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

Anonymous Referee #4

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General comments

Manuscript under review show a good effort of data collection to make a first approach on research in historical climatology on relatively unexplored areas.

I don’t have general comments about methods, objectives, references and data used or applied by authors. Quality level of work is, in general terms, notable and fruitful, considering difficulty of work with documentary sources where climatic information is not a main aspect for original writers.

Specific comments

- p. 3882-3883. Authors use rogation ceremonies by environmental factors as a proxy for their analysis. My question is focused on formal characteristics of these rogation. Considering experience in Europe for climatic reconstruction with catholic rogations, authors could explain if exist any typology of formal liturgy for rogations collected on documentary sources? If yes, this typology could be useful for an improvement of data classification on indices. If rogation testimonies only refer generic ceremonies, authors could also indicate it. Cordoba Caliphate (Al-Andalus) for High Middle Age developed different liturgic ceremonies for rogations, well shown in arab chronicles (i.e. Al-Muqtabis). It exist a similar pattern for rogations collected in study area of present manuscript? It could help data analysis process.

- p. 3883-3884. Authors show relation between flood events testimonies in Tombouctou and rainfall patterns on the top of basin (River Niger). They mention other cases where floods are recorded. It would be interesting to mention other situations for flood events, if exist similar pattern of flood or others. For example, any testimony of "in situ" floods by torrential rainfall... Objective would be identification of different types of flood events, of course, in the case documentary sources offer this possibility.

- Last specific question: What about potentiality of historical information concerning meteorological events? Any description or overview about it would be interesting into the text. Of course, manuscript is focused on climatic patterns. But any comment about resolution or detail of historical information would be appreciated. For example, availability of weekly/daily resolution information. This evaluation of available detailed information would give idea to public about potentiality of information for weather severe events reconstruction.

Technical Corrections

- p. 3890, line 5. Change "AfriqueNoire" by "Afrique Noire"
Just a formal aspect: it's not correct values showed by lines arriving to frame of diagramme. It's evident information cannot be observed correctly. Please, enlarge axis scale to make possible all data lines be into field of diagramme. For example, with Y-axis with values -3/+3. It improve presentation of figure making easy comprehension of information.

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