Review of: "Groundwater Potential Zone Assessment Using Remote Sensing, Geographical Information System (GIS), and Analytical Hierarchy Process (AHP) Techniques in Fogera Woreda, South Gondar Zone, Ethiopia"

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Potential competing interests: No potential competing interests to declare.

Strengths:

The paper makes a strong contribution in its methodology section by employing a robust MCDM tool (AHP) to rank the influencing factors of groundwater potential. The authors clearly explain and justify the selection and weighting of each thematic layer, which adds credibility to the paper. In addition, the paper's strength can also be seen in its validation process of GWPI, which measures the well yield data to assess the performance of GWPI in section 3.4 (Figure 14). The validation of the results and the soundness of the methodologies demonstrate the applicability of the study, since the paper recognizes the pressing need to have efficient groundwater exploration techniques, which is a topic of high interest to practitioners and policymakers.

Weaknesses:

a. Although the methodology is robust, the paper fails to clearly discuss the limitations of the study. It is necessary to consider potential sources of error or uncertainty, which are inherent in RS and GIS data or the AHP method.

b. A literature review section is essentially missing to situate this paper within the context of previous research.

c. Comparing the finding results with relevant studies is not sufficiently addressed in the paper. And the conclusion section lacks thorough discussions, making its contribution to the field less substantial.

d. The figures and tables provide valuable information. However, they should undergo a lot of improvement in resolution and legibility of the images for the reader.

Suggestions for Improvement:

a. The limitations of their study should be included by the authors in a section, possibly talking about satellite data resolution, AHP subjectivity, the model's transferability to different geological settings.

b. To provide context and demonstrate how this study fills a gap in the current body of research, a literature review section should be added.

c. Comparing their findings to other relevant research, emphasizing similarities and differences, would better put the study in its existing scientific discourse.

d. Visual elements should be improved by the authors; this mainly refers to increasing the resolution of figures and tables to make them legible and interpreted effectively by the reader.

In conclusion, the research paper describes a well-designed and methodically objective way to evaluate the possibility of groundwater advances reliant on the incorporated method of the spatial study system. This can be a significant contribution to the field of hydrology. To fortify the dependability and importance of the proposition, the authors are required to correspond to the previously noticed themes about the study of literature and discussion on limitations. The author has not included a comparison survey in this paper; the result session would be much better if the authors wrote a comparison survey. The survey wild should clarify how this was implemented, but improved severely. Additionally, the visual details of the last figure are not sufficient. With these revisions, the paper would be a very good candidate for publication.