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

Faisel Mohammed[1]

1 University of Baghdad

Certainly! Based on the identified weak points, here are some potential improvements that the paper authors could consider:

1. Funding and potential conflicts of interest: The authors should provide a more comprehensive disclosure of potential conflicts of interest related to their affiliations and the use of specific satellite data. They should clearly state any financial relationships, collaborations, or partnerships that could influence the research findings. This will enhance transparency and allow readers to assess any potential biases.

2. Data and methodology: The authors should provide more detailed information on the data sources, acquisition methods, and processing techniques used for the satellite data. This includes specifying the satellite sensors and their characteristics, as well as the steps involved in deriving the soil indices. Providing a clear description of the methodology will enable better reproducibility of the study and allow readers to assess the validity of the results.

3. Validation and accuracy assessment: To establish the reliability of their findings, the authors should describe the validation methods used to assess the accuracy of the cluster analysis and the identification of areas with potential illegal water use. This could involve ground truth data collection, comparison with existing records or field observations, or other validation techniques. Including this information will strengthen the credibility of the results.

4. Generalizability and limitations: The authors should discuss the potential generalizability of their approach beyond the specific case of the Aculeo lagoon basin. They should address the applicability of their methodology to other regions facing similar water scarcity issues and highlight any necessary adaptations or limitations. Additionally, it is important to acknowledge and discuss the limitations of the study, such as potential uncertainties in the data or assumptions made during the analysis. This will provide a more balanced perspective on the research.

By addressing these suggestions, the authors can enhance the clarity, transparency, and reliability of their research, making it more valuable to the scientific community and facilitating future studies in the field.