

***Interactive comment on* “Land use and land cover change analysis of District Charsadda, Pakistan along Kabul River in 2010 flood: using an advance geographic information system and remote sensing techniques” by Misbah Fida et al.**

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Dear Reviewer, We are gratified for the time and importance honored to our manuscript. You reviewed this paper systematically and in detail to remove the errors for improvement and the enhancement of the scope, readability, and a presentable manuscript. Collectively, the evaluations made it likely to improve our revised manuscript to a higher standard, and for this, we are very thankful to you and the team of Natural Hazards & Earth System Sciences (NHESS), both editor and reviewers. We have tried our level best to incorporate all the individual points highlighted by the reviewers and revised

the whole manuscript for a quality publication. The itemized replies are provided below along with the revised paper. We hope that the quality of this paper is improved and you will find our responses to your satisfaction.

Referee #2 Comments: 1. The title is not suited to the content and need to be grammatically correct and English readable; I suggest that the authors have it checked by a native English speaker.

Reply: Dear Reviewer, Thank you so much for this important comment. We have corrected the language of our revised manuscript by taking help from the language experts/native speaker as suggested by you. Now we hope that the editor and reviewer will find the corrected manuscript up to their satisfaction.

2. I do not manage to understand the research questions; if the overall question is how land-use/land-cover changed due to a flood, then the manuscript doesn't represent a substantial contribution to the understanding of natural hazards and their consequences (new concepts, ideas, methods, or data) C1 NHESSD Interactive comment Printer-friendly version Discussion paper since there is no interpretation but a report of what changed, based on remote sensing data;

Reply: Dear Reviewer, Thank you so much for this comment. We think our research is suitable and fit for this journal therefore we submitted this paper to the NHESS and our research has been passed through several stages and accepted by reviewers and editor. The introduction section of this paper clarifies the work already known about the topic. The research question about land use and land cover is also clearly outlined in the introduction section. We used GIS and RS techniques to analyze the land cover change of the study area during the 2010's flood (Natural Hazard) and the data is interpreted well now in the revised paper.

3. If I take the main objectives from lines 91-97, the observation from point 2 remains, and further, I can say that the paper does not fulfill the objectives, because there is no analysis of the flood from a hydrological and geomorphological point of view, and

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also there is no flood hazard, risk zonation or risk mitigation analysis according to the international standards;

Reply: Dear Reviewer, as it clear that our research is based on land use/land cover changes occurred due to flood hazard. It is a change detection study before and after the flood that is fully based on GIS classification and RS images, not based on Risk zones and risk mitigation analysis, as mentioned in the objectives of this study. We have done some changes in the revised paper to remove the conflict and mistakes as identified by you. Hopefully, this has led to clarification.

4. Land-cover and land-use are different things, and these concepts should not be mixed;

Reply: Dear Reviewer, thank you so much for clarifying this point. However, we completely understand the confusion. We have known that these are different things but these two (LULC) are also related to each other. To eliminate the confusion, we have revised but not remove any one of them because it is needed to mention both here. From line 100-103, we clearly defined both the terms and the way we used these terminologies together. I hope now it will be clear to the readers.

5. I propose to the authors to consider a journal where the focus is on land use/land cover and GIS/RS, although even there something more than a simple report is needed; so, the paper needs a message and originality in using GIS and RS for land-cover classification at least;

Reply: Dear Reviewer, As mentioned earlier that we have used GIS and RS techniques to analyze the land cover change of the study area during the 2010's flood (Natural Hazard). The paper is revised in such a way to convey the novel message about the application of GIS and RS for land cover classification and change that occurred due to flood hazards.

6. I suggest that the authors have a general check of the text by a native English

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speaker since in a lot of areas the English are not understandable.

Reply: Dear Reviewer, Thank you so much for this important comment. We have corrected the language of our revised manuscript by taking the help of a native speaker as suggested by you. Now we hope that the editor and all the reviewers will find the corrected manuscript to their satisfaction.

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