Review of: "Assessment of soil erosion in the Cesar watershed, an initial step toward the restoration of the Cesar River"

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Potential competing interests: No potential competing interests to declare.

This manuscript presents an application of the soil loss equation to the Cesar basin in Southern America. While the work sounds generally well conducted, the manuscript answers an engineering need (“assessment of soil erosion in the Cesar watershed”, possibly towards “restoration of the Cesar river”) but carries no particular contribution to science. In my opinion, there should be some methodological innovation for a case-study report to be published in a research journal. That said, in the following I provide some suggestions to improve the clarity of the manuscript.

In the last paragraph of the introduction, why is a mention to developing countries relevant? Please provide some argument on this.

Figure 1 is not very clear. In the first panel(s), I would suggest showing the Southern America, Magdalena basin and Cesar basin.

Estimation of the K “at continental scale”; what does this mean? Sounds like this would be a constant, which is strange. “S is a number attributed to soil structure” is also obscure. Please explain.

In section II.C the reader does not find what “GGS” means as a specification of the RUSLE method. Please explain.

In some points it is mentioned that the measured sediment concentration is compared to the sediment production resulting from the models. This sounds incorrect, as the sediment production should be compared to the measured sediment load (product of concentration to discharge, as defined just before Table 1).

I would suggest to provide in Table 3 the values for all the modelled scenarios. In the present version, one knows that, for example, 53346 against 64520 is the best outcome, but does not know which range of values was obtained from all the models.

In section II.D it is not clear how the weights are determined. Please explain.

The legend of Figure 2 would indicate that any erosion larger than 1 t/h/y is not “natural”. I would suggest rewording.

The use of the secondary horizontal axis in figure 3 is not understandable. Does the horizontal placement of a circle refer to a year or to a value of ER?

Section III.B sounds strange. If areas with lower erosion rate are to be considered, why does this manuscript focus just on hot spots? Maybe some figure showing results for the areas with moderate erosion will strengthen the statements declaring their importance.

Which is the “department” at the very beginning of section III.C? Furthermore, the content of section III.C has limited connection with the quantitative results presented, as it is general review material. The impact of the present results for conservation practices in the basin could be better demonstrated to increase the merit of the manuscript.

The captions of the figures end with “Author”, it is unclear why.

“(r/31/IDEAM. (2019)…” after the acknowledgements seems misplaced.