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Interactive comment on "Spatial variations of nitrogen trace gas emissions from tropical mountain forests in Nyungwe, Rwanda" *by* N. Gharahi Ghehi et al.

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We are pleased that O. Van Cleemput agrees that the manuscript is sound and delivers new and significant data set on GHG emissions from Africa. We appreciated his general positive comment regarding the merit of a rapid publication of our N2O and NO emission data from part of a continent of which the available information is too limited. Indeed, information not sufficiently available to find why the N2O reduction to N2 is not stimulated at higher WFPS. The fact that at higher moisture (even at higher WFPS when normally N2 is produced) more N2O is formed might be due to the fact that at higher moisture more reduced Fe (Fe2+) is present enhancing N2O formation.

We believe that our further research (as a final aim of our overall research) will contribute to the find of knowledge needed to clarify the observed results. We aim to go to the Nyungwe forest in the near future and take soil cores for some of the 31 sampling sites to provide soil sufficiently available for doing chemo-denitrification tests. Thus we believe that understanding of this alternative N2O and NO production pathway is necessary to improve biogeochemical model (ForestDNDC-tropica) and make better projections of future climate change and stratospheric ozone depletion.

Interactive comment on Biogeosciences Discuss., 8, 11631, 2011.