Supplementary material of

FastCTM: Atmospheric chemical transport modelling with a principle-informed neural network for air quality simulations

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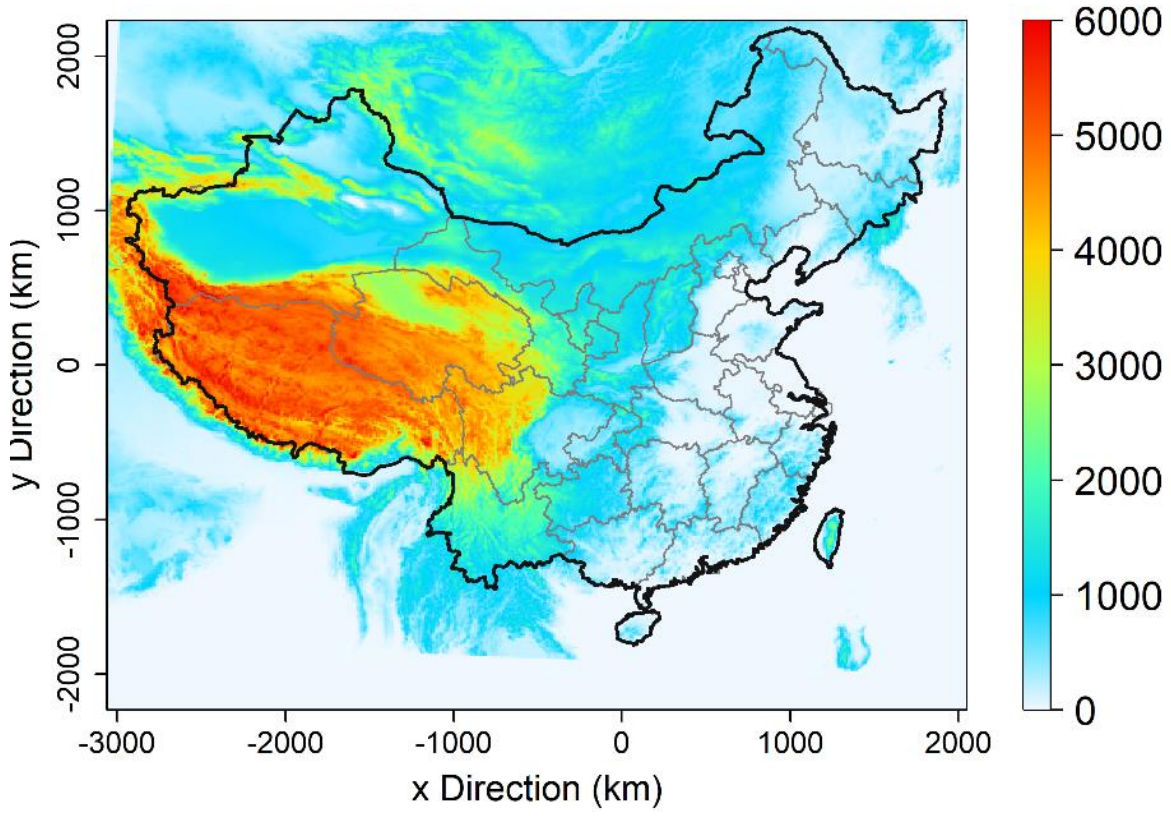

Figure S1: The spatial coverage for CMAQ simulation in 12-km resolution. The colour in this figure represent elevations above sea level.

