

Interactive comment on “What could irrigated agriculture mean for Amazonia? A review of green and blue water resources and their trade-offs for future agricultural production in the Amazon Basin” by M. J. Lathuillière et al.

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We thank you for your comments on how to improve our paper. This paper is indeed meant as a Review with our main objective to think about what may come for Amazonia’s agriculture water use by bringing together two main research themes. From our experience, the theme of “green/blue water” and “Amazonia water resources” haven’t really coexisted before in a paper and therefore we expect that the academic literature of one theme to be somewhat new for experts in the other theme.

Major comments:

-“I suggest cutting out major parts of [section 2], only briefly summarize it and focus it more on directly on the study area”

We have structured the paper to provide equal weight to both themes with part 2 (green/blue water) and 3 (Amazonia’s water resources) being roughly 2400 words each. As part 2 focuses more on the green/blue ecohydrological perspective, we felt compelled to provide a proper, and up to date review, of what this perspective is and means for water resources prior to applying the perspective to the Amazonia context. As such, we also felt it was important to briefly update the information on global evapotranspiration models and their findings (e.g. Zeng et al., 2012) as a precursor to highlighting differences between global and regional contexts. That being said, we do see some possible improvements or combination of sections 2.2 and 2.3 with some more summarized information that can shorten section 2 overall and give more space to the description of the study region, without compromising information.

-“Why not include tables S3 and S4 in the main text?”

Thank you for this comment and perspective on providing more quantitative information in the Review. Table S3 could be brought into the main text to accompany Figure 1, while moving Table 2 in the Supplemental Material during our attempt to reduce section 2.

-“I also think that some of the Amazon-based discussion in the SI belongs to the main text, while discussion on global ET could be moved to the SI”

Originally much of the discussion on Amazonia in the SI was in the main text and we found it to be distracting for our main purpose of the paper to review the region’s water resources in a new light.

-“I miss a figure with any quantitative information on the (green-blue) water flows and the impacts of e.g. land use change”

Thank you for your suggestion, we think this is an excellent idea and we’ll consider it in

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the revised manuscript.

Technical/minor comments

-“Title: The first part on the possible role of irrigation is a bit misleading, as this discussion is only a smaller part of this paper, and thus could be removed” and “the scope of the paper could be made even clearer”

As described above, our review aims to bring together two research themes in order to shed new light on the future of water resources in Amazonia, particularly irrigation which has not been widely developed in the region. We wanted our title to clearly identify the main question we have on our minds before providing an avenue (the green/blue water perspective) to assess the future of water resources in Amazonia.

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