

Interactive comment on “GIS-based earthquake-triggered landslide susceptibility mapping with an integrated weighted index model in Jiuzhaigou region of Sichuan Province, China” by Yaning Yi et al.

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1.General comments In this study, an integrated weighted index model based on FR and AHP methods was proposed for earthquake-triggered landslide susceptibility mapping at the Zhangzha town of the Jiuzhaigou County where a Ms 7.0 earthquake struck on 8 August 2017. Slope, aspect, elevation, lithology, distance from faults, distance from rivers, LULC, NDVI and PGA as landslide controlling factors were adopted in the integrated weighted index model for generating the landslide susceptibility map with reclassification of seven levels of landslide susceptibility areas

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within a GIS environment. It demonstrated reliability and feasibility of the integrated weighted index model in landslide susceptibility mapping at regional scale. 2. Specific comments 2.1 Page 1 lines 19-23: The sentence, “Nine landslide controlling factors, namely slope, aspect, elevation, lithology, distance from faults, distance from rivers, land-use/cover, normalized difference vegetation index and peak ground acceleration, were considered with an integrated weighted index model for determination of the weighted index through analysing their relationships with occurrence frequency ratios of landslides with analytical hierarchy process approaches.”, seems too complicated, should be revised. 2.2 Page 1 line 30: The key words, “Frequency ratio”, could be “The frequency ratio of landslide”. 2.3 Other suggestions for grammar, etc. are highlighted on the MS.

Please also note the supplement to this comment:

<https://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2019-8/nhess-2019-8-RC1-supplement.pdf>

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