Supplementary Material

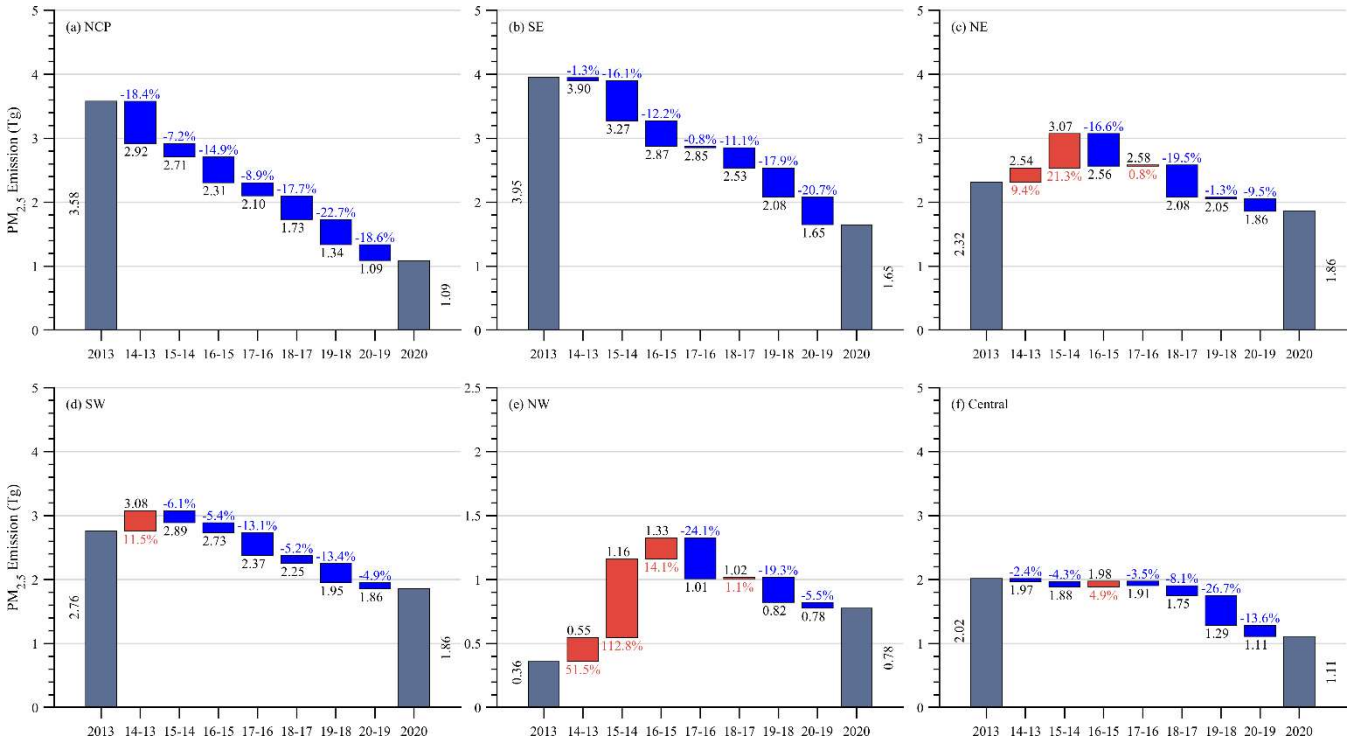

Figure S1: Emission changes of $PM_{2.5}$ from 2013 to 2020 over different regions of China obtained from CAQIEI.

