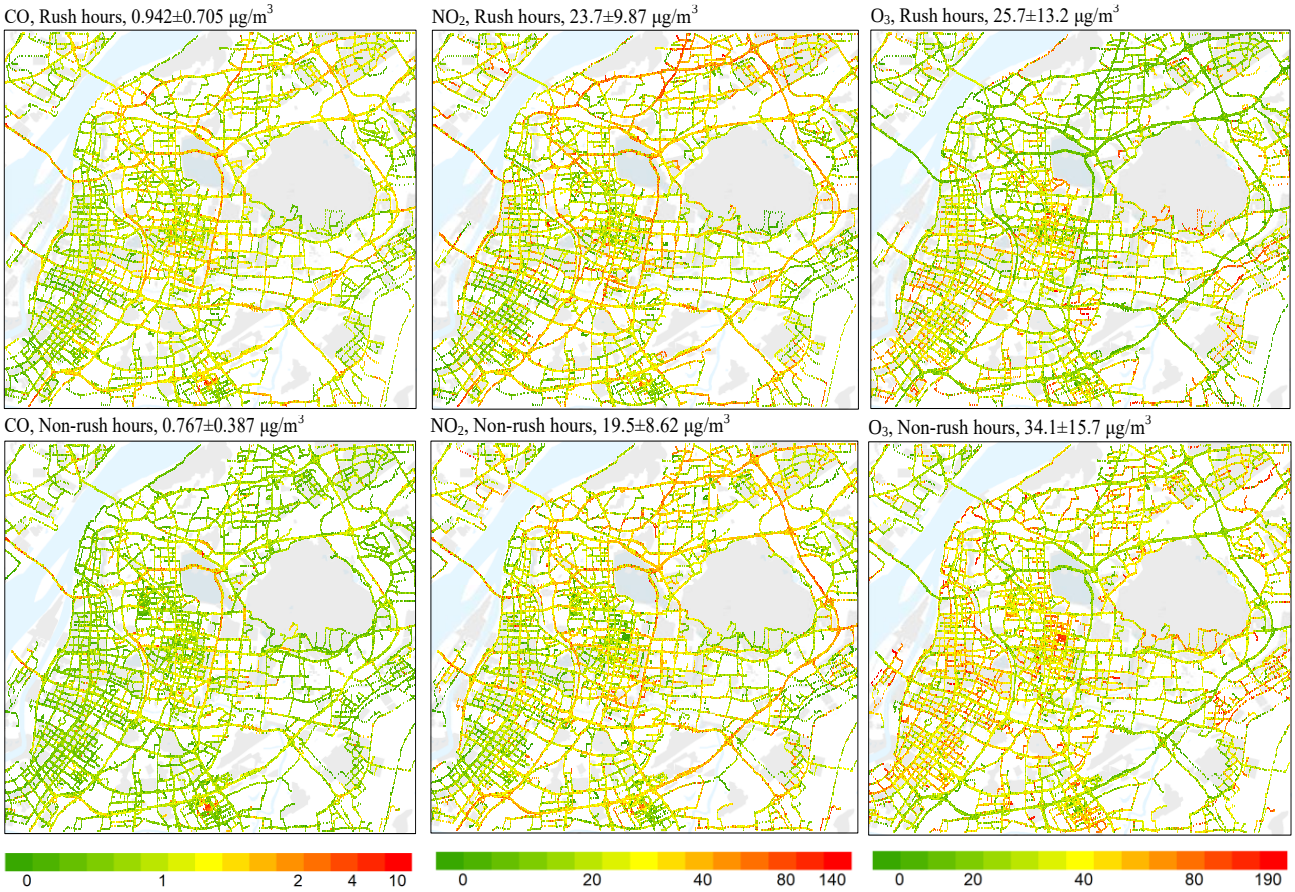

Figure S4. Spatial variation of CO, NO_2, and O_3 concentrations in rush hours and non-rush hours in the research area. © OpenStreetMap contributors 2019. Distributed under a Creative Commons BY-SA License.

