Supplement of

Evaluating tropospheric nitrogen dioxide in UKCA using OMI satellite retrievals over South and East Asia

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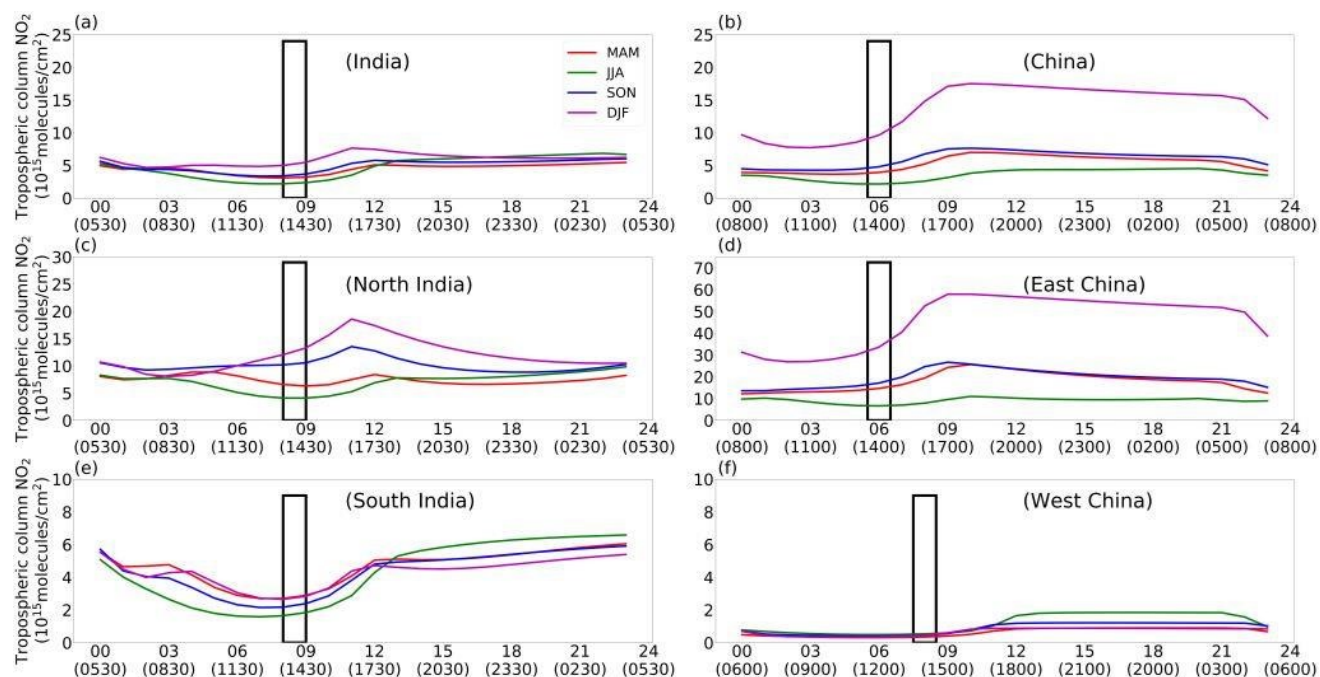
Figure S1. Seasonal average diurnal variations of tropospheric column NO_2 (10^{15} molecules/cm^2) in UKCA over (a) India, (b) China, (c) North India, (d) East China, (e) South India and (f) West China; The satellite overpass time is highlighted by the black rectangular box.