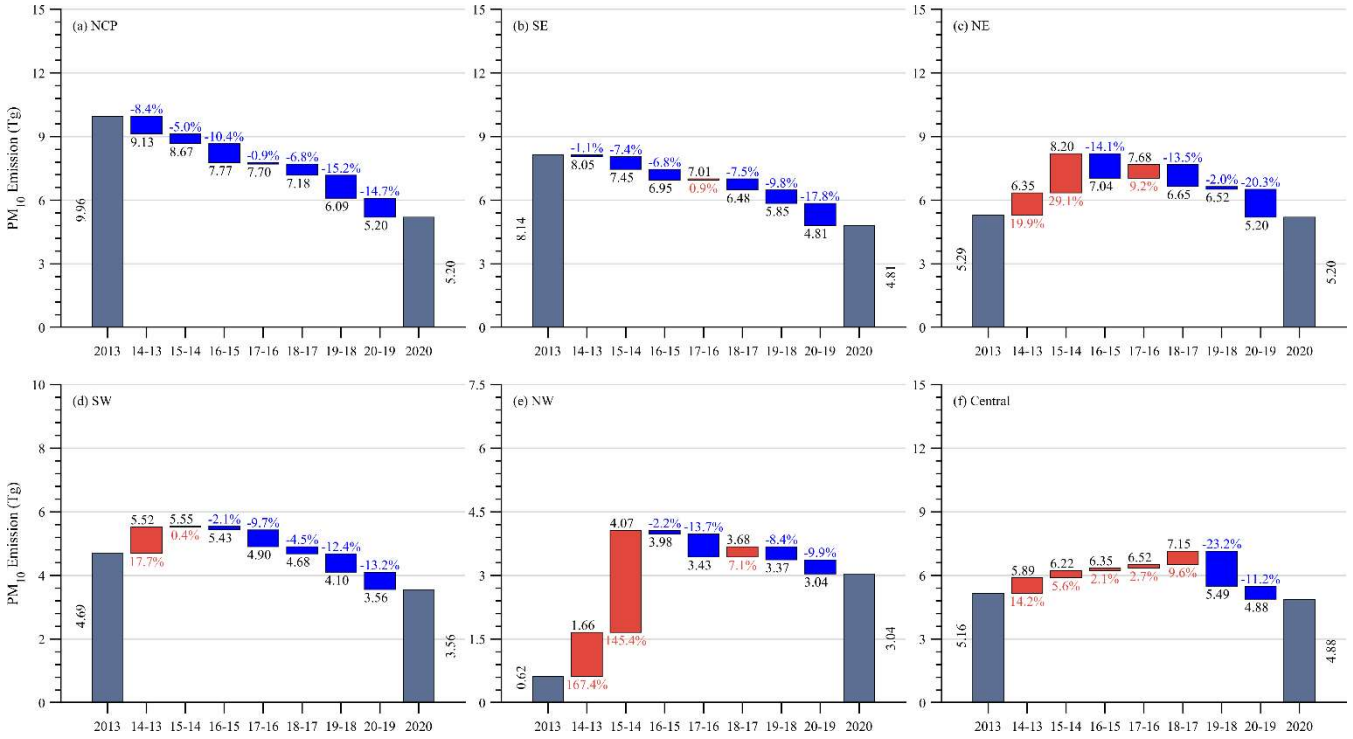

Figure S2: Same as Fig. S1 but for PM_{10}.

