Supplement to

The impact of ship emissions on air quality and human health in the Gothenburg area - Part I: 2012 emissions

Lin Tang et al.

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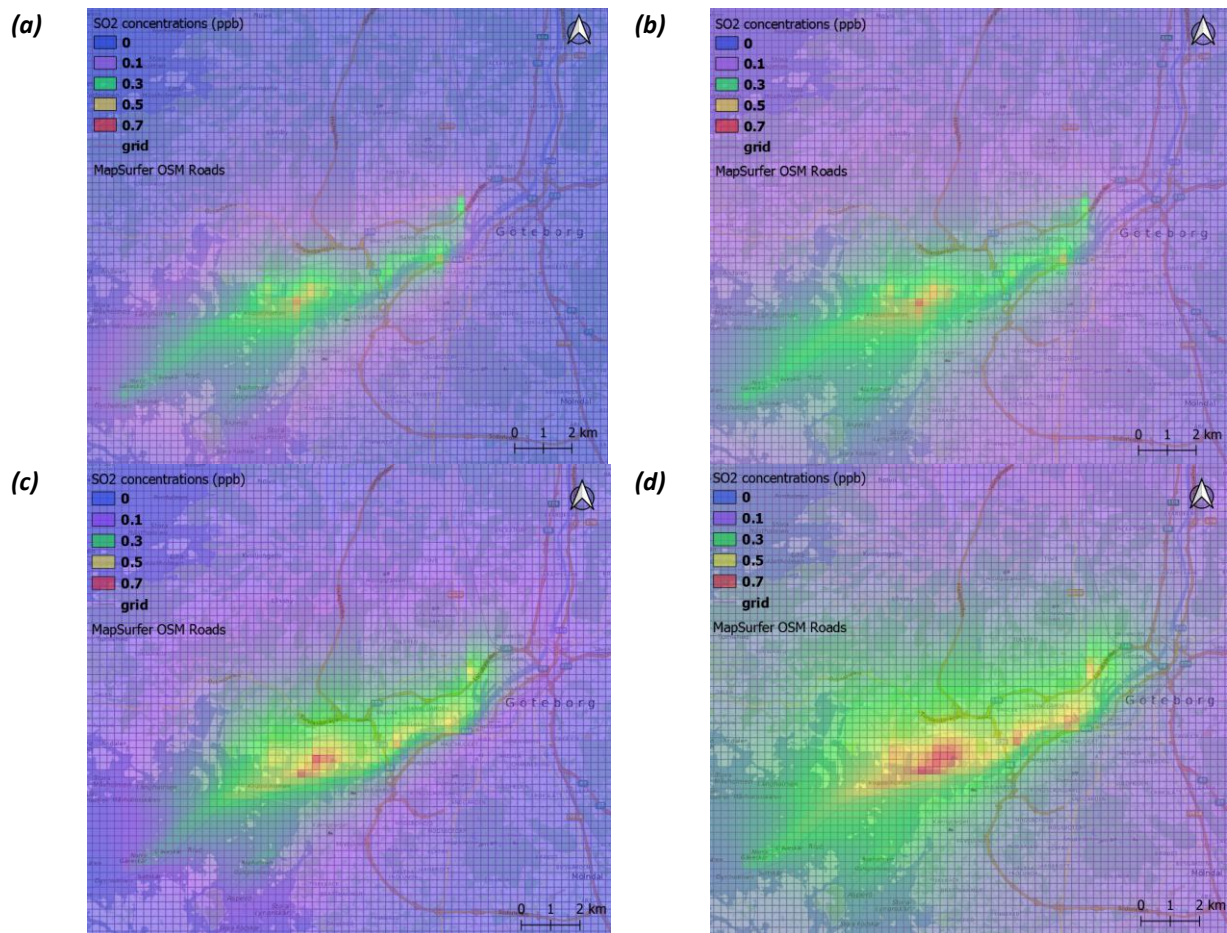
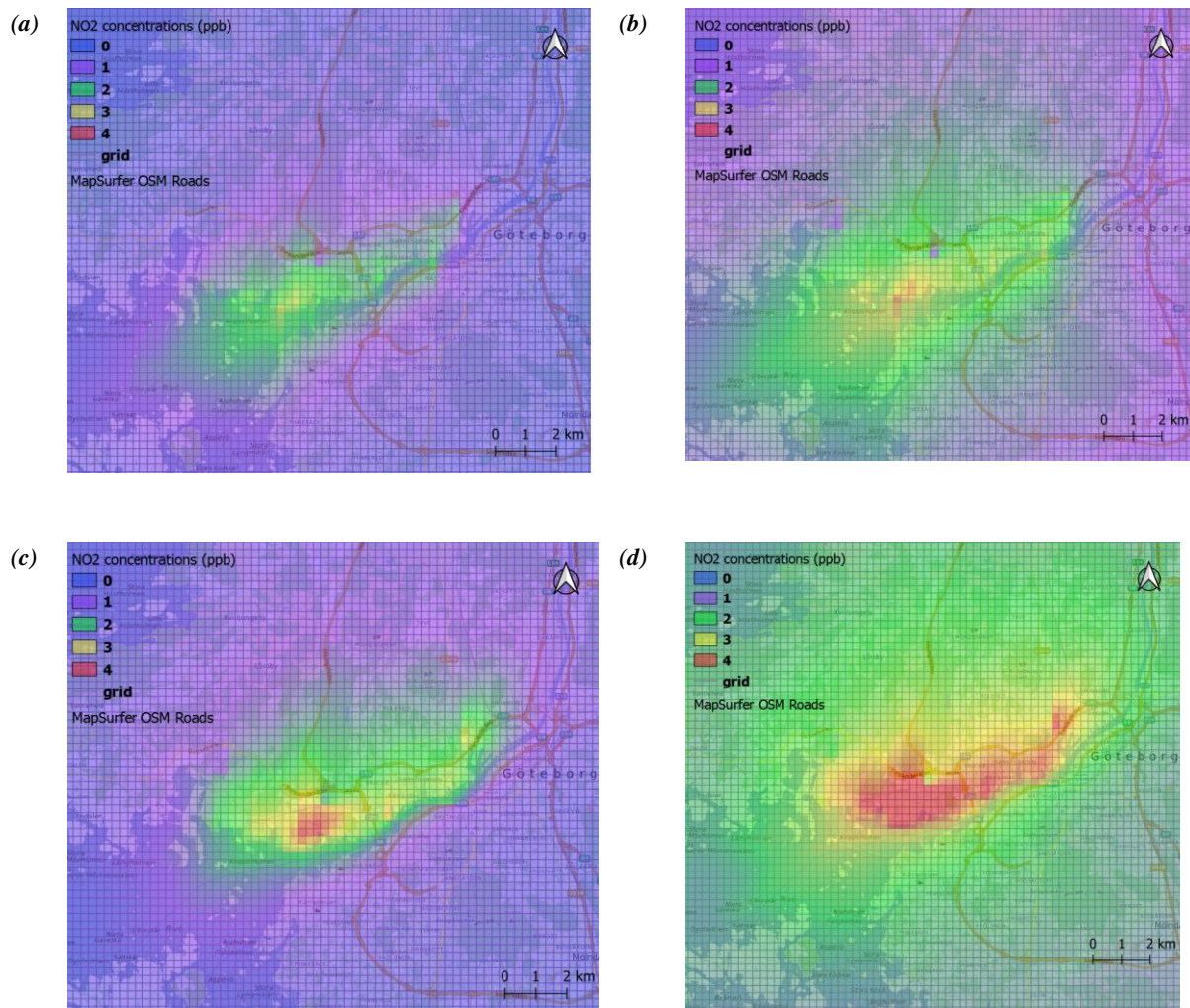
