Journal: ESSD

Title: High-resolution map of sugarcane cultivation in Brazil using a phenology-based method

MS No.: essd-2021-88

MS Type: Data description paper

Dear Prof. Kirsten Elger,

We are very grateful to you for your time and effort to our manuscript “High-resolution map of sugarcane cultivation in Brazil using a phenology-based method” (MS No.: essd-2021-88). Our manuscript can not be processed so smoothly without your help.

We revised our manuscript according to your comments and the remarks from the preceding review file validation by the editorial support team. Please find the point-by-point responses below. Please note that the comments from you and the editorial support team are in **bold** followed by our responses in regular text. The changes in our manuscript are underlined with red.

We believe the quality of the manuscript can now meet the high standard of ESSD and deeply appreciate your consideration of our manuscript.

Sincerely,

Yi Zheng, Wenping Yuan

School of Atmospheric Sciences,

Sun Yat-sen University, Zhuhai 519082, Guangdong, China

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Response to Prof. Kirsten Elger：

Dear Yi Zheng and co-authors,

many thanks for your excellent revision of the manuscript. Before finally accepting it for publication in ESSD, I wanted to ask you for two minor corrections to the manuscript:

New Figure 8 (p. 24 in the track change mode version): As one can only see sugarcane (in red), I would remove the "non-sugarcane" field of the legend here and

add this legend to Figure 9. Here the high resolution images allow for distinguishing presence and absence of sugarcane. Alternatively, you could also describe the "presence (red) and absence (white)" in the figure caption.

many thanks and best regards,

Kirsten Elger

Dear Prof. Kirsten Elger, thank you very much for your positive comments to our revision of the manuscript. As your comments, we removed non-sugarcane in Figure 8 and added description about “presence (red) and absence (white)” to the caption of Figure 9. Please see Figure 8 and Figure 9 below:

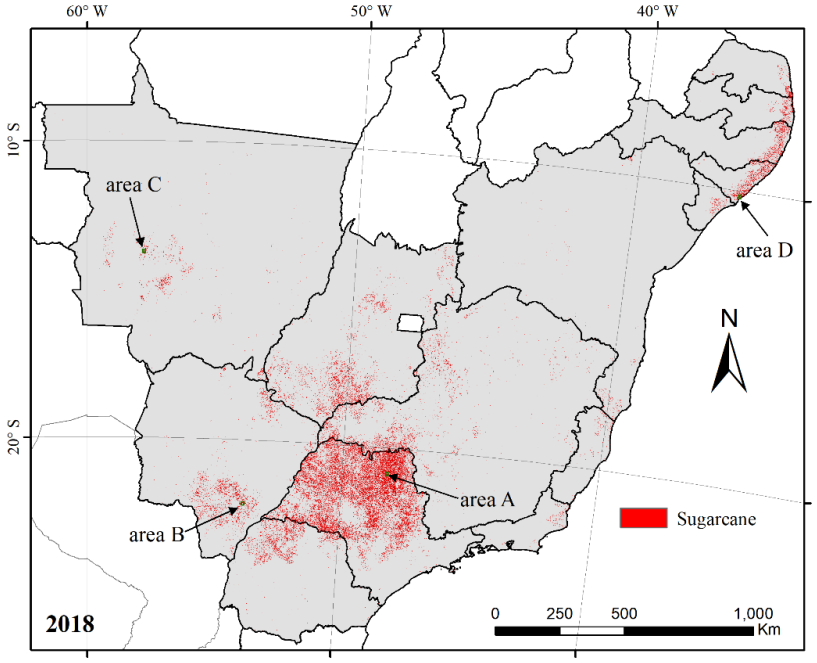

Figure 8. Sugarcane harvest map for the 14 studied states in Brazil in 2018. The administrative boundary data were obtained from the IBGE.