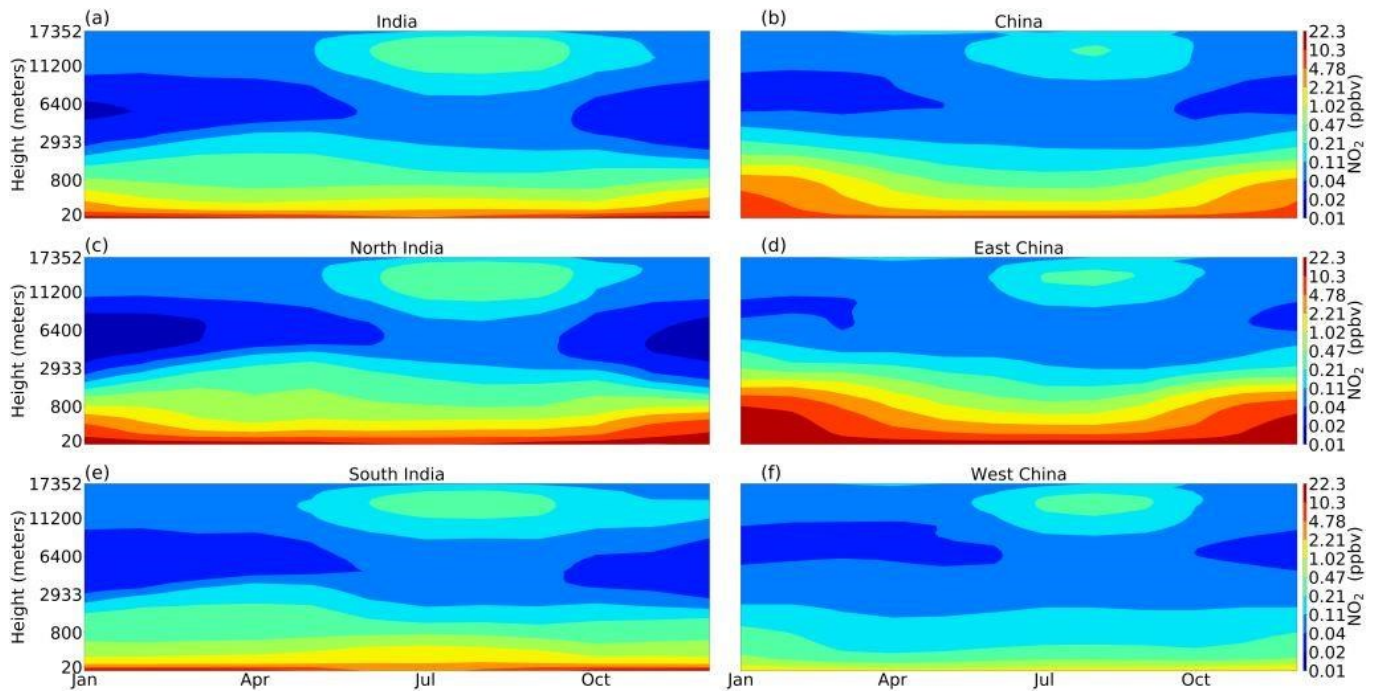
Figure S2 Average monthly mean vertical profiles (2005-2015) of NO_2 (ppbv) in UKCA over (a) India, (b) China, (c) North India, (d) East China, (e) South India and (f) West China.
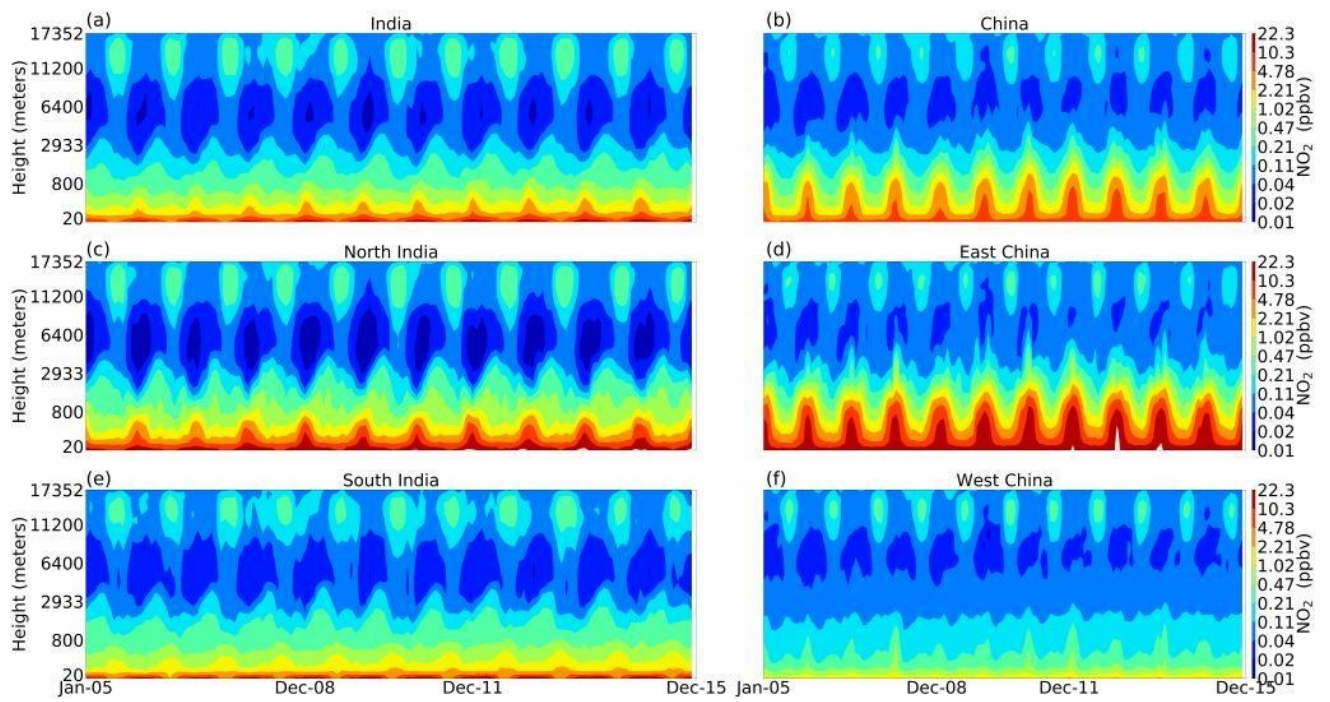
Figure S3 Trends (2005 – 2015) in the vertical profile of NO_2 (ppbv) in UKCA over (a) India, (b) China, (c) North India, (d) East China, (e) South India and (f) West China.
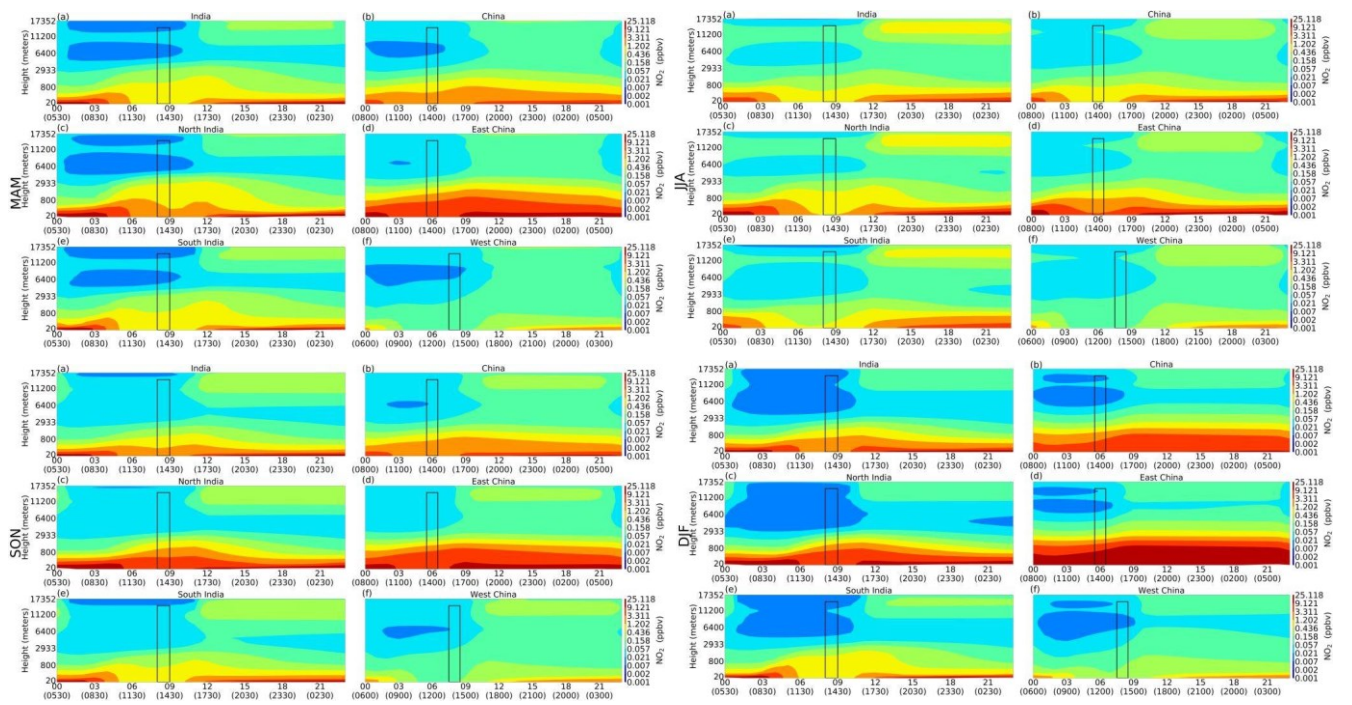
Figure S4 Diurnal vertical profiles of NO$_2$ (ppbv) in UKCA over (a) India, (b) China, (c) North India, (d) East China, (e) South India and (f) West China in MAM, JJA, SON and DJF.
