

Clim. Past Discuss., referee comment RC1
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Comment on cp-2021-157

Anonymous Referee #1

Referee comment on "On the economic impact of droughts in central Europe: the decade from 1531 to 1540 from the Polish perspective" by Tomasz Związek et al., Clim. Past Discuss., <https://doi.org/10.5194/cp-2021-157-RC1>, 2022

General Comments:

The paper addresses relevant scientific questions within the scope of CP. It builds upon a recent publication in CP from Brázdil et al (2020) and brings together existing studies and archival data to look at the economic impact of droughts in the Polish lands. The paper, however, requires revisions prior to publication. These suggested revisions mostly related to the presentation of the paper. In particular, the data and methods sections are incomplete and need to be restructured, and the results and discussion and the conclusion need to link more explicitly to the title and research questions. There are frequent examples of clumsy phrasing and occasional more notable errors (e.g. repetition of a paragraph), but the language is mostly comprehensible and clear.

Specific Comments:

Particularly in the introduction (but throughout the paper), the authors need to avoid informal and clumsy phrasing such as 'we would like to focus on one very short but also very important decade' (which might be better phrased as 'we will focus on one important decade') and 'we would like to try' (line 32-3) as well as unnecessary phrases such as 'as we see it' (line 31) and 'in our opinion' (line 36).

Sections 1.2 'data and methods' and Section 1.3 'methodology' are poorly structured and incomplete. They need to be revisited by the authors, and will benefit from being rearranged into a 'data' section and a 'methodology' section. The methodology currently fails to specify what statistical analysis was undertaken. The first two paragraphs of the

'results and discussion' section (section 2, lines 130-144) might be better relocated to the methodology (section 1.3).

The 'results and discussion' section sometimes loses focus on the issue of the economic impact of droughts. The authors should consider whether they can more explicitly link their interesting source discussion to droughts throughout section 2. For example, section 2.1.2.1 at lines 262-284 explicitly links the economic evidence to droughts, but section 2.1.1, 2.1.2.2 and 2.4 lack this analysis. It would be beneficial to include a sentence which summarises what the material discussed and its analysis tells us or does not tell us about the economic impact of droughts at/around line 221, and similarly at line 310 and 495.

The conclusion should better address the research questions and statements made in the introduction. The authors state in their introduction that 'our study should possibly be treated as a comprehensive historical supplement' to Brázdil et al's (2020) paper in CP, therefore the paper should reflect explicitly on how these findings complement and add to Brázdil et al's findings. The paper could also be improved by situating the findings of this study within the wider literature. This could be done either at the end of the discussion or in the conclusion.

The contents of the paper is of good quality and interesting, but it is not matched by the presentation. The authors should reread through the manuscript considering how their discussion links back to the title, ensure they provide a full description of their methods and make sure all their sentences are unambiguous and concise. I have provided a list of technical corrections below which should help with this. These suggested revisions, while exemplifying the issues, are not exhaustive and the authors should also check thoroughly for themselves.

Technical corrections:

Abstract: The authors may find it beneficial to replace the long sentence in the abstract 'So far, the literature has been more focussed on Western and Northern Europe, while as regards the region of Central Europe, the greatest attention was paid to the Czech Republic or Hungary' with a simple statement such as (for example) 'so far Polish records have received little attention'.

Line 26: The word 'done' is not necessary

Line 28: omit 'would like to', omit 'very short' (all decades are the same length!)

Line 29: omit 'very'

Line 31: omit 'as we see it' and 'possibly'

Line 32: rephrase 'we would like to' (informal/indecisive)

Line 36: omit 'in our opinion'

Lines 52-8: Is all this information necessary here?

Line 62: Rephrase sentence beginning 'The researchers'

Lines 64-6 clumsy phrasing

Lines 87-92 and 117-122: The same paragraph appears twice.

Line 91: rephrase 'trying to look at' (clumsy/indecisive)

Line 117: More detail needed. What type of quantitative analysis? What form was the data collected in?

Line 121: rephrase 'trying to look at'

Line 173-6: Long sentence, hard to read, split into two sentences.

Line 183-4: replace 'particularly important in Poland at that time from the economic point of view' with 'particularly economically important in Poland'.

Line 186: I am unsure what the authors mean by summaries, this is not adequately explained.

Line 206: could omit 'means that the'

Lines 217-220: long and complicated sentence

Line 254: Ambiguous sentence, consider rephrasing

Line 262-3: replace 'the' with 'a' ('a time of exceptionally abundant wheat, barley, rye and oat harvests' not 'the time of...')

Line 264: Pea should be singular ('pea harvests' not 'peas harvests')

Lines 297-300: Unclear

Line 303: The phrase '(which was, among other things, the result of a bad breeding policy)' needs to be further explained, or omitted.

Line 389: do you mean a lightning strike?

Line 494: Do you mean 'surviving' rather than 'preserve'?

Figure 1: Could the rivers and river names be made clearer?

Figure 17: Is this figure necessary? Would it be sufficient just to describe the trend and cite the data source?