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Interactive comment on "Track-dependency of tropical cyclone risk in South Korea" *by* Chaehyeon C. Nam et al.

Anonymous Referee #1

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The article entitled "Track-dependency of tropical cyclone risk in South Korea" by Nam et al. addresses the issue of including cyclone tracks as the bridging factor between exposure and actual impacts of tropical cyclones. The article introduces the main problematic in the first section explaining the distinction between "active" hazards (e.g. rainfall and wind surges) and "potential" hazards (tropical cyclone intensity). Then, an extensive presentation of the datasets, tools and methods that the authors used is followed by a discussion of the results after applying a tree decision method that the authors propose for evaluating cyclones hazard.

The method introduced in this paper seems to provide meaningful results when applied to the Korean peninsula and I would recommend the article to be published in NHESS.

My only major concern goes on the presentation and organisation of the manuscript.

In several parts, I found that the text is repetitive on the arguments and methods and thus less attractive to the reader. Furthermore, my opinion is that the results section is too long and difficult to follow. It should be divided to subsections in order to ease the reader with better articulation of the main findings. Finally, although understandable language could be improved.

I would also recommend to the authors to include a discussion on the potential application of their method to different regions. It seems that the number of track clusters is detrimental for the complexity of the decision tree. Is the applicability of their method jeopardized if e.g. a broader region with complex geographical and exposure issues is taken into consideration?

Finally, I would recommend a demonstration of their method application for the ensemble members of a tropical cyclone forecast. What is the hazard variability when the spread of the forecasted tracks is relatively large?

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2017-366, 2017.