

***Interactive comment on “Development of reliable future climatic projections to assess hydro-meteorological implications in the Western Lake Erie Basin” by Sushant Mehan et al.***

**M. Zappa (Referee)**

massimiliano.zappa@wsl.ch

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This manuscript presents a data set of climate forcing thought to be used for hydrological impact studies.

The authors carefully present the data sources and adopt different methodologies to treat them. A large selection of established metrics are introduced and used for evaluating the data with focus on three particular locations within the Western Lake Erie Basin target area. The three locations correspond to sites with ground truth data on precipitation and air temperature (incl. MIN and MAX).

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The reading of the manuscript is quite straight forward. It is for sure a meaningful piece of information and surely a nice initiative by the authors to make their data public. It is not usual to have data papers in HESS, but there are now and then quite interesting examples such as the CAMELS data set by Addor et al. (2017). While it is quite obvious to me how incremental and novel Addor et al. (2017) is, I struggle in finding the same level of novelty in this manuscript. Several countries develop their set of bias corrected climate forcing for applications in hydrology and other sciences including validations with respect to ground truth.

In Switzerland the current data set (<http://www.ch2011.ch/en/index.html>) will be soon updated with a new generation of scenarios (<http://www.ch2018.ch/en/home-2/>).

At the beginning of the annotated manuscript I attached, I warmly suggest to consider moving this manuscript to another Copernicus Journal. "Earth System Science Data" (<https://www.earth-system-science-data.net/>) is to me the right platform to present this piece of work. According to the list of "manuscript types" for HESS ([https://www.hydrology-and-earth-system-sciences.net/about/manuscript\\_types.html](https://www.hydrology-and-earth-system-sciences.net/about/manuscript_types.html)), there is the option to have a "cutting-edge case study" accompanying the data. This is not the case for the present manuscript and thus I suggest contemplating this option in a next phase of the review process.

Best regards

Massimiliano Zappa  
Birmensdorf, 3.9.2018

Reference:

Addor, N., Newman, A. J., Mizukami, N., and Clark, M. P.: The CAMELS data set: catchment attributes and meteorology for large-sample studies, Hydrol. Earth Syst.

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Sci., 21, 5293-5313, <https://doi.org/10.5194/hess-21-5293-2017>, 2017.

Please also note the supplement to this comment:

<https://www.hydrol-earth-syst-sci-discuss.net/hess-2018-204/hess-2018-204-RC1-supplement.pdf>

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Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2018-204>, 2018.