

Interactive comment on “Carbon dioxide emissions in Northern China based on atmospheric observations from 2005 to 2009” by Archana Dayalu et al.

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Received and published: 18 December 2018

It was brought to our attention that Turnbull et al. (2011) conducted an evaluation of CDIAC and EDGAR emissions inventories, spatially allocated to a provincial-emissions based grid, using low-temporal resolution (~weekly) flask samples from two NOAA/ESRL sites in China. The sites used were Tae-ahn Peninsula (TAP) in in South Korea and Shangdianzi (SDZ) in northern China. The analysis was conducted for 2004 to 2010, with the SDZ observations coming online beginning 2009. We have revised our introduction accordingly, and have incorporated comparisons with Turnbull et al. (2011) in multiple additional locations in the manuscript where we found comparison to

C1

be relevant. The incorporations are detailed in responses to RC1 and RC2.

Our revision to the introduction is as follows:

P4 L13-14: “To our knowledge, none of the China-specific CO₂ inventories have been evaluated with independent atmospheric observations.”

Revised as follows: “A study by Turnbull et al. (2011) used weekly flask observations to evaluate a hybrid approach to inventory construction where CDIAC and EDGAR estimates were spatially allocated to a provincial emissions based grid. However, to our knowledge, none of the truly China-specific CO₂ inventories have been evaluated with independent high-temporal resolution atmospheric observations.”

Interactive comment on Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2018-632>, 2018.

C2