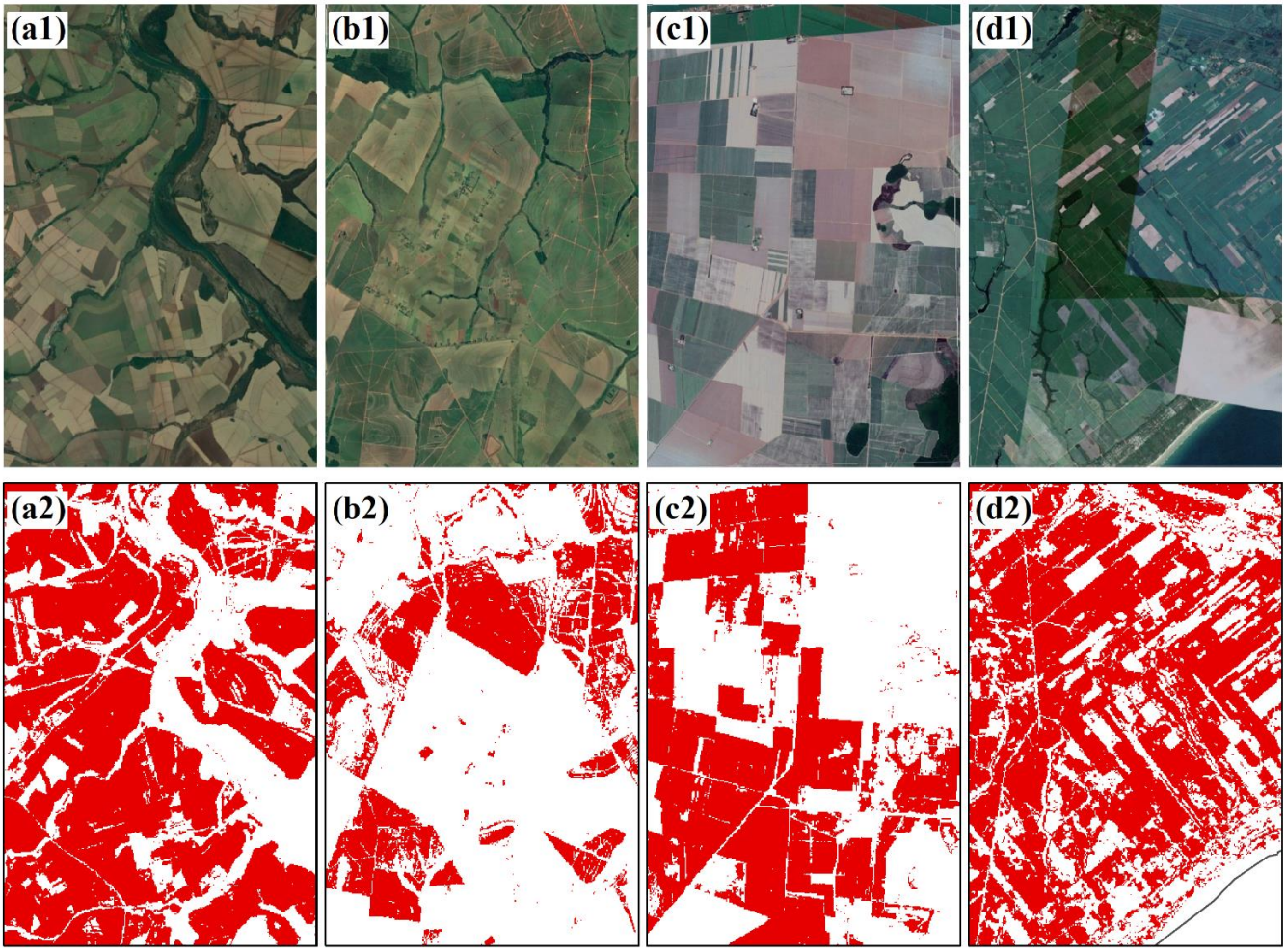

Figure 9. Zoomed-in of (a1)-(d1) high-resolution images from Google Earth © Google Earth, (a2)-(d2) presence (red) and absence (white) of sugarcane on the harvest maps in 2018 for the typical area A-D in Fig. 8.

Response to the remarks from the preceding review file validation：

1. Regarding your figures #3, #9: with the next revision, please add the copyright icon as follows: © Google Earth.

Thank you. As your comments, we added copyright icon "© Google Earth" to the caption of Figure 3 and Figure9.

"Figure 3. Examples of the (a) color and textures on the high-resolution images from Google Earth © Google Earth, and (b) timeseries of NDVI for different vegetations."

"Figure 9. Zoomed-in of (a1)-(d1) high-resolution images from Google Earth © Google Earth, (a2)-(d2) presence (red) and absence (white) of sugarcane on the harvest maps in 2018 for the typical area A-D in Fig. 8."

2. Please ensure that the colour schemes used in your maps and charts allow readers with colour vision deficiencies to correctly interpret your findings. Please check your figures using the Coblis – Color Blindness Simulator (https://www.color-blindness.com/coblis-color-blindness-simulator/) and revise the colour schemes accordingly.

Thank you for pointing out this. We agree that it is very important to improve the accessibility of figures for readers with colour vision deficiencies. We checked all the figures in our manuscript using the Coblis – Color Blindness Simulator and revised Figure 2–3, Figure 6–7, and Figure 12–14 accordingly. We think all the figures in our manuscript can be easily and correctly interpreted by all the readers now. Please tell us if there are any remaining mistakes in these figures.