

Point-by-point replies to the referees' comments

Title: "Assessment of Short-medium Term Intervention Effects Using CAE2 SAR-Lisflood in Post-earthquake Mountainous Area"

Authors: Di Wang, Ming Wang, Kai Liu, Jun Xie

Manuscript Number: nhess-2022-195

We thank the co-editor and referees #1 Jorge Ramire for reviewing our revised manuscript and the editor for giving an opportunity to improve it. The suggestions were formatted in light blue text. The author's response is shown below in black text.

I thank the authors for revising the manuscript and making it considerably better than the previous version. Although much improved, the text needs further refinement and mistakes occur repeatedly throughout the entire manuscript. I highly recommend that the text is further polished before NHCESS accepts this for publication.

Figure 1: Yellow text in legend is not legible and gray dashed line is barely visible on map.

We replaced the yellow text with dark red ones and changed the gray dashed line to white dashed line in Fig.1, which has high colour contrast and looks better.

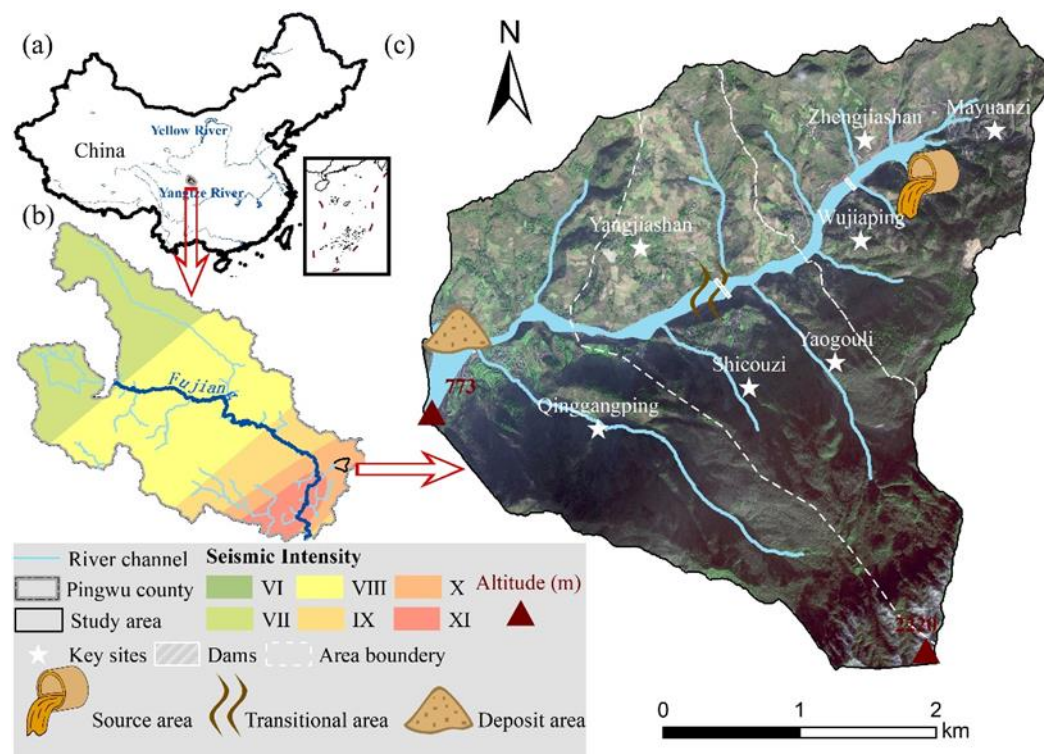


Figure 1: Overview of the study area. (a) Location of study area; (b) Seismic intensity map of the Wenchuan earthquake within the Pingwu county; (c) The schematic image of the study area.

Line 122: How does Figure 2 support this sentence?

We mistook the figure and the location of the parenthesis. The correct sentence is “Considering the damages flash-flood caused to the residential area downstream, the levees (see Fig. S1 and Section 3.2.2) are artificial barriers to protect agricultural land and buildings”.

Figure 2b: Caption and plot title indicate year 2016, but the plot axis is labelled 2011.

We corrected the axis labels shown in Fig. 2.