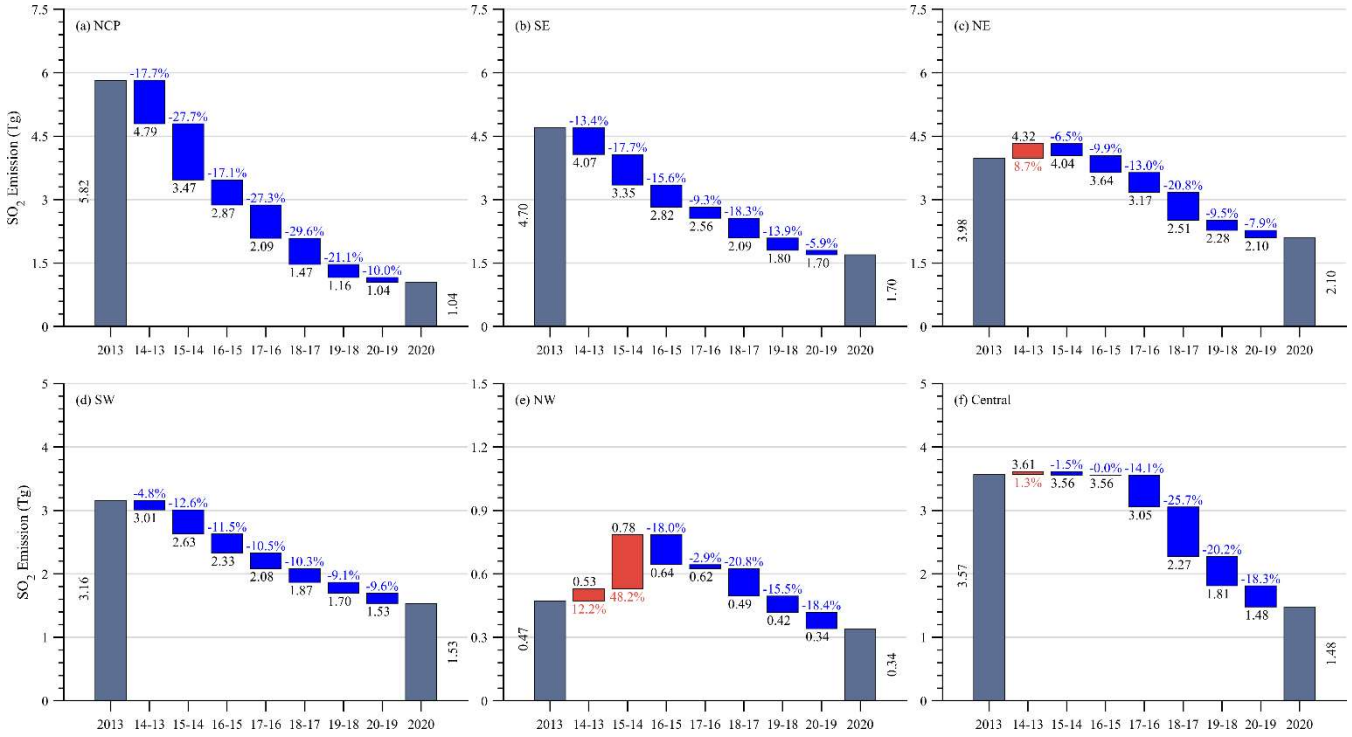

Figure S3: Same as Fig. S1 but for SO_2.

