

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.

Thank you for inviting me to review this article. I have several observations/suggestions.

I hope the authors find them useful and help to improve the manuscript.

They are:

Abstract:

1. Sentence "To the best of our knowledge, this contribution represents the first assessment of soil erosion in the Cesar watershed" repeats a previous sentence.
2. The authors write "In addition to providing a basis for future research...". This issue is not addressed in the rest of the manuscript, so I recommend including at least a sentence at the end of Introduction, and in Discussion or in Conclusion.

Introduction:

3. Page 2/15. The authors write that "The Magdalena sediment production varies from 128 to 2,200 t/km²/year for watersheds ranging from 320 to 59,600 km². Then in page 11/15 (Conclusions) they present a figure of 25 t/h/y. Is this correct? t/km²/year vs t/h/y.

Methods:

4. Page 4/15, below Fig.1. The authors mention the Sierra Nevada (Santa Marta), the Serranía de Perijá (municipality of San Juan del Cesar, Department of Guajira), the Department of Cesar, the Zapatoza Swamp, and the Momposina. Can some of these locations be included in Fig.1.?
5. Page 7/15, above Table ii. Please include name and location of the local stations (perhaps in Fig.1?).
6. Page 7/15, below title of subchapter D. Please define "feature".

Results and Discussion.

7. Page 8/15, just above Table III. Please give the magnitude of the error in the results.
8. Page 8/15, about the “significant increase in erosion rates”. This is relation to what? Please explain.
9. Page 8/15, about the “significant increase in erosion rates”. Is this statistic? Please revise and correct if needed.
10. Page 8/15, the last sentence. Which is the basis for these interpretations? Please complete.
11. Page 9/15, paragraph below Fig.2. About that “it appears that these areas generate a significant amount”. Please be more precise, this is Results, and you did several simulations to quantify soil erosion.
12. Page 10/15, just above Fig.4. From 100 to more than 100. Please be more precise about the upper limit.
13. In Discussion, please address the issue of uncertainties and sources of errors.
14. In Discussion, please compare the total erosion from reduced areas with high erosion vs larger surfaces with low erosion. Are they comparable in total erosion?