Interactive comment on “Effects of land-conversion in a biosphere–atmosphere model of Northern South America – Part 1: Regional differences in hydrometeorology” by R. G. Knox et al.

Anonymous Referee #1

Received and published: 4 April 2014

The authors discuss how changes in land conversion are able to effect the hydrological and energy cycle. The investigation is conducted in the Northern South America where land conversions due to human activities like deforestation have already taken place. Focusing on hydrology, which is my field of expertise, the results presented in the manuscript are of broad interest. This paper quantifies to which extent human interventions have altered the hydrological cycle in the Amazon and surrounding areas, highlighting that the partitioning of hydrologic fluxes is changing from evapotranspiration to runoff. The paper is suitable for publication in HESS after the minor
comments outlined below have been addressed.

Specific comments:

l.6 p.15302: This sentence and the next sentence are contradicting. Please clarify.

l.7ff p.15312: Please clarify this paragraph. What is the criteria that you used for stating that this comparison is good?

Technical comments:

l.18 p.15300: It should state “...Quesada et al. (2011)”.

l.14 p.15302: The sentence should start with “Regional maps...”.

l.6 p.15303: Please clarify that you refer to Table 1 in Baker et al.

l.21 p.15309: It should read “...of the significance...”.

l.24 p.15310: It should read “Spatial maps of the...”.

l.24 p.15311: It should read “...output matches...”.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 10, 15295, 2013.

C8377