

## ***Interactive comment on “Assessment of flood risk perceptions and adaptation capacity: a comparative study between rural and peri-urban areas in Greece” by K. Karagiorgos et al.***

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This paper deals with flood risk perception in Greece and discusses two contrasting case studies: a rural area exposed to river flooding in Evros, and a peri-urban area exposed to flash floods in East Attica. The topic of the paper is very relevant for the journal and the survey is overall scientifically sounded. However, I think that the presentation of the study and the discussion of the results should be improved. I report here my specific comments.

1) Introduction. The paper includes a nice review of the scientific literature in the field of flood risk awareness, perception and preparedness. Yet, this seems biased towards natural hazard research. To make the paper more relevant for the readers of this jour-

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nal, I would suggest making a more explicit link to ongoing research in the hydrological community. The International Association of Hydrological Sciences, for instance, has recently launched a research decade called *Panta Rhei*, focusing on change in hydrology and society (Montanari et al., *Hydrological Sciences Journal*, 2013). Within this research initiative, there have been numerous efforts in exploring human-flood interactions and, more specifically, understanding if (and how and to what extent) flood experience is related to human response (Viglione et al., *Journal of Hydrology*, 2015; Di Baldassarre et al., *Water Resources Research*, 2015). I think it would be scientifically interesting to make a critical comparison of the (more empirical) outcomes of this Greek survey and the hypotheses made in these (more theoretical) studies.

2) Materials and methods. It is not entirely clear to me the timing and severity of past flood events in the two test sites. I think knowing them is crucial for a proper critical discussion of the results. How can I judge the impact of flood experience without knowing when exactly people in Evros and East Attica have experienced flood events? For example, it has been hypothesized that the impact of flood experience decays over time as the memory of floods tends to get lost (e.g. Di Baldassarre et al., *Hydrology and Earth System Sciences*, 2013). Thus, I suggest adding a new figure (or a table) with a time series of maximum annual flows, or peak over a threshold highlighting the timing of the survey. This would also make the paper more interesting for the hydrological community.

3) The Evros case study: Page 3, lines 25-35. Do we really need all these geo-political details? I am not sure, but I guess that some of them can be debatable. I would propose to shorten (or just delete) this part.

4) Causation belief. The text description of Table 2 (“categorising the answers. . .”) does not seem to reflect what I see in the table. For instance, the greatest agreements about the causes of floods are reached for “building in risk areas” (28.4% in East Attica and 55.4% in Evros) and “deforestation (61.8% in Evros). Lack of protective constructions have a lower percentage in “greatly” agreement. I may be missing something here, but

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I think the paper can be clearer on this point.

5) How was flood experience treated in the various correlation analysis if “there is a significant number of individuals without direct flood experience”?

6) Discussion. Very interesting concepts, such availability heuristic and affect heuristic, are mentioned in this section, but they are not sufficiently developed. My suggestion is to be more explicit and relate them to these specific case studies.

7) The bullet points summarizing the conclusions are too general and do not always reflect what was actually shown by this specific study. For example, number 2 states that “structural protection measures are an important measure to reduce flood risk”. This is a very general statement, almost nobody would disagree with it. But, it is also vague - what do you mean by important? And, important to whom? - as well as, more concerning to me, unrelated to this specific case study. A better conclusion based on the survey presented here (Table 7) can be something like “citizens in East Attica and Evros perceive that new structural protection measures would be more effective than measures improving preparedness”.

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