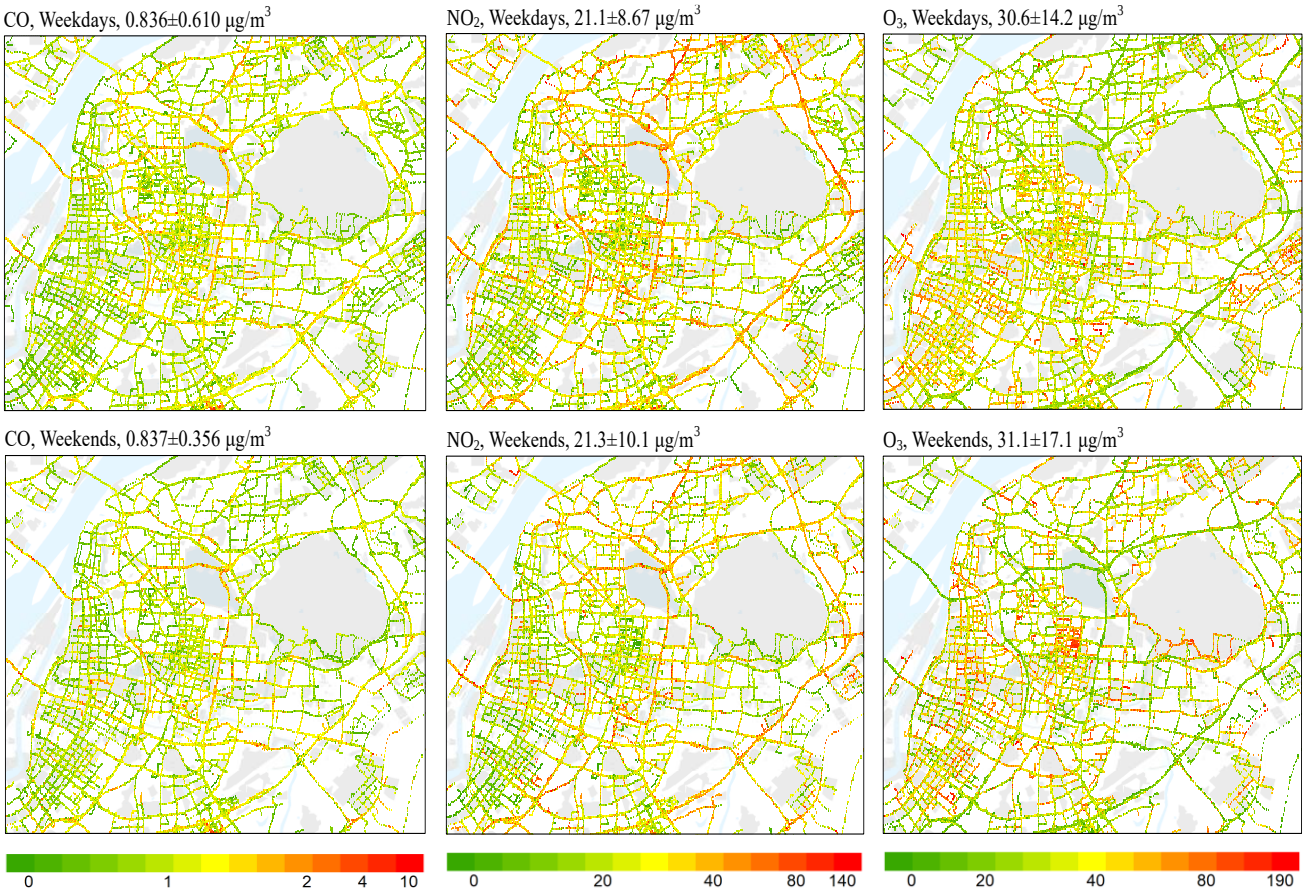

Figure S5. Spatial variation of CO, NO_2, and O_3 concentrations in weekdays and weekend days in the research area. © OpenStreetMap contributors 2019. Distributed under a Creative Commons BY-SA License.

