

Review of: "A QGIS Grid-Based Study to Understand the Relationship Between Land Surface Temperature and Greenness in Urban Areas"

Sadaf Gachkar¹

¹ Universidad de Sevilla

Potential competing interests: No potential competing interests to declare.

1. Abstract

- The abstract should briefly mention the sample size or grid size used for analysis to give context to the scope of the study.

Consider adding a sentence about the potential implications or applications of the findings in urban planning or environmental management.

- The introduction would benefit from defining key terms like NDVI and LST for readers unfamiliar with remote sensing terminology.
- Consider adding a sentence about the potential implications or applications of the findings in urban planning or environmental management.

1. Introduction

- The introduction would benefit from defining key terms like NDVI and LST for readers unfamiliar with remote sensing terminology.
- The research question could be more clearly formulated to guide the reader through the specific aims of the study.

1. Methodology

- More detail is needed regarding the grid creation process, particularly on why a rectangular grid was chosen over other possible shapes (e.g., hexagonal).
- Specify the time of day and year the Landsat image was captured to clarify how it might affect the temperature and greenness measurements.
- The interpolation method (nearest neighbor) used for adding raster values could be further justified, particularly whether other methods were considered.

1. Results

- The visual figures are clear, but it would be helpful to include error bars or confidence intervals in the scatter plot to

illustrate the variability in the data.

- Include a discussion on spatial autocorrelation, as this could significantly affect the interpretation of the relationship between NDVI and LST.
- Expand the results section to discuss any potential outliers or anomalies observed in the data and how they might influence the overall correlation.

1. Discussion and Conclusion

- While the discussion touches on possible reasons for the weak correlation, providing more concrete hypotheses or explanations (e.g., microclimate effects) would strengthen the analysis.