Reviewer 1		
No.	Comment	Answer
	This paper investigates the influence of different types of flooding on adaptive behavior and risk communication in Germany. The authors use survey data from over 3000 households affected by fluvial, flash, and urban pluvial floods to examine the factors that influence adaptive behavior and the effectiveness of different types of adaptive measures. The findings suggest that there are flood type-specific differences in adaptive responses, with fluvial flood-affected households implementing measures before the event but showing signs of emotional coping, while flash flood-affected households are more likely to implement measures after the event. However, the lack of detailed methodology and comparisons with existing literature limit the paper's overall quality. This paper still needs a major revision before it could be acceptable for publication.	Thank you for reviewing our manuscript. Your comments will help us improve the paper. Please find below a point-by-point response how we are going to revise the manuscript.
1	The paper lacks a detailed description of how to collect and analyze the survey data. Authors should provide more details on the methodology section. Specifically, how was the sample selected, and what statistical techniques were used to analyze the data? It would be useful to provide more information on the survey design, sampling methods, and data analysis techniques to help the readers.	To clarify our sampling methodology, we will move the paragraph on this to the beginning of Chapter 2, "Data & Methods.". The Chapter starts as follows in the revised version of the manuscript: “This study is based on survey data collected via four different survey designs (see figure 2) between 2014 and 2022 in the course of six surveys among flood-affected households in Germany (see Table 1). While S-1, S-2, S-3, and S-4 were created by a random sampling in affected areas (based on lists of flooded roads; see Thieken et al. 2017) and considered only landlines, S6 was created in Rhineland-Palatinate with the help of the district Ahrweiler, where every third household who had applied for

		immediate disaster aid was invited to participate. In North Rhine-Westphalia (as well as in S-5) people from the affected areas were invited to an online survey via advertisements on Facebook and other media. Advertising via Meta to recruit survey participants is a method used in health-related research during the last decades (Gilligan et al., 2014; Kapp et al., 2013; Shaver et al., 2019), A total of 3670 households were questioned about the impacts of recently experienced flood events along with questions on adaptive behaviour based on concepts from the PMT and PADM. Data were collected by paper/pencil, computer-assisted web interview (CAWI), and/or computer-assisted telephone interviews (CATI), see table 1." To explain the sampling in more detail, we will create a new figure (as Figure 2) that provides an overview of the sampling methods. In addition, the samples in Table 1 will be linked to the new Figure 2. Please bot that we already explained the data analyses in the paper; to enhance clarity, we will update the text as follows: „We analysed the data using the statistical software package IBM SPSS 27. To identify significant differences between the three flood types, the Kruskal-Wallis test was performed. For each PMT factor, a Kruskal-Wallis test was first performed with all three flood types. If the Kruskal-Wallis test showed that there was no significant difference between the flood types, this was indicated in Table 4 and no post-hoc test was performed. If the Kruskal-Wallis test showed significant differences, single-factor ANOVAs were performed to better understand identified differences by comparing the flood types in pairs. Linear regressions were carried out with IBM SPSS 27 to examine in the first step which PMT/PADM factors, i.e., threat, coping and responsibility appraisal, influenced the protection motivation of the respondents. The dependent variable for the regressions presented in table 6 was protection motivation, which we derived from the items "I will do everything possible to protect myself from flooding" and the item "I would recommend that others take private

		precautions" (see Table B1). These two items were combined so that the highest value was always taken for the combined variable. This combined variable enables us to capture protection motivation regardless of whether it relates to the respondent, as in the first item, or to others, as in the second item. In a second step, the PMT/PADM factors that significantly influenced protection motivation were examined to determine the framing factors that influenced them."
2	The paper could benefit from a more in-depth discussion of the limitations of the study, such as the potential biases in the survey data and the generalizability of the findings to other regions. For example, have you considered the potential biases in the survey data, such as non-response bias or selection bias? How do these biases affect the generalizability of your findings?	We will include a sub-chapter entitled "Limitations" at the end of Chapter 4, in which we discuss this work's limitations as follows: "In this study, we compare people affected by different types of flooding between 2013 and 2021 based on several surveys. Over the years, the survey methodology has evolved away from CATI towards CAWI. Due to the rapidly increasing use of mobile phones it can no longer be assumed that a balanced sample can be reached via landlines that are used in CATI. In fact, younger people tend to become underrepresented in CATIs. Therefore, these were accompanied or entirely substituted by CAWI. As a result, the "fluvial" group is homogeneous in terms of methodology (CATI), while the "urban pluvial" and "flash" flooding groups are mixed in terms of sampling methods used. While age groups are now better represented in CAWIs, it is hardly possible to derive response rates for a CAWI if it was advertised via social media, as it is impossible to conclusively determine how many people were reached by the advertising or the sharing of the survey link by those who were reached by the advertising. In addition, a study conducted in Australia by Gilligan et al. (2014) indicates that participants recruited through Facebook may be more socially engaged, better educated and have higher earnings than the general population. In our study, however, the CAWIs within a flood-type group were not advertised exclusively via social media but also via direct mail (i.e., in the district of Ahrweiler) or advertisements and reports in local newspapers. We assume that the mixed use of methods minimises those effects. Our survey targeted exclusively affected

