

Dear Dr White et al.,

Thank you for taking into account my previous comments and giving me a chance to review again your manuscript *“Review article: Towards multi-hazard and multi-risk indicators – a review and recommendations for development and implementation”*.

First, I want to stress the excellent work from the authors in addressing Reviewer 2 and my comments. The new classification of the literature reads much better and the recommendations are now well aligned with the content of the review. While the article is very much improved, I have some concerns about Section 3.2. and in particular the parts addressing hazard indicators. Beside this point, I provide a few minor comments.

Comment related to Section 3.2:

Sections 3.2.1 and 3.2.2 discuss the usage of multi-hazard indicators for multiple types of hazard interactions. I find these sections very lengthy, and sometimes confusing, as they mostly enumerate indicators used in previous studies addressing several hazards. The length of these sections contrasts with one of the main conclusion of the article: “there are few studies that explicitly develop indicators for multi-hazards”. Notably, several indicators enumerated are single hazard indicators (combined to create multi-hazard indicators) and two paragraphs are dedicated to one hazard interaction: hot-dry. The other paragraph of Section 3.2.1 is dedicated to compound flooding. I believe that this highlights the lack of compound hazard indicators, and that three paragraphs may not be necessary to make that point. Section 3.2.2 introduces more single hazard indicators, while it is no clear what indicators are discussed in the two last paragraphs (l. 351-l. 362). On the other hand, the Global Delta risk Indicator (Section 3.3) would maybe deserve more discussions. I would therefore suggest to shorten Sections 3.2.1 and 3.2.2 and focus on existing multi-hazard indicators.

Specific comments:

- 1) Box1, paragraph 2, l.1 environmental variables?
- 2) L.93 p5: *The development of multi-hazard and multi-risk indicators for disaster risk assessment and management has, however, not kept pace with the development of multi-hazard DRR approaches and the use of indicators more generally.* Repetition of sentence in Box1.
- 3) L. 116-118 p5: Sentence feels like a rewording of the clearer sentence in L.229-230 p7
- 4) L.141 p7: Third time you mention that you used a systematic review.
- 5) L. 166 p8: Is it the number of sources obtained after post 2015 reduction?
- 6) L. 175-177 p9: Specify here that you detail the exclusion criteria just below.
- 7) L. 263-265 p13: refer to Table S3 here
- 8) L. 278 p14: most common what?
- 9) L.281 p14: why complex?
- 10) L. 303 p16: Figure number missing
- 11) L.303 p16: Unclear what are primary hazards here, are we only looking at triggering and amplification interrelation?
- 12) Table 3: Coastal exposure index is an example of vulnerability indicator?
- 13) L.485-488 p23: Three categories for 8 recommendations, either you group the recommendations or you remove the numbering from categories.