

Supplementary data tables and figures for

“High natural erosion rates are the backdrop for present-day soil erosion in the agricultural Middle Hills of Nepal ”

by A. Joshua West, The ASTER Team, Mike Bickle, Tank Ojha

Table S1. $^{10}\text{Be}_{\text{qtz}}$ -derived denudation rates from catchments in Nepal

Sample	Catchment area (km ²)	Denudation rate $\pm 1\sigma$ (mm/yr)	Equivalent erosion flux* $\pm 1\sigma$ (t.km ⁻² .yr ⁻¹)
<i>From Wobus et al., 2005</i>			
01WBS1	10.5	0.18±0.02	468±52
03WBS2	3.9	0.19±0.01	494±26
01WBS3	16.7	0.19±0.03	494±78
01WBS2	22.4	0.19±0.02	494±52
01WBS5	3.4	0.19±0.02	494±52
01WBS6	18.4	0.37±0.04	962±104
01WBS7	17.5	0.48±0.08	1248±208
03WBS1	3.2	0.77±0.10	2002±260
<i>Mean of Wobus Middle Hills catchments</i>		<i>0.19±0.01</i>	<i>488±13</i>
<i>From Godard et al., 2014</i>			
KP-160311-11	65.9	0.10±0.01	260±26
KP-160311-12	42.5	0.10±0.01	260±26
EK-180311-1	29.8	0.12±0.01	312±26
EK-180311-2	87.1	0.12±0.01	312±26
KP-160311-9	93.2	0.13±0.01	338±26
KP-160311-10	97	0.14±0.02	364±52
KP-090311-1	110.8	0.19±0.02	494±52
KP-090311-3	87.9	0.20±0.02	520±52
KP-090311-2	11.9	0.21±0.03	546±78
KP-090311-4	19.5	0.21±0.03	546±78
TR-170311-4	86.2	0.22±0.03	572±78
KP-090311-7	55.4	0.24±0.04	624±104
PO-150311-5	90.7	0.26±0.04	676±104
KP-090311-5	99.1	0.36±0.06	936±156
KP-090311-6	46.3	0.49±0.08	1274±208
KP-090311-8	26.6	0.49±0.07	1274±182
TR-170311-1	67.4	0.52±0.10	1352±260
PO-140311-1	42.5	0.63±0.09	1638±234
EK-180311-3	40.8	0.71±0.12	1846±312
PO-150311-3	30.1	0.78±0.15	2028±390
TR-170311-2	54.1	0.85±0.16	2210±416
PO-150311-2	41.5	0.88±0.15	2288±390
EK-180311-4	40.8	1.05±0.27	2730±702
TR-170311-3	146.8	1.33±0.22	3458±572
EK-180311-5	116.5	1.81±0.49	4706±1274
<i>Mean of Godard Middle Hills catchments</i>		<i>0.22±0.12</i>	<i>582±323</i>
<i>Middle Hills Mean ± 1 std dev</i>		<i>0.22±0.11</i>	<i>563±290</i>
<i>Middle Hills Median ± 68% confidence</i>		<i>0.19^{+0.22}/_{-0.07}</i>	<i>494⁺¹⁰⁵⁹/_{.312}</i>
<i>grey text: catchments outside of Middle Hills; not included in average values</i>			
<i>*equivalent erosion flux calculated for density of 2.6 g/cm³</i>			

Table S2. Suspended sediment fluxes from catchments in Nepal

Station ID	River	Station	Catchment area (km ²)	Sediment yield ¹ (t.km ⁻² .yr ⁻¹)	Sediment yield ² (t.km ⁻² .yr ⁻¹)	Sediment yield ³ (t.km ⁻² .yr ⁻¹)
570	Kulekhani	Kulekhani	126	173.5		
470	Lothar	Lothar	169	3637		
170	Surnagad	Patan	188	1200		
430	Seti	Pokhara	582	5285.9		
550	Bagmati	Chobhar	585	1476.8		
286	Sarada	Sarada	816	507	371	
795	Kankaimai	Mainachuli	1148	4835.5	1195	
598	Kamala	Kamala	1550	323		
0	Bhote Kosi		2308	130		
590	Bagmati	Karmaiya	2720	1476.8		
589	Bagmati		2849		1474	
290	Babai	Bargadha	3000	3700		
350	West Rapti	Bayasoti	3512	4730.6	5016	
447	Trisuli	Betrawati	4640	970.1	542	
360	West Rapti	Jalkundi	5150	2795.6	2540	
690	Tamur	Mulghat	5640	10205.2		
410	Kaligandaki	Setibeni	7130	4172.8	4449	
260	Seti	Banga	7460	2801.8		
240	Karnali	Asarghat	19260	862.1	492	
450	Narayani	Narayanghat	31100	5683.8	3037	
280	Karnali	Chisapani	42890	2010.5	1651	
695	Saptakosi	Chatra	59400	2440	1161	
	Galaundi					518
	Pokhare					583
Middle Hills Mean ± 1 std dev						1204±1120
Middle Hills Median ± 68% confidence						892⁺¹⁰⁷⁴/₋₄₅₈
<i>grey text:</i> include significant area outside of Middle Hills; not included in averages						
¹ sediment yields reported in Chalise and Khanal, 1997; this value for station 286 used in averages						
² sediment yields calculated by Andermann et al., 2012						
³ sediment yields reported by Bajracharya et al., 2004						

Figure S1. Comparison of sediment fluxes for the same Nepal river gauging stations as calculated by Andermann et al. (2012) compared to Chalise and Khamal (1997). Reported fluxes are in close agreement for most stations but are significantly higher as reported by Chalise and Khamal for a few stations (see data in Table S2). Black line shows the 1:1 line; red dots are the reported fluxes in each study.

