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Natural Hazards and Earth System Sciences
Discussions

Interactive comment on "Changes in the occurrence of rainfall-induced landslides in Calabria, Southern Italy, in the 20th century" *by* S. L. Gariano et al.

Anonymous Referee #2

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This study provides a detailed analysis of the spatiotemporal distribution of rainfall-induced landslides in Calabria, Italy, from 1921 to 2010. The changes of the impact of landslides to the population are also covered in the Discussion session.

The first comment this reviewer has is: what is the significance of the study? At the end of the Introduction section, the authors state that "In this work, we exploit. . .to study possible variations in the frequency, geographical distribution, and impact of rainfall-induced landslides on the population of Calabria." What is the research question? And, what does it contribute to the literature?

A similar question is about the implication of this study. In lines 398-400, the authors state that ". . .we found that the ratio between the number of REL in January (RELJan) and in November (RELNov). . .is the best indicator of the variation in the occurrence of REL in the studied period." What is the implication of this finding? Is it related to climate change? Because many NHESS readers are unfamiliar with the study area, the authors must interpret their findings with that in mind and offer statements that make sense to the readers.

Finally, this reviewer has a technical question. In lines 146-147, a rainfall event with landslides (REL) is defined as the occurrence of a LE during or immediately after a RE. If it occurs during a RE, is cumulative event rainfall calculated up to the date of LE? Rainfall after the date of LE should not matter in this case.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 3, 3579, 2015.