

Interactive comment on ““Everything is scorched by the burning sun”: Missionary perspectives and experiences of 19th and early 20th century droughts in semi-arid central Namibia” by S. Grab and T. Zumthurm

Anonymous Referee #1

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Overall: This is a decent study that outlines the impact of major droughts in Namibia during the 19th and early 20th centuries. Usually I would think that a paper of this sort was an unusual one for CP, but it seems that it is intended for the forthcoming special issue on droughts, where I think it will be a good fit. The paper shows good potential, but needs a bit of work to get it up to scratch. In particular I have the following general comments: – The paper lacks a firm justification for what exactly a historical lens can bring. At the moment the justification is short, and somewhat contradictory. Adamson et al. (2018) in *Global Environmental Change* is helpful here, as well as similar work

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on southern Africa by Kelso and Vogel (2015) also in *GEC* and Hannaford's recent papers in *Global and Planetary Change* and *WIREs Climate Change* – There is some confusion over the use of the word 'drought'. This is partly due to the use of the term drought in Grab and Zumthrum (2018) (which I would drop in favour of 'very dry'). The terms 'regional drought' and 'major drought' are also used without being explained, and I would like to see a little more description of which type of drought they are referring to at various places (agricultural, socioeconomic, ecological etc) – The discussion doesn't compare with any of the other similar studies that have been done in the region. In particular, Kelso and Vogel's work would make a very interesting comparison in terms of impacts, and Endfield and Nash's work in terms of the way that missionaries recorded drought.

Specific comments are below:

Abstract: spelling of achieved?

Lines 35-47 – the justification needs strengthening. It seems to suggest that the conditions under which ecological drought occur now are different to any in the past; i.e. they are related not to rainfall deficiencies (because of engineering) but to population growth. If this is the case, what exactly can historical case studies contribute? (To be clear I'm not saying they have no contribution to make – just that a better justification is required.)

Line 129-130 – where do these terms come from (climatic, consequential, social responsive, environmental) and what exactly do they mean?

Line 183-208 – the point is well taken, but how did you deal with it? Did you, for example, ignore any mention of the word 'drought' that came from missionaries who had been in country for less than three years? (This comes up again later.)

Section 3.2 – This section feels like it should come after section 3.3.

Line 221 – I assume the terms 'sufficient' and 'relatively wet' come from Grab and

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Zumthurm (2018)? If so I would suggest reproducing the key figure(s) from this paper.

Line 222 – This term ‘regional drought’ needs more explanation. Is there a corresponding ‘local’ or ‘widespread’ drought? How does a regional drought relate to a ‘major’ drought, given later?

Lines 259-262 – A few things here. Firstly, the authors need to be clearer on what they mean by ‘major drought’. Secondly, more detail is needed on how very dry years were assigned in Grab and Zumthrum (2018), and I would include at least one figure from this paper (see above). I would also stick with the term ‘very dry’ and drop ‘(drought)’ as this is a little confusing and confounds the meteorological droughts assigned by the rainfall reconstruction with the other types of drought (agricultural, socioeconomic, ecological) of interest in this paper.

Line 262-265 – Is it suitable to just count the number of references to drought, given the issue with new missionaries into the area that were previously mentioned? I wonder if the authors should remove all mentions of the word from those who have been in the country for three years or less, given that this period is the length of time they suggest it was taking a missionary to understand what normal conditions were.

Section 3.4 – On the whole there could be a lot more information given about these droughts, if the word count allows

Section 4 – In general this is fine, but there is no comparison with any other studies. How does what was happening in Namibia compare with neighbouring regions? Kelso and Vogel’s work on Namaqualand is particularly important here, as well as Endfield and Nash’s work on the Kalahari.

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