Supplement of

Spatio-temporal evolution of glacial lakes in the Tibetan Plateau over the past 30 years

Xiangyang Dou et al.

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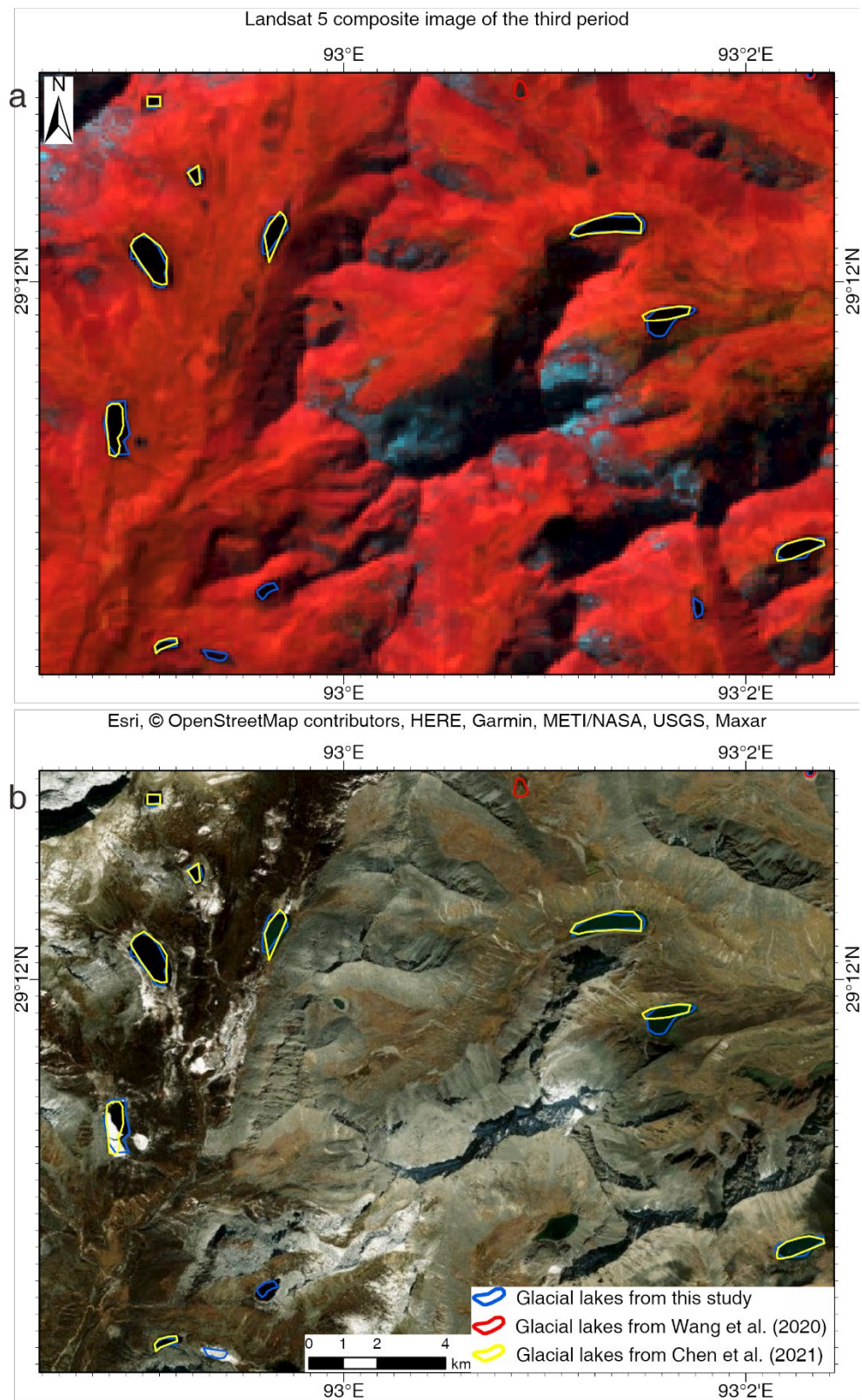
Figure S1. The glacial lake boundaries from these three inventories for randomly selected region #1. The base maps are sourced from (a) Landsat 5 composite imagery and (b) ESRI online maps. The blue polygons from 1990-1999 period of this study; red polygons from 1990 of Wang et al. (2020); yellow polygons from 2008 of Chen et al. (2021).
