

## ***Interactive comment on “Assessing the interaction between mountain forests and natural hazards at Nevados de Chillán, Chile, and its implications for Ecosystem-based Disaster Risk Reduction” by Alejandro Casteller et al.***

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Dear Anonymous Referee #2 Thanks for the valuable comments and suggestions for improving our manuscript. As indicated by the Editorial Support of Copernicus Publications, we reply below to your comments so that the Editor can make a decision about the further handling of our manuscript.

This is an interesting paper dealing with the assessment of the interaction between mountain forests and natural hazards in Chile, with a special focus on snow

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avalanches. The paper is well written and organized. A few remarks have been listed below: Title: The title should be more detailed: The papers in fact deals with snow avalanches and to a smaller extent to other natural hazards.

Reply: The new suggested title is the following: “Assessing the interaction between mountain forests and snow avalanches at Nevados de Chillán, Chile, and its implications for Ecosystem-based Disaster Risk Reduction”.

Pag 1 Line 3: Change more into most

Reply: The text will be modified as suggested.

Pag 1 Line 28: I suggest to add snow before sheds

Reply: The text will be modified as suggested.

Pag 2 Line 5: Do you mean interaction with the people living in mountain areas?

Reply: We mean here interactions in mountain regions between people, natural hazards and ecosystems. We will clarify this statement in the revised version.

Pag 2 Line 37: Change into to better understand the triggers and dynamics of such natural hazards

Reply: The text will be modified as suggested.

Pag 2 Line 39: Do these services could be considered as ecosystem services?

Reply: Yes, this is correct. We will include the word “ecosystem” in the indicated sentence in the revised version.

Pag 2 Line 40: Change timer into timber. What kind of food native forests provide?

Reply: The text will be modified as suggested. Araucaria araucana forests have been for centuries an important provider of food (seeds) for local populations. We will briefly mention this in the revised version.

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Pag 3 Line 28: Why did you not include the description of the study area and of the biogeographic setting in the Materials and Methods section?

Reply: We will restructure the manuscript in order to include the description of the study area and of the biogeographic setting in the Materials and Methods section.

Pag 4 Line 12: What is the elevation of the weather station?

Reply: The elevation of the weather station is 1251 m asl. We will include this information in the revised version.

Pag 4 Line 13: Does this value of precipitation include the snow water equivalent? Do you have data about rainfall intensity in the area? I think this parameter could have an effect of debris flow phenomena.

Reply: The provided precipitation value does not include the snow water equivalent. Unfortunately, we do not have data about rainfall intensity in the area. We will mention this in the revised version of manuscript.

Pag 4 Line 21: Change inceptisols into Inceptisols. Add as a reference: Soil Survey Staff, 2014. Soil Survey Staff: Soil taxonomy, Twelfth Edition, USDA, Washington DC, USA, 2014.

Reply: The text will be modified as suggested and the new reference included in the revised version.

Pag 5 Lines 13-16: I think these sentences should be moved to the results section

Reply: We agree that these two sentences would fit better in the results section and we will do the requested change in the revised version.

Pag 8 Line 12: Do you mean artificial afforestation?

Reply: Yes, we will clarify this point in the revised version of the manuscript.

Pag 8 Line 18: Change natural disasters into natural hazards

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Reply: The text will be modified as suggested (see also related comment and reply for Anonymous Referee #1).

Pag 8 Line 36: Change into reactions wood

Reply: The text will be modified as suggested.

Pag 9 Line 16: Delete : after RAMMS

Reply: The way the name of the program was indicated is correct (for your reference, see: [http://ramms.slf.ch/ramms/index.php?option=com\\_content&view=article&id=60&Itemid=](http://ramms.slf.ch/ramms/index.php?option=com_content&view=article&id=60&Itemid=)

Pag 9 Line 33: see comment on Pag 1 Line 28

Reply: The text will be modified as suggested.

Pag 10 Line 4: Delete .

Reply: The text will be modified as suggested.

Fig 4: Please in the caption add the meaning of the different colors.

Reply: the meaning of the different colours is already indicated in the original figure caption.

Fig 6: Please in the caption specify the meaning of the green points.

Reply: The figure will be modified as suggested.

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Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2017-348>, 2017.

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