



Supplement of

The imprint of erosion by glacial lake outburst floods in the topography of central Himalayan rivers

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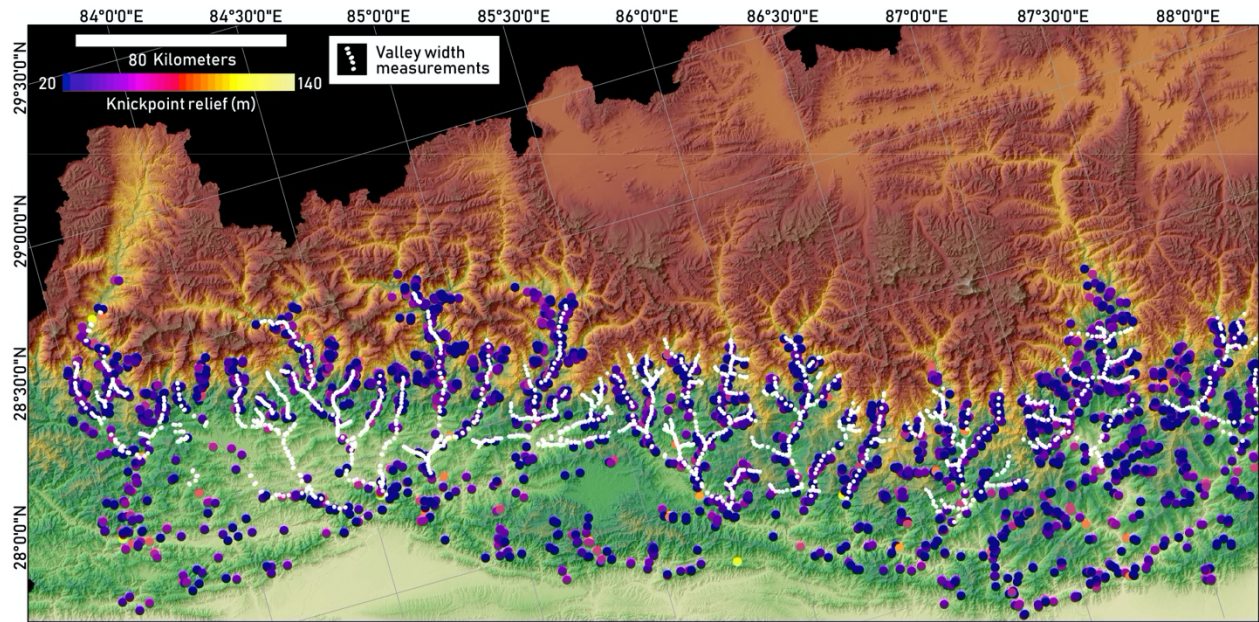


Figure S1 Locations and relief of knickpoints included in analyses, and locations of valley width measurements.

