

Interactive comment on “Precipitation Pattern in the Western Himalayas revealed by Four Datasets” by Hong Li et al.

Anonymous Referee #3

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This paper is dealing with an interesting data challenge in Himalayan region through comparison of four globally available gridded precipitation data sets. Though this work is interesting and publishable in terms of regional importance of Himalaya, illustrations in present format are not very strong. Major demerits are 1. This paper looks like a quick dissemination with limited analysis from authors (some figures just direct illustration of latitude wise and seasonal raw data). 2. Lack of appropriate inter-comparison technique which ensures comparability of spatial patterns with different grid size. 3. Lack of detailed discussions on spatial patterns and issues of scale. 4. Lack of verification indicators (example: POD, TS, FAR, FBI etc.) in comparison with available rain gauge data or IMD data as reference.

Some specific comments are given below:

C1

As this work is dealing with comparison gridded data sets with varying spatial resolution and other features, the discussion needs to be strengthened incorporating these uncertainty aspects and how reliable/meaningful these absolute precipitation values are, which are used for comparison.

Need some consistency in acronyms used in this text (e.g.: authors have used both AGMC and AGCM)

Bit more clarity is needed in the description of seasons in the study region (e.g.: in Page 3 authors have considered November-April period as winter, and May to October as summer).

More clarity and justifications through references are required to strengthen “do not suffer from the undercatch problem” explained in the page number 3.

Better clarity is needed on the selection of 5 year time slices (1981-1985, 2003-2007) for comparison. Why seasonal comparison is limited to selected two months (Page 6) only?

Page 2 Paragraph 2. This part of text emphasizes more on to a specific project and associated difficulties- it appears to limit the scope of this work. It would be more appropriate if you define these site-specific difficulties and rationale of this paper through proper references from Himalayan region than describing it as a ‘INDICE project’ related issue.

I am doubtful about the usefulness of west-to-east latitude based precipitation comparisons for hydrologists in the region. It would be more useful for the hydrologic research community if you could include precipitation PDFs comparisons of larger river basins (Indus River and the upper Ganges River) in this study domain

Titles of Figure 7 and 8: you need to clearly write the details of data points with different colors.

C2

