

Interactive comment on “The KULTURisk Regional Risk Assessment methodology for water-related natural hazards – Part 2: Application to the Zurich case study” by P. Ronco et al.

Anonymous Referee #1

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General Comments

The paper deals with the important issue of evaluating risk derived from hydrogeological hazards and implements a procedure where various risk factors are merged to obtain an overall view of the risk, and its spatial distribution. The effort is certainly valuable and it shows a lot of “field” work. I am used to analyse papers that deal more with physical processes than elements of a decisions support system, but recently I was actually involved in working on this type of problems more close to the adoption of policies and planning to know that the topic treated is of crucial interest in “real life”. However, I am not completely sure if the broad range of topics covered by HESS, cov-

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ers also this part of water related problems. But I assume that it is up to the Editor to decide if this paper well suit to the journal, or better suited to, for instance, to NHESS.

Talking of what pursued by the paper, the type of methodology followed seems to me sound, but it would be helpful to readers to know which are the informative basis required to elaborate the maps of synthesis that the paper shows (i.e. essentially all the Figures, except Figure 2), and how much time the elaborations took to be performed (of each of them). It is an information that would be nice to have in order to quantify the feasibility of what has been done as a prototype, and should be added to the paper in form of tables and/or a paragraph, in case in an Appendix. Example: Figure 3 requires y,w,z, data and took x man/days to be elaborated subsequently).

The only scientific doubt that the paper raises is if a more in-deep literature review of existing methodologies of socio-economical analysis, like multicriteria analysis or others, should be pursued. When the indicators are put together in the last part of the paper (i.e. section 7) a feeling of a certain arbitrariness of the choices remains, and the indicator themselves are a little simplistic, but reasonable and defensible. The literature that comes from the crossing of environmental planning, sociology and economics, is partially unknown to hydrologists and geoscientists, and I am sure that there some of the problematics revealed, for instance in weighting the indicators, have been largely discussed and a scholar analysis of alternatives should be a valuable add-on of the amount of work already made.

The paper is generally well written, however, I believe that Introduction should be partially rewritten to be more fluid.

My overall suggestion is that the paper should be published with minor revisions.

Detailed comments

I do not have many detailed comments. Maybe in line 3 of page 7897, “those whose” could be substituted with “those events whose”

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