Natural Hazards and Earth System Sciences Discussions

Nat. Hazards Earth Syst. Sci. Discuss., referee comment RC3
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Comment on nhess-2020-422

Anonymous Referee #2

Referee comment on "Flood and drought risk assessment for agricultural areas (Tagus Estuary, Portugal)" by Paula Freire et al., Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2020-422-RC3, 2021

This is an interesting and relevant study, and the authors have selected a suitable method for flood and drought risk assessment for agricultural areas. The consequence/probability diagram is a suitable method for this study and is well presented; however, the study would be stronger if it included more than a risk assessment. The paper is generally well written and structured. Though, the paper has some shortcomings regarding the treatment and monitoring of risk, which should be included.

I miss a more thorough discussion on how the approach can be used in risk management, as the method covers risk assessment but is missing risk treatment and the process of monitoring and modify risk in accordance with ISI 31000. The paper would be stronger if more efforts were added to include risk management (risk treatment, monitoring, and communication), especially since risk management is given so much space in the introduction and the objectives of the study.

Please include further details (perhaps in the discussion) on how the risk can be managed and be used for decision making (To follow up the author's recommendation that the risk owner should consider risk reduction measures in line 438). (Or remove/rewrite line 55-56 describing the tool to support the management of risk at a local level)

Is miss a discussion of the uncertainty, as briefly discussed in line 424, as this is one of the two main challenges presented in the introduction (line 55). An a more detailed discussion of uncertainty and uncertainty reduction would strengthen the paper.

Please improve captions of Figure 3 and 4. Figure captions should be standalone, not dependent on explanation in the text. For Figure 3 Week 1 you could consider different scale to improve readability.