

## ***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 #2**

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This paper evaluates the performance of a few basic classification approaches such as random forest and support vector machines to assess changes caused by the earthquake and tsunami that occurred on Feb 27, 2010, concentrating in the Tubul town area, in central Chile.

From the theoretical perspective, with my full respect to the work of the authors, this paper does not add something new compared to the existing literature. In more detail, this work only investigates the performance of three basic pixel-wise classifiers, i.e., ML, SVM, and RF, and the conclusions made out of the comparison are already known

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for years. The authors could investigate many more classifiers to make more comprehensive conclusions. Obtaining very similar classification results for both RF and SVM reveals the fact that too many training samples are used for the classification task. Maybe I missed something, but since the training samples were chosen randomly, it is necessary to iterate the classifiers at least 10 times and report the mean and standard deviation values to avoid any biases induced in the training data. In addition, the effect of the number of training samples on the classification results could also be evaluated. The comparison of processing time consumed by different approaches is also necessary.

There are a number of format inconsistencies through spacing and indenting. There are also several grammatical mistakes and typos. What do you mean by MV in Table 3? Do you mean ML?

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