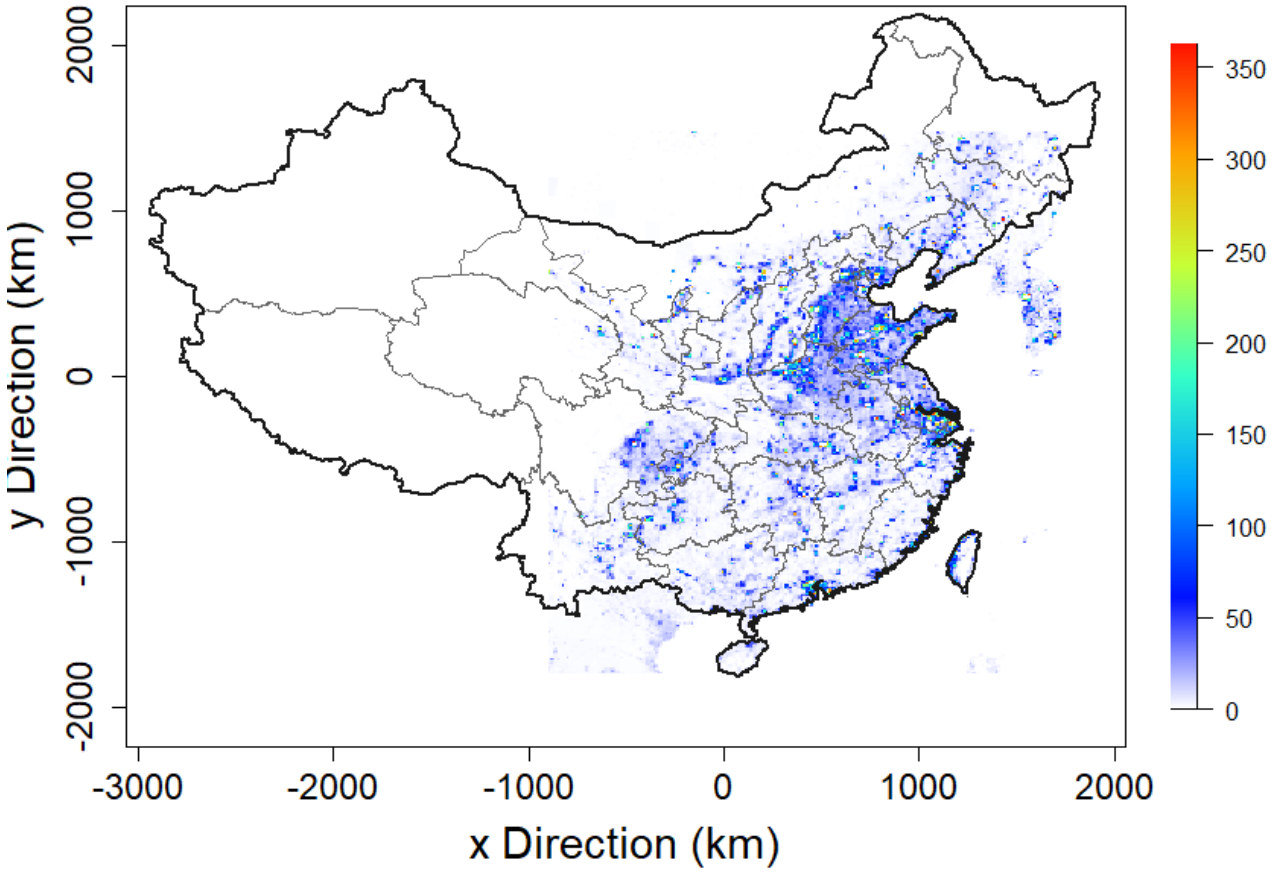

Figure S2: Annual average emissions (g/s) of NOx used in this study.

