We sincerely thank the referee for the encouraging assessment of our work and for highlighting some points which were unclear. In the following we have tried to answer and incorporate the feedbacks from the referee. The referee comments are shown in black and our responses are in blue.

Comment 1: In Figure 1, the monthly temperature is used despite of the daily scale for analysis. This may need to be fixed.

Response 1:
We thank the referee for highlighting out this point. The RMSE in the figure 2 was already shown for daily temperatures, However, monthly temperatures were used in timeseries comparison and regression plot which made things unclear and created confusion. We have now modified all the sub-plots in figure 2 for daily temperatures.

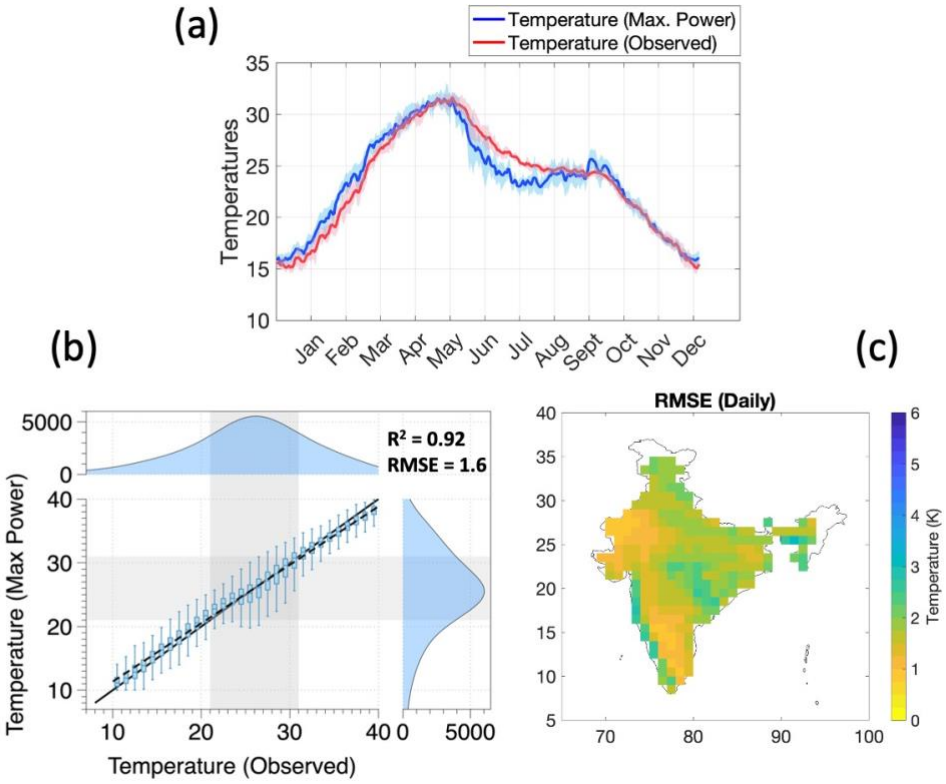

Figure 2: Comparison of daily annual cycle of temperature for observed (IMD) and estimated "all-sky" surface temperatures, averaged over all grid points. (B) Regression between the two temperatures at the grid-point scale. (C) Spatial variation of the root mean squared error (RMSE) in temperature estimates from maximum power compared to observed temperatures.

Comment 2: There seems to be minor difference between the clear sky scaling in IMD and TRMM in foothill of Himalayas north of India in the figure 6, does the authors know why?

Response 2:
We thank referee for pointing this out. There exist differences in the scaling between IMD and TRMM data in the Himalayan region of India. To our understanding, this is mainly because of the under-estimation of rainfall by TRMM over this region which had also been documented by several studies (Kanda et al., 2020; Sharma et al., 2020; Shukla et al., 2019). We will add a note about it in the revised version of the manuscript.

Comment 3: On figure 6, while the removal of the effect in the north-west India in IMD (Fig. 6c) is relatively similar compared to the Observed, the TRMM data (Fig. 6e) exhibits more cooling, does the authors know why? Maybe it's because TRMM are more affected by clouds covers?

Response 3:
Yes, we see a stronger increase with TRMM data. We agree with referee and we too think that, this is mainly because TRMM is a satellite-based dataset like CERES and thus it may respond more consistently/strongly to cloud radiative effects then compared to IMD data.

Comment 4: In the introduction, the authors used the "here we ….", which seems pretty weird, this is in Line 57, 64, 83. It may be better if the authors use the expression such as "In this study" or words of similar sorts.

Response 4:
As per referee's suggestion, the text is now accordingly modified for these lines.