Earth Syst. Sci. Data Discuss., community comment CC1
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Comment on essd-2021-165

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Community comment on "Estimating population and urban areas at risk of coastal hazards, 1990–2015: how data choices matter" by Kytt MacManus et al., Earth Syst. Sci. Data Discuss., https://doi.org/10.5194/essd-2021-165-CC1, 2021

The paper is well structured and readable. The focus is on the evaluation of different data choices that influence estimations of population in LECZ. One of the core data inputs is, as the authors state, elevation data. Their choice is mainly informed by the two articles of Hawker et al., (2019) and Gesch (2018) and relying on overly precise statements of vertical accuracy.

I would like to suggest also the following article for the authors to form a bit more rounded view and discussion on vertical accuracy in their work:

Uuemaa, E.; Ahi, S.; Montibeller, B.; Muru, M.; Kmoch, A. Vertical Accuracy of Freely Available Global Digital Elevation Models (ASTER, AW3D30, MERIT, TanDEM-X, SRTM, and NASADEM). Remote Sens. 2020, 12, 3482. https://doi.org/10.3390/rs12213482

From the abstract: "The AW3D30 was the most robust and had the most stable performance in most of the tests and is therefore the best choice for an analysis of multiple geographic regions. SRTM and NASADEM also performed well where available, whereas NASADEM, as a successor of SRTM, showed only slight improvement in comparison to SRTM. MERIT and TanDEM-X also performed well despite their lower spatial resolution."

I hope my comment tobe of help.

Best regards,

Alexander Kmoch