

## ***Interactive comment on “Emissions of air pollutants and greenhouse gases over Asian regions during 2000–2008: Regional Emission inventory in ASia (REAS) version 2” by J. Kurokawa et al.***

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The authors would like to thank Anonymous Referee #2 for taking his or her time to review our manuscript and for giving very constructive and informative comments. These comments helped us improve the quality and clarity of the manuscript. We revised our manuscript based on them. Below are our detailed responses to the comments.

First, we found there were trivial errors in the calculations of CO<sub>2</sub> emissions in China. We corrected the values in Tables 2 and 3, Figs. 6e and 6f, and Tables S2l and S3a

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(Tables 2 and 3 are Tables 6 and 7 in the revised manuscript). Several values in the main text (Abstract, Sects. 3.1.1, 3.1.2, 3.1.7, and 4) were also corrected. However, there is no influence on the discussion and conclusions of this paper.

Reply to specific comments:

Comment:

Emission factors: The specific comment of importance is related to emission factors used in this study. The authors have used activity data and emission factors from recent publications and based on them they have revised REAS version 1 to version 2. As local and precise emission factors are scarce in Asian region, it is suggested to provide a table listing values of emission factors, which can be an authentic source for researchers working in this area.

Reply:

In the revised manuscript, three tables (new Tables 3, 4, and 5) were added to provide emission factor values and described in Sect. 2.4. In this study, majority of update was done for emission factors of air pollutants in China. Emission factors for fuel combustion in India were also updated and used for other South Asian countries. In general, for most species, the largest contributing source is fuel combustion. Therefore, new Table 3 gives net emission factors of major air pollutants for stationary combustion in China, South Asia and the rest of Asian countries. New Tables 4 and 5 provide emission factors for road transport and industrial process sources in China, respectively.

Reply to technical corrections:

Comment:

Emission factors summarized in tabulated form will add value to the paper.

Reply:

As described in “Reply to specific comments”, three tables (new Tables 3, 4, and 5)

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were added to provide emission factor values in the revised manuscript.

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