

Review of: "New Method to Identify Potential Illegal Water Use Location by Using Remote Sensing and Neural Networks in Laguna de Aculeo, Chile"

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Potential competing interests: No potential competing interests to declare.

Review:

Abstract Statement Revision:

- It is recommended to modify the term "Soil indices" to "Vegetation indices" in the abstract. This adjustment is crucial for aligning the terminology with the actual content of the study, thereby enhancing clarity and facilitating a more accurate understanding of the research focus.

Utilization of Time Series Data:

- It is strongly recommended to incorporate time series data from previous years as the initial state for comparison. This practice will enable a more thorough evaluation of the impact of water usage restrictions on the studied variables. Additionally, emphasizing whether the observed changes are statistically significant is essential for a comprehensive interpretation of the study's findings.

Adding References for Iso Cluster Unsupervised Classification:

- It is advised to include references following the discussion of the Iso Cluster Unsupervised Classification approach on page 6/18. This addition will bolster the credibility of the chosen methodology and provide interested readers with the means to delve deeper into the specifics of the Iso Cluster technique.

Questioning the Absence of Supervised Classification:

- It is recommended to address the insightful inquiry regarding the exclusion of supervised classification for comparison. Providing a concise rationale or discussion for choosing the Iso Cluster Unsupervised Classification approach over supervised methods will enhance methodological transparency and aid readers in comprehending the researcher's decision-making process.

Validation through Confusion Matrix:

- It is strongly recommended to validate the classification results using ground truth points or Google Earth through a confusion matrix. This rigorous step is pivotal for ensuring the precision and reliability of the classification outcomes,

contributing substantially to the overall robustness of the study.

Providing References for Formulas:

- It is advisable to include references for each formula utilized in the remote sensing analysis. This practice not only acknowledges the sources but also empowers readers to explore the theoretical underpinnings of the applied formulas, enhancing the academic rigor of the research.

In conclusion, the thoroughness of the study is acknowledged, and the provided recommendations are intended to refine specific elements of the document. Addressing these points will contribute to improved clarity, transparency, and overall credibility, aligning the research with the highest standards of academic and scientific rigor.