

Interactive comment on “Advantages of city-scale emission inventory for urban air quality research and policy: the case of Nanjing, a typical industrial city in the Yangtze River Delta, China” by Y. Zhao et al.

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Received and published: 27 October 2015

We thank very much for the valuable comments from the reviewer, which help us improve the quality of our manuscript. Following is our point-by-point responses to the comments and corresponding revisions.

Reviewer #2

1. The manuscript is complete and excellent. It would be a great addition (perhaps in

C8543

Supplementary Information?) to discuss uncertainty in a sector by sector fashion. It may be unrealistic to perform a detailed spatial/temporal sector by sector uncertainty analysis but it may be a good complement to the already thorough analysis.

Response and revisions:

We thank the reviewer's positive comment on the paper. We have added a paragraph to qualitatively discuss the emission uncertainty by source in lines 872-891, Pages 33-34 in the revised manuscript. As we admit, quantifying the uncertainty for city-scale inventory using Monte-Carlo simulation is more difficult than that for national one, as many emission factors are device-dependent and their probability distributions could not be fully defined without sufficient field measurement records. We agree with the reviewer that the uncertainty analysis for emission inventory at city-scale, and comparisons with national/regional-level ones are important, and will conduct the research in details once more local information gets available.

Interactive comment on Atmos. Chem. Phys. Discuss., 15, 18691, 2015.

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