

Interactive comment on “Worldwide biogenic soil NO_x emissions inferred from OMI NO₂ observations” by G. C. M. Vinken et al.

Anonymous Referee #1

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The paper by Vinken et al. presents an interesting analysis of soil NO_x emissions globally and by region.

I recommend it be published with minor additions/corrections.

1) The paper should include a more thorough discussion of how it excludes the possibility of biases that are correlated with soil NO_x emissions. Could burning of Agricultural wastes or large scale fires that occur with similar timing and be misinterpreted as soil NO_x?

2) The paper overstates the case for large uncertainties in emissions in the literature. Figure 1 shows that with the exception of 1 paper the mean values reported by 16 papers over the last 20 years are quite similar. This paper should lay out the current

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challenge which is to narrow the uncertainty of this more recent range—or explain why it is still reasonable to consider the outliers in the literature as likely.

3) Hudman et al. report substantial interannual variability in specific regions. In light of those analyses how representative of global average behavior is an analysis of a single year?

Interactive comment on Atmos. Chem. Phys. Discuss., 14, 14683, 2014.