

## ***Interactive comment on “New insights into flood warning and emergency response from the perspective of affected parties” by H. Kreibich et al.***

**H. Kreibich et al.**

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Dear Referee, thank you very much for your work. We thank you very much for your very valuable critique and very helpful suggestions how to improve our manuscript. The following responses discuss how we will respond to each of your comments. Our answers are marked with an “R”.

Best regards

Heidi Kreibich on behalf of all co-authors

Referee #3: An interesting paper which can provide some insight into the impacts of flood warning on damage reduction – but it could be enhanced by paying some

C1

attention to the following points: The paper was not well linked to previous literature (and theory) about why or why not people take action in response to warnings or take pro-active measures to help save damages.

R: We will add a separate background section, where we expand the literature review in this respect.

There needs to be a clearer definition/discussion in the text about what you mean by flood warning (e.g. are unofficial and official warnings included?) Although there is differentiation about this later on – a brief introduction to these in section 3.1 would be useful for readers less familiar with the subject.

R: We will include an explanation in the text.

More information should be provided about the events themselves (e.g. depths, velocities, areas affected, duration, rate of rise) as this may be critical to the difference in action – you mentioned they type of floods that they were and the lead time, but are there also other differences which might account for differences in action (e.g. external emergency assistance, numbers of people affected, concentration/distribution of those flooded (e.g. were people able to assist each other) the severity of the events (e.g. was more attention paid to evacuation and preventing injuries and fatalities than saving damages))

R: We will include a study area section with descriptions of both flood events.

Coupled with the above point, you mention that there have been improvements in the FW systems between 2002 and 2013, but can you provide more detailed information about what these improvements have been (e.g. numbers of warnings, increase in coverage, improved forecasting, improved lead time, changes in warning dissemination mechanisms etc).

R: The warning systems and how they worked in detail was not investigated in this study. However, we will provide some more information based on literature.

C2

What is meant by perceived effectiveness and how was this measured. Is perceived effectiveness related to how many damages those flooded felt that a measure saved (i.e. post event) or is it related to how many damaged those at risk felt that a measure would save (i.e. pre-event and related to the likelihood of uptake of measures)

R: It is a self-perceived effectiveness reported by the surveyed residents on a rank scale. We will include this as explanation in the text.

P3 – line 10 – the difference in sampling is not entirely clear. Please expand on this and provide more information about this and the impact on the results.

R: The methodology section will be expanded as requested.

Are the differences between the two events statistically significant? Have you performed any analysis of this?

R: So far no statistical tests have been performed, also since the data is not merged in a way that such tests can be performed. We will merge the data and perform some statistical significance tests where appropriate.

Are you able to comment on how these flood warnings links to other aspects of flood risk management, as this may impact on flood warning actions (e.g. presence of compensation/ insurance, financial incentives/grants for taking individual action to prevent flooding).

R: We will include a comment in the conclusions.

Do you have any comment on the international significance of the results? What do the results say about improving the response to flood warnings in terms of damage reduction

R: We will include a comment in the conclusions. However, no statistical analyses about the positive impact of emergency measures on the damage have been performed.

C3

The paper needs a good English proof-read.

R: We will improve the English. Additionally, we will use the English Editing service provided by the journal NHES.

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C4