

Dear Dr. Kalaycioglu and co-authors,

Thank you for your revisions to your manuscript and additional Supplementary Files/Apps. Based on Reviewer 1's re-review, I am recommending this manuscript for Minor Revisions.

Please see Reviewer 1's additional comments and address those. Primarily, please pay attention to the following overarching areas:

1. Explaining methods for quantifying variable importance – Because the motivation of this paper is to understand which factors influence social vulnerability by using Machine Learning models, it is important to more thoroughly understand how variable importance is quantified for all models used beyond the references included in the text. Please add more description in the Methods section.
2. Earthquake-specific versus all-hazards vulnerability – Additional justification is required that this model is relevant for all-hazards rather than specific to earthquakes, especially since the dataset that was used is an earthquake-specific household survey. Corresponding revisions are necessary in the manuscript.
3. Justification of ML models' performance – Can the authors justify the reported model performance for the ANN (and other ML models used) and why this is acceptable, perhaps by comparing to similar studies?

Thank you,

Sabine Loos, PhD

Editor | NHESS Special Issue on Advances in machine learning for natural hazards risk assessment