Interactive comment on “Hydrometeorological extremes and their impacts, as derived from taxation records for south-eastern Moravia, Czech Republic, AD 1751–1900” by R. Brázdil et al.

A. Kiss (Referee)

kissandi@earth.geo.u-szeged.hu

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The paper focuses on the hydrometeorological extremes and related information, preserved in one specific source type, taxation records, in south-eastern Moravia. Systematic investigations referring to the total number of evidence in a given area on taxation records in themselves have not been carried out in Central Europe so far. Thus, the paper has high relevance. Temporal coverage of the study is rather impressive given the fact that damage-related taxation records can sometimes contain rather large amount of data/information, whereas in some other cases only short references are available. All in all, huge background preparation work had to be carried out to gain such massive amount of results. The paper is well structured, explanations and figures are clear and well-elaborated. In general, the authors, in my opinion, rather deeply exploited the possibilities of the source type of taxation records related to hydrometeorological events and their meteorological-climatological background in a selected Central European area. Thus, I recommend the paper for publishing in the journal ‘Climate of the Past’.

Some comments:

I. Title 1. I would recommend to change in the title ‘Czech Republic’ to ‘Czech Lands’. This sounds probably more ‘neutral’ (e.g. historically also correct), given the conditions of the studied time period (or entirely leave it out: Moravia is a rather clear geographical term in itself, and applies for both the present-day and the studied historical period). 2. see III. 7 bellow

II. Analysis of hydrometeorological extremes 3. Just very shortly, it would be nice to read somewhere at the beginning (just giving the key original terms) about the terminological background, i.e. what terms were applied and with what English terms the authors covered the exact meaning. My experience is with this type of (and related) sources that some terms may hold some uncertainties or further meanings. It would be interesting to see whether the used term ‘flood’ covers what kind of floods etc. For example, while studying the documents in areas not far from the present study area, I often come across with the term ‘torrential water’ (thus, not saying ‘rain’ or ‘flood’, but only ‘water’) etc. 4. In the sub-chapter 5.2 ‘Outstanding events’ the authors described the best documented and perhaps greatest four extreme events occurred in the studied period. Some well-elaborated figures are also included in this chapter. In case of Fig. 5, describing the ‘Spatial extent of damage…’ (similar to what was done in the other cases), I would also add “reported” or “recorded’. As clearly seen in case of all four maps, probably from not all of the (village) areas, affected by the extreme event, tax release data and/or records were available in the estate documentation (even if they were also affected). 5. This comment also implies for Figs. 3 and 8. Due to
the nature of source material, as also correctly stated by the authors, clearly not all extreme events (e.g. for the period of 1750-1810s) were documented or the documentation of all damaging extreme events, occurred in this area in the mentioned period, were included in tax-documentation. Therefore, I would add ‘in the reported cases’ (or something alike). 6. Again concerning the sub-chapter 5.2 ‘Outstanding events’, just briefly it would be interesting to see some possible broader parallels, comparison (if investigations are available) at least in these four most famous cases, i.e. with neighboring areas, countries. It would be perhaps useful to see whether or not these great events were local/regional phenomena or damages also occurred in the same time in other areas.

III. Impact analysis 7. The title also suggests the analysis of impacts. Even if authors sometimes refer to some impacts, this part is a bit underrepresented in the paper. This problem can be easily avoided if authors leave out the ‘and their impacts’ from the title. 8. If authors decide to leave the ‘impacts’ in the title, they could consider to include some further information. For example, while studying taxation records, in many cases a numerical information on damages, probably also of financial consequences (or even reports on casualties) are available. Some data, as examples, were also listed by the authors in sub-chapter 5.2. Is it possible to provide any systematic numerical information on documented damages? Or, alternatively, on the extent of tax reduction (at least in certain cases)? Since (if available systematic) evaluation on this type of information can be very useful and of basic importance in estimating and the understanding the rate and importance of damages and further impacts caused by these hydrometeorological events to the contemporary society and economy, I think at least a short report on them would be sufficient. This would also make further comparisons, related to the rate of damages, more convenient. For example, in Hungary for selected counties or districts (comparable in size to the present study area) sums (money) of tax reduction, for damages caused by hails in some consecutive years are listed in the 2nd volume of Antal Réthly’s compilation (Időjárási események és elemi csapások Magyarországon 1701-1800), based similarly on taxation records. Or if no any of these evidence are available or it is difficult to interpret (e.g. sporadic spatial-temporal coverage), this could be stated in one or two sentences.

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