

## ***Interactive comment on “Simulating the Dry Chaco Hydrology under Deforestation Pressure” by Michiel Maertens et al.***

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With pleasure I have read this very interesting manuscript looking at a multi model / multi scenarios approach to simulate the hydrology of the Dry Chaco region in South America.

It reads well and the results are supported by good quality figures. It is perhaps a bit long at some parts where results are mainly described and perhaps not enough explained / discussed. I have enjoyed the evaluation section and the diverse dataset used to evaluate your different scenarios (including the use of SMOS data!).

The title focuses on deforestation pressure which we don't find much in the main body of the manuscript. Sometimes some numbers from the literature are provided but it is

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unclear either or not they match your own evaluation. To me this work leads to many questions towards data assimilation but also model development and this point could be stressed out in you manuscript. Perhaps a list of the next steps to work on could be clearly formulated in the conclusions.

I suggest that this manuscript goes under major revision before to be considered for publication. I have annotated a pdf version of the manuscript with 58 (positive) comments and suggestion as a attempt to help.

Sincerely Clément Albergel

Please also note the supplement to this comment:

<https://hess.copernicus.org/preprints/hess-2020-486/hess-2020-486-RC1-supplement.pdf>

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