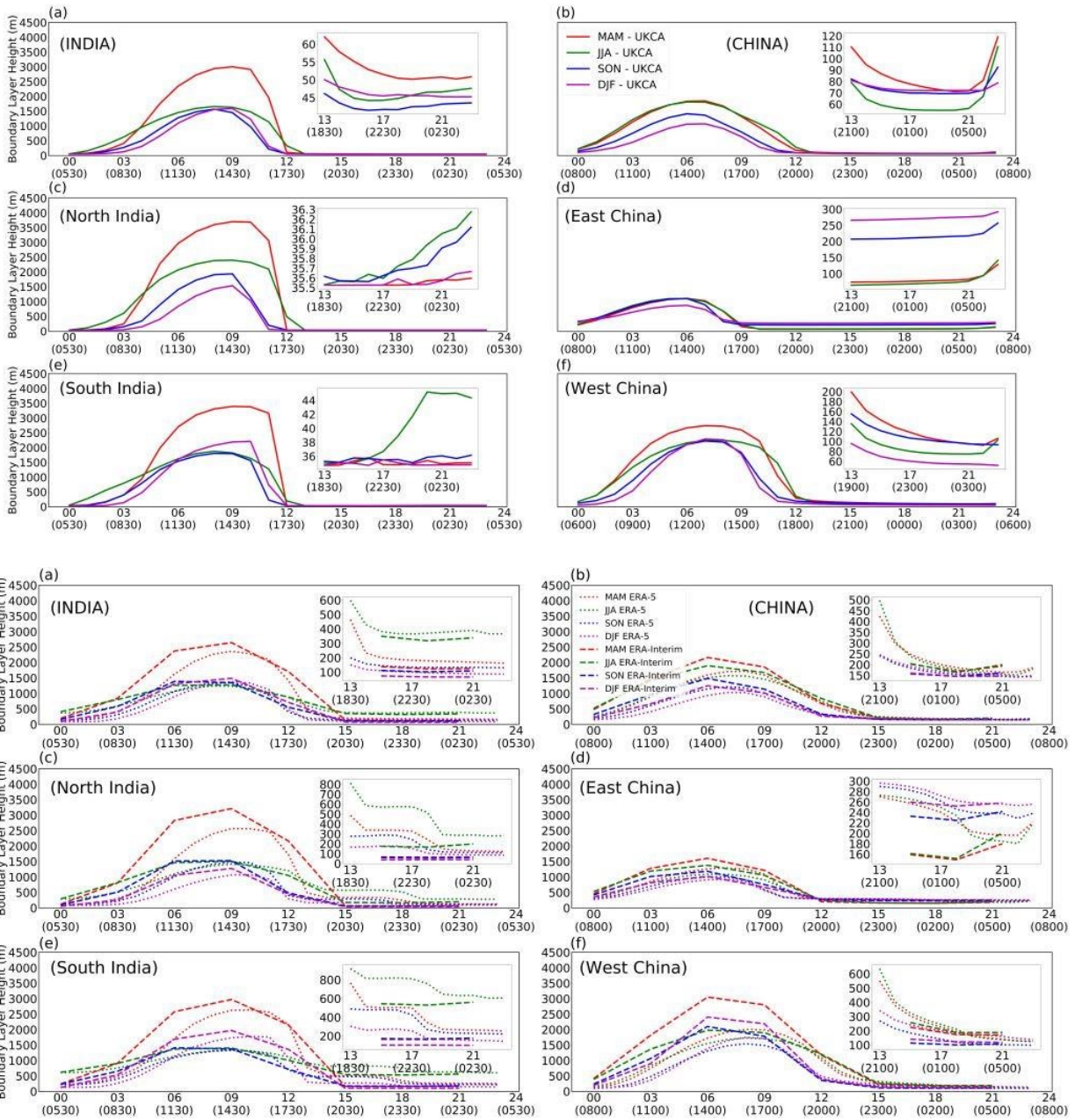
Figure S5 Diurnal variations of boundary layer height (m) in UKCA, ERA-Interim, and ERA-5 over India, China, North India, East China, South India and West China for the four seasons. Insets show an expanded vertical scale for night-time values.
