



Supplement of

Land- to lake-terminating transition triggers dynamic thinning of a Bhutanese glacier

Yota Sato et al.

Correspondence to: Yota Sato (yota.sato@nagoya-u.jp)

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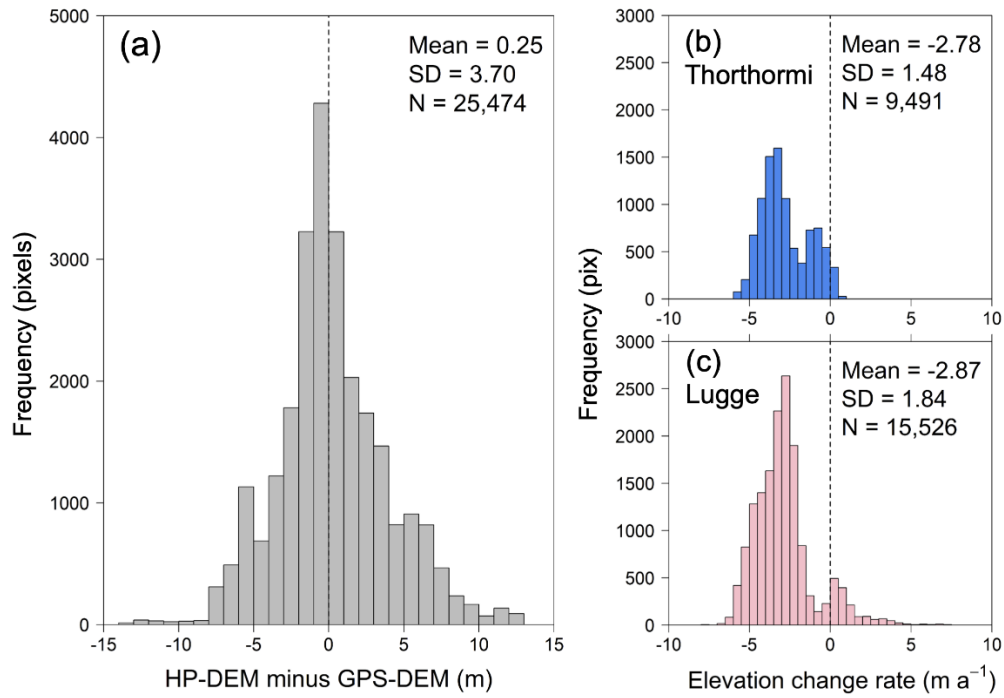


Figure S1. (a) Vertical accuracy of the helicopter-derived DEM (HP-DEM) on the off-glacier terrain. Surface elevation change rates for (b) Thorthormi and (c) Lugge glaciers during the 2011–2018 period. SD and N refer to the standard deviation and number of pixels, respectively.

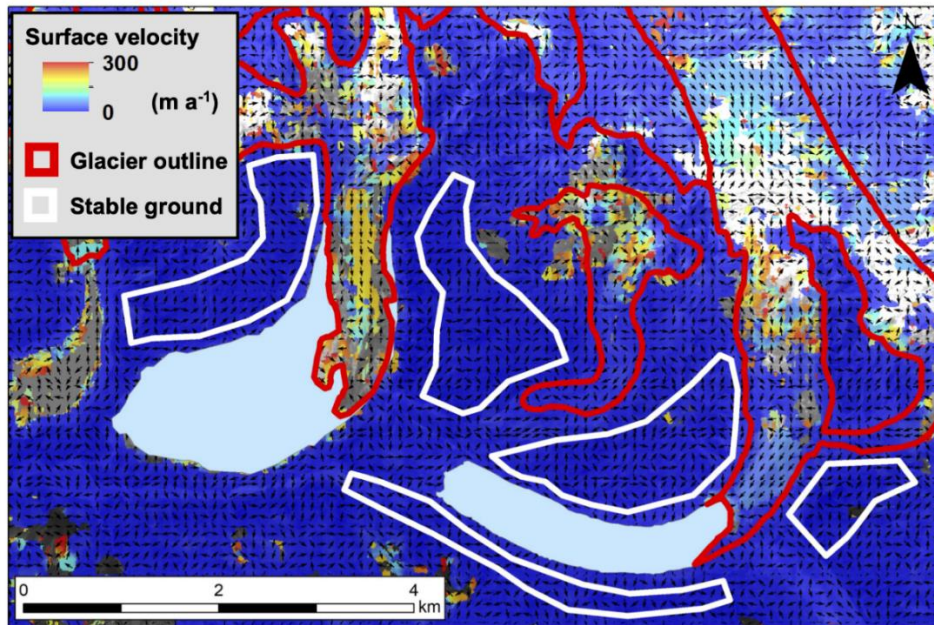


Figure S2. Surface flow velocity field between 16 November 2016 and 11 November 2017. The areas enclosed by the white polygons are stable-ground used to evaluate the error in surface flow velocity.

