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Comment on nhess-2021-188

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Community comment on "System vulnerability and risk assessment of railway systems to flood events 1 based on national and river basin scale in China" by Weihua Zhu et al., Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2021-188-CC1>, 2021

Floods can have adverse effects on transportation systems. In recent years, we have seen an increase in the frequency of damage and disruption of railway systems caused by a flood. Therefore, it is essential to evaluate the vulnerability of the transportation system to extreme flood hazards and to identify high-risk transportation components to make the transportation systems safer and more effective for operation and maintenance. This work tries to propose a simulation framework to explore the vulnerability and risk of railway networks under floods. Thus, this research is worth publishing. Before it, I have some comments:

1. In 2.1.2, I can't figure out 'why only one event occurs per year in each basin', please describe it more clearly.
2. In 2.3, in a railway system, different railways levels do exist and are designed differently in accordance with the hazard map. Why in this work use the same failure threshold to present it?
3. I think the results in the Appendix need more description.