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Atmospheric Chemistry and Physics Discussions

Interactive comment on "OMI observations of the anomalous 2008 Southern Hemisphere biomass burning season" *by* O. Torres et al.

Anonymous Referee #2

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Indeed the question of the impact of policy and enforcement on biomass burning trends in the Amazon is very important. The paper shows convincing evidences to a significant reduction in the Amazonian biomass burning during 2008. They show that while the trends in Africa and over the Atlantic are positive with increasing AI, there is a clear reduction in number of fires and in the aerosol loading over the Amazon. They suggest that since meteorology can not explain this trend it should be due to anthropogenic.

It would be very important to know if indeed this is due to policy and enforcement but to really convince that this is the main reason for the trend more evidences are needed. The authors make the point that they can not see any other reason for this trend. I think that this is good and interesting but adding more information to this would make it better. I would encourage the authors to look for more evi-

dences for this explanation either from the Brazilian INPE reports or form other studies on the topic. During the last year there were many news items on this topic (like: http://news.bbc.co.uk/2/hi/8358094.stm) Although these are not scientific evidences it can, at least, show that the trends are viewed by others and to suggest possible explanations (enforcement vs. economics)

Other comments: 1) The main source for data here is the OMI AI. While AI records can go back to 1979 to produce longer time series (Fig 3) it is not clear why the authors does not use the MODIS aerosol information to show the last years trends.

Aerosol index depends on the aerosol height, the authors should mention this. Therefore not seeing it over the Amazon can be also due to smoke concentrating in the lower atmosphere. Showing that these trends are similar with the MODIS AOD ones (see the attached figure) would make the point stronger.

2) To convince that the fire reduction has political borders it would be interesting to see also the fire count maps of 2007 and 2008 not only the differences between them.

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 21509, 2009.

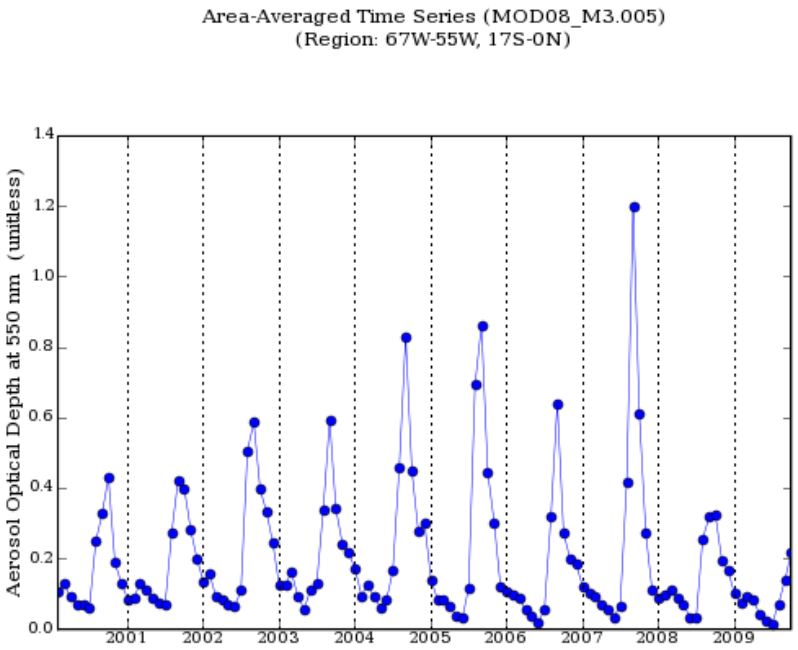

Fig. 1. MODIS AOD trends over the Amazon