Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2017-388-RC2, 2017 © Author(s) 2017. This work is distributed under the Creative Commons Attribution 4.0 License.



Interactive comment on "Spatio-temporal trends in observed and downscaled precipitation over Ganga Basin" by Himanshu Arora et al.

Anonymous Referee #2

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There are points that require clarification and further details to be addressed in the manuscript before considering the paper for final publication.

- 1. Authors used gridded database from observed and CMIP5. But, they used interpolation technique in map. Justification is required about the selection of spatial interpolation method used in preparation of maps.
- 2. In the Results and Discussion section, authors simply describe the results present in the tables and in the figures, and not discuss those results in depth. The authors should try to improve this section by discussing results in depth and try to compare with other similar works in study area as mentioned in literature part. Also include an interpretation on how the changes will affect e.g. water resources in the study region.

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- 3. Mann-Kendall's test for trend detection (section 3.3.1) is well known and this section can be described in short paragraph (incl. references).
- 4. Considering the large area of Ganga basin, it is suggested to include the results and discussion based on upper, middle and lower part of Ganga basin.
- 5. More information and clarity is required in bias correction and downscaling part of methodology and results.
- 6. Authors should check the references list. There are missing reference of Suryavanshi et al. (2013) Bashistha et al. (2009), Casimiro et al. (2013), Iwasaki (2012), Aldrian et al. (2008), Celleri et al. (2007), Lettermaier et al. (1994).

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