

Interactive comment on “Risk management framework of environmental hazards and extremes in Mediterranean ecosystems” by Panagiotis T. Nastos et al.

Panagiotis T. Nastos et al.

anamaria.tarquis@upm.es

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I. General comments This study provides a novel insights of risk management, that is the current risk assessment framework which consists of three steps (risk identification, risk estimation and risk evaluation) should complement the other procedure (the need for a feedback of all the risk assessment undertakings). According to the conception, it seems kind of interesting, however the full text may be too simple and more like a report to introduce different parts of risks. All figures are adapted from others' researches. It is so hard to accept, because these figures lack of originality. The authors should add more original figures. From the above reasons, the manuscript should be overhauled.

C1

Answer: The comments are thoroughly considered.

II. Specific comments

1. The keywords listed by the author are scant, thus I suggest the authors add more keywords such as risk management framework, Mediterranean ecosystems etc. A1. It is considered and revised. 2. Lines 41. The authors emphasize the sustainability in the environmental status and agricultural production. However, the article involves less discussion and description of the impact of hazards on agricultural production in other part. Therefore, the sentence needs to be replaced. A2. It is revised and corrected. 3. Introduction should be reorganized. The knowledge gap is not clear and the innovative points of research need to be summarized. A3. The Introduction has been revised. 4. The logic of the second section “risk management framework” needs to be changed. The settings of chapter are better to follow these 5 parts: risk identification, risk estimation, risk assessment, risk evaluation and risk governance. Also, the authors should illustrate the relationship between these 5 parts, not only just explain the functions and definitions of these 5 parts separately. A4. It is revised and corrected. The relationship between the 5 parts is illustrated through Figure 2. 5. Lines 139. It may be a good way to use “Quantitative risk assessment (QRA)” as title, which is a duplicate of the subtitle. A5. It is revised and corrected. 6. The authors selected 7 case studies of meteorological and environmental hazards. However, the author needs to add the reasons and some literature ground. A6. It is revised and corrected. 7. I have not seen the application of the risk assessment framework mentioned by the author in these case studies. In other words, risk assessment framework, there is a lack of connection between the case studies and the risk framework. A7. It is considered. These case studies fit mainly within risk identification and risk assessment. 8. The summary and discussion are too short. The author needs to summarize the deficiencies of existing research, improvement of risk management framework proposes future risk research prospects, especially for the Mediterranean ecosystems, according to case studies and others. A8. It is revised. 9. The resolutions of figures are difficult to read. Keep

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all the fonts in one format. The figures should be further revised to make some new insight comparing to the previous study the authors adapted from. A9. The analysis of Figures is also considered.

Please also note the supplement to this comment:

<https://nhess.copernicus.org/preprints/nhess-2020-155/nhess-2020-155-AC2-supplement.pdf>

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2020-155>, 2020.