Natural Hazards
and Earth System
Sciences

Discussions

Interactive comment on "Classification and susceptibility assessment of debris flow based on a semi-quantitative method combining of the fuzzy C-means algorithm, factor analysis and efficacy coefficient" *by* Zhu Liang et al.

Daniele Masi (Referee)

daniele.masi@unina.it

Received and published: 2 March 2020

This manuscript is part of a very important and particularly current scientific framework: the classification and the susceptibility assessment of debris flow using a combination between AHP decision making and fuzzy logic. It is well structured and very accurate in its development, following a quite easy logical process; for all these reasons my opinion is positive but I would recommend some small corrections, substantially in order to increase the clarity and the usability of the product: 1) More attention to the written language because of a few typographical errors as in Line 57, in Figure 2 (dem stands

for dam?), in Line 187 (wrong quote), in Figure 6 (an error in the central box), in Figure 8 (improve readability); 2) After each formula it could be useful to specify more precisely all the terms involved; 3) In my opinion it could be good to explain better how fuzzy logic would improve the process of classification and the susceptibility assessment of debris flow; 4) Something more about the concept of "membership values", as well as a small quote to Lofti Zadeh.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2020-5, 2020.