

Minor revisions

The authors have accepted the key changes requested in the previous reviews. However, they have not been entirely consistent in applying those changes. It is important that throughout the text the authors carefully distinguish (1) the analysis of data in these databases of historical weather and harvests from (2) their interpretation of the underlying climatic and human history. Therefore, I would request the following minor revisions:

The abstract has added terms such as “reported” but needs to rework the language more carefully to reflect the new approach of the article. The following changes would be appropriate in order to make the meaning more precise and avoid inaccurate claims:

- “reported extreme droughts [floods] occurred” should be: “extreme droughts [floods] were reported” (or a similar phrase). The key distinction here is a report of a drought [flood] is not the same as the historical occurrence of drought [flood].
- “reconstructed grain harvest was poor [medium, high] in” should be: “the grain harvest was reconstructed as poor [medium, high] for” (or a similar phrase).
- “occurrence of reported extreme drought in any sub-region of eastern China was significantly associated with reduced harvests in the long-term average” should be: “frequency of reporting of extreme droughts was significantly associated over the long term with lower reconstructed harvests” (or a similar phrase).
- “association between harvest and extreme floods” should be: “associated between the reported frequency of extreme floods and reconstructed low harvests” (or a similar phrase).
- “other social factors” should be “other historical factors” to include other historical environmental changes, both natural and anthropogenic

On page 2, lines 20-34 have not been reworked to reflect the new approach of the article -- that is, to first discuss patterns in the data derived from the historical documents, and only then to discuss the interpretations of those patterns as historical climate impacts. This paragraph makes the unwarranted assumption that the reported frequencies of events in the historical documents represent real frequencies and that associations between the frequencies of reported disasters and extremes and variations in reconstructed grain harvests represent causation (i.e., climate impacts). The studies cited by Su et al. and Yin et al. present the same problems of historical method and epistemology as did the previous draft of this manuscript, as discussed in my previous review. Therefore, their results need to be qualified in the same manner. The authors may refer the reader to the discussion section for their causal interpretation.

In the sentence at the bottom of page 4 and top of page 5, it is important that the authors clarify that their method is based *on an assumption* that the probabilities for omitting drought and flood events in reporting and transmission of historical records were random and unbiased, for the reasons they have stated. They haven't actually proven that omissions were random and unbiased. They have merely made a reasonable argument that it would be appropriate to proceed on this assumption.

Now that the authors have worked to distinguish their results (that is, the patterns and associations in their datasets) from their discussion (that is, the climate and historical interpretation of those associations), their use of a combined “Results and Discussion” section has become more confusing. For the sake of clarity, I would encourage the authors to rename

section 3 as simply “Results” and turn subsection 3.4 into a new section, “Discussion.” Their discussion of results in the bottom of page 9 to the top of page 10 as well as their discussion of results at the top of page 12 might then be moved into the new “Discussion” section, as part of the authors’ climatic and historical interpretation of the patterns in the data. The fact that these pattern makes sense from a meteorological perspective supports the case that droughts had a significant historical impact on grain harvests. The authors may wish to state this point clearly in their discussion.

The revised sections, while mostly clear, should receive further review for correct English grammar and word use before publication.