

Interactive comment on “65-year changes of annual streamflow volumes across Europe with a focus on the Mediterranean basin” by Daniele Masseroni et al.

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Received and published: 27 January 2020

Masseroni et al. provide an interesting analysis of streamflow trends at the European scale, with the aim to "... provide a valid benchmark for further accurate quantitative analysis on annual streamflow volumes". Such effort is much needed and appreciated. However the suggestion that accurate quantitative analyses of changes in the terrestrial hydrological cycle over Europe are missing is a bit misleading. Several studies have addressed attribution of streamflow changes. In a recent study (Teuling et al., Hydrol. Earth Syst. Sci., 23, 3631–3652, <https://doi.org/10.5194/hess-23-3631-2019>), we attributed patterns in streamflow and ET changes at the European scale to both

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changes in climate (temperature and precipitation) and land use (changes in forest age and cover and urbanisation) using a simplified Budyko framework. While more sophisticated studies will hopefully be undertaken in the future, we think that the current approaches and quantitative attribution to underlying causes (see also the extensive literature review in our paper) deserve discussion in this manuscript.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2020-21>, 2020.

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