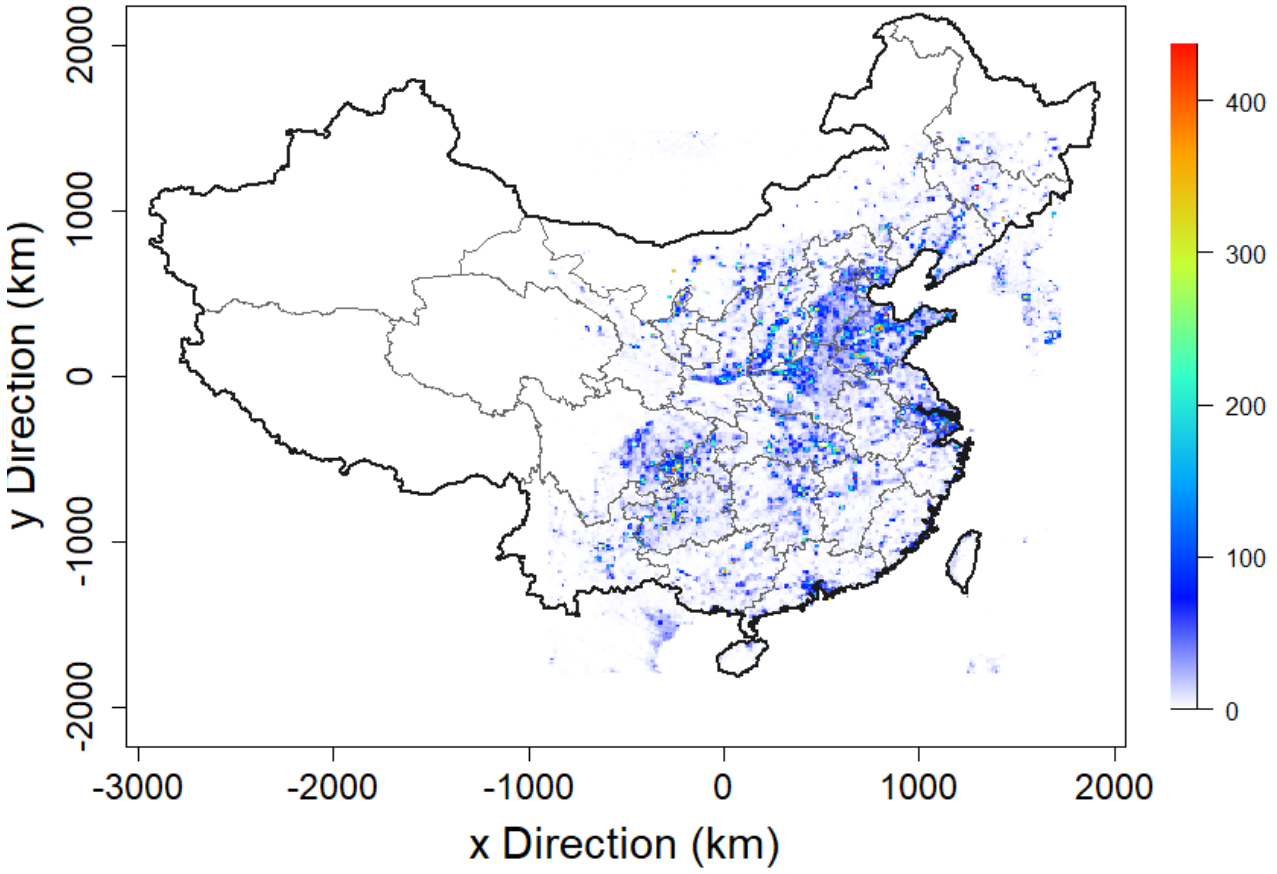

Figure S3: Annual average emissions (g/s) of SO_2 used in this study.

