## **Supplementary Figures**

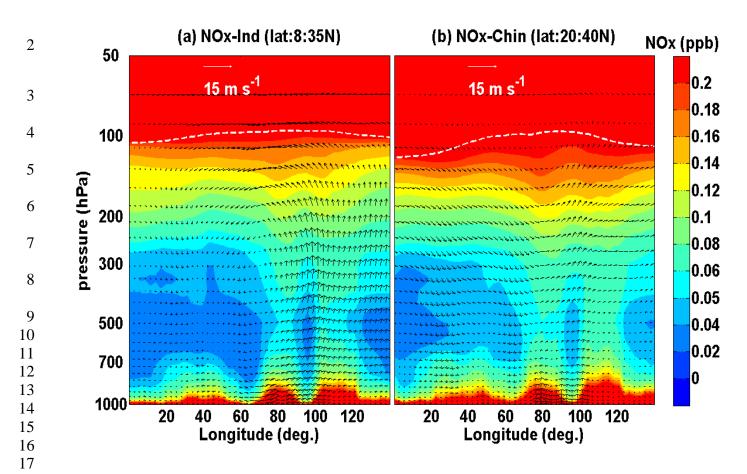
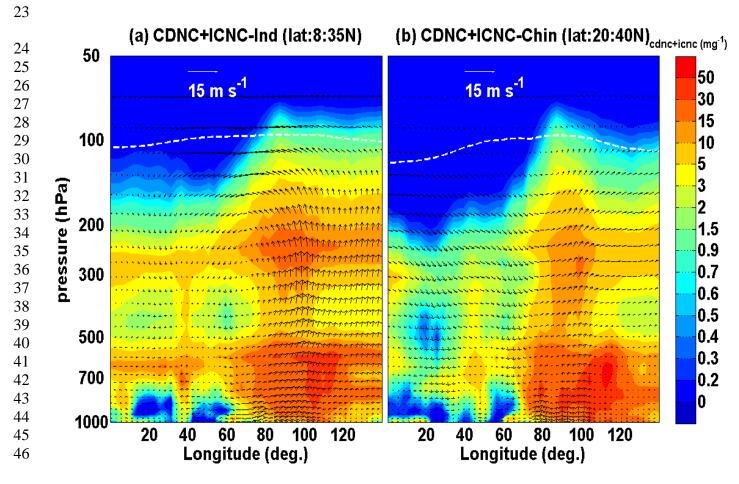


Figure S1: Vertical distribution of  $NO_x$  (ppb) averaged for the monsoon season (June-September) over the (a) Indian latitudes (8°-35°N) and (b) Chinese latitudes (20°-40°N) as obtained from CTRL simulations. The vertical velocity field has been scaled by 300. The dashed line represents the tropopause.

22

1



47

Figure S2: Distribution of cloud droplet number concentration (CDNC) and ice crystal number concentration (ICNC) together (mg<sup>-1</sup>) averaged for the monsoon season (June-September) over the (a) Indian latitudes (8°-35°N) and (b) Chinese latitudes (20°-40°N) as obtained from CTRL simulations. The vertical velocity field has been scaled by 300. The dashed line represents the tropopause.