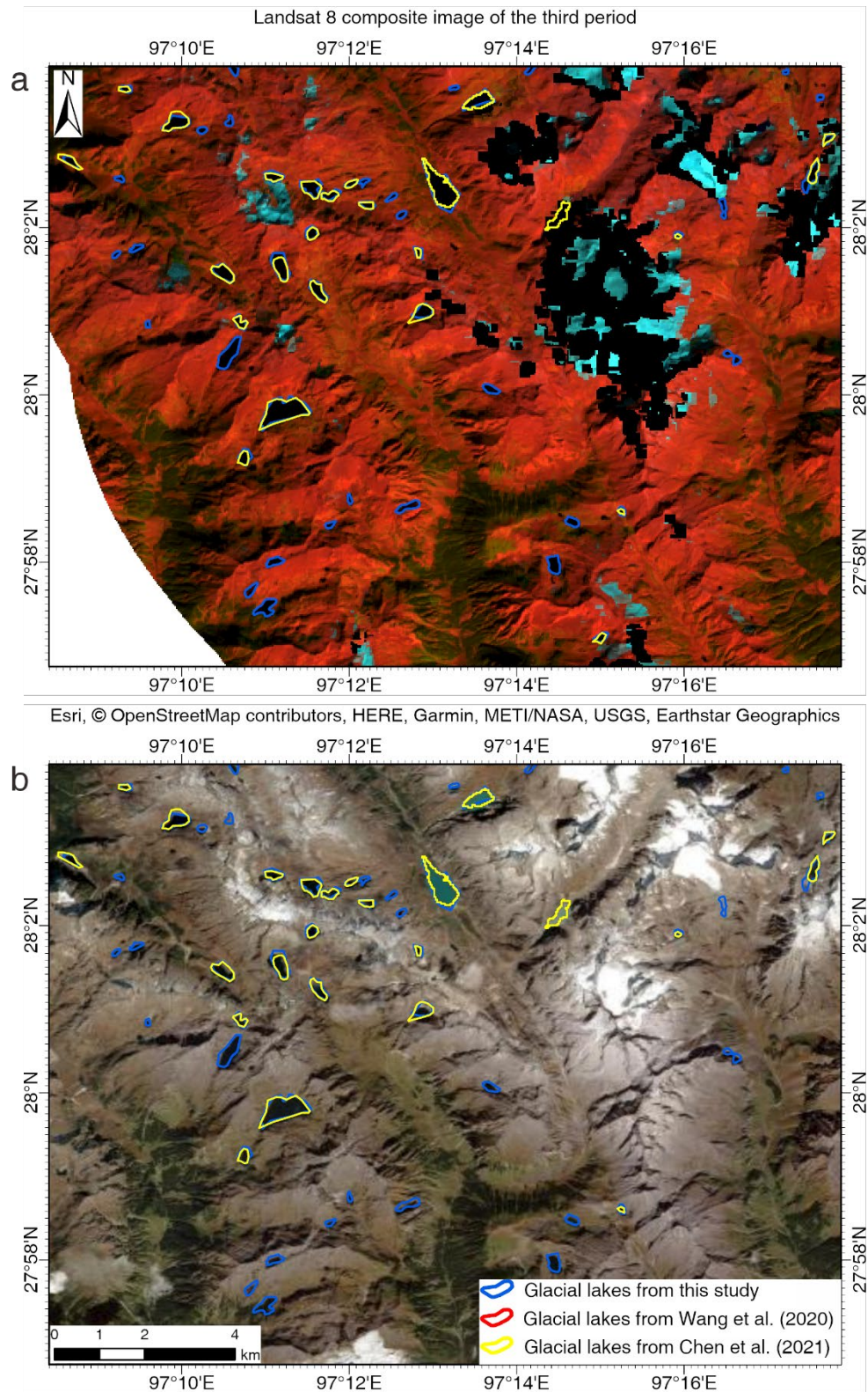
Figure S2. The glacial lake boundaries from these three inventories for randomly selected region #2. The base maps are sourced from (a) Landsat 8 composite imagery and (b) ESRI online maps. The blue polygons from 2013-2019 period of this study; red polygons from 2018 of Wang et al. (2020); yellow polygons from 2017 of Chen et al. (2021).

