Supplement of

Technical note: Emission mapping of key sectors in Ho Chi Minh city, Vietnam using satellite derived urban land-use data.

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Figure S1. Correlations between electricity consumptions of Residential sector with Annual population in HCM and electricity consumptions of Manufacturing industry sector with Annual gross output of industry in HCM.
### Table S1. Description about REAS v2.1 inventory (J. Kurokawa et al., 2013)

| Spatial resolution     | 0.25 deg          |
|------------------------|-------------------|
| Temporal resolution    | Monthly           |
| Time domain            | 2000-2008         |
| Species                | SO2, NOx, CO, NMVOC, PM10, PM2.5, BC, OC, NH3, CH4, N2O, and CO2 |
| Coverage               | East, Southeast, South, and Central Asia. Asian part of Russia (Far East, Eastern and Western Siberia, and Ural) |
| Sectors                | Stationary combustion and industrial processes, road transport, Agricultural activities, Other sources. Power plant, industry, road transport, aviation, International navigation, other transport, domestic and other |

### Table S2. Data sources used in REAS2.1 for Transportation, Industry and Domestic sectors (J. Kurokawa et al, 2013)

| Sector                        | Transportation | Industry and Domestic |
|-------------------------------|----------------|-----------------------|
| Activity data                | Vehicle numbers, annual distance traveled. Vehicle numbers were from the World Road Statistics (IRF, 2006–2010) and then subdivided into vehicle types by using the national and sub-regional statistics and database of the GAINS model | Fuel consumption or amount of industrial product (for industrial process emissions). Energy consumption data for each fuel type including biofuels and sector categories were taken from the International Energy Agency (IEA) Energy Balances database. Activity data for sources other than energy came from a variety of international, national, and regional statistics and studies |
| Spatial allocation           | Road network   | Spatial distribution of rural, urban, and total populations. |