Dear Editor,

Thank you for your reply and the suggestions. In reply to your suggestions:

"How does NOx lead to ammonium sulphate formation? I would just write ammonium nitrate."
I looked it up in the paper I quote (Zhang et al., 2012) and they write: 'NH3 in the atmosphere can combine with H2SO4 (from SO2 oxidation) and HNO3 to produce ammonium sulfate and nitrate particles.'. Also, they write that ' and laboratory studies have shown that gamma_N2O5 is one order of magnitude smaller for nitrate than for sulfate aerosols because the nitrate inhibits N2O5 dissociation (Wahner et al., 1998; Mentel et al., 1999; Bertram and Thornton, 2009)'.
Therefore I'd like to keep the ammonium sulphate formulation.

"Are these mole fractions based on the N applied?"
Indeed this is based on N applied. I will change this to:
'Part of the applied fertiliser N will be lost as NO, with mole fractions ranging from 0.55 % to 2.5 %'

"is it < 0.3 or <0.35? Make values in each sentence consistent."
These refer to different cases. The <0.3 is specific for the India comparison, and an illustration of the correlation I find between observed and simulated NO2 columns. The <0.3 is a threshold I set to exclude cases from my comparison.

"Is it responding linearly to changes in total NOx emissions, or just to changes in soil NOx emissions, because they are a relatively minor contribution to total NOx? I think the latter makes more sense and the text should be revised accordingly."
This is responding linearly to change in total NOx emissions. In the chemical regime where most anthropogenic NOx emissions are emitted NO2 columns change more or less linearly with NOx emissions. We find, however, that for the low-NOx areas where soil NOx emissions are located, that this does not hold, and we need to account for the non-linearities.

Kind regards and thank you for editing,
Geert Vinken