

Interactive comment on “A cultivated planet in 2010: 1. the global synergy cropland map” by Miao Lu et al.

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Thank you for the comments concerning our Discussion Paper. These comments were very helpful for revising and improving our paper. We have responded to the comments point by point and made the detailed revisions embedded in the manuscript with the line numbers indicated in the responses.

Comment 1: Line 244, "... to consider than the national ...". Here I think it should be "... to consider that the national...".

Response: Sorry for the writing error. We revised this error in line 253.

Changes in manuscript: We corrected the error in line 253.

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Comment 2: Line 249-269: The cropland distribution in Argentina in Fig.3. According to the rules, Fig.3C shows the merged cropland map based on the first and second subnational maps. My concern is since regions C-F have a total cropland area of 764.98 km², what is the spatial distribution of these croplands? I am confused that I did not see the cropland distribution in regions C-F in Fig.3C. Maybe I did not quite understand the methods. Would you add some explanations about this?

Response: Thanks for the comments. We added the spatial distribution for regions C-F with a cropland area of 764.98 km² to Fig. 3(d). The self-adapting statistics allocation in Section 3.2 is a rerun for the merged departments of C, D, E, F, and G with a cropland area 764.98 km². Based on the agreement ranking scores in Section 3.1, the cropland area 764.98 km² is allocated to the pixels with higher ranking scores automatically until the cumulative cropland area is close to the 764.98 km². Then, we obtained the allocation results of the merged region, as shown in Fig. 3(d).

Changes in manuscript: We added how to obtain the cropland distribution of regions C-F to lines 276 to 280, and the result is shown in Fig. 3(d).

Comment 3: Besides, it would be great if you can share your code of this work together with the synergy map.

Response: All the code with annotations used for the synergy cropland mapping is shared on this website: <https://sourceforge.net/projects/globalmapping/>.

Changes in manuscript: We added the website of the code to the manuscript in lines 422-423.

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