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Comment on angeo-2021-29

Anonymous Referee #2

Referee comment on "Snow cover variability and trend over the Hindu Kush Himalayan region using MODIS and SRTM data" by Nirasindhu Desinayak et al., Ann. Geophys. Discuss., <https://doi.org/10.5194/angeo-2021-29-RC2>, 2021

I agree with my colleague making a comment on 28th June 2021 that this paper require more additional work. Especially, I see a problem with having only 17 years long series that are further used for deriving trends (or even extrapolating what can happen in 7 000 years (Fig. 7 and rows 285-290)).

Generally, some papers cited in the work are rather old (before 2000) - would be better to have newer references (if possible). The same is true for description of observed trends (e.g. row 51).

Why °K and °C are used - I think just °C would work better for the whole paper.

Regarding trends - authors use trend year, but per decade may be better (and sound more robust).

Generally, I am missing at least a small discussion about results - there is only description of the results (in parts 3 and 4), with quite complicated description in part 3, but no discussion on it. It should answer at least the question, how the length of the analyzed data can influence the results? And how did the authors handle with possible errors / problems in snow detection algorithm (deep valleys, clouds, forests ...)?

The description of some figures is not sufficient (what are abscissae in Figs. 2c or 5a).

If data from Jan and Feb 2016 is missed – wouldn't be better to omit it from the Fig. 3a - and how was it handled in other analyses?

Fig. 4a – there are some suspicious values around 2700-2800 metres – where do they come from and are they correct?