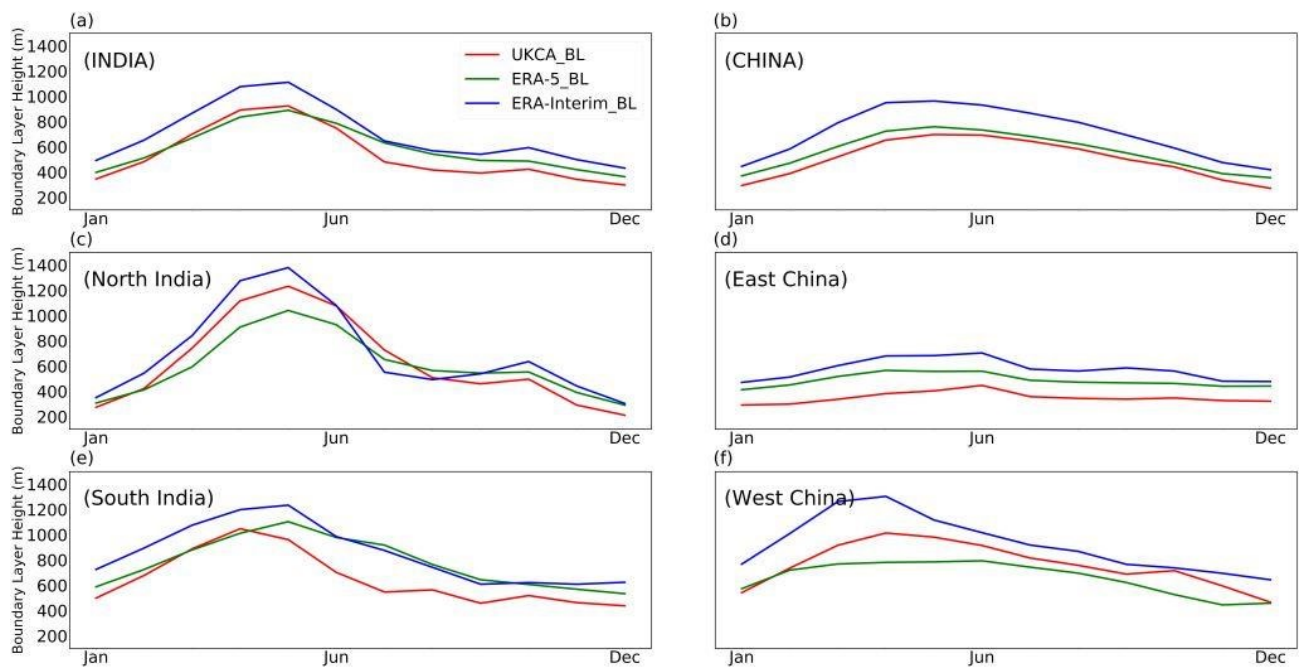
Figure S6 Seasonality of monthly mean boundary layer height (m) in UKCA, ERA-5, and ERA-Interim over India, China, North India, East China, South India and West China.