

## ***Interactive comment on* “Local models reveal greater spatial variation than global grids in an urban mosaic: Hong Kong climate, vegetation, and topography rasters” by Brett Morgan and Benoit Guénard**

### **Anonymous Referee #2**

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This study aims to produce a high resolution (30 m raster) data set of climate and environmental variables for the Hong Kong region. Unfortunately, I find the manuscript to be confusing, showing an overall disconnection between sections. The manuscript focuses on a large but incomplete description of the variables included in the data set, and does not address the main conclusion stated in its title (“Local models reveal greater spatial variations than global grid in an urban mosaic”).

The introduction section discusses the application of “Species distribution modeling (SDM)” and how this type of analysis is affected by the spatial resolution of the envi-

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ronmental data employed. However, this introductory discussion seems to be irrelevant within the context of the manuscript, as SDM is rarely mentioned again throughout the text. Abbreviations such as NDVI are used throughout the abstract and introduction but are not explained until the later sections of the methods section.

In the method section each of the topographic and climate variables, as well as remote sensing products are mentioned. However, it seems to me that each of the subsections focuses on irrelevant details, and there is no clear descriptive explanation of a) what these variables are? b) why were they chosen? and c) how were they processed?

The results and discussion section is also vague and difficult to read. There is no clear distinction between the validation data set/model and the novel data/model analysis produced by this study. The figures lack explanation within the main text, and it is hard to see how they convey the results of the study.

Overall, I believe this manuscript needs substantial revisions, and perhaps a reassessment of the scientific goals that it is trying to communicate.

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Interactive comment on Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2018-132>, 2018.

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