Interactive comment on "Application of FLaIR model for early warning system in Chibo Pashyor, Kalimpong, India for rainfall-induced landslides" *by* Abhirup Dikshit and Neelima Satyam

Anonymous Referee #2

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The paper presents the results of the application of a well-known hydrological model for the prediction of rainfall-induced landslide occurrence in a study area located in West Bengal (India). The topic is definitely interesting, also considering the practical implications of the deployment of such methods in terms of landslide risk management. However, I believe that the manuscript needs further revisions beyond those which have already been made by the authors. Furthermore, I think that the paper should be considered as a technical note, as also indicated by the other two reviewers. From this point of view, I believe that if there aren't new aspects in the usage of a well-known model, the simple application of the same model to a new study area is not enough in itself to consider a paper as an original article. Specific questions for

the authors to address and suggestions for improvement are reported in the following points: 1) English needs revision. There are several grammar and syntax errors that make reading difficult; 2) The introduction has to be improved with more references (as also emphasized by one of the reviewer); 3) In general, the quality of the figures is quite poor (e.g. Fig 2a: the writings are not easily legible, Fig 4: the unit of measurement in the legend is lacking and the graphic scale is not legible); 4) Section 2 and Section 3 have to be modified in order to clarify the main features of the study area, then avoiding useless repetitions of similar information; 5) Line 21: "small". Did you mean "short"? 6) Line 30-32: you should also indicate potential drawbacks of such methods: please add more references in order to justify this sentence; 7) Section 2.1 Geology: please rewrite this section by better clarifying the main features of the geology of the study area. In particular, you should evaluate if all the information reported in this section (including Fig. 3) can be considered as relevant in the economy of the manuscript; 8) Line 125-127: it is not clear, please rewrite; 9) Line 199-200: it is the exact same sentence reported at line 130-131. You should avoid to repeat the same concepts; 10) Line 322 et seq: please add further details about the estimation of FLaIR parameters; 11) Line 346 et seq: how did you define the mobility ratio values? Please add further details; 12) Line 375 et seq.: how many false alarms (FA) did you obtain from your analysis? This information is not reported in the text, but I think it is quite important in order to fully evaluate the reliability of your analysis

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