

Nat. Hazards Earth Syst. Sci. Discuss., referee comment RC1
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Comment on nhess-2021-45

Anonymous Referee #1

Referee comment on "A new approach to assess the impact of extreme temperature conditions on social vulnerability" by Ibolya Török et al., Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2021-45-RC1>, 2021

Dear Authors, I assessed your work submitted to the NHESS journal and I can state that while the article has scientific and presentation quality to be published in a scientific journal, it does not have the scientific significance required by this journal review criteria. Even you in the paper state: "Based on reviews of the related literature, as a rule, we have observed that in most cases the majority 130 of indicators have been selected subjectively and adapted to the main characteristics of the analyzed region. This is a common approach, which could be noticed in most of the vulnerability analyses conducted worldwide.". This text, besides the fact that does not reference literature reviews, is a statement showing that nothing is new and that you just subjectively adopted a common approach to a certain study area. This violates the question: Does the manuscript represent a substantial contribution to the understanding of natural hazards and their consequences (new concepts, ideas, methods, or data)?

Further, if we investigate the text, you also state that the objective of the paper is: "to develop a scientifically based set of vulnerability indicators and calculate the impact of climate factors on people's vulnerability in Cluj County.". Again the scientific requirements of the journal are not targeted: "Does the paper address relevant scientific and/or technical questions within the scope of NHESS?

Does the paper present new data and/or novel concepts, ideas, tools, methods or results?" Your study is mainly a regional one. This is accentuated by the fact that the presented methodology for general vulnerability assessment is actually the same used by the first author in 2018 in regard to flood hazard, again in a regional approach. The PCA was previously used in vulnerability assessment.

In the conclusion, you state that "This study represents a first attempt for understanding the spatial relationship between social vulnerability and climate change, offering the possibility to be tested in other regions as well" but actually this might be for Cluj County, because in the literature at least this (10.1007/s10113-017-1105-9) should point you in the right direction, that all the approaches are spatial in nature, so a simple mapping does not make it especially spatial. For an example of spatial approach see

10.1073/pnas.0710375105.

The article is missing a Discussion part where the novelty and the shortcomings of the "new" method.

In my view, the article could be published in a journal that accepts regional approaches, but the "new" attribute should be avoided.

Best regards,