		households. Therefore, our results only reflect the perceptions of those affected and not the perceptions of unaffected households. Shaver et al. (2019) point out that Facebook uses a non-random targeting algorithm. In addition, our surveys were conducted exclusively in Germany. The transfer to other regions must, therefore, be scrutinised in advance. For example, it can be assumed that the sense of responsibility of those affected by floods differs between different countries (Andrasko, 2021). Therefore, one aim of future research should be to collect data continuously and across national borders to investigate the transferability of our and other study results regarding individuals' adaptation and adaptive behaviour.“ With regard to the PLFRAM implemented, this study and the available data cannot clarify the extent to which households adapted appropriately before or after the flood. This is because which PLFRAM or combinations of PLFRAM are appropriate to the individual flood risk depends on many individual and local factors for which no data was collected. Furthermore, it is not possible to conclusively clarify how much financial, time and/or construction effort was required by those affected to implement PLFRAM. This is because the classes used differentiate between PLFRAM in terms of their mode of action and not in terms of implementation costs or effort.”
3	The paper would be strengthened by including comparisons with other related research in the field of flood risk adaptation to provide a more comprehensive evaluation of the conclusion. I think it is also necessary to compare your findings with existing literature on flood risk adaptation. It would be valuable to discuss how your results align with or differ from previous studies in the field.	In our discussion, we would suggest the following additional comparisons and references to other studies and research in the field of risk adaptation: - The importance of framing factors for developing protective behaviour has already been recognised in other studies, although the naming of this group of factors differs. Fuchs et al. (2017) describe "situational factors", which include "being informed", for example, and assign them to a superclass of "social capital", which is assumed to have a positive influence on the implementation of measures. Grothmann and Reusswig (2006) speak of personal or contextual factors potentially influencing people's behaviour. Bubeck et al. (2018) distinguish between environmental and intrapersonal factors

		influencing threat and coping appraisal. - The regression analysis in table 6, reveals no significant link between perceived probability of a future event and protection motivation for fluvial and flash flooding, what is in line with findings in Australia (Bird et al., 2013). - The regression analysis of the framing factors shows low R-squared values. This is a known problem in psychological research. It is due to the fact that people are very different, but they do not participate in surveys that last longer than 30 minutes, making it impossible to include all personal and contextual factors (Grothmann & Reusswig, 2006). - Our analyses show that home ownership indirectly promotes the motivation to protect oneself by strengthening coping and responsibility appraisals, which is in line with Grothmann and Reusswig (2006), who showed that ownership as a framing factor can positively influence the implementation of measures. - Hence, older people, if they have experienced rather severe flooding, are less likely to see themselves in a position to implement measures. Brockie and Miller (2017) found that older adults rely on social capital during and after flooding. However, Houston et al. (2021) found, that households with older adults even show less long term flood impacts and suggest that it is this is caused by social capital (e.g. social networks, knowledge). - Since perceived response efficacy and perceived self-responsibility are enhanced by the perceived availability of financial aid, communicating financial aid may be crucial to support the implementation of adaptive measures. This argument is strengthened by the fact that Houston et al. (2021) show a sensitivity to individuals' vulnerability and resilience to financial resources. - Past research showed a positive effect of (targeted) information campaigns on flood adaptation (Erdlenbruch & Bonté, 2018). - In North Rhine-Westphalia (as well as in S-5) people from the affected areas were invited for a CAWI via advertisements on

		Facebook and other media. Advertising via Meta to recruit survey participants is a method used in health-related research during the last decades (Gilligan et al., 2014; Kapp et al., 2013; Shaver et al., 2019). Thieken et al. (2023) advertised a survey via Meta and "did not find any anomalies concerning the age distribution of the respondents in the data collected in this way.
4	Besides, the format of this manuscript is poor, especially the placement of the text in the tables, and the images have the low resolution. These problems need to be carefully resolved.	We will revise both the figures and the tables.

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