

Worries and Views of the ‘Decision Broker’

The paper “*Are we talking just a bit of water out of bank? Or is it Armageddon?*” *Front line perspectives on transitioning to probabilistic fluvial flood forecasts in England* “by L. Arnal and co-authors give exciting insights into some operations of a flood warning system. The specific regional example and the circumstances of an upcoming change to the forecasting methodology illustrate the roles and attitudes of individuals who act as ‘decision brokers’.

Compared to the initial version of the paper, the authors did rework the text substantially. The authors responded positively to numerous remarks of three referees. The revised text does not trigger the irritations that referees of the initial draft seem to have felt. If seen from that perspective, the text could be accepted. Nevertheless, in some cases, the authors could have aligned further with the views of the referees.

- Keeping the unchanged title looks like an unfortunate choice. Given the substance of the paper and the expectations of the reader, it would be better to alter the phrasing (for example: *Front line perspectives on transitioning to probabilistic fluvial flood forecasts in England – beyond: “Are we talking just a bit of water out of bank? Or is it Armageddon?”*).
- The reader would benefit from learning the purpose of the study at the beginning of the introduction. Shifting text from lines 110 -114 before line 33 would be a remedy.
- The notion “probabilistic science” seems to be a notion of limited explanatory power. Also, it has several meanings in different disciplines; as a literature search shows. How this notion is used in the abstract indicates further that the authors are less aware of studies of processes at the science-policy interface (e.g. McNie, Parris and Sarewitz, 2016; Kowarsch and Jabbour, 2017). This research puts in question the statement of the authors “*While science... the design of scientific practice*” (line 16-18).

Furthermore, the initial round of reviews did not emphasize some methodological limitations of the study.

- The sample of interviews is small; what is acknowledged by the authors.
- The chosen methodology is not critically reviewed. A minimal set of three bibliographic references is given, although several 10k publications using this methodology have been published since the most recent reference that the authors refer to; – see, for example, Kallio *et al.* (2016).
- The research of a local (England) and specific (fluvial flood forecasts) process is not embedded into studies of similar issues (e.g. shift of methodology for forecasting risks for the public) such as seismic risks or storm surges (e.g. Stewart and Lewis, 2017; Keith J Beven *et al.*, 2018; Keith J. Beven *et al.*, 2018).
- Numerous recommendations are made although they are based on a limited study (some hours of interviews). The authors should focus on some recommendations (for example, the first and third that are mentioned in the conclusions).

Notwithstanding these limitations, the unique subject of this study could justify the publication of the paper.

The interviews give a rare view into the ‘engine room’ of fluvial flood forecasts. Therefore, as the authors say (line 30), the subject of the study is of broad interest. The study describes a element at the intersection between geosciences and society, the ‘decision broker’ who transposes a scientific analysis (forecast) into a warning. Hopefully, there will be a follow-up to this limited study.

Beven, Keith J. *et al.* (2018) 'Epistemic uncertainties and natural hazard risk assessment – Part 1: A review of different natural hazard areas', *Natural Hazards and Earth System Sciences*, 18(10), pp. 2741–2768. doi: 10.5194/nhess-18-2741-2018.

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Kallio, H. *et al.* (2016) 'Systematic methodological review: developing a framework for a qualitative semi-structured interview guide', *Journal of Advanced Nursing*, 72(12), pp. 2954–2965. doi: 10.1111/jan.13031.

Kowarsch, M. and Jabbour, J. (2017) 'Solution-oriented global environmental assessments: Opportunities and challenges', *Environmental Science and Policy*, 77(August), pp. 187–192. doi: 10.1016/j.envsci.2017.08.013.

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Stewart, I. S. and Lewis, D. (2017) 'Communicating contested geoscience to the public: Moving from “matters of fact” to “matters of concern”', *Earth-Science Reviews*. Elsevier, 174(February), pp. 122–133. doi: 10.1016/j.earscirev.2017.09.003.