



Figure S4: Observed X_{CO_2} urban dome of Mumbai. **a)** Nightlights map of Mumbai megacity and surroundings. Selected GOSAT observations over the city (pink circles) and nearby rural areas (red triangles). **b)** Time-series for city and rural observations averaged in 10-day bins. **c)** The difference between 10-day block averages of city and rural observations. The solid black line shows the average difference (2.4 ± 1.2 ppm).