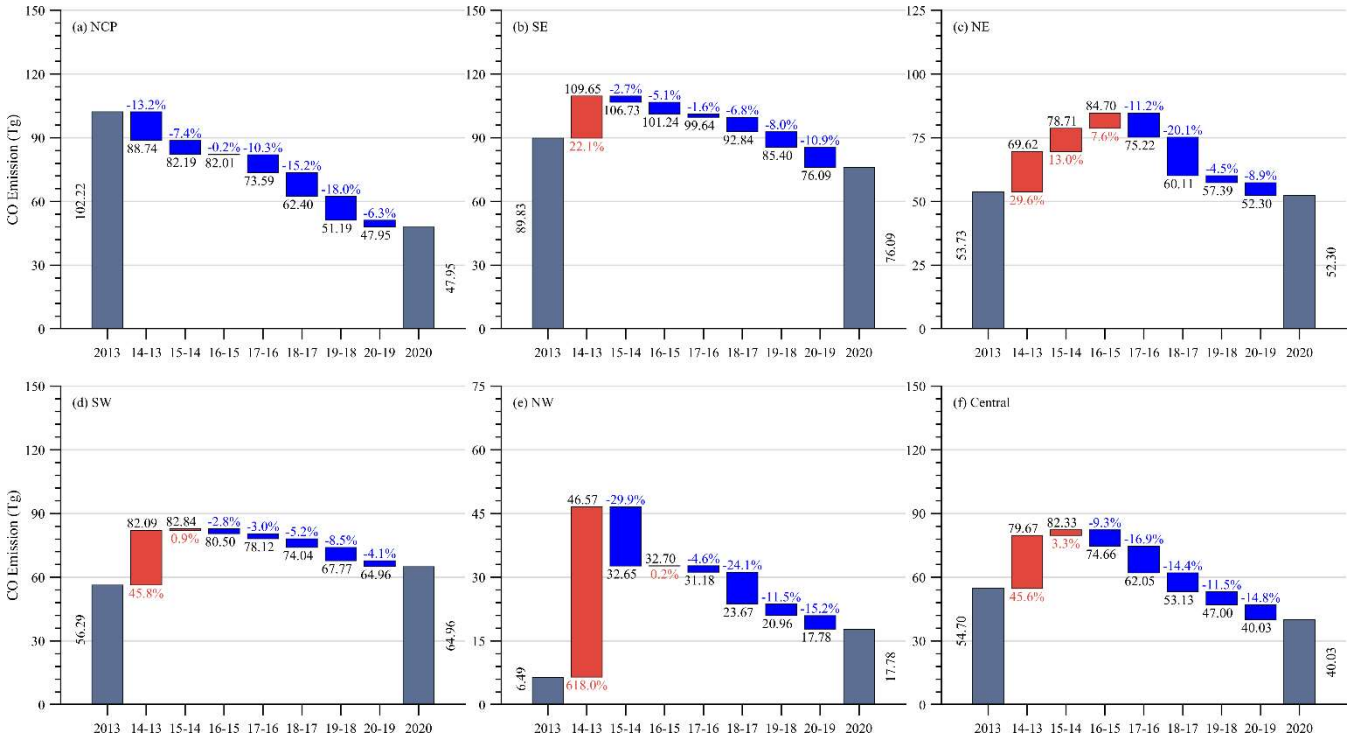

Figure S4: Same as Fig. S1 but for CO.

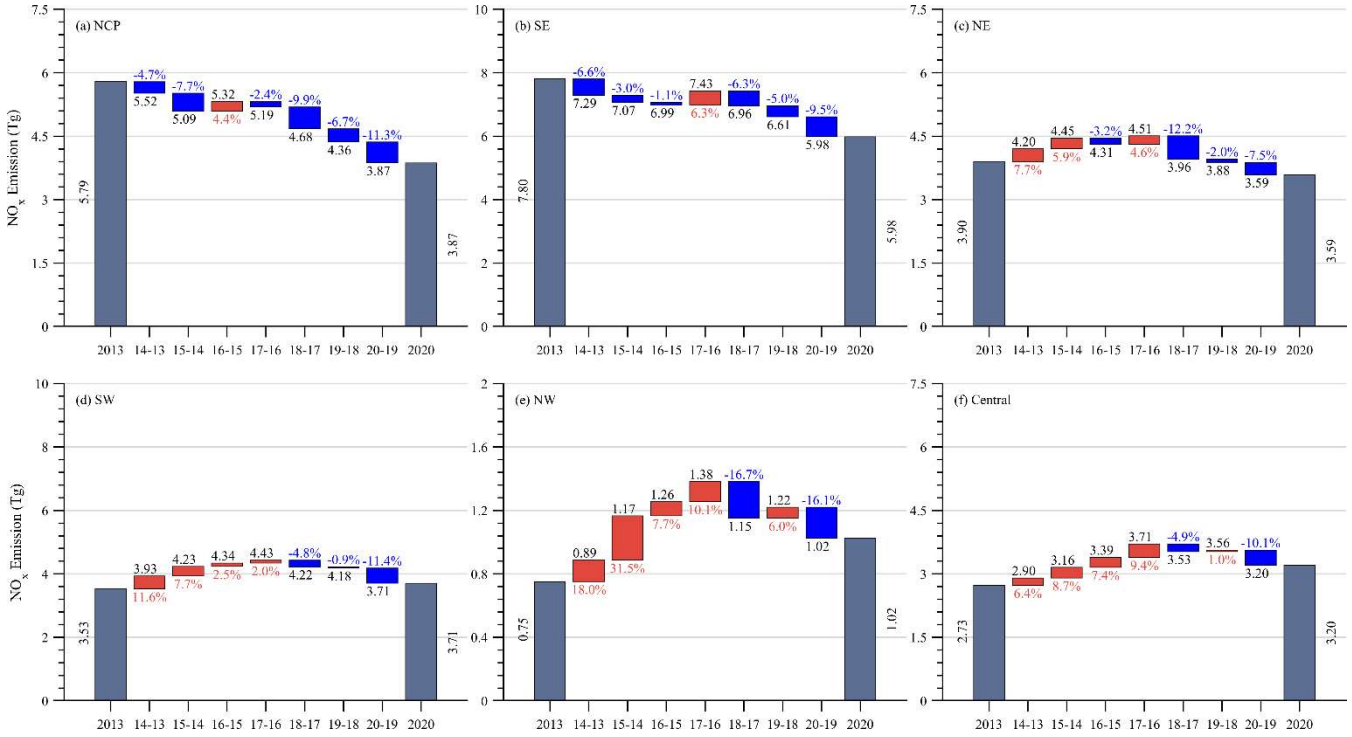

Figure S5: Same as Fig. S1 but for NO_x.

