Comment on nhess-2021-277
Anonymous Referee #2

Referee comment on "How to use empirical data to improve transportation infrastructure risk assessment" by Weihua Zhu et al., Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2021-277-RC2, 2022

The paper “How to use empirical data to improve transportation infrastructure risk assessment” concerns an interesting research topic demanding the use of huge amount of data carefully collected and presented. Unfortunately, despite the good intentions, the paper does not cope with the problem with the necessary accuracy to reach reliable results.

The paper shows numerous lacks; the main deficiencies concern:

- The unclear and not described methodological approach
- The unconventional data gathering, merging sources that describe damage without the date of the occurrence, news, and rain of different length all together and finally merged to monetary values of infrastructures.
- The creation of damage curves without explain the type of data used and the methodological approach
- Impossibility of replication of the approach because it is described in a confused manner.
- Figures not explicative, with low graphical standard.

For all these reasons, the paper results not understandable, and it and cannot be published on NHESS.

best regards