Author's response to comments revised submission – 2022-09-29 (version 5)

Authors' response to editor - manuscript ESSD-2022-113

Responses to Editor comments: The text in blue represents the authors' reply. Text in italic represents text that was changed in the manuscript, with line numbers referring to those in the revised manuscript.

1. According to our rules (https://www.earth-system-science-data.net/policies/data_policy.html) the data citation is mandatory (e.g., Wagner et al., 2020). Please include citations to each DOI.

Reply: Citations of the Leuven.cool dataset (Beele et al., 2022) have been added to each DOI. Since the dataset was not yet cited in the text, the DOI and citation have been added to section 2.2.

'… After evaluation, the QC method is applied to the data of the Leuven.cool network, making it a very suitable data set to study in detail local weather phenomena such as the urban heat island (UHI) effect. (https://doi.org/10.48804/SSRN3F (Beele et al., 2022))*'* (Lines 28-29)

'The data is currently available from July 2019 (2019Q3) until December 2021 (2021Q4) (https://doi.org/10.48804/SSRN3F (Beele et al., 2022)).*'* (Lines 189-190)

2. Regarding the figure B2: with the next revision, please check if a copyright statement/image credit is required and add it to the figure caption, if applicable. If you are the originator, you can just inform us via email.

Reply: Thanks for the good remark. Figure B2 had a different background map (OpenStreetMap) compared to the background used in Figure 2 (ESRI Topographic Map). To improve the uniformity of the figures, the background of figure B2 was changed accordingly. An additional citation for the ESRI Topographic Map (ESRI World Topographic Map, 2022).
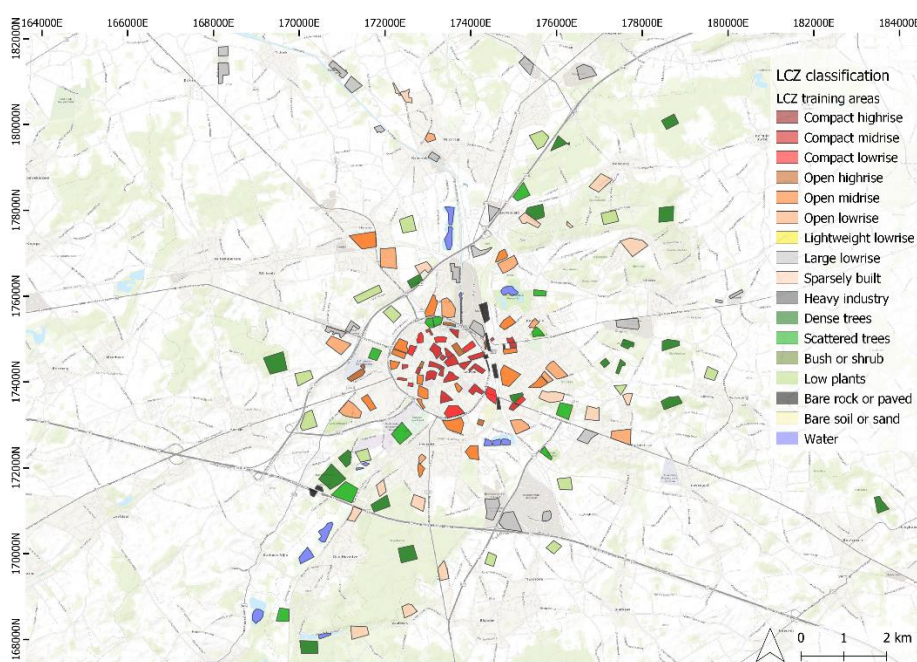

Figure B2: Training areas used for the creation of the LCZ map. Delineation is based on land use, building height, building density and green ratio data. Background map: ESRI.

(Figure B2, line 770)

Additional note: If the editor/type setters would find the manuscript too lengthy, all appendices can easily be moved to the supplementary materials. Since they were not reviewed as supplementary materials, we currently incorporated them as appendices.

Additional note: The order of the subfigures in Figure D1, Figure D2 and Figure D3 has been changed around to match the order of the figures in the main text. The accompanying caption should be sufficient to explain each subfigure.

Additional note: Some typos have been corrected.

References

Beele, E., Reyniers, M., Aerts, R., and Somers, B.: Replication Data for: Quality control and correction method for air temperature data from a citizen science weather station network in Leuven, Belgium, https://doi.org/https://doi.org/10.48804/SSRN3F, 2022.

ESRI World Topographic Map: http://www.arcgis.com/home/item.html?id=30e5fe3149c34df1ba922e6f5bbf808f, last access: 1 March 2022.