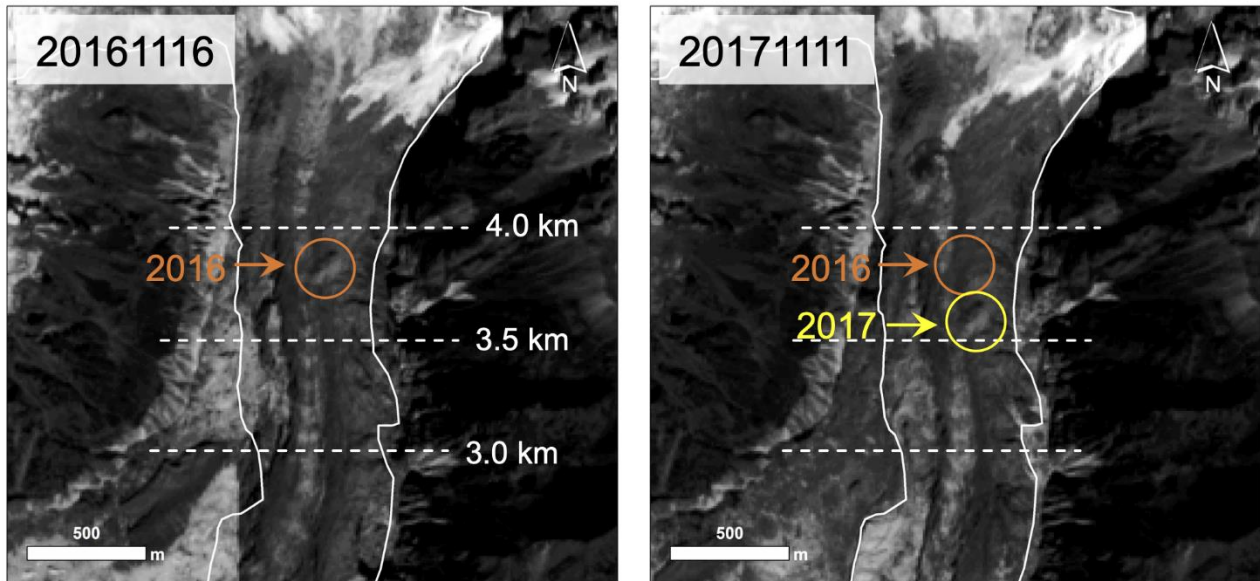


Figure S3. Sentinel-2 satellite images of Thorthormi Glacier that were acquired on 16 November 2016 (left) and 11 November 2017 (right). Both panels show the same glacier domain. Circles indicate displaced topographic features (debris mounds) on the glacier surface, and dashed lines indicate the distance from the 2002 terminus of Thorthormi Glacier.

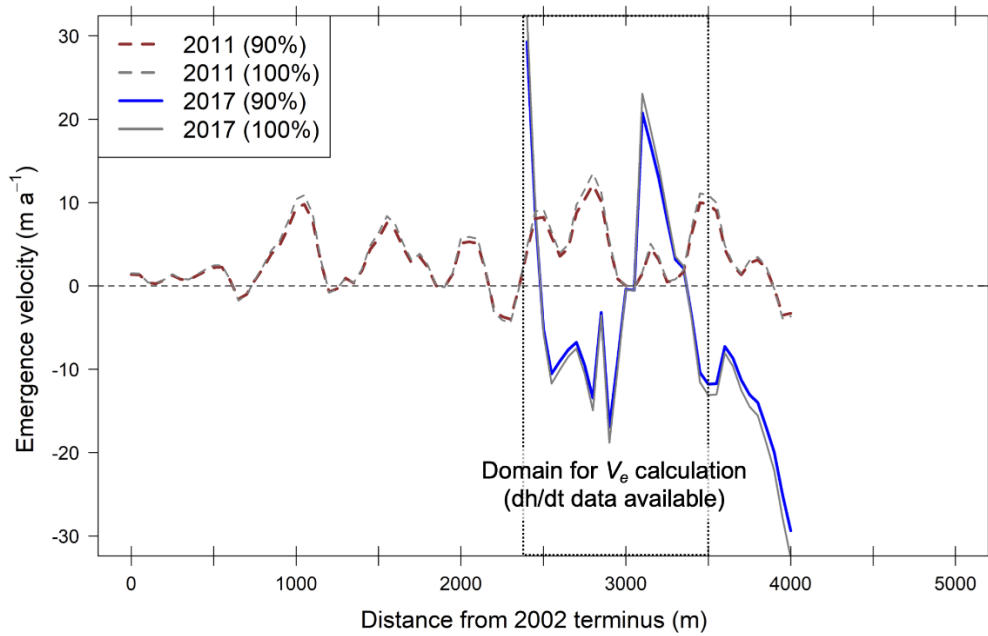


Figure S4. Emergence velocities along the center flowline of Thorthormi Glacier. The mean emergence velocity (V_e) is calculated for the 2400-3500 m section where the dh/dt data is available (Table 2).