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Discussions

Interactive comment on "Analysing flood fatalities in Vietnam using national disaster database and tree-based methods" *by* Chinh Luu et al.

Anonymous Referee #2

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The manuscript deals with the analysis of flood fatalities in Vietnam using a national disaster database (DANA) and tree based methods. Despite the topic could be interesting, I would not recommend this paper for publication in NHESS. The fundamental problem relates to the objective of examining damage-influencing variables on flood fatalities using the DANA dataset, which only includes some damaged quantities for different sectors (e.g. number of collapsed houses, schools, hospitals, etc.), without any further information on hazard and vulnerability parameters. As a consequence, without such information, the results of the study are rather obvious (the number of fatalities is related to number of collapsed houses and roads), so it is hard to me to see the scientific contribution of the work.

Specific comments:

- In the abstract the authors say that "The findings allow us to make recommendations for government policies on improving housing quality for the poor in flood-prone areas in Vietnam", however a discussion on this point is lacking in the paper (except few lines in the conclusions).

- The authors state that "The study contributes a method to analyse the national disaster database, provides a substantial insight in flood-related fatalities in Vietnam and offers a valuable application for other Asian countries" (page 3, lines 12-13). The use of tree based methods is not new and many papers examining disaster damage data exist in the literature. In addition, considering the type of data analyzed in the paper, which are the "substantial insights" provided?

- Section 2 "Disaster damage data". This section should be improved providing more details regarding the DANA database.

- I would suggest to entirely rewrite sections 4, 5 and 6, avoiding repetition of concepts throughout the paper. In the present form, the paper lacks of a real discussion section, which is now just a repetition of the results presented in a previous section.

- The conclusion section is vague and it should be improved. The authors state that "This study can contribute to the body of flood hazard knowledge by analysing and reporting on flood fatalities in Vietnam" (page 11, lines 27-28). What is this contribution? In addition, your analysis did not include any information on flood hazard.

- The results of the grown trees seem to be not compatible with the results of Figure 2, where I can see other parameters having correlation coefficients comparable to the one observed for lgX7.

- Caption of Figure 9 should be improved.

Minor comments:

- Page 2, line 13: [. . .] "and to a lesser extent IN developing ones".

- Page 6, line 19: [. . .] "was performed to validATE".

- Page 11, line 23: "This paper proposed an approach [. . .]": the approach is not new, you should write instead that "This paper used an approach [. . .]".