Authors' response (AC1) to the comments by Reviewer #1 (RC1)

Understanding the uncertainties of the runoff in the glacierised catchments and its impacts on the availability of water in Himalayan rivers is critical. This manuscript discussed the climate sensitive on variability and change of summer runoff in two glacierised Himalayan catchments. The authors argued that the runoff from the glacierised parts of the catchments is sensitive to temperature changes, but is insensitive to precipitation changes. With shrinking glacier cover over the coming decades, the summer runoff from the two catchments is expected become more sensitive to the precipitation forcing and less sensitive to the temperature forcing. These conclusion is clear and interesting, but not novel enough with comparison of the recent other researches. However, I still recommend this manuscript can be published.

We thank the reviewer for the critical comments. We decided to drop the adjective 'novel' in the revised version based on comments from both the reviewers.

Some suggests:

1. The description of the VIC model (including the input data, e.g. CMIP 5 data) is to simple toohelp for the reader to understand the article.
2. The authors did not considered the glacier volume change, then the conclusion is somewhat not convincible

1. We shall add additional details about the model and input data used. We shall add a flowchart to explain the model workflow better. The flowchart is added below. Please refer to AC2 for more details.

2. We did not consider the glacier changes over the period 1980-2018, as total glacier cover change was less than 5% of the catchment area. We have acknowledged and discussed this issue in L194–L195. We have referred the reader to the relevant reference that supports our assumption.

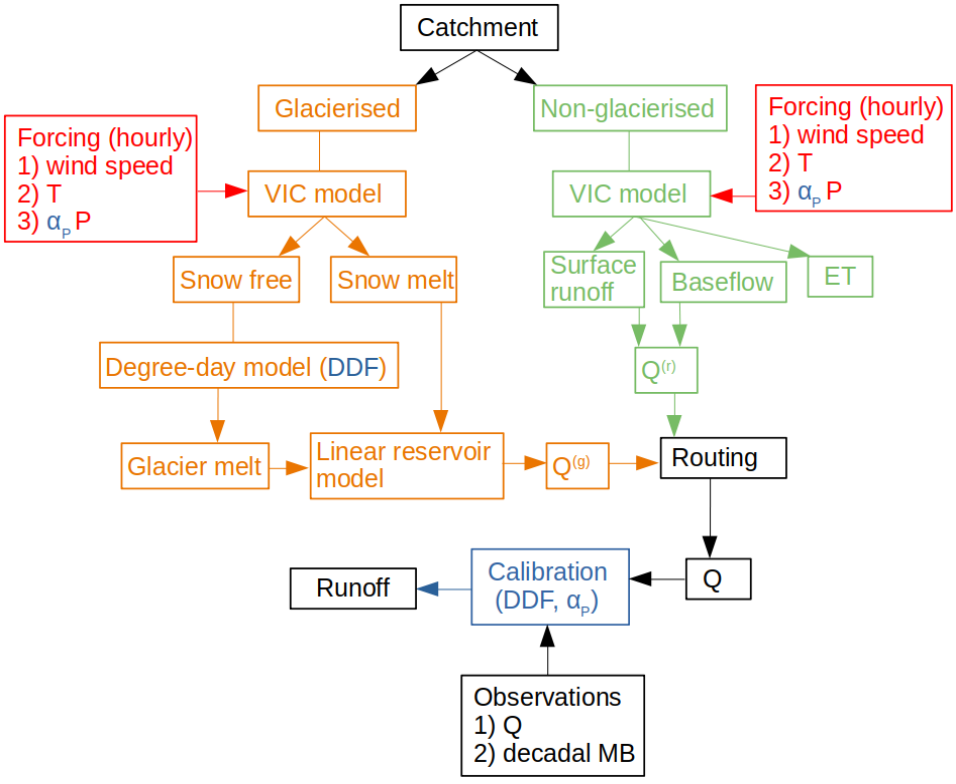

Fig 1. A schematic representation of the modelling strategy used in the present study.