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Discussions

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**Interactive
comment**

Interactive comment on "Comparison of machine learning classification algorithms for land cover change in a coastal area affected by the 2010 Earthquake and Tsunami in Chile" *by* Matias I. Volke and Rodrigo Abarca-Del-Rio

Anonymous Referee #3

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The authors have investigated the performance of three different classifiers, namely Random Forest (RF), Support Vector Machine (SVM), and Maximum Likelihood classifier (MLC), on the detection of changes, which occurred by a natural hazard. The research question in this manuscript is not much meaningful. This is because detecting changes using comparing the results of classification in two dates (before and after the event) is not the most accurate and time-efficient approach, which are of great importance for natural disaster management. In addition, there is no need to compare two non-parametric approaches (RF and SVM) with a parametric MLC when the

answer is already known. Even for comparing the performance of different methods for a classification problem, I would suggest comparing the performance of RF and SVM with the more recently proposed approaches, including XGBosst and CNN algorithms. Furthermore, the paper is not well written and there is not enough novelty in this work. The extensive editing of the English language and style are also required for this manuscript.

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Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2020-41, 2020.