Anthropogenic Carbon Dioxide Emissions in Tokyo Metropolis Estimated with a Combination of Top-down and Downscaling Approach

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1. Background
- Urban area contributes more than 70% of global total anthropogenic greenhouse gas (GHG) emissions. However, the GHG emissions inventories at urban level are still limited.
- The measurement and management for GHG emissions mitigation needs more efforts in urban area. High spatial resolution GHG emissions inventory is a great tool for carbon management on policy making.

2. Methodology
- We are developing a spatially-explicit high resolution CO₂ emissions inventory of Tokyo metropolis. And the total emissions of Tokyo metropolis in 2014 is about 40485 Gg-CO₂/year.
- Our estimate turns out to be less than reported value, the main reasons are that limitation of the road data and the non-fossil fuel emissions from electricity generation contained in the local statistics.
- We will compare our result with existing inventories such as EAGrid or ODIAC and implement CO₂ model simulations.

3. Results