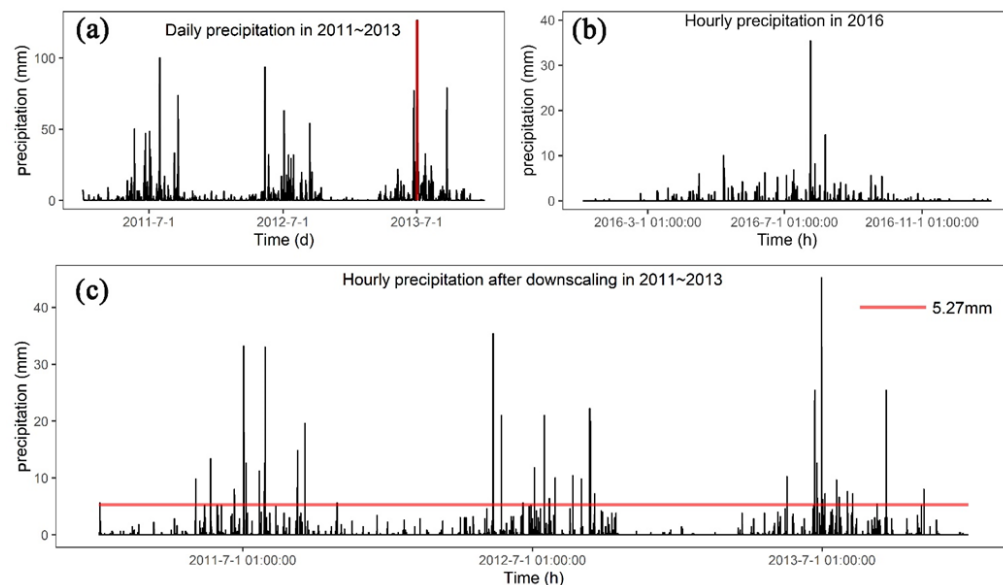


Figure 2: (a) Daily precipitation in 2011-2013 (the red vertical line indicates maximum daily precipitation of 126.5 mm); (b) Hourly precipitation in 2016; (c) Downscaled hourly precipitation in 2011-2013 (the red horizontal line indicates the hourly-mean precipitation 5.27 mm on the day with maximum precipitation marked in (a)).

Figure S3: In the text, explain how you obtained the scale on these images?

We explained as “Figure S3: The comparison of the simulation results (labelled with a depth range of deposition and inundation in the delimited regions shown in (b)) with images (GF-2 with an 8-m resolution, annotated three locations photographed in (c)) and photographic evidence (dimensioned to show the measured results) after the flash flood event in July 2018” in the title.

Figure 5a needs a legend and scale bar.

We added a legend and scale bar shown in Fig. 3.

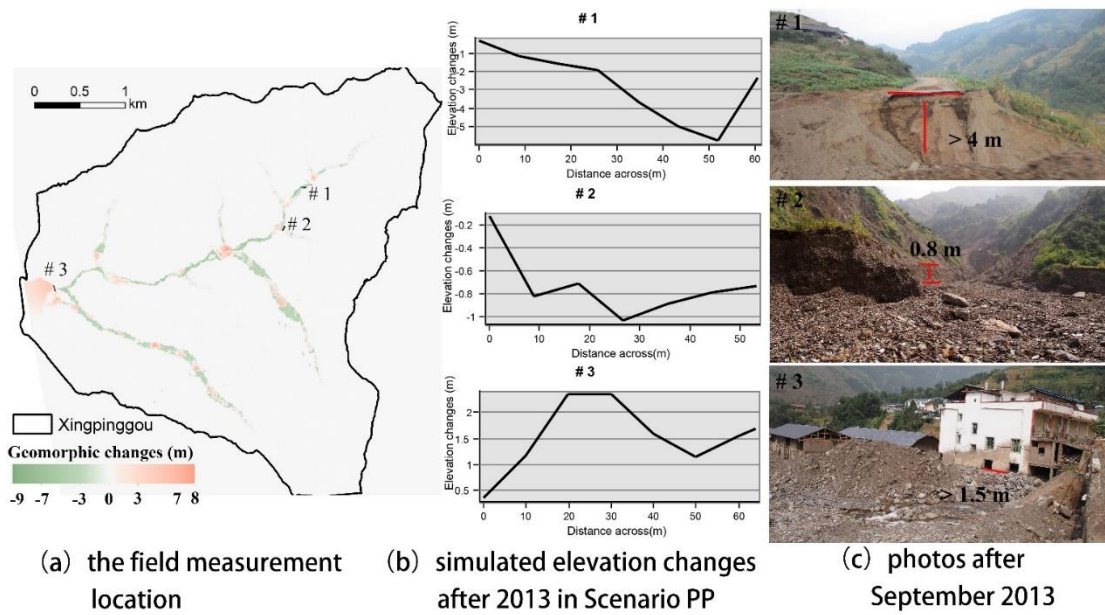


Figure 3: The comparison of cross-sections from the simulation results to the field measurements after 2013 in Scenario PP.