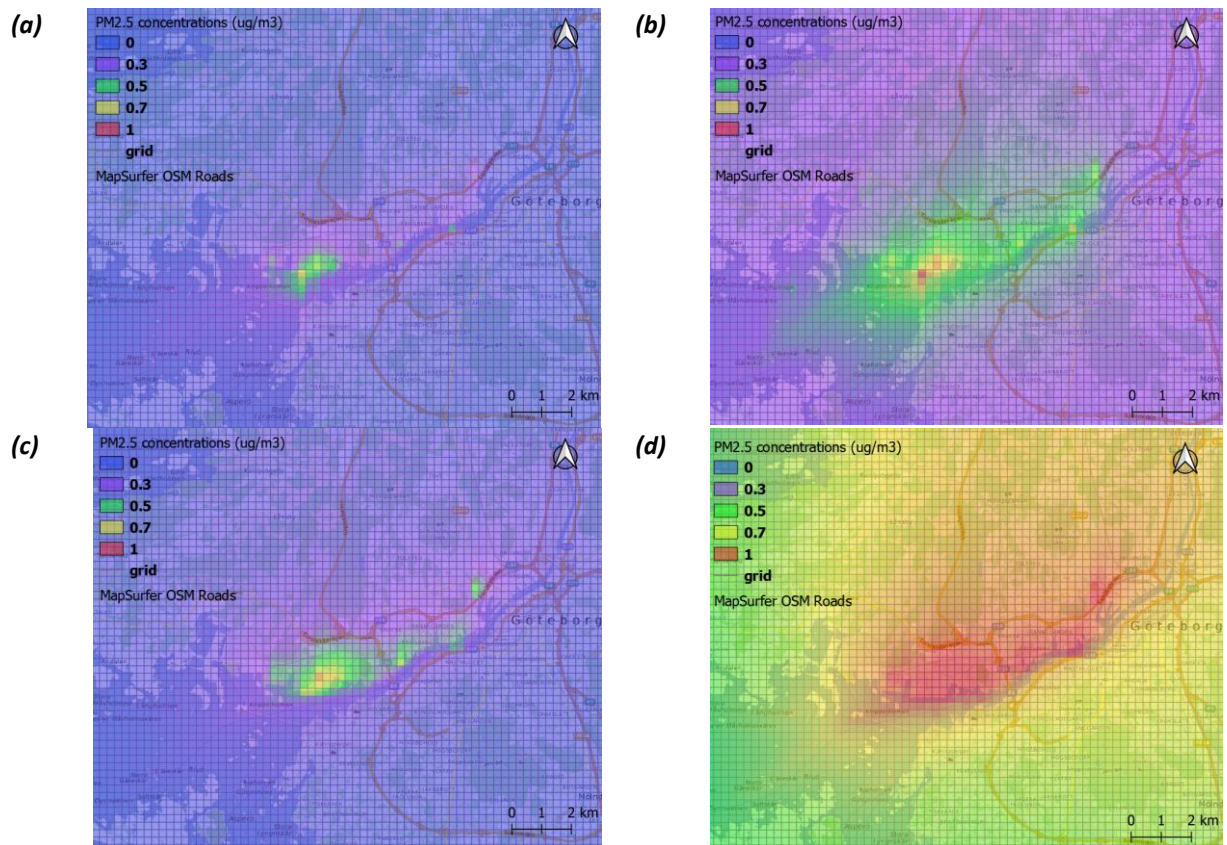
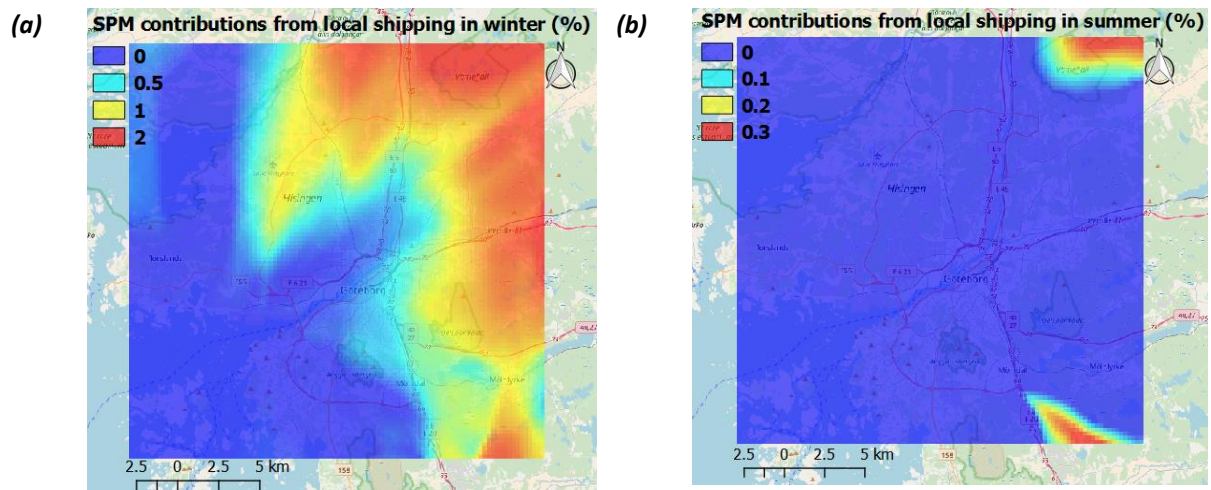
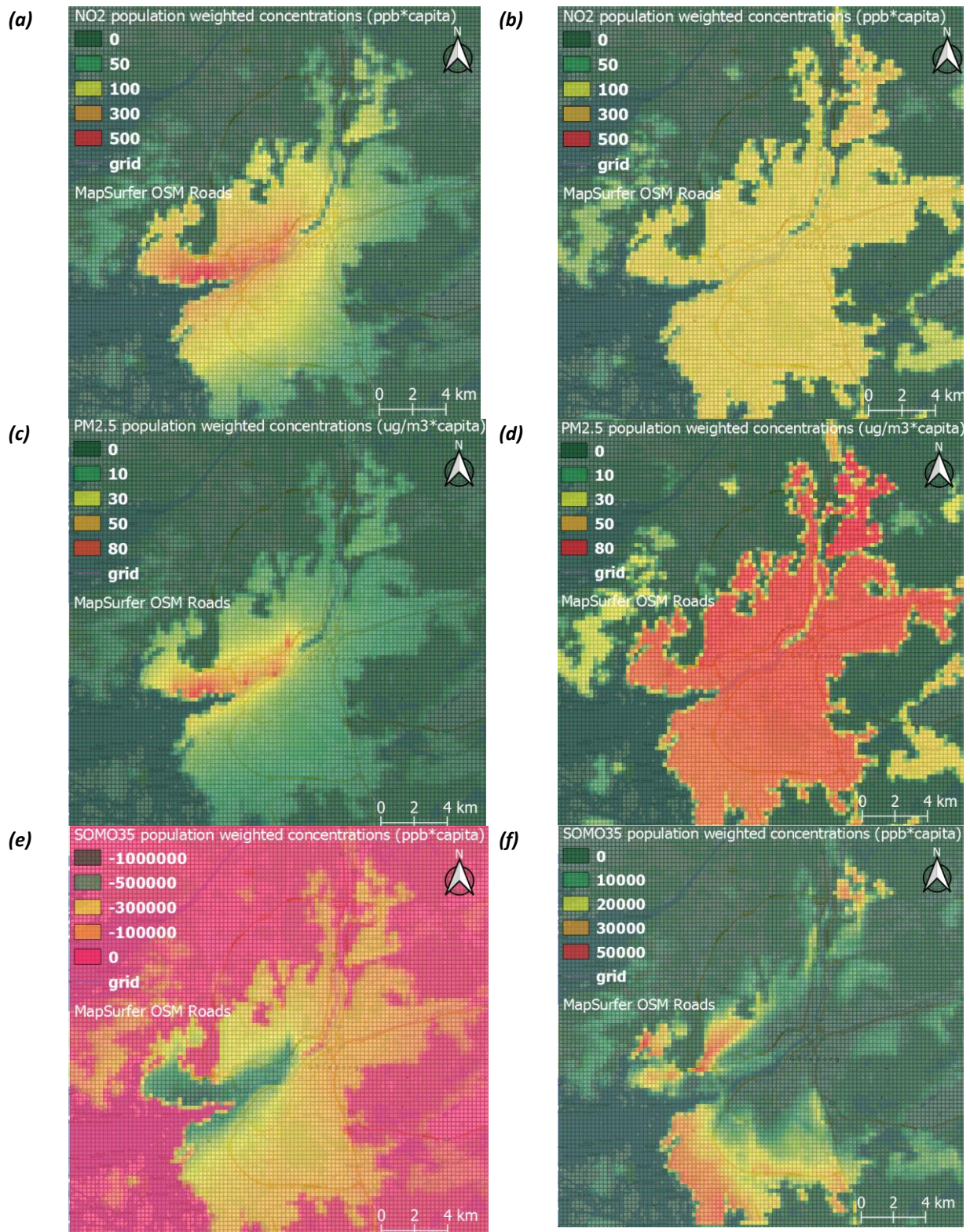

