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: Kindly clarify the comments and resubmit the paper

The provided paper "Assessment of soil erosion in the Cesar watershed, an initial step toward the restoration of the Cesar River" appears to address an important environmental issue, but there are several loopholes and areas of concern that need to be highlighted:

Comment 1: The paper does not provide enough information about the data sources, data collection methods, and the models used. There is no information on the specific locations of sediment gauging stations, and the paper lacks transparency about the calibration process for the erosion model. Without detailed information, it is challenging to assess the reliability of the results.

Comment 2: The paper introduces the RUSLE-GGS model, which is a complex model with many variables. The authors should provide a more detailed explanation of the model and its components to allow readers to understand how it was applied and how sensitive it is to different parameters.

Comment 3: The paper lacks clarity in its description of the methodology. It is essential to explain how the different components of the erosion model (K, LS, R, C, and P factors) were calculated and integrated into the analysis. Readers should be able to replicate the study based on the methodology provided.

Comment 4: While the paper mentions that the model was calibrated, it does not provide information about how this was done or the statistical techniques used for validation. A robust calibration and validation process is critical for the reliability of the results.

Comment 5: The paper mentions that there are data gaps in sediment concentration information, especially for the Reposo station. This is a significant limitation, and it raises questions about the accuracy of the results, particularly in areas with incomplete data.

Comment 6: The paper discusses the erosion rates but lacks an in-depth analysis of the potential impacts of these erosion rates on the ecosystem, water quality, and downstream areas. A more comprehensive discussion of the implications of the erosion rates is needed.

Comment 8:The paper does not consider the potential impact of climate change on erosion rates. Given the ongoing

changes in climate patterns, it is essential to discuss how these changes might affect erosion in the watershed.

Comment 9: Some of the figures presented in the paper lack clear labels and legends, making it challenging to interpret the information presented. Improved figure clarity is needed for better comprehension.