

Supplemental Table S3: Irrecoverable, manageable, and vulnerable carbon (Pg C) as found within all terrestrial area (All Terrestrial), area classified as mountains (Mountains), and within area classified as agricultural land within mountains (Mountain Agriculture). Source: Noon et al., 2021^[4]

Year: 2018	All Terrestrial	Mountains	Mountain Agriculture
Region	Irrecoverable Carbon - Total (Pg C)		
Asia Pacific	7.54	