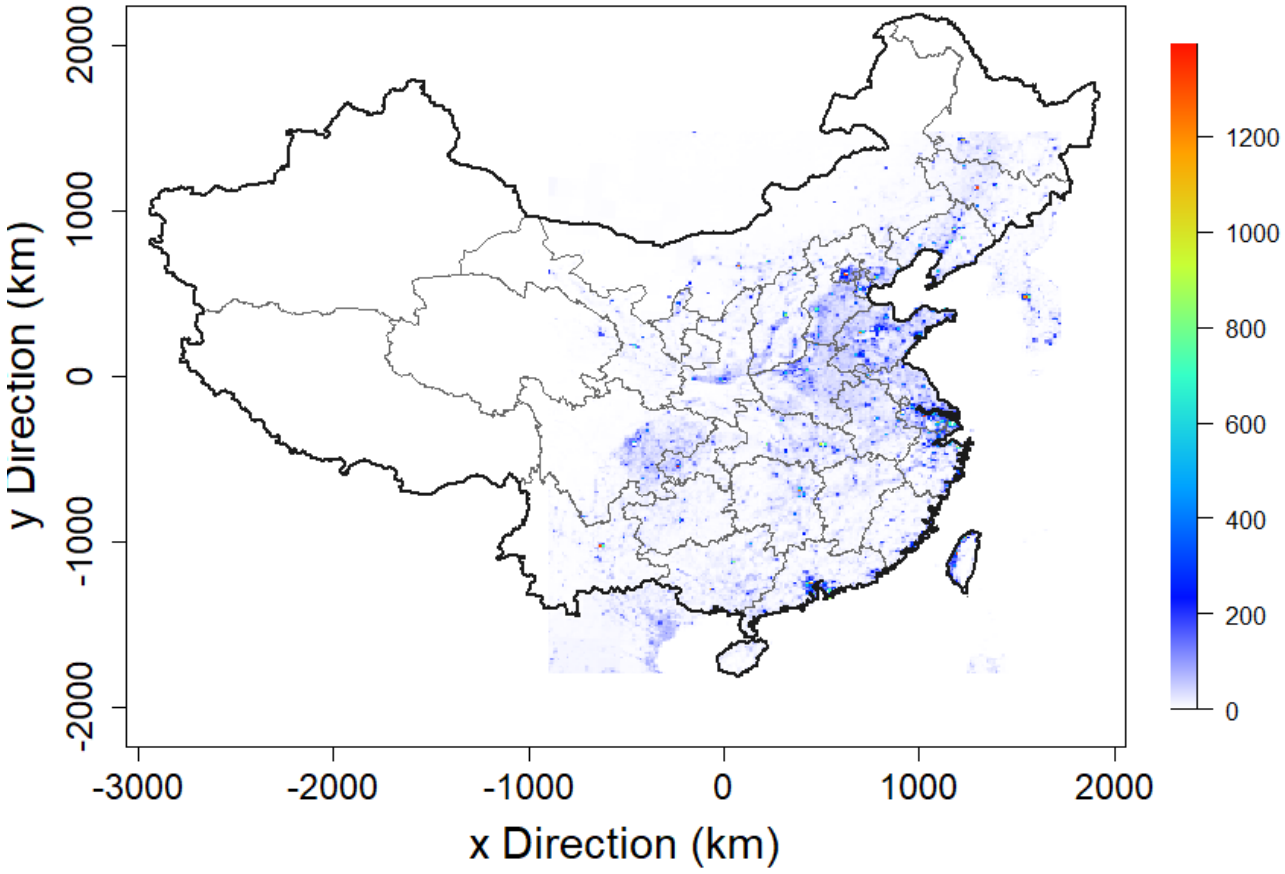

Figure S4: Annual average emissions (g/s) of VOC used in this study.

