



Interactive comment on “Effects of spatial resolution of terrain models on modelled discharge and soil loss in Oaxaca, Mexico” by Sergio Naranjo et al.

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Received and published: 31 May 2021

Dear Authors,

it has been a pleasure to ready your paper. You have addressed in a rigorous way an important issue, that is the one of scale in soil erosion and hydrological modelling, especially in view of the availability of very high resolution DEM and images thanks to UAV. You have made use of open source models which allows for a better replicability of your result in other context. In general my comment to your paper is very positive: you have had a good experimental design, the paper is well illustrated and well written

and the results and discussion well presented, with good references to similar works.

My minor comments (see also the attached pdf) are the following: 1) in your introduction I believe that you have missed out a bit more of references to allow the reader framing your work a bit better. Suggestions are provided in the pdf 2) you use lots of acronyms not always explaining their meaning. This makes the paper heavier. And I suggested to explain the acronyms at least the first time you use it. 3) You don't provide much literature on the UAV aspect. A very important point here is the use or not of ground control points (GCP) in the generation of DEM. What could happen without GCP is the bowl effect which could inficiate the whole experiment. In your case, from a visual inspection of Figure 7a, you have not had this problem.

I would be happy to review it once more after these minor corrections.

Best regards, Paolo

Please also note the supplement to this comment:

<https://hess.copernicus.org/preprints/hess-2020-641/hess-2020-641-RC1-supplement.pdf>

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2020-641>, 2020.

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Discussion paper