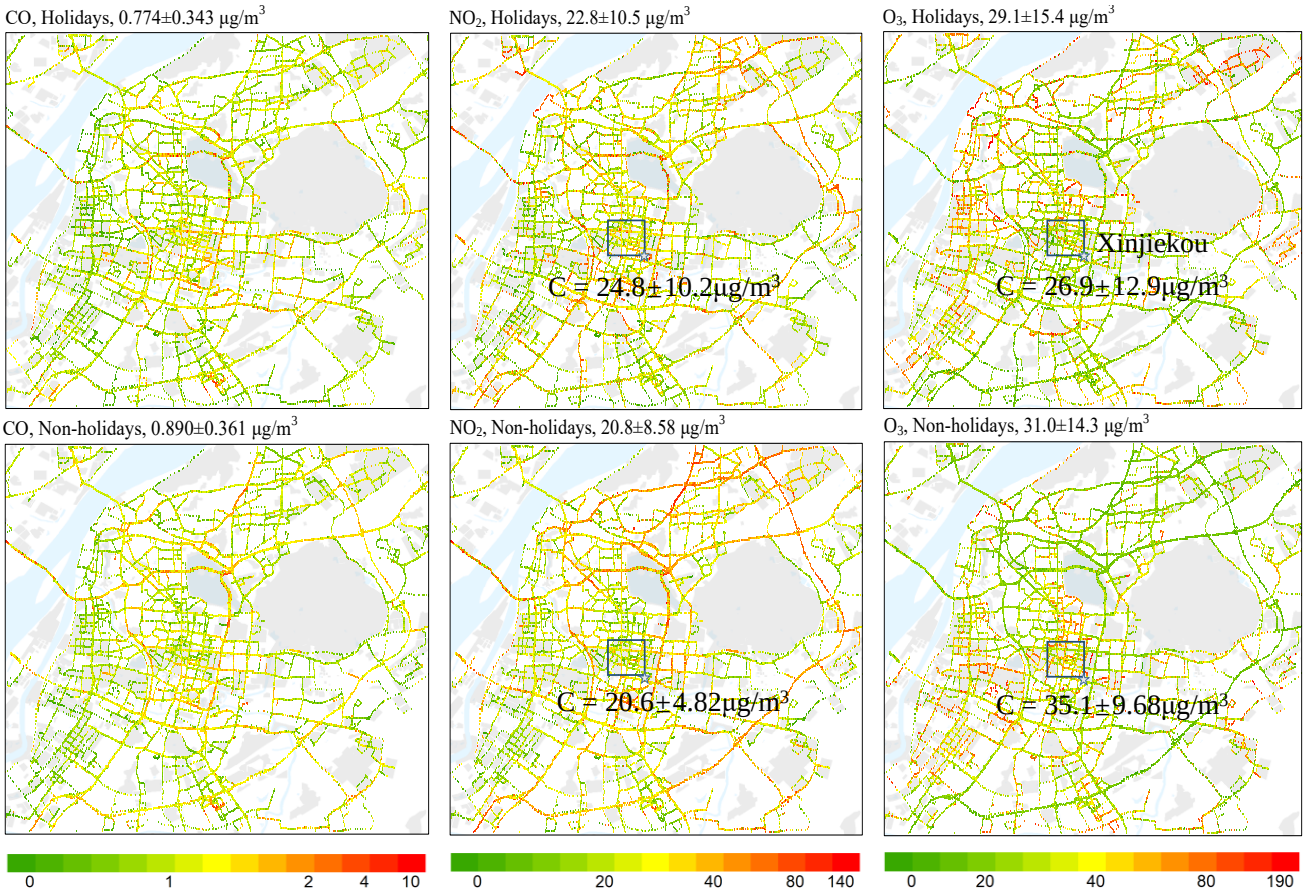

Figure S6. Spatial variation of CO, NO_2, and O_3 concentrations in holiday and non-holiday in the research area. © OpenStreetMap

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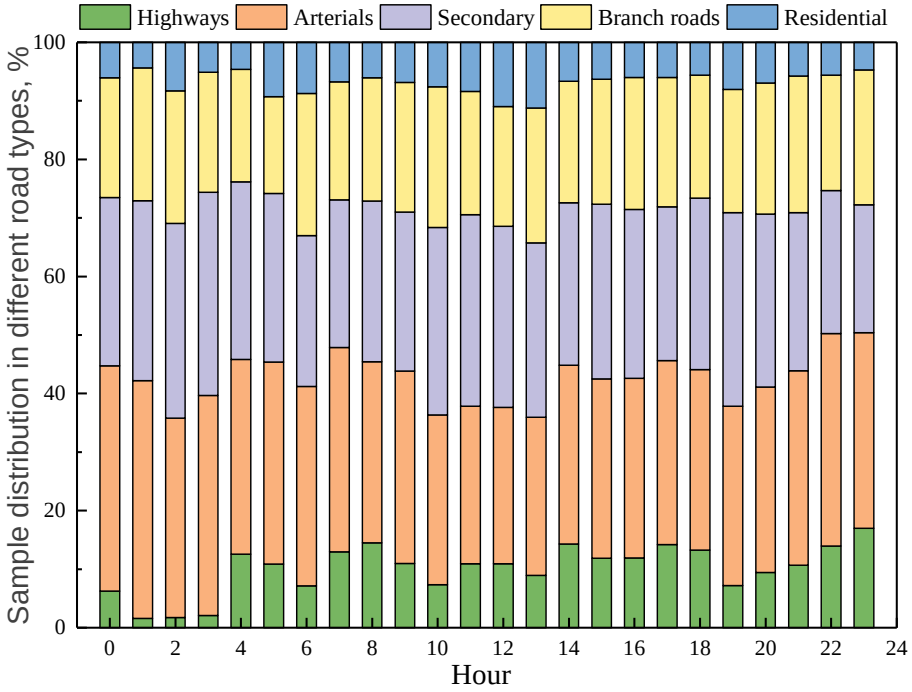