Figure 6 b and c need labels on axis.
 We added labels in both subgraphs.

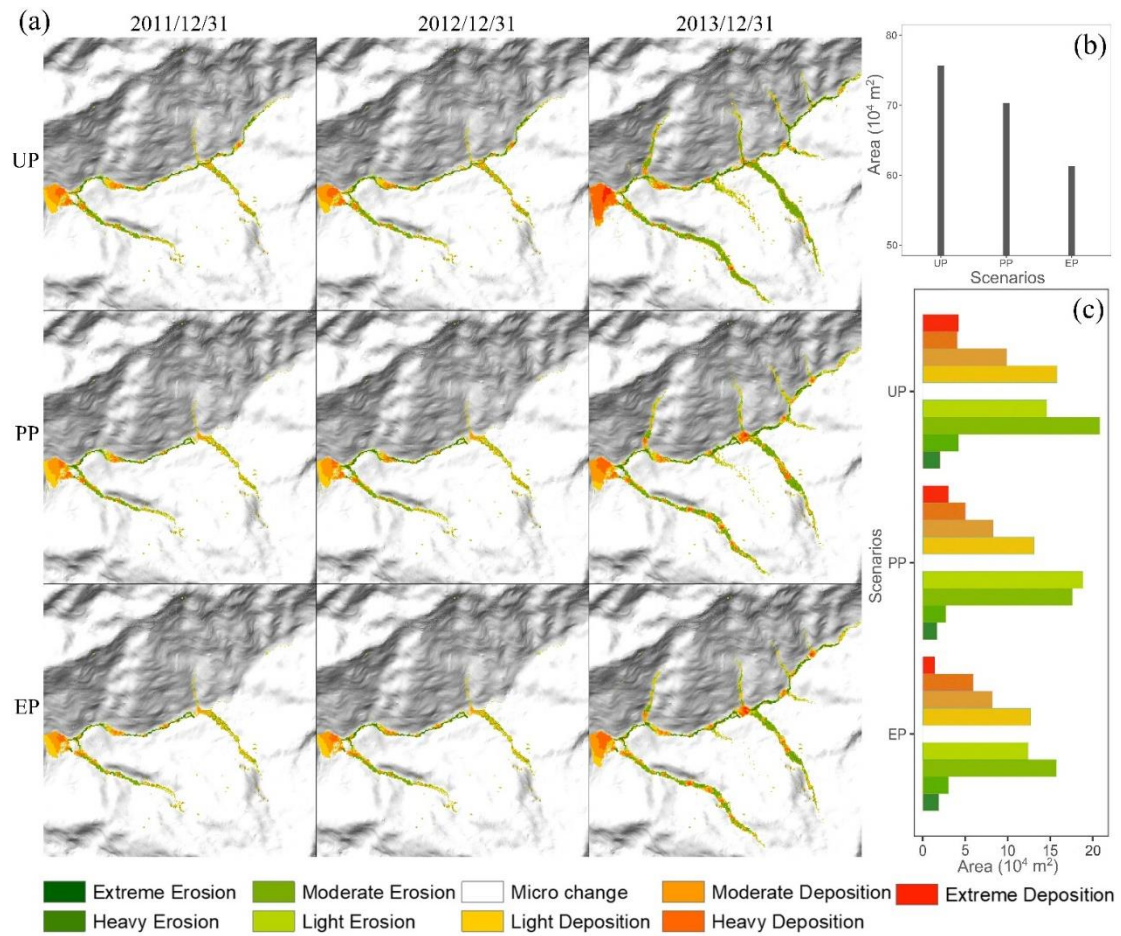


Figure 4: (a) Simulated geomorphic changes over time for three scenarios; (b) the affected area of deposition and erosion for three scenarios; (c) columnar distribution of different erosion and deposition levels.