

Interactive comment on “The variability of methane, nitrous oxide and sulfur hexafluoride in Northeast India” by A. L. Ganesan et al.

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Page 3 Line 6 and others: do not begin sentences with chemical formulae Line 7: Table 2.1 in Forster et al. 2007 shows that in 2005 N₂O is the 4th largest RF due to LLGHGs, CFC-12 is 3rd; N₂O did not surpass CFC-12 until 2009

Page 4 Line 7: Many new references on N₂O budgets that should be reviewed here, in particular Park et al.

Park, S., P. Croteau, K. Boering, D. Etheridge, D. Ferretti, P. Fraser, K.-R. Kim, P. Krummel, R. Langenfelds, T. van Ommen, P. Steele & C. Trudinger, Trends and seasonal cycles in the isotopic composition of nitrous oxide since 1940, *Nature Geoscience*, 5 (4), 261-265, 2012 Saikawa, E., ...R. Langenfelds, P. Krummel, M. van der Schoot, C6575

P. Fraser, P. Steele et al., Global and regional emissions estimates for N₂O, *Atmos. Chem. Phys. Discuss.*, 13, 19471-119525, 2013 Thompson, R., ...R. Langenfelds, P. Krummel, P. Fraser, P. Steele et al., Inter-annual variability in tropospheric nitrous oxide, *Geophys. Res. Letts.*, 40, 1-6, doi:10.1002/grl.50721, 2013 Thompson, R., ...R. Langenfelds, P. Krummel, P. Steele, P. Fraser et al., Nitrous oxide flux history 1999-2009 from an atmospheric inversion, *Atmos. Chem. Phys. Diss.*, 13, 15697-15747, 2013

Page 6 Line 5: use metric units, not feet and inches

Page 10 Line 27: Comment as quantitatively as possible on the performance of the model in comparing modelled and observed wind speed and direction

Page 12 Second para: quantify by data analysis the ‘monsoon effect’ on the concentration data – my analysis would suggest that SF₆ is 0.15 ppt below mean during the height of the monsoon season

Page 17 The data can only be used to verify national emissions once a much longer record is obtained – minimum 3 years, preferably five year to give 4 years of a 3-yr running average.

Interactive comment on *Atmos. Chem. Phys. Discuss.*, 13, 17053, 2013.