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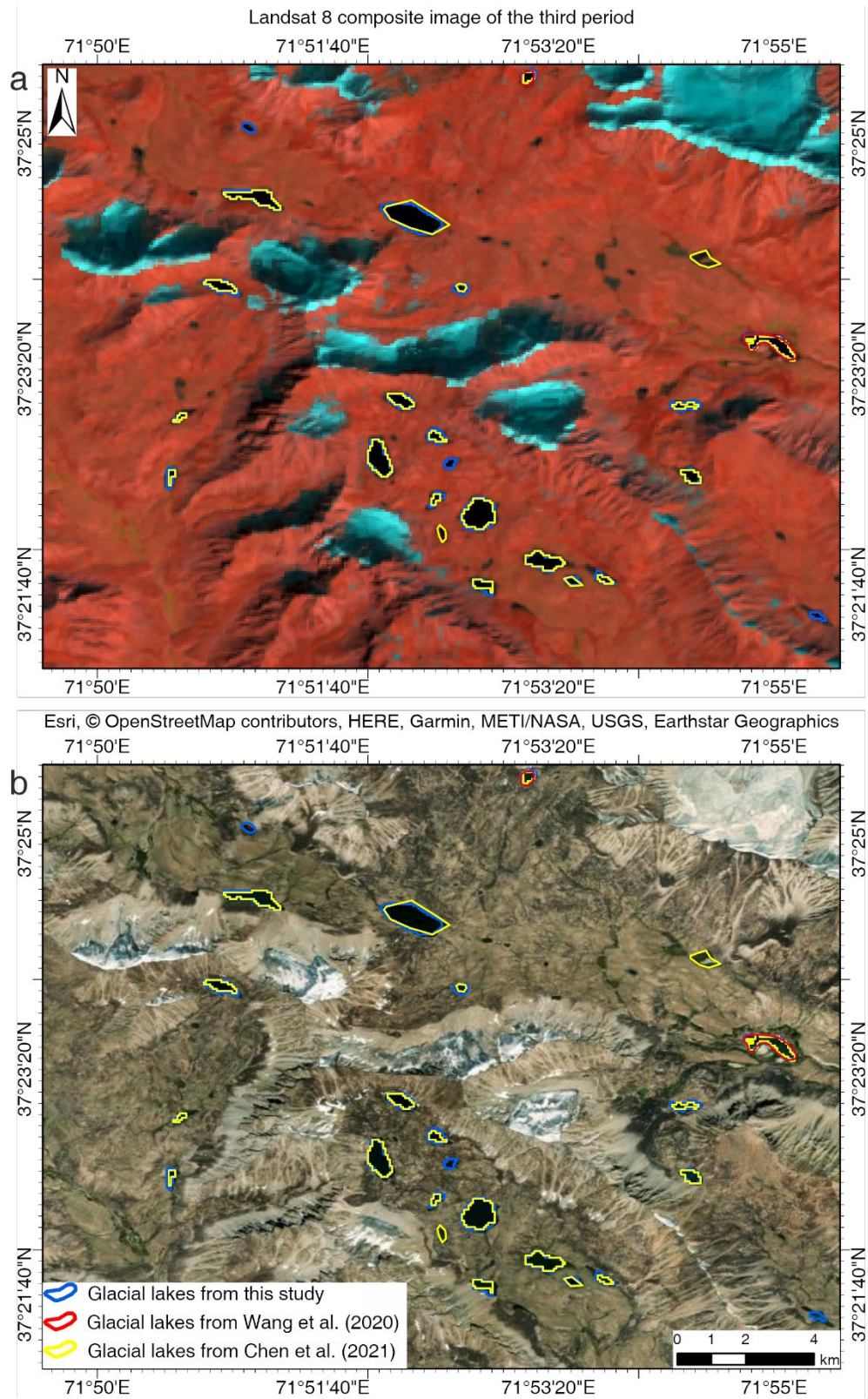
Figure S3. The glacial lake boundaries from these three inventories for randomly selected region #3. The base maps are sourced from (a) Landsat 8 composite imagery and (b) ESRI online maps. The blue polygons from 2013-2019 period of this study; red polygons from 2018 of Wang et al. (2020); yellow polygons from 2017 of Chen et al. (2021).
