

Interactive comment on “Weak precipitation, warm winters and springs impact glaciers of south slopes of Mt. Everest (central Himalaya) in the last two decades (1994–2013)” by F. Salerno et al.

F. Salerno et al.

salerno@irsa.cnr.it

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We would like to thank the anonymous referee for providing his careful and very constructive comments on our manuscript. We think to be able to address his suggestions and without doubt his contribution has resulted to significant improvement of the manuscript.

General comments: The paper deals with an investigation of temperature and precipitation trends in the south slopes of Mt Everest in the last two decades. In particular the paper considers how the changes in temperature and precipitation have affected the glaciers size. The paper is well written and presents unique data collected in the

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Region. If think that in the paper it should be better specified what the authors mean for high and low elevation, since these are concepts which depends strongly on the geographical context.

Response: “for high and low elevation” we use the threshold of 5000 m a.s.l. We revised the paper specifying better this altitudinal limit.

Moreover I think it should be better specified (because the data come from different networks) what are the characteristics of sensors used and how the functioning of sensors is periodically certified.

Response: The quality insurance of these meteorological data is ensured considering that they are used as part of global and regional networks including for instance APHRODITE (Asian Precipitation–Highly Resolved Observational Data Integration Towards Evaluation of Water Resources) (Yasutomi et al., 2011) and GHCN (Global Historical Climatology Network) (Menne et al., 2012).

Moreover I think it should be better underlined that this paper deals only with liquid precipitation, without taking into consideration the snowfall, that in the area in particular at elevations greater than 5000 m a.s.l. could be considerable, in association with tropical cyclones and westerly disturbances.

Response: We followed the suggestion specifying in many part of the text this concept.

Specific comments:

Reply to all specific comments are reported directly point to point in the attached pdf file. Moreover the revised paper including all comments and revisions provided by anonymous referee #1 and with the “short comment” have been annexed at the end of the same pdf file.

Please also note the supplement to this comment:

<http://www.the-cryosphere-discuss.net/8/C2982/2015/tcd-8-C2982-2015->

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supplement.pdf

Interactive comment on The Cryosphere Discuss., 8, 5911, 2014.

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