Author's reponse

We have made small changes to the manuscript based on the various suggestions:

Reviewer 1 (Report #2)

We have implemented all the technical corrections suggested by reviewer 1.

Reviewer 2 (report 1#)

No further corrections were requested.

File validation

Instead of putting the figures Figure 3a, 3b, and 3c together into a single big figure, we have split them in separate figures: Figure 3, Figure 4 and Figure 5, and updated all references to these and the following Figures.

The cited references that were in review have been replaced by their preprints including DOI.

Editor report

Thanks for these suggestions. The mistake in Figure 5 has been corrected.

Concerning the comparison between DECSO and CAMS, it is actually only the city emissions that are clearly higher in DECSO than in the CAMS-REG and CAMS-TEMPO emissions (Figure 4) considering the uncertainties. We have added the following remark:

"These lower emissions of CAMS-REG in cities as compared to the rural regions may point to an underestimation of bottom-up traffic emissions, but uncertainties in both satellite observations and bottom-up emissions are in general high."