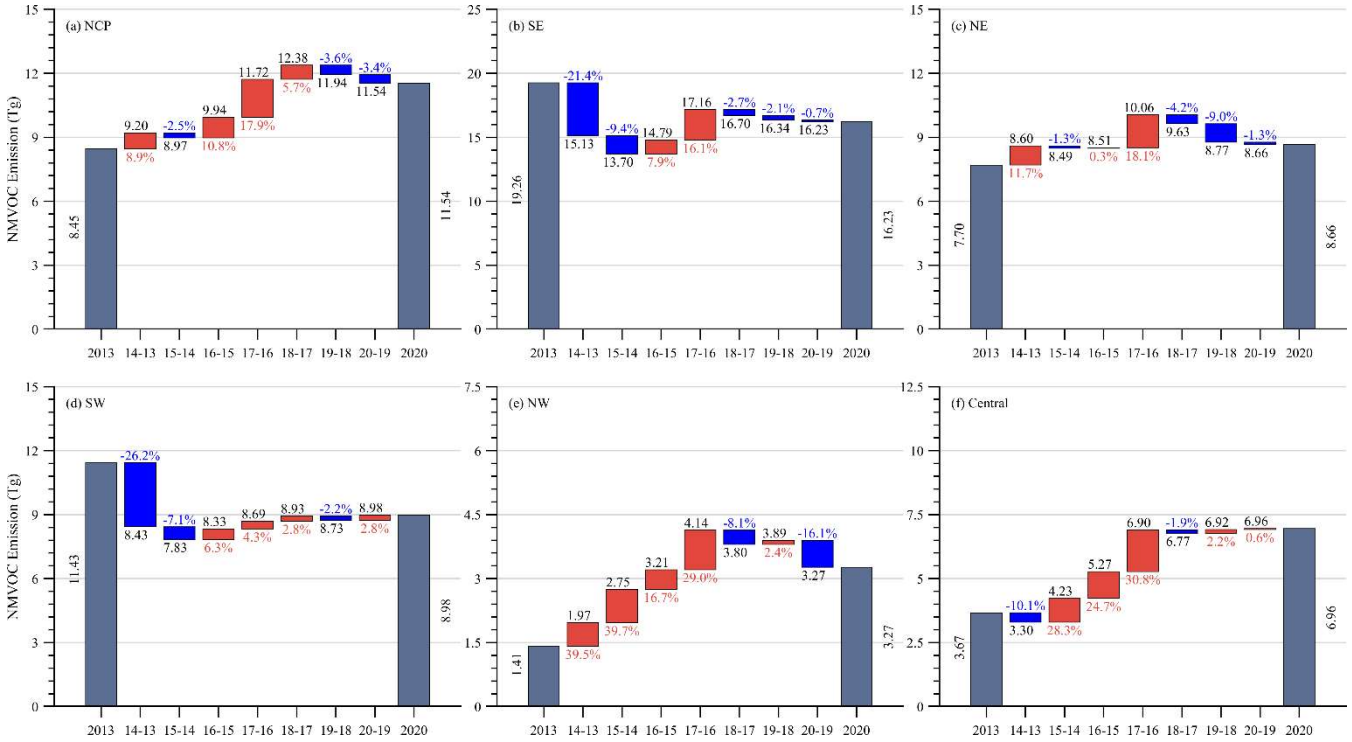

Figure S6: Same as Fig. S1 but for NMVOC.

