



## ***Interactive comment on “Changes in glacial lakes in the Poiqu River Basin in the central Himalayas” by Pengcheng Su et al.***

**Pengcheng Su et al.**

chouchoujj@163.com

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Reply to the comment of Adhikari

Dear editor

We're pleased to see the comment from Dr. Adhikari and thanks for his opinions. Now we'd like to give a brief reply, and in the revision we'll take into account all the opinions.

1) Concerning the climate and hydrology background, we have made great attempt to collect the local data and made multi-factor monitoring of weather in Galong lake since last rainy season and collected the long-term climate data from Nielamu, these data are expected to be helpful for further understanding of the climate and weather impact

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in the study area. 2) and 3) Geomorphology conditions can be easily formulated by GIS, and we'll make comparisons between these for different lakes in the study area. This will give a more clear picture of glacial lakes under different topographic conditions. And this may as well clarify the questions about hydrology influence. 4) We've got more data (e.g., from Nielamu) for the establishing relationships between climate and glaciers and the associated glacial lakes. 5) We have conducted underwater measurements in the lake of Galongcuo and Jialongcuo (two of the five examples studied in this paper) and other two small lakes, which will enable us to build more accurate correlation between the lake area and impounding volume. 6) Some parameters concerning the melt-water estimation are available now, such as the radiative index and granular texture of the moraines. Accuracy evaluation is possible for the water estimates. 7) Yes, it is important to give an overall view of the glacial lakes in the central Himalayas based on the case studies. As the lake distribution on regional scale is well known, the evolution trend of these lakes are relatively easy to evaluate. And this will reinforce the significance of the study.

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