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# *Interactive comment on* "Land Subsidence due to groundwater pumping: Hazard Probability Assessment through the Combination of Bayesian Model and Fuzzy Set Theory" *by* Huijun Li et al.

**Anonymous Referee #2**

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The authors' approach to land subsidence risk assessments that can provide early warning information to improve prevention measures is relevant and original. There are several Bayesian approaches which all give a weighted average of the predictive distributions. However, often they are not applied correctly, which can lead to false conclusions. In this work, the integration of fuzzy set theory and the Bayesian Weighted Model (FWBM) assessing the hazard probability of land subsidence measured by Interferometric Synthetic Aperture Radar (InSAR) technology is a great approach. The different maps comparing models with and without fuzzification provide obvious information for improved predictions by a combination of models. The introduction is explicit and detailed on sag about other works and approaches. The document structure is

quite clear, and in my opinion, the work deserves to be published. However, the author needs to revise the English grammar, which is confused in some sections. In this work, some operations need to be more explaining for a better understanding of this approach.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2020-309, 2020.