The revised manuscript demonstrates substantial improvements in methodological clarity, contextualization, and presentation, addressing the majority of concerns raised during initial review. The authors have successfully strengthened the introduction, expanded methodological justifications, and enhanced the discussion of practical implications for policymakers. While the bulk of the revisions is now complete, minor technical corrections are required to ensure consistency, precision, and reproducibility. Specifically, attention should be given to: clarifying the spatial extent depicted in Figure 1; ensuring consistent map delineation with the described study area; resolving the discrepancy in R^2 values between lines 160-163 and 247-252; and incorporating details about the in-situ instrument(s) at the MARS facility in relation to lines 279-280.

Technical comments

Figure 1.

The spatial extent of Bucharest considered in the land use regression requires clarification (e.g., whether it aligns with the map boundary or a narrower study area). A precise delineation of this extent would enhance methodological transparency and allow readers to evaluate the land use classes integrated into the model. Additionally, the absence of standard cartographic elements—such as a scale, orientation, or geographic coordinates (e.g., latitude/longitude, as provided in Figure 2)—limits the interpretability of the spatial data.

Lines 133 – 135 *…. window on 3 data points window…. values higher and lower than 1.5 times the window mean.*

The clarity of the text can be improved: A moving average filter with a 3-data-point window was used to remove data points with values exceeding 1.5 times the window mean, above or below.

Line 199 – 200 *... over an area of approximately 240 km^2 (the entire area of the city of Bucharest).*

Going back to the discussion on figure 1. This area should be clearly delineated on the map.

Lines 160 – 163: *The performance of the model has been evaluated in three steps. First, a subset containing 15% of data collected through mobile measurements (and not used to tune the model) was used for cross-validation. This percentage represents the optimal value for which the models developed in this study can recognize the*

relationship between the attributes of the input data and the output variable with ***R^2 score greater than 0.75****.*

Lines 247 – 252: *The performance of each model (one for each type of pollutant) was tested in three steps. First, the outputs of the model have been cross-validated against mobile measurements on the route (the 15% randomly selected mobile datasets not used for training). The percentage of 15% kept for testing represents the optimal value for which the models developed in this study can recognize the relationship between the attributes of the input data and the output variable with* ***R^2 score greater than 0.5****.*

Is it greater than 0.5 or greater than 0.75? To ensure clarity and eliminate redundancy, please remove one of the duplicated paragraphs and clarifying the R2 score.

Line 279 – 280. *More information about what type of variables are measured by*

NAQMN is given in (Ilie et al, 2023).

An additional sentence should be added regarding the in-situ instrument(s) at the Magurele Center for Atmosphere and Radiation Studies (MARS).