**Atmospheric
Chemistry
and Physics
Discussions**

Interactive comment on "The impact of deforestation in the Amazonian atmospheric radiative balance: a remote sensing assessment" *by* E. T. Sena et al.

Anonymous Referee #3

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The title of the work mentions the impact of deforestation in the Amazonian atmospheric radiative balance. While the objective is described as the assessment of the temporal and spatial distributions of the direct aerosol radiative forcing at the top of the atmosphere (TOA) over the Amazon Basin and Brazilian cerrado areas during the biomass burning season. Then the title and the objective are not agreeing. In this context, it seems that the analysis is considering the land cover types (Forest, cerrado, and non forested areas). The deforestation analysis appears mainly in the section 3.3 (Evaluation of the surface albedo change radiative forcing over Rondônia). In most part of the manuscript it is mentioned forest and cerrado regions. In the Section 4 (Discussions) the deforestation is not mentioned.

In general the content of the manuscript is clearly organized. The remote sensing data and the methodology are adequate for the work.

Some suggestions:

To review the text according to the title and the objectives of the work.

P.14843, L.12 – "In this work, if the average cell broadband albedo was less than 0.140 it was classified as forest; if the average broadband albedo was greater than 0.155 the cell was classified as cerrado; otherwise (albedo values between 0.140 and 0.155) the cell was classified as a transition region". – This classification approach should be discussed and validated or could be used some land cover maps available.

P.14843 – L.26 - the satellite timepass — the satellite overpass

P.14844, L.26 – "the visual inspection of MODIS red, green and blue (RGB) composite images. - Which bands are used in this composite image ?

P.14846 – L.12 – forest covered areas (F1), deforested (D1 and D2) and forested (F2) regions (Table 1) — What is the difference between F1 and F2 in terms of land cover?

P.14858, L.21 - models, IEEE T. Geosci. Remote — IEEE T. Geosci. Remote Sens.

Interactive comment on Atmos. Chem. Phys. Discuss., 12, 14837, 2012.