

Interactive comment on “Landslide susceptibility mapping in Mawat area, Kurdistan Region, NE Iraq: a comparison of different statistical models” by A. A. Othman et al.

Anonymous Referee #2

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The paper focuses on landslide susceptibility mapping in the Kurdistan Region of Iraq by using four statistical methods (frequency ratio, weight of evidence, logistic regression and probit regression) and comparing their results. The authors have done a satisfactory job in mapping landslide susceptibility in the Mawat area of Kurdistan region which has never been mapped for landslide susceptibility. The use of probit regression model in landslide susceptibility mapping is a new technique used in the paper. The methods used in the landslide susceptibility model are satisfactory and have been extensively used in the literature (except the probit regression model).

The paper, however, requires some modifications. The authors should check the gram-

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mar and tenses. The tense keeps changing as the paper progresses and it would be good to be consistent and stick to one tense. A huge part of the paper goes into the explanation of slope, aspect, curvature etc. This is unnecessary and does not add any value to the paper.

The section on model validation is not well written. It has been specified that the dataset was split between training and validation dataset but this was not emphasized in the validation section. It should be made clear if the validation only involved the training dataset or only the validation dataset or both. If the validation only involves the training dataset then it cannot be termed as validation. At present the whole validation section is not clear and it appears that a success rate curve has been made.

Model uncertainty, a very integral part of model calibration and validation, has not been assessed and it might be interesting to know if the differences in the results are purely because of model uncertainties.

Please also note the supplement to this comment:

<http://www.nat-hazards-earth-syst-sci-discuss.net/3/C414/2015/nhessd-3-C414-2015-supplement.pdf>

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