

REVIEWER'S COMMENTS AND OUR RESPONSES

We thank the editor and reviewers for their constructive comments. Hereafter we copy the comments and explain how we addressed these comments in the revised manuscript.

REVIEWER #1:

The authors have addressed my comments.

Response:

Many thanks for your valuable comments for improving the manuscript.

REVIEWER #2:

I appreciate the author's efforts to address the issues I raised and to improve the quality of the article. The introduction part is well organized and some unclear statements are revised. Some of the figures are improved to make them more standard and clearer. I believe this gridded population dataset with high accuracy can be the important basis for the related studies. However, there are still some minor suggestions that should be considered before publications.

Response:

Many thanks for your valuable suggestions and we further improved the manuscript according to your comments.

(1) The points in the scatter plot should be smaller.

Response:

Thanks for your suggestion.

We revised Figure 7 and Figure 9 with smaller points.

(2) Add some references on gridded population studies of China.

Response:

Thanks for your suggestion.

We added six related references on gridded population studies for China.

Added or revised contents:

Line numbers in the revised manuscript: Line 55-56.

(3) Add the potentials of some other kinds of geographical big data in the production of large-scale gridded population datasets, such as mobile phone signaling data, Weibo check-ins data, and house renting data.

Response:

Thanks for your suggestion.

We added the potential data for the production of gridded population datasets.

Added or revised contents:

Line numbers in the revised manuscript: Line 377-378.

THE EDITORIAL SUPPORT TEAM

Figures 1, 2, 3, 4, 6, 8 may contain a territory that is disputed according to the United Nations. If and when the manuscript is accepted for final revised publication, you will be asked to choose one of the following options: (a) you could remove the disputed territory from the maps and submit new figure files, or (b) we could add a statement that some figures contain disputed territories.

Response:

Many thanks for your comments.

We choose the option (b) by adding a statement that some figures contain disputed territories.