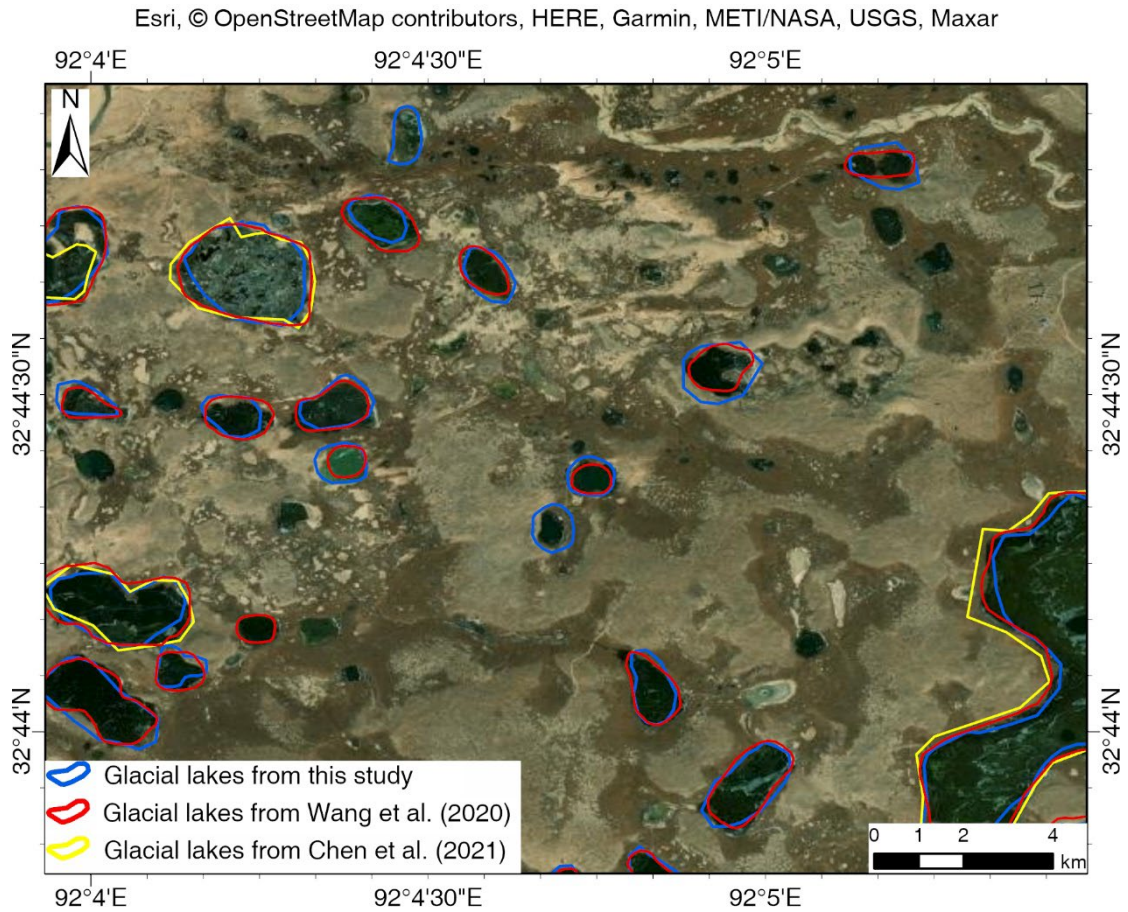
Figure S4. The glacial lake boundaries from these three inventories for randomly selected region #4. The base map is sourced from ESRI online maps. The blue polygons from 2013-2019 period of this study; red polygons from 2018 of Wang et al. (2020); yellow polygons from 2017 of Chen et al. (2021).

