

Interactive comment on “Climatic information of Western Sahel (1535–1793 AD) in original documentary sources” by V. Millán and F. S. Rodrigo

Anonymous Referee #2

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I think that the paper is interesting and provides a new and valuable piece of information to understand past African climate from poorly explored sources. However I have some methodological questions which should be addressed by the authors.

1) Which are the criteria used to classify a certain flood or drought in a given category? There is only a vague reference in lines 5-10 of p 3883. Since this is a crucial point to build the series, more information on the classification procedure should be provided.

2) According to the manuscript (lines 15-20 in p 3885), the climatic information is only available in 37% of the years. The authors acknowledge that this is a problem and that it is not enough to provide a continuous chronology. In this sense, Figure 2 is misleading,

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since it provides a false sense of continuity. There is no distinction between years with and without information. So, my understanding is that years marked with zero can be 'normal' years or years without information. I think that this should be clearly distinguished in the figure. Other issue not discussed in the text is the distribution of these years without information. Are they distributed evenly through the record? Is this lack of information the reason of the flat behavior of the series in the first part of the record (most of the second half of the 16th century)? This should be clarified in the text and figure 2.

3) One of the problems when using these ordinal indices is that two extremes of different sign (± 1) can lead to a normal (0) year. However, a year without extremes is very different from one when opposite extremes are recorded. The authors deal properly with this problem in table 1, but, again, figure 2 is misleading, since years with both types of extremes are also represented with a zero value. This should be changed in the figure. 4) I do not understand the message of the last paragraphs in p 3887 (from line 4 to the end). The relationship between Sahel precipitation and SSTs is well known, but I think that the paragraph is confusing and should be shortened and rephrased. How can the authors claim that 'In a first view, historical data presented here seems show minor persistence than that of the 20th century'? To my view it is a speculation, unless they are able to show a formal comparison.

The English needs some improvement.

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