



EGUsphere, referee comment RC2  
<https://doi.org/10.5194/egusphere-2022-744-RC2>, 2022  
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## **Comment on egusphere-2022-744**

Anonymous Referee #2

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Referee comment on "Assessing agriculture's vulnerability to drought in European pre-Alpine regions" by Ruth Stephan et al., EGU sphere,  
<https://doi.org/10.5194/egusphere-2022-744-RC2>, 2022

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Review of egusphere-2022-744 Assessing agriculture's vulnerability to drought in European pre-Alpine regions by Stephan et al.

### General Overview:

The paper entitled "Assessing agriculture's vulnerability to drought in European pre-Alpine regions" aims at evaluate and understand agriculture's vulnerability to drought in two different case studies in the pre-Alpine region. The methodological approach, based on recent literature on impact chains (IC) aims at integrate quantitative and qualitative information for assessing drought risk condition. It is applied in this manuscript on two case studies in Switzerland and Slovenia.

Overall, the manuscript is well written, even if:

-The results section is too much dispersive (many of the information in the text of the results paragraphs should be syntetized in tables);

-The conclusion section is too much concise, poorly explaining the practical impacts and benefits of this approach. In conclusion section, it would be also interesting to read future developments of this methodology in relation with the "non-linearities" the authors are referring to.

My main concern about this manuscript lies in the application of the methodology. Identifying Vulnerability factors through semi-structured interviews, produces highly site-specific results. Even in the usage of equal weighting method, vulnerability factors are different between two case studies. In expert weighting method, this difference is clearly more evident, highlighting that for some of the specific vulnerability factors (Figure 3), as reported (in Figure S1) unfortunately are not available information (such as regarding irrigation infrastructures).

In order to build a stronger methodology based on semi-structured interviews, information should be collected on a wider data sample (with numerous case studies) otherwise findings are too site-specific, as it is understandable that for their specific characteristics, the two case studies have different vulnerability factors, but without a wider comparison it is difficult to identify main common ones. This represents a weakness of the manuscript.

In addition, lack of data regarding the management strategies doesn't help, as they can represent a key point for testing the methodology.

From this perspective, scientific soundness of the whole manuscript should be improved, even if it represents an interesting and useful piece of knowledge specifically for both case studies.

Some Minor Remarks:

- Figure S1 in supplement material: please, improve the quality of this figure.
- Figure S2 – S3: Text in legend is too small, please plot it bigger.