S 1: Contributions of shipping to air concentrations of SO₂ as mean of winter months, DJF (ppb) and summer months, JJA (ppb) in year 2012: (a) Local shipping contribution in winter; (b) Local and regional shipping contributions in winter; (c) Local shipping contribution in summer; (d) Local and regional shipping contributions in summer. Base map credits: © OpenStreetMap contributors (openstreetmap.org). Distributed under a Creative Commons BY-SA License.

S 2: Contributions of shipping to air concentration of NO₂ as mean of winter months, DJF (ppb) and summer months, JJA (ppb) in year 2012: (a) Local shipping contribution in winter; (b) Local and regional shipping contributions in winter; (c) Local shipping contribution in summer; (d) Local and regional shipping contributions in summer. Base map credits: © OpenStreetMap contributors (openstreetmap.org). Distributed under a Creative Commons BY-SA License.

S 3: Contributions of shipping to air concentration of PM$_{2.5}$ as mean of winter months, DJF (µg m^{-3}) and summer months, JJA (µg m^{-3}) in year 2012: (a) Local shipping contribution in winter; (b) Local and regional shipping contributions in winter; (c) Local shipping contribution in summer; (d) Local and regional shipping contributions in summer. Base map credits: © OpenStreetMap contributors (openstreetmap.org). Distributed under a Creative Commons BY-SA License.

S 4: **The contributions (%) of secondary particulate matter (SPM) from local shipping emissions corresponding to PM₂.₅ concentrations in (a) winter and (b) summer. Base map credits: © OpenStreetMap contributors (openstreetmap.org). Distributed under a Creative Commons BY-SA License.**

S 5: The annual average population weighted concentrations for NO₂ (ppb × capita), PM₂.₅ (μg m⁻³ × capita) and SOMO35 (ppb × h × capita): (a) NO₂ from local shipping; (b) NO₂ from regional shipping; (c) PM₂.₅ from local shipping; (d) PM₂.₅ from regional shipping; (e) SOMO35 from local shipping; (f) SOMO35 from regional shipping. Base map credits: © OpenStreetMap contributors (openstreetmap.org). Distributed under a Creative Commons BY-SA License.