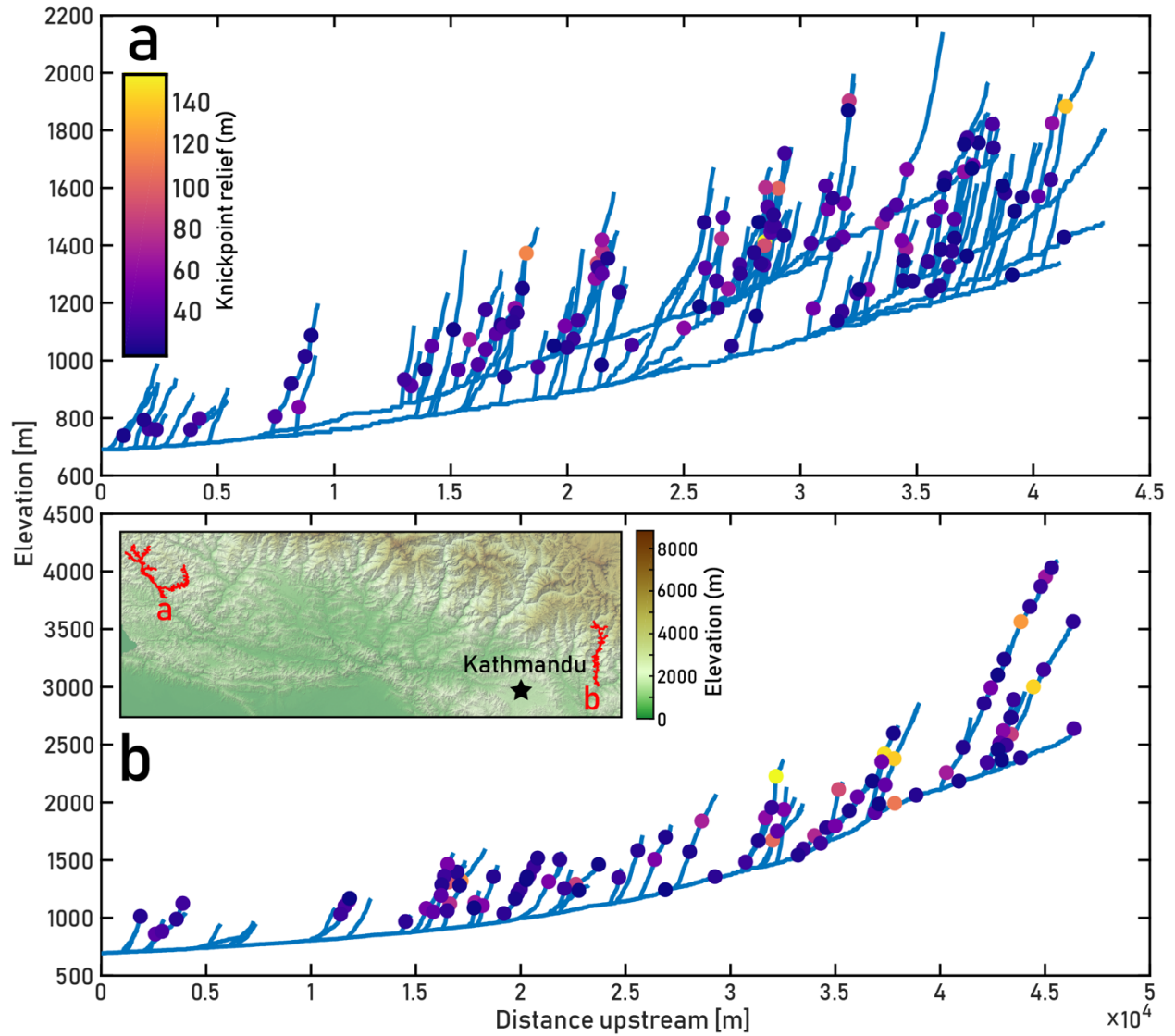


Figure S2 (a) Long profile of upper Badhighat River network with knickpoints identified. 1st and 2nd-order tributaries are shown up to 2 km from their confluences with 3rd and 4th order trunk streams. The Badhighat River represents an entirely unglaciated watershed. Knickpoints shown were identified as described in Methods. (b) Long profile of Bhote Koshi River network shown with knickpoints. The Bhote Koshi is an example of a glaciated watershed with multiple recent GLOFs.

