

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

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Potential competing interests: No potential competing interests to declare.

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

A brief description of the manuscript: The paper provides a detailed description of the analysis of the correlation between LST and NDVI values for urbanized areas using the example of Delhi. The results of the analysis of the LC8146040402020020089LGN00 scene are discussed. The author describes well the sequence of steps to obtain the results and also describes the area of analysis well.

Below, I ask for correction on a few points:

Point 1.

Text: This study is an attempt to understand the relationship between greenness and land surface temperature using a specific QGIS plugin...

Comment: I would suggest explicitly adding to the abstract the message that the author solves two problems in this paper: 1) provides a reproducible method for analyzing LST and NDVI values for urbanized areas using QGIS, and 2) validates the method on the example of Delhi city.

Point 2.

Text: Many studies worldwide are suggesting that the surface temperature in urban areas depends on vegetation

Comment: It makes sense to cite the literature here. The two most relevant sources confirming this statement will be enough.

Point 3.

Text: Methodology

Comment: In this section, it is worth giving more details before proceeding to the technical steps. For example, it is worth explicitly mentioning what the goal of the method is (in this case, analyzing the regression relationship between the variables). It is also worth explaining why the sampling procedure was implemented. It seems to me that the results would have been more reliable if the author had used pixel-by-pixel comparison instead of sampling points. If the author has a different opinion on this matter, it should be stated here.

Point 4.

Text: A Landsat image is used in this study...

Comment: If it is possible, please provide a URL to access such a data sample. For example, for LC08_L2SP_146040_20240831_20240906_02_T1, it will be the link:

- <https://earthexplorer.usgs.gov/scene/metadata/full/5e83d14f2fc39685/LC81460402024244LGN00/>

This will make it much easier to reproduce the results. Also, scene metadata should be displayed as bullet points rather than as flat text - this makes it easier for the reader to view the text.

Also, if the RSGIS plugin has limitations on Landsat versions (for example, it works only with Landsat 8 data), that's worth mentioning in the section.

Point 5.

Text: Select the Delhi Shape file provided earlier

Comment: Where was the file provided? Please provide the link to it or provide the information on where vector layers with administrative boundaries can be found.