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"

G. R. Puno[1]

1 Central Mindanao University

Potential competing interests: No potential competing interests to declare.

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

Comments and suggestions:

1. One of the main components of the manuscript includes remote sensing; this has to be highlighted in the abstract.
2. It could be beneficial to include a brief discussion on the reliability or accuracy assessment of the groundwater potential zones delineated in the study, providing insight into the robustness of the findings.
3. Figure 1 legend “elevation” should start with an upper case letter, and the unit should be indicated.
4. The review of literature has to explicitly discuss the relationship between the groundwater and the different affecting factors such as LULC, topographic witness index, drainage density, lineament density, geology, slope, rainfall, elevation, and soil texture.
5. There should be a clear discussion as to the influence of lithology on groundwater potential zones.
6. Figure 5 legend “slope” should begin with an upper case letter.
7. Figure 6 legend should indicate the “Drainage Density” (m/sq.km).
8. The variables in the equation for lineament should be clearly defined or described for clarification.
9. Figure 7 legend unit of the Lineament Density should be enclosed with parentheses for consistency.
10. Figure 8 legend “Annual rain fall,” rain fall should be written as a single word “rainfall.”
11. The discussion under “Rainfall.” There should be a clear discussion on the influence of rainfall on the groundwater.
12. There should be a clear discussion as to the effect of TWI on the groundwater potential.
13. Figure 10 legend “<values>” should be replaced with an appropriate description or unit.
14. Figure 11 legend “Class_Name”, underscore should be removed.
15. Figure 12 legend. The range of the values should be in the same digit for consistency.
16. There should be validation of results with actual data on groundwater potential like measurement of water from deep wells or boreholes.