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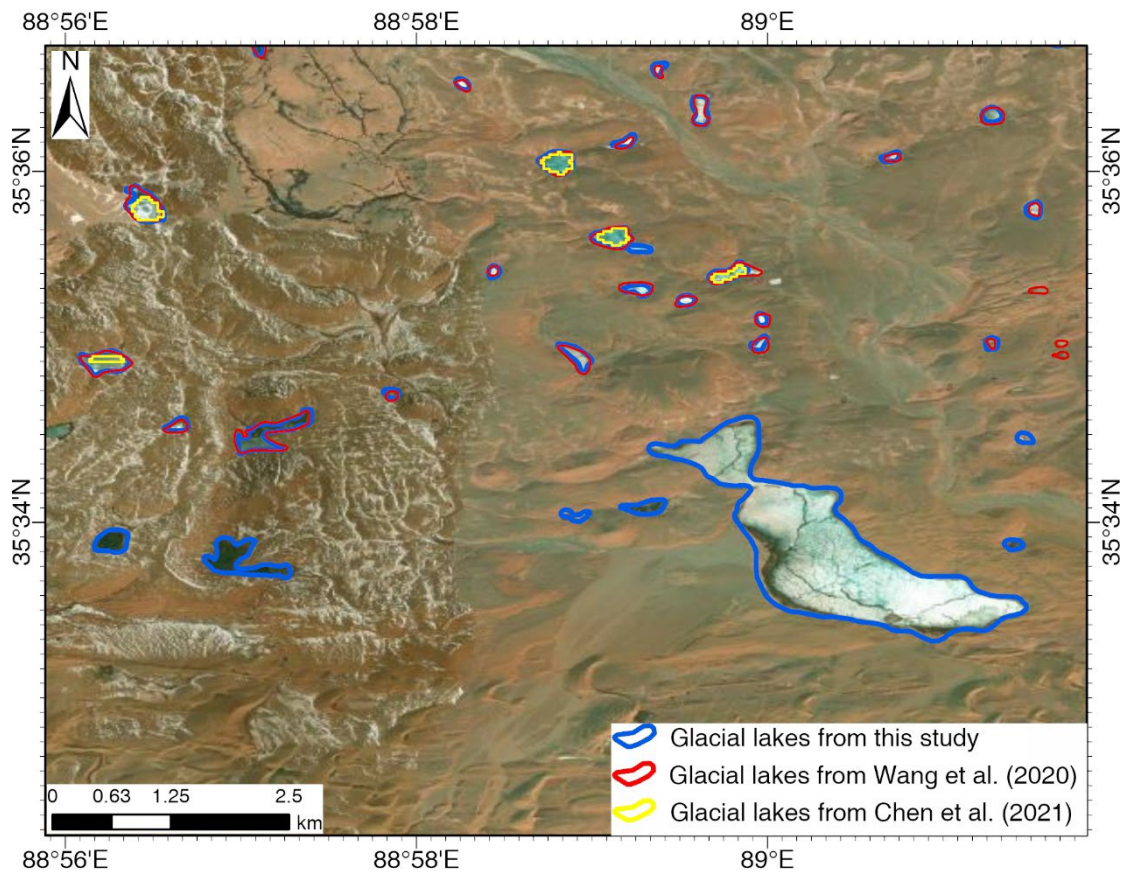
Figure S5. The glacial lake boundaries from these three inventories for randomly selected region #5. The base map is sourced from ESRI online maps. The blue polygons from 2013-2019 period of this study; red polygons from 2018 of Wang et al. (2020); yellow polygons from 2017 of Chen et al. (2021).

30 **Reference**

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Wang, X., Guo, X. Y., Yang, C. D., Liu, Q. H., Wei, J. F., Zhang, Y., Liu, S. Y., Zhang, Y. L., Jiang, Z. L., and
35 Tang, Z. G.: Glacial lake inventory of high-mountain Asia in 1990 and 2018 derived from Landsat images, Earth Syst Sci Data, 12, 2169-2182, https://doi.org/10.5194/essd-12-2169-2020, 2020.