

Reply to RC C1873: 'Comments on the structure'

We would like to thank the referee for the time and effort put into reviewing the manuscript. We greatly appreciate the comments and suggestions. We believe that the implementation of such changes will considerably improve the overall quality of the revised version of the manuscript. Following the guidelines of the NHESS Editorial Board, the revised manuscript was not prepared at this point.

The general concept of the disaggregation of census data into finer spatial resolutions was already treated frequently in the literature. However, the article represents an interesting and consistent approach which adds a value and helps extending the expertise in tackling the underlined problem. I would recommend the authors to highlight more the encountered limitations of the proposed method.

We fully agree that in the original version of the manuscript, the analysis of the limitations of the methodology was done in an incomplete way. This will be object of considerable improvement in the revised manuscript. Since a similar observation was also made by the other reviewer, we decided to thoroughly address it in the respective response and not duplicate the reply herein. Please refer to our response to the other reviewer.

Moreover, they may want to consider separating the description of the method from its performance-evaluation.

In the original version of the manuscript, the presentation of the methodology and its performance-evaluation were, as pointed out by the reviewer, included in same section without a clear distinction between them. We recognize that this could make Section 2 less clear and intuitive to read. In the revised manuscript, we will separate it into two subsections at 5055-L23.