

Interactive comment on “Projected Climate Change Impacts on Future Streamflow of the Yarlung Tsangpo-Brahmaputra River” by Ran Xu et al.

Anonymous Referee #3

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The authors have done a great job on this research as there are few research articles on this topic (Brahmaputra River & Climate Change). However, reading the paper thoroughly, I find there are room for improvements:

1) I am not convinced why the authors have chosen 2020-2035 as the climate change period. The impacts of climate change on water resources, that we have been observing worldwide, is very much unpredictable/uncertain in the early stage of 21st century. The precipitation projection within that period is very uncertain (model to model variation). Although the early stage of 21st century may be of interest from the water management point of view, a separate analysis of later part of the 21st century is required

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to fulfill the analysis. My strong recommendation would be to consider 2071-2100 as well.

2) Brahmaputra (or Yarlung Tsangpo) is a perennial river and the hydrograph (especially at Bangladesh location: Bahadurabad) is very steep during monsoon period resulting a huge variation in wet season flow and dry season flow). The enormous stream-flow during monsoon season causes flood in the lower riparian countries (like Bangladesh). The authors only considered mean annual stream-flow in their analysis while an analysis of maximum annual flows are essential for the completeness of the study.

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