Figure S7. Hourly variation of mean sampling number in different types of roads during the whole sampling campaign.

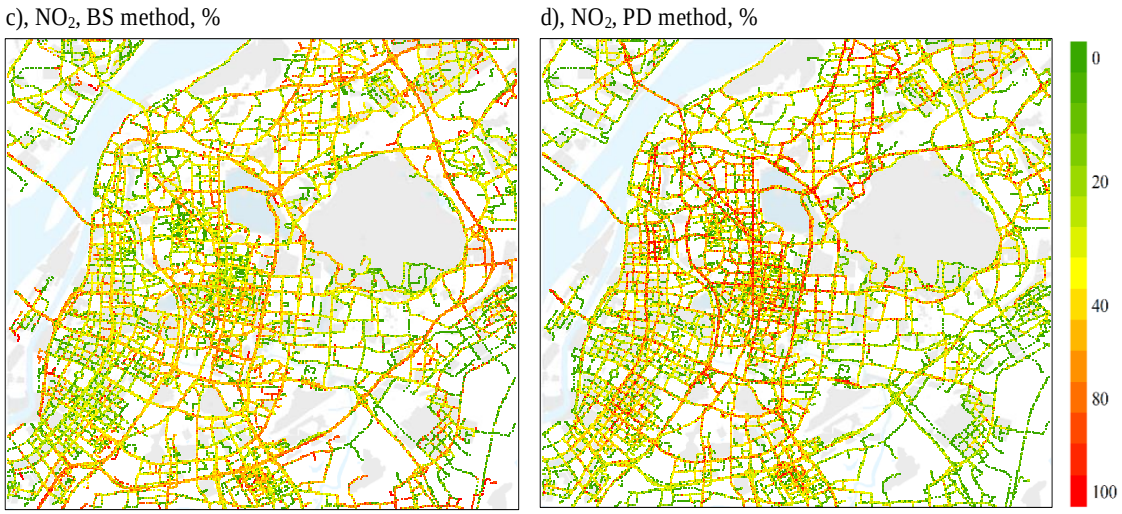

Figure S8. Contributions from traffic-related emissions calculated by stationary data method (c) and peak detection algorithm (d) for NO_2. © OpenStreetMap contributors 2019. Distributed under a Creative Commons BY-SA License.

