



Interactive  
Comment

## ***Interactive comment on “Spatial analysis of damaged vegetation in the Mianyuan River basin after the Wenchuan Earthquake” by H. Z. Zhang et al.***

### **Anonymous Referee #2**

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To Authors The submitted paper has several interesting point. However, do not represent a particularly new contribution in scientific literature on multivariate analysis applied in order to predict susceptibility to landslides in a region. In order to improve the scientific content of the manuscript and its relevance some suggestion are listed below.

1) Usually vegetation, morphometric (slope ,aspect etc.), litology, etc. has been used from many other authors since last 30 years and .the results obtained from the Authors are similar to the result obtained in other parte of the world.. Nevertheless, an important point was neglected. The Authors do not consider the soil type and depth in their

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mapping.. This factor is one of the most important in landslides susceptibility maps and model for its prediction. This value at the end is included only as a black box in other variable as lithology, slope . Soil depth and type influences also the recovery of vegetation, type, and at the end also the NDVI and its dynamic. (in the discussion the choose to neglect soil type and depth must be discussed ) 2) Is not clear what type of observed values has been used to proceed in fitting multivariate models.. 3) The statistical result of multivariate regression for equation 1 , 3 and 4 has been presented only in term of tables where fitting confidents and R2 and also maps with the RMSE error and his distribution. I think that for each case a scatterplot observed vs. Predicted should be presented a in order to evaluate if the error is normally distributed or not, and see if we have and exceedance or deficiency in the predicting probability ( with respect observed) in observed range values. 4) The nature of the non linear multivariate predicting equation should be discussed (treated in the discussion, e.g. why this type of equations and its structure).. And should verified their range of validity also at the border of the range of observed variables..E.g. what's happen if we use it outside the observed range of variables. . .and are the probability value obtained always in the range (0, 1.0)? 5) The term of stability susceptibility should be, in my opinion changed as instability susceptibility because the higher values correspond to musty unstable areas. is easy for the reader make confusion. 6) Some of the maps required as additional plot s with a zoom to most important areas affected from landslides.. (see. Figure 4 and 6)

Best regards

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