

***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**

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we appreciate your feedback. In our opinion and to the best of our knowledge to date (02-07-20), in the field of tsunami effects, this study represents the first evaluation of emerging machine learning algorithms for land cover classification using multispectral data on tsunami-affected areas. In that aspect, the work is a contribution. It could serve from now on as a reference and basis of work for possible studies related to the development of risk maps and damage cadastres. In turn, if we look at the literature, we do not see much work either on machine learning methodologies applied to remote

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sensing for earthquakes hazard zones. So it could also serve as a reference.

In addition, our primary objective was to detect a rapid and robust methodology that would easily account for the first approximation of visible changes after a tsunami and, eventually, an earthquake. In this sense, the results of this work allow us to affirm that the less complicated methodologies obtain the same results as the more complex ones.

Therefore, not knowing at this stage if the results can be generalized (here is a study theme for application of ML comparison in more areas), it seems to us that we also achieved that contribution.

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