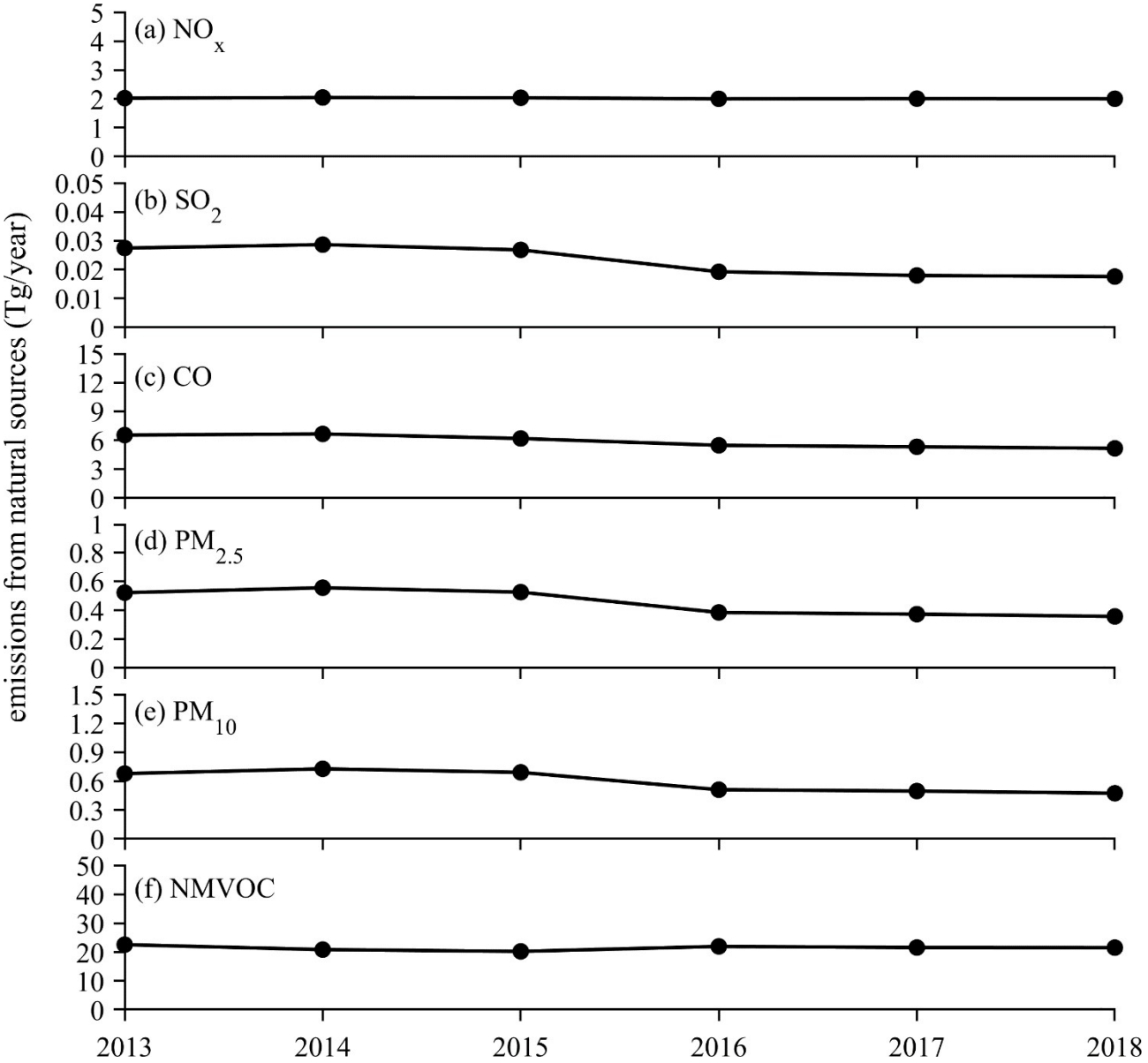

Figure S7: Time series of annual natural emissions of (a) NOx, (b) SO2, (c) CO, (d) PM2.5, (e) PM10 and (f) NMVOC in China from 2013 to 2018. The considered natural sources includes the biogenic, biomass burning and soil emissions.