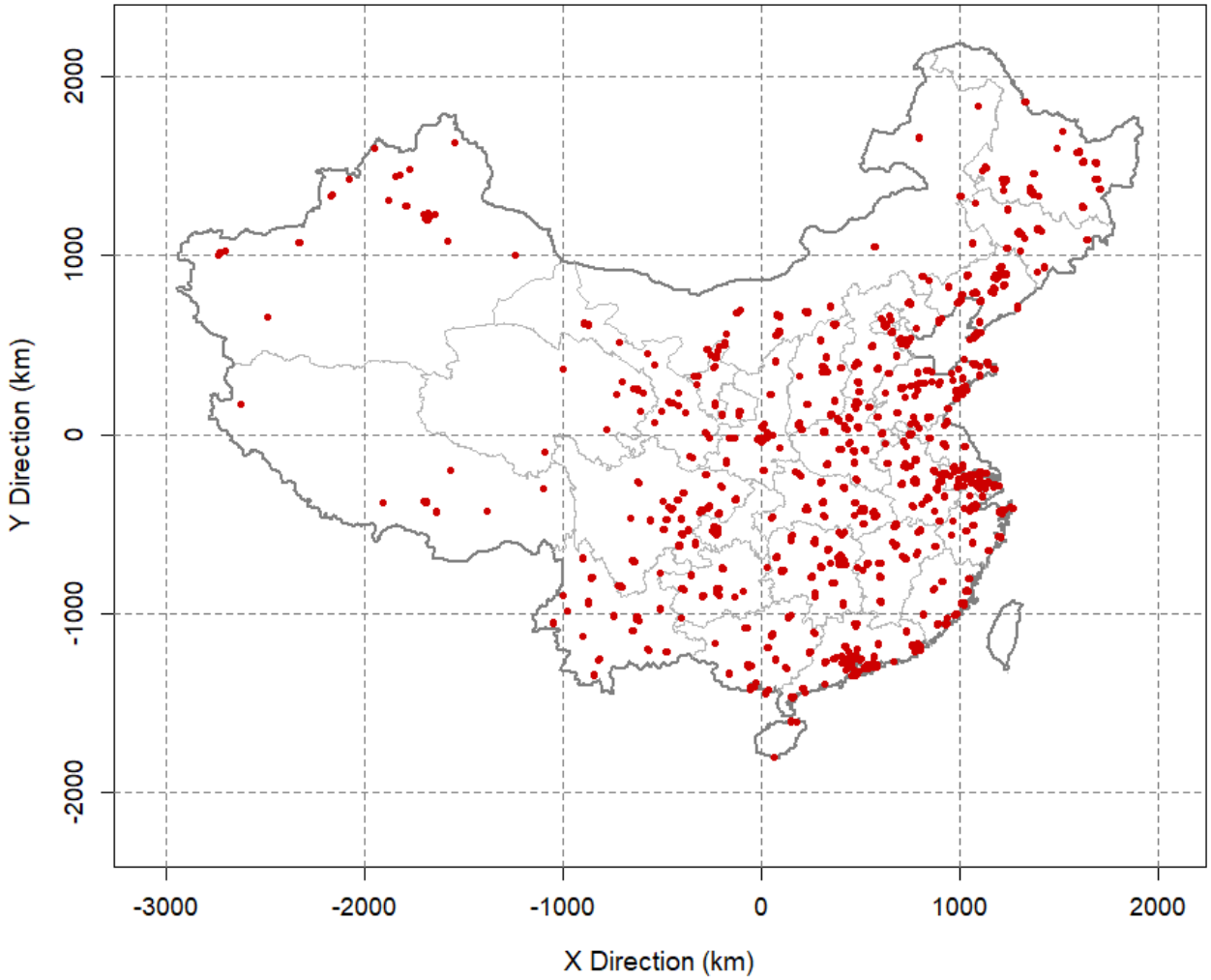

Figure S5: The national air quality observation sites used for evaluation in this study.

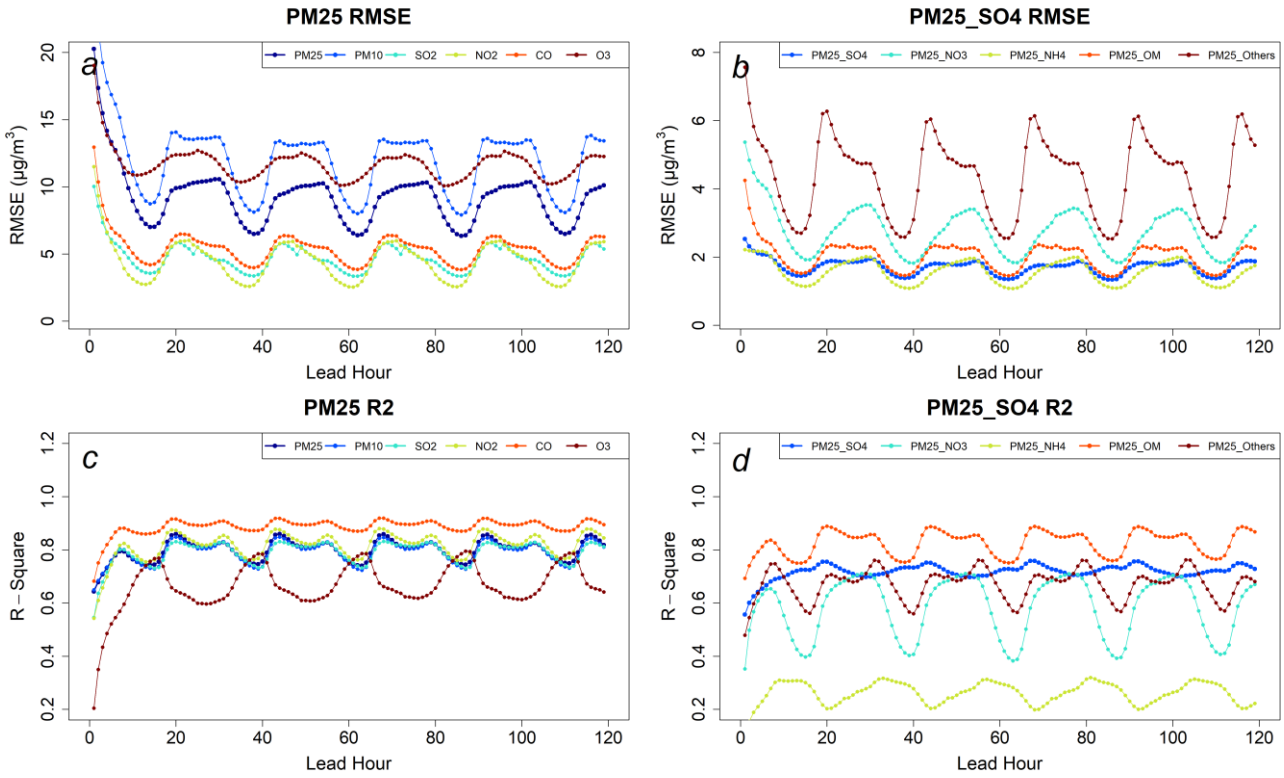

Figure S6: The evaluation metric of RMSE for air pollutant concentration forecasts with the nnCTM model with input data as zero values.