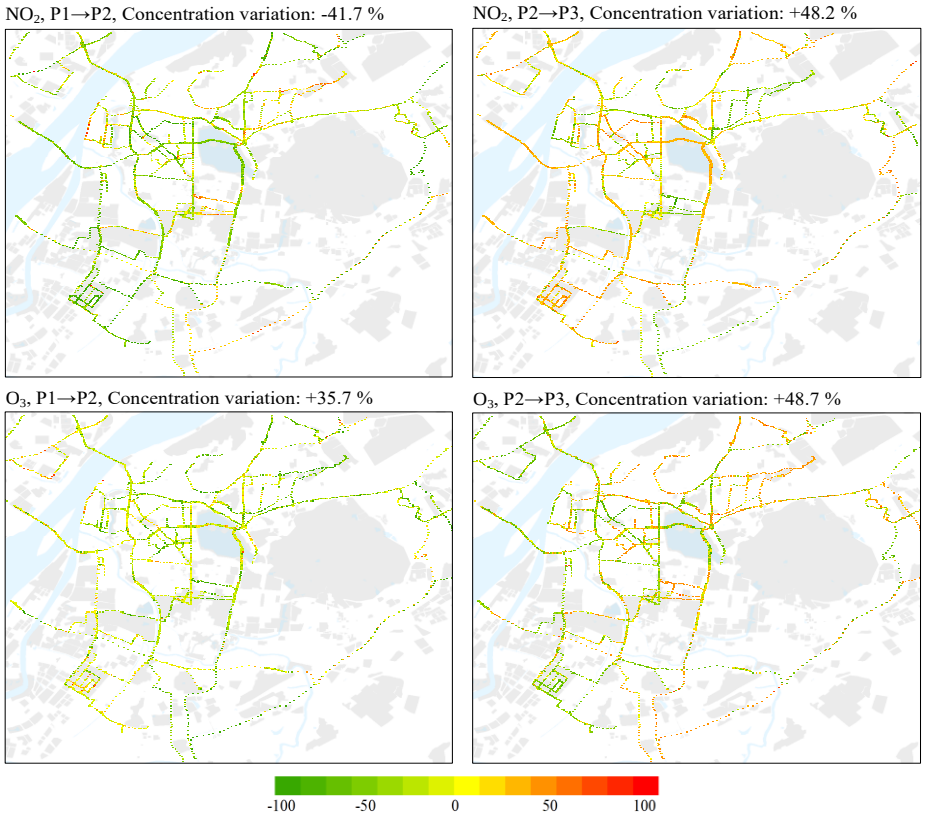

Figure S9. Changes in observed NO_2 and O_3 concentrations in the three stages of the COVID-19 pandemic. P1, P2, and P3 are for pre-COVID, COVID-lockdown, and post-COVID periods, respectively. © OpenStreetMap contributors 2019. Distributed under a Creative Commons BY-SA License.

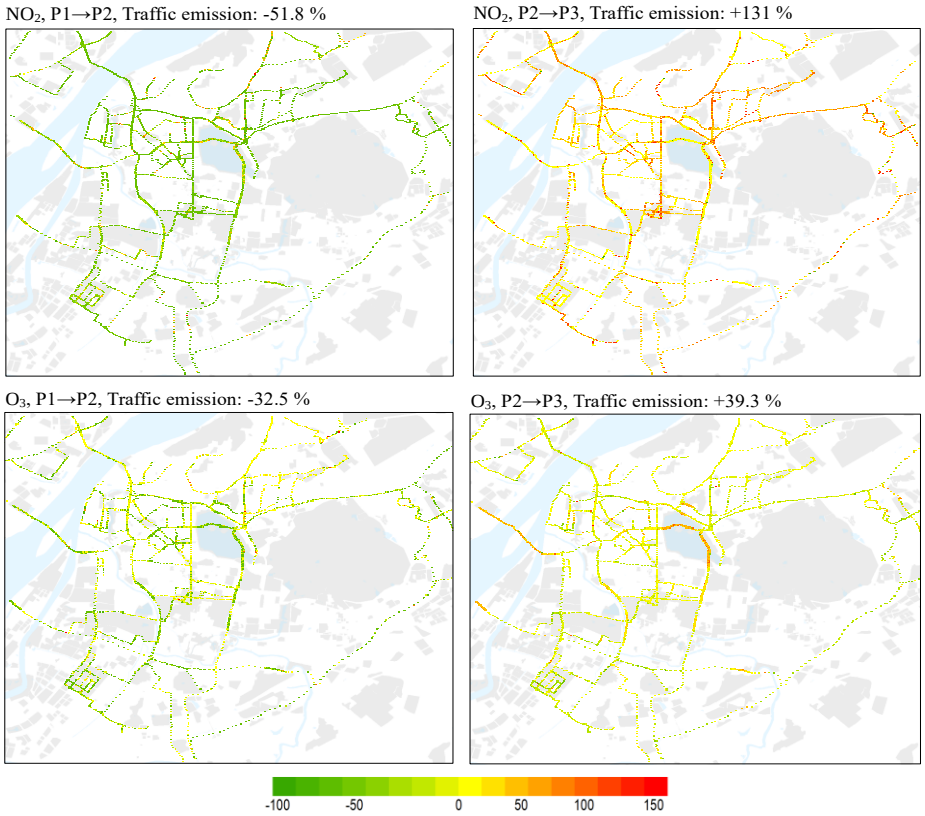

Figure S10. Changes in the contributions of traffic-related sources to NO_2 and O_3 in the three stages of the COVID-19 pandemic calculated using the BS method. P1, P2, and P3 are for pre-COVID, COVID-lockdown, and post-COVID periods, respectively. © OpenStreetMap contributors 2019. Distributed under a Creative Commons BY-SA License.