

Interactive comment on “Carbon, nitrogen and sulfur (CNS) status and dynamics in Amazon basin upland soils, Brazil” by Jörg Matschullat et al.

Anonymous Referee #1

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Review of Matschullat et al paper submitted to SOIL

To answer the questions asked in this paper, the correct approach would be to pre-plan a sampling programme, based on statistical evaluation of the number of sites and samples required to produce statistically significant results. Instead the authors have chosen 11 sites in three clusters, and sampled at three places at each site, to produce their results. It is hard to accept that the locations are in any way representative, and so to draw conclusions about the Amazon terra firme soils as a whole, on the basis of the present results, cannot be justified.

A second criticism is that no statistics are given. We are told that there are seasonal

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variations, and differences between forested and “post-forested” soils, but no statistical significance is provided. Only median values are given in the Tables, with no indication of the dispersion of the data. Admittedly the pH and carbon data are presented in box plots in Figures 2 and 4, but these only give qualitative impression.

Each of the above flaws is major, and they mean that the paper is unacceptable for publication. A third point that can be made is that comparing tropical soils with European soils, many of which must have been under long-term cultivation, seems illogical.

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