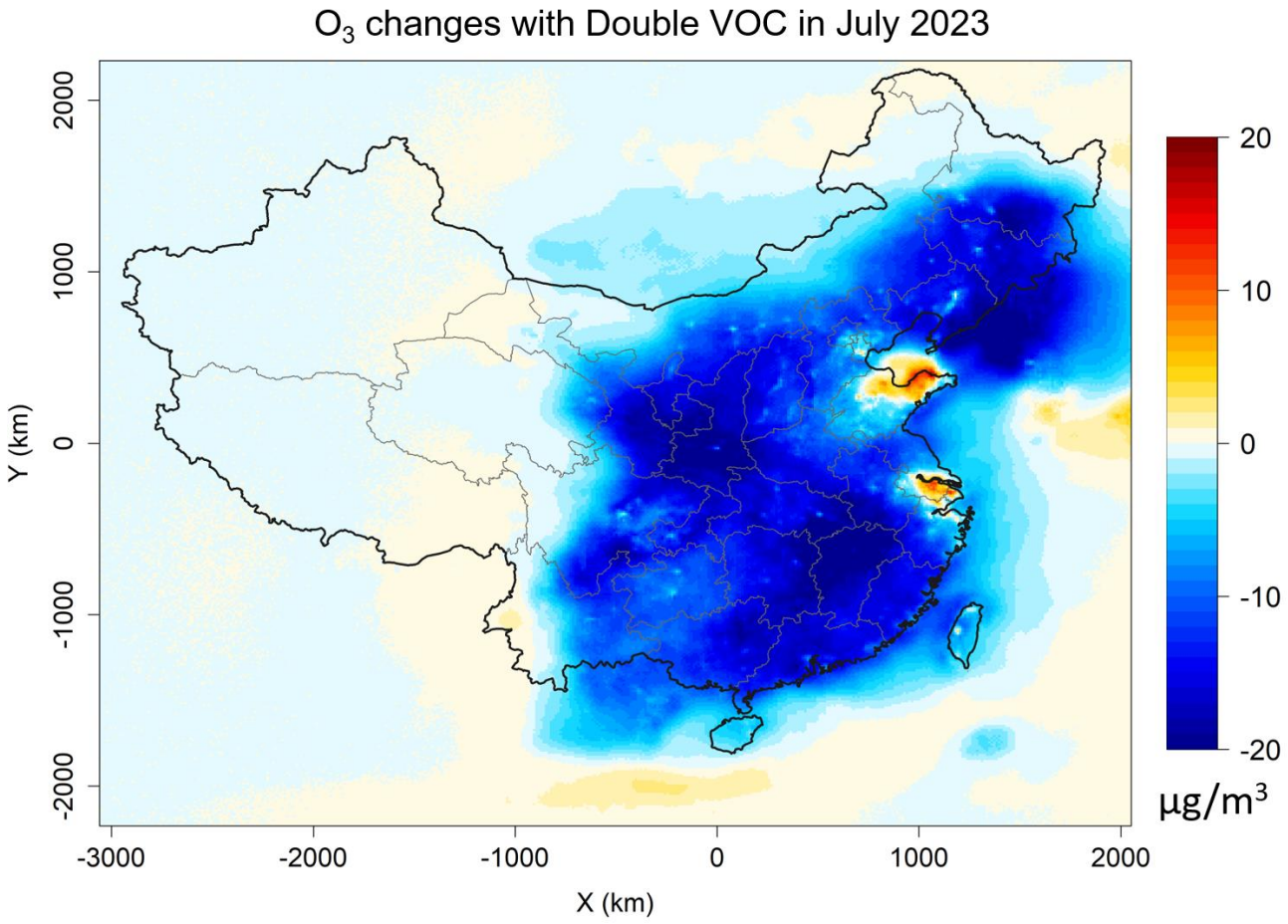

Figure S7: Average predictions of hourly O_3 concentrations in 5 lead-days with doubled VOC emissions in July 2023.