Reply to Editor (Tobias Bolch)

Thank you for your careful check.

I have corrected as your comments and corrected part in the text were written in red.

In this reply letter, your comments are written in Times New Roman.

And My reply are written in blue and Arial.

Page 2 line 13 "are undergoing are in" > I have removed 'are undergoing are in'

Page 4 line 25 "all" You might probably have missed some. Just write "the".

> I have corrected.

Page 4 line 31-You need to start differently as you do not map these talus-derived rock glaciers. State the problem and then how you solved it, e.g. A challenge is the correct distinction of debris-covered glacier and rock glaciers as gradual transitions can exists under permafrost conditions, as e.g. described for the Pamir (Moelg et al.)

I do not agree that the separation is easy, so please write the statement with more care > I have revised as follows

'A challenge is the correct distinction of debris-covered glacier and rock glaciers as gradual transitions can exist under permafrost conditions. Rock glaciers have terrains with ridges and furrow surface patterns (Bodin et al. 2010), while debris-covered glaciers have ponds surrounded ice cliffs. Those detailed topography cannot be detected by Landsat imagery because of low resolutions.'

And also I have added following sentence at the end of the section. (Page 5 line 8) 'the method might lead to under- or over-estimate debris-covered glacier area.'

Page 5 line 31 Hence would be the better term.

> I have corrected.

Page 7 line9 "to" > I have corrected

Page 7 line12 "This contradicts what you wrote before about the distinguishing of rock glaciers and debris-covered glaciers." > I have removed this sentence.