

Interactive comment on “After the extreme flood in 2002: Changes in preparedness, response and recovery of flood-affected residents in Germany between 2005 and 2011”

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The paper describes a survey of private households comparing their flood preparedness, response and recovery for four different major flood events in Germany. As a baseline, the 2002 Central European flooding is chosen, as it is seen as a major reason for changes in flood policy making, particularly by the European Flood Risk Directive and a German act on Precautionary Flood Protection. It is shown that changes in the behavior of affected people can be observed, which results in an increased flood awareness and preparedness. The likely influence of differences in flood characteristics is briefly discussed in the article. It is further described how flood events positively influences flood awareness even for people who are not directly impacted by the flood event. This effect is taken into account in the analysis, as the region was of course not the same in all four flood events. The conclusions are drawn in a logical and comprehensible way and need for further research is listed. The article contributes to the field of flood risk research by bringing together the flood events occurred in Central Europe over the last decade from the residents' perspective.

In general, I recommend the publication after minor modifications of both text and tables/figures.

General comments (in order of relevance)

1. Flood risk awareness is frequently mentioned in this paper, but not sufficiently defined and described. It is mentioned that awareness has a major influence on flood damages, the specific influences is however just discussed between the lines (e.g. around sections 4.3/4.3.1). It would be required to provide a clear definition of this term and to discuss the findings with respect to this definition of awareness more deeply.
2. In order to allow for the comparison of flood damages and other economic figures between different flood scenarios, the specification of the reference year of all Euro values is required. This comment is applicable to all text parts of this article, but also for all tables and figures.
3. It would be very interesting to see if the same results can be found for companies. Though this is not the focus of this paper, the reviewer suggests adding this as an aspect of future research in the discussion section.

Specific comments (in the order of the paper)

1. Abstract p6398 ln1: “In the aftermath of the severe flood in August 2002”: Specify where this flood took place, as there were at least three major flood events in 2002, some even worse than the 2002 European Floods, on which it is referred to in this article.

2. Abstract p6398 ln16: "Still, costs and damage avoiding benefits of these measures have to be communicated in a better way": The meaning of this sentence is unclear, as there is no reference to the statements in the sentences before.
3. Abstract p6398 ln19: "In contrast to flood-affected people in 2006 or 2011, people affected by flooding in 2005 or 2010 had to deal with shorter lead times, less time to take emergency measures; consequently they suffered from higher losses.": This implies that lead time is the most important factor, which is not true (and later accurately discussed in the paper). It is recommended rephrasing this sentence.
4. Abstract p6398 ln19: Vb weather system: This denotation needs further explanation, including the key characteristics of this hydrological condition. It is recommended to include a reference on the weather systems for further reading.
5. p6400 ln 25: "It distinguishes three (or four) phases": Separate this into two aspects. First name the three phases and later mention that sometimes a fourth phase is distinguished. Otherwise this paragraph is not very readable.
6. P6405 ln 4: "However, despite the many affected catchments, disastrous damage did not occur." What is meant by disastrous? How is this term defined? The sentence should be rephrased.
7. P6405 ln22: "Always the person in the household who had the best knowledge about the flood event was questioned." How was this ensured? Can this be ensured? Always is a pretty strong word. Consider rephrasing.
8. P6412 ln 14: "Even before the flood event in 2011, these measures were carried out to a lower extent, though some of these measures were only given to homeowners (see Fig. 2)."
What means given in this context. Have measures been provided by governmental institutions? The aspect is not fully clear.
9. p6423 ln10: "Furthermore, some aspects seem to be mainly influenced by the region, e.g. behaviour seems to be influenced by a certain "risk culture". Check phrase, it seems not to be consistent and is therefore not fully clear to the reviewer.
10. Reference Mueller (2000): Ueberschwemmungss-chaeden → Ueberschwemmungs-schaeden
11. Table 5: Comment a) and the related numbers given are not yet clear to the reviewer.
12. Table 9: Abbreviation GDV unknown. If it is referred to a literature reference, the reviewer would rather use 'in' instead of 'by'
13. Table 10: GDV is used again, but the reference is incomplete. Should be GDV (2013) too.
14. Table 11: Using a colour index would significantly improve the readability and impact of this table. Consider re-compilation of this table.
15. A1 and A2: Would it be possible to merge both tables? The added value of giving two tables is not seen.
16. Figure 1: Values and fonts are mostly unreadable (when printing in A4). Consider re-creation.
17. Figure 9: The numbering on the left side of charts is neither introduced in the legend nor in the text. This should be done as it most likely refers to the flood events.

Other comments (in the order of the paper)

- The writing is in some sections strongly influenced by a very German form of English. In particular, relatively long sentences do not necessarily support the understanding of this article. This goes along with the complexity induced by comparing statistical results from different subsets. Though the reviewer is not a native English speaker either, it is recommended that longer sentences are revised (i.e. shortened) in a way that it supports the understanding of the article.
- Referring to a large share of German publications significantly reduces the possibility for non-German readers to read further. As this is an international article meant to address an international scientific audience in the scope of NHESS, more English references would be required. The reviewer is fully aware of the fact that for this paper it is not possible to modify the references significantly, and therefore recommends keeping this aspect in mind for future international publications.
- Table 1 is, as it is formatted now, not readable at all. Bringing the information in a horizontal order would significantly improve the comparability of the flood event characteristics. Furthermore, it is required to specify the price level of all economic values, while it is according to the reviewers evaluation not necessarily required to bring all values to the same reference year.
- Tables giving numerical values would be more readable if the numbers were right-centered. As it now, they are not easily to read. The use of significant digits (after the point) should be consistent.
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Other comments (in the order of the paper): Page Line Comment

- p6398 ln4: have already → already have
- p6399 ln5: delete "to"
- p6399 ln6: things → aspects
- p6399 ln10: damage → damages
- p6402 ln26: 15 °C → 15°C
- p6403 ln25: Odra → Oder (Odra is not English)
- p6404 ln 10 Witka River a → Witka River, which is a – this would also require a comma after Neisse
- p6422 ln21: in future → in the future
- p6422 ln26: E.g. → To give an example, ...