

Major issues

You have explained that you only used 6-hourly surface wind speed (i.e., lines 67-69 and discussed in Section 4.2 as well), is your risk assessment model able to comprehend a full TC risk? What about TC-rainfall (you only mentioned about it in the last 2-3 sentences in Conclusions) and TC-induced storm surge, which are more significant than winds in many regions of the world. For example, the recent Hurricane Florence in USA and Mangkut in South China caused significant damaged due to surge and rainfall, respectively. Therefore, under such circumstances, what is the applicability of your proposed approach? You need to think about the generalization, replicability, and adoptability of your approach from a wider perspective and not only from the study area.

Recently, Sajjad and Chan 2019 and Sajjad et al. 2020 proposed typhoon risk frameworks based on TC hazard (wind-based similar to yours), vulnerability, and disaster resilience, which provides a comprehensive information on TC risk. They found that the Pearl River delta region in Guangdong (area primarily mentioned in your case, Line) is a statistically significant hotspot of TC risk. How do you see the usefulness of your method for such frameworks? A thorough discussion regarding this is necessary

Similarly, most of the discussion in the manuscript revolves around TC-hazard and neglects the vulnerability and resilience within the regions where TCs are making landfalls. For instance, you say on Lines 236-238 that overall impacts of a storm is related to many factors such as size, duration, and intensity. However, the impacts are not only related to TC-associated factors but vulnerability and resilience are also integral parts of overall impacts and risks associated with TCs, as discussed in Sajjad and Chan 2019 and Sajjad et al. 2020. How do you incorporate these characteristics within the TC risk discussion of yours?

- Sajjad, M., & Chan, J. C. (2019). Risk assessment for the sustainability of coastal communities: A preliminary study. *Science of The Total Environment*, 671, 339-350.
- Sajjad, M., Chan, J. C., & Kanwal, S. (2020). Integrating spatial statistics tools for coastal risk management: a case-study of typhoon risk in mainland China. *Ocean & Coastal Management*, 184, 105018.

Additionally, you need to detail the current limitations of your method. For example, how well this method could perform at higher resolution assessments, which are more important

for policy and decision-making in the context of DRR efforts? What are the future prospects of your study?

Specific Comments

Lines 10-13: The sentence is long and it is difficult to follow. Would be better to break it into two sentences, if possible.

Line 22: There is no such thing as “natural disaster” but only natural hazards. Disasters always involve human agency. Therefore, please avoid using this term and check the manuscript thoroughly for this issue. For further details, you are encouraged to see <https://www.undp.org/content/undp/en/home/blog/2017/5/18/Natural-disasters-don-t-exist-but-natural-hazards-do.html>

Line 34: you mean “livestock”?

Lines 145-149: It is mentioned that VIF is used to resolve the issue of collinearity and 17 variables are selected to construct the final LRC model. How many total variables were included initially? Are the VIF values for all of these 17 variables less than the normal threshold (i.e., $VIF \leq 7.5$)? It would be useful to add the VIF values of the final variables in Table 3.

Lastly, a thorough intermediate level editing is recommended to remove “several” grammatical and language errors throughout the manuscript.