Editor

Dear authors,

Thank you for taking your time to revise the work. Your revisions were seen by the two referees - the first one appears to be satisfied with the revision, while the second one still have some concerns regarding the clarity of the contents. The referee has provided suggestions to further improve the work. Therefore I would like to ask you to revise the manuscript one more time, taking care of remaining referee's concerns.

I look forward to your revisions.

Best regards,
Rohini Kumar

We thank the editor for the comments. Below a specific reply to each comment of the reviewer is inserted.

Reviewer #1

I think the authors have mostly addressed my earlier comments, although I still have some concerns on the clarity of this MS. Below is some suggestions to improve the delivery of this paper.

We thank the reviewer for the valuable suggestions that helped us to clarify and improve the manuscript. A detailed answer to each comment is reported in the sequel.

Style issues:
Line 21: Incorrect use of “to” after “since”.

The sentence was corrected.

Line 60: “of” is supposed to come after “regardless”

The sentence was corrected.

Line 70: “new” to “newly”

The sentence was corrected.

Line138: “-” after soil not needed.

The sentence was corrected.

Line 141: “for” not needed.

The sentence was corrected.

Line 261-262: Fig. 4e comes before Fig. 3 in the article.

The reference to Figure 4e was removed and placed after Fig.3 is introduced, in Line 335-336.

"Notwithstanding this, the absence of patterns in the maps that resemble the NaN distribution percentage shown in Fig. 4d and 4e, fosters the validity of the analysis**, even if S1 temporal resolution still affects the average rainfall pattern (compare Fig. 4e with Fig. 2b)**."

Line 348: "equal" to "equally".

This error is referred to the first version of the manuscript. It was already corrected in the last revision.

Line 352: Preposition word missing after "related".

This error is referred to the first version of the manuscript. It was already corrected in the last revision.

Line 356: "it" missing before "is needed".

This error is referred to the first version of the manuscript. It was already corrected in the last revision.

Other suggestions:
Line 230: The descriptions of the metrics (R,BIAS,RMSE) can be much more comprehensible if the authors could provide the corresponding equations.

The equations have been added to the description.

In the Conclusion section, it is recommended that the authors provide more general and clearer descriptions of their results, while detailed explanations can be addressed in the Results section (In short, conclusions are not concise enough). Moreover, grammatic issues in some sentences undermine the conveyance of the analyses (especially the first two paragraphs of the section), which needs revision.

According to the line numbers provided by the reviewer and to their request of correct style issues that were already been corrected in the last revision (specifically the ones in line 348,352 and 356 of the first version of the manuscript), we believe that the reviewer erroneously analyzed the first version of the manuscript and not the revised version. The grammatic issues and the descriptions of the results they are referring to, have already been corrected in the last review.

Line 275: It seems the spatial resolution and average rainfall pattern of the ERA5-Land data significantly influence these discussed metrics. Whether there exist other choices in all datasets is unclear. It is recommended that the authors provide a brief discussion here.

We have selected ERA5 due to its global availability and long-term coverage. We compared the downscaled product against the benchmark rainfall, obtaining average good correlation (0.701). We have also tried different products. The most promising one was CHELSAv1, a rainfall climatology product characterized nominally by around 1 km spatial resolution. Notwithstanding this, we found that the product was heavily driven by topography in the selected area, and that better performances could be obtained by using ERA5 rainfall. A sentence was added to underline the reasons of ERA5 selection at line 187:

"**This product was selected due to the high temporal coverage, its worldwide availability and its accuracy.**"