Reviewer's report

**Title:** Risk Assessment of PM2.5 to Children residents in Brazilian Amazon Region with Biofuel Production

**Version:** 1  **Date:** 17 May 2012

**Reviewer:** Raúl Venancio RVD Díaz Godoy

**Reviewer's report:**

These are recommendations for improvement which the author can choose to ignore. For example clarifications, data that would be useful but not essential.

This is a carefully written paper on an important topic of world interest, of principal importance for Brazil, since this one was ranked having the most negative impact in natural forest loss on the planet, third in habitat conversion and fertilizer use, fourth in threatened species and carbon emissions and eighth in water pollution.

In this study, the authors apply the Risk Assessment Methodology to evaluate the intake and toxicological risk of PM2.5 in children and adolescents in areas of high biomass burning of the Subequatorial Brazilian Amazon.

The authors solve the problem of the variables used for the calculation of the potential dose, across statistical models.

With a lack of consensus regarding the Reference Concentration (RfC) of PM2.5, the authors used the 5µg/m³ RfC of diesel particles (DPM) to calculate the reference dose to PM2.5 (RfD).

**Other comments:**

CI: Confidence Interval should be defined

SD.- Standard Deviation should be defined

The year of study it is not mentioned in the text, only in the figures.

**Level of interest:** An exceptional article

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**
I declare that I have no competing interests