Reviewer's report

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

**Version:** 1  **Date:** 5 May 2012

**Reviewer:** Fernando Diaz-Barriga

**Reviewer's report:**

THE PAPER IS A VERY INTERESTING ONE, AS THE AREA OF IT REMAINS AS AN IMPORTANT PUBLIC HEALTH ISSUE IN MANY COUNTRIES.

1. Is the question posed by the authors new and well defined?
   
   YES

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?
   
   YES

3. Are the data sound and well controlled?
   
   MY MAIN CONCERN IS THAT THE STUDIED CHILDREN WERE SELECTED FROM A SCHOOL THAT SERVES FOUR DISTRICT AREAS, WHEREAS THE AIR POLLUTION LEVELS WERE FROM A MONITORING STATION LOCATED IN THE UNIVERSITY. HOW FAR IS THE UNIVERSITY FROM THE SCHOOL?

   THE EXPOSURE TIME (4-8 HRS) IS TAKING INTO ACCOUNT RECREATION OUTDOORS AFTER SCHOOL TIME?

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?

   YES

5. Are the discussion and conclusions well balanced and adequately supported by the data?

   MORE DISCUSSION IS NEEDED TO CLARIFY WHY ASTHMATIC CHILDREN HAD A HIGHER DOSE? (TABLE 2)

   ALSO MORE IS NEEDED AROUND THE ISSUE OF INDOOR AIR POLLUTION RELATED TO INDOOR BIOMASS COMBUSTION AND HOW THIS ISSUE WAS TAKEN INTO ACCOUNT BY THE AUTHORS.

   I DO NOT AGREE THAT DIESEL PARTICLES ARE MORE TOXIC THAN THOSE ORIGINATED BY BIOMASS COMBUSTION, AS THESE ALSO HAVE PAHs AND OTHER ORGANICS.
6. Do the title and abstract accurately convey what has been found?  
YES

7. Is the writing acceptable?  
YES

**Level of interest:** An article of importance in its field

**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'