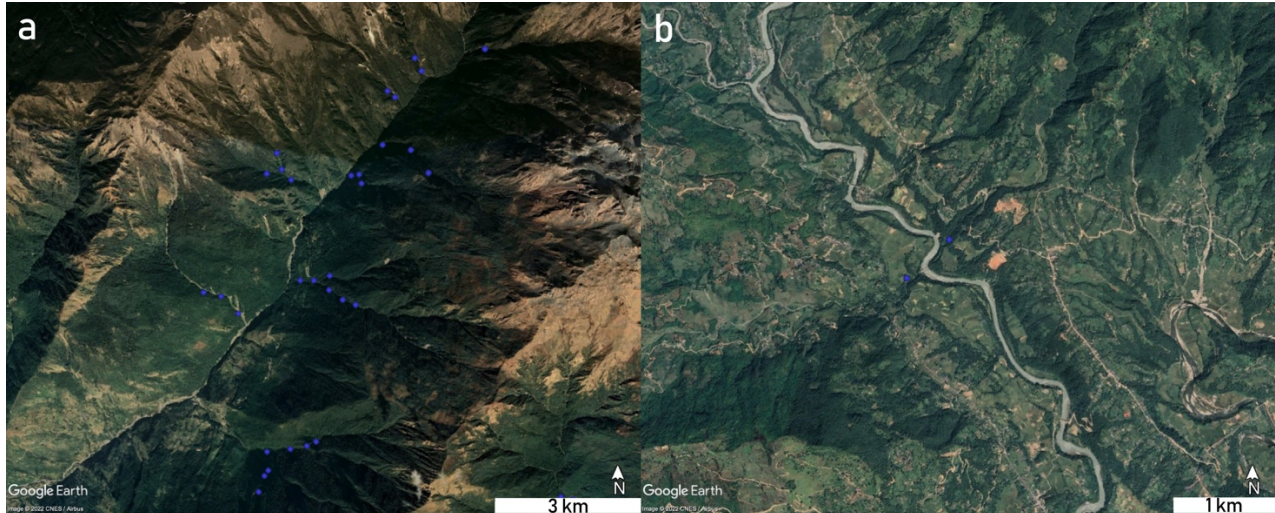


Figure S3 (a) Google Earth photo showing knickpoint locations (blue) in narrow, upland valley. Knickpoints shown here are in bedrock, representing the vast majority of knickpoints analyzed (~98%). (b) Knickpoints in tributaries to highly alluviated

Table 1 Uplift and erosion data for basins analysed in Section 3.4

Sample (Godard et al., 2014)	Longitude	Latitude	Denudation Rate (mm/yr)	Uncertainty (mm/yr)	Uplift Rate (Lave and Avouac, 2001) (mm/yr)	Basin Area (km ²)	k_{wm}
KP-090311-01	85.0659	27.747	0.19	0.02	0.5	111.01	6.98
KP-090311-02	84.9673	27.807	0.21	0.03	0.5	12.02	11.55
KP-090311-03	84.9506	27.811	0.2	0.02	0.5	88.18	15.19
KP-090311-04	84.8893	27.805	0.21	0.03	0.5	19.04	8.01
KP-090311-05	84.8336	27.803	0.36	0.06	1	99.36	26.36
KP-090311-06	84.7514	27.801	0.49	0.08	1.1	46.07	28.76
KP-090311-07	84.6938	27.805	0.24	0.04	1.2	55.31	28.81
KP-090311-08	84.6338	27.872	0.49	0.07	0.5	26.24	26.56
KP-160311-09	84.0604	28.067	0.13	0.01	0.5	92.36	11.28
KP-160311-10	84.0781	28.013	0.14	0.02	0.5	97.6	8.94
KP-160311-11	84.2389	27.989	0.1	0.01	0.5	64.68	7.92
KP-160311-12	84.2637	28.029	0.1	0.01	0.5	42.17	14.90
PO-140311-01	83.7725	28.311	0.63	0.09	4.4	87.38	12.72
PO-150311-02	83.7355	28.275	0.88	0.15	1	40.95	9.15
PO-150311-03a	83.7149	28.232	0.78	0.15	0.8	40.65	7.37
PO-150311-05	83.6132	28.254	0.26	0.04	0.5	116.36	12.56
TR-170311-01	85.1358	27.921	0.52	0.1	0.8	53.39	32.17
TR-170311-02	85.1907	27.976	0.85	0.16	6	146.4	27.69
TR-170311-03	85.1756	27.983	1.33	0.22	4.3	85.67	15.43
TR-170311-04	85.1541	27.866	0.22	0.03	0.5	29.29	12.28
EK-180311-01	85.6173	27.644	0.12	0.01	0.5	41.07	34.66
EK-180311-02	85.7347	27.677	0.12	0.01	0.5	41.59	6.11
EK-180311-03	85.8597	27.753	0.71	0.12	0.6	29.67	8.17
EK-180311-04	85.8961	27.778	1.05	0.27	2.7	90.53	11.92
EK-180311-05	85.9152	27.882	1.81	0.49	7.1	67.58	5.37