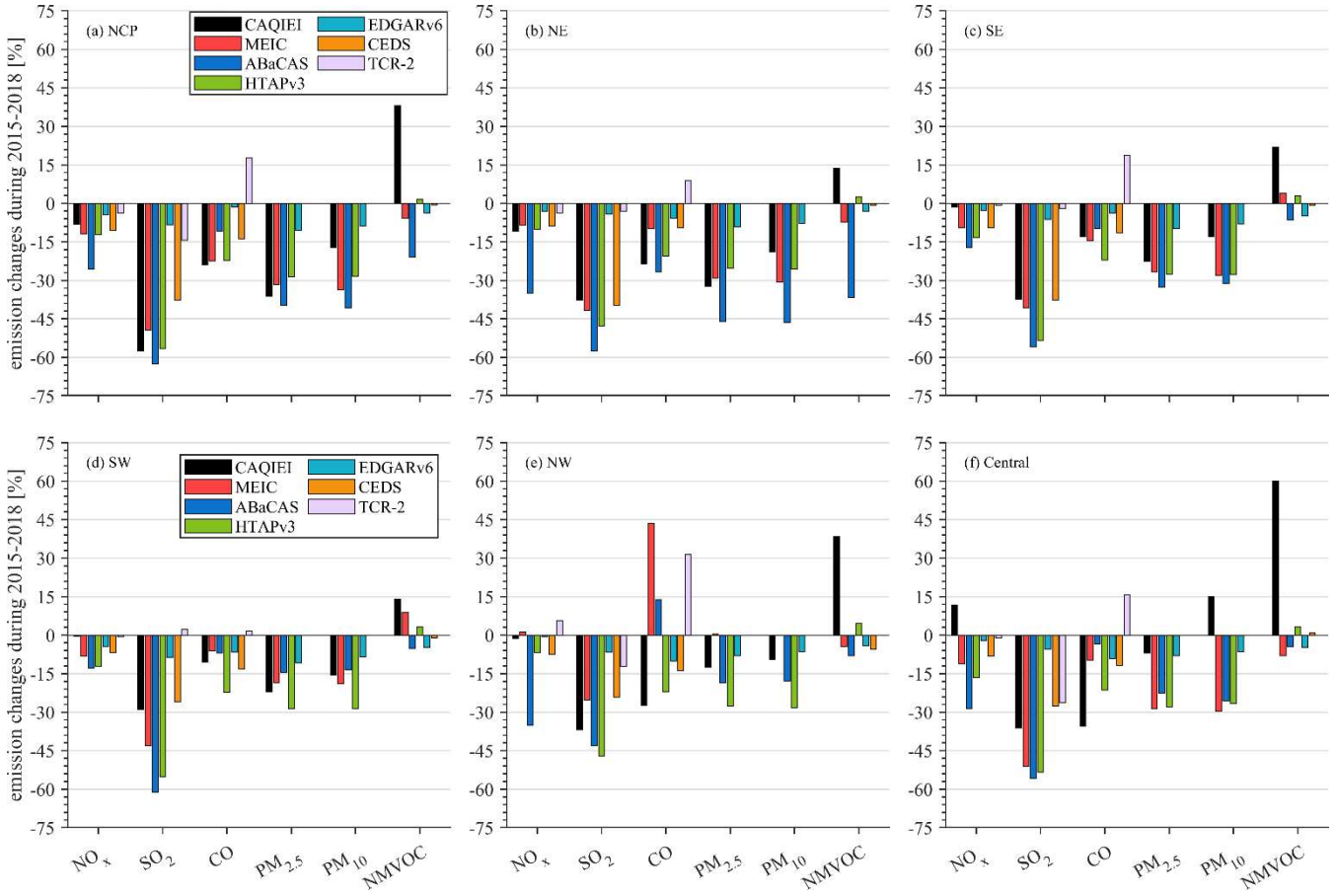

Figure S8: Comparisons of the calculated emission changes of (a) NO_x, (b) SO_2, (c) CO, (d) $PM_{2.5}$, (e) PM_{10}, and (f) NMVOCs over different regions of China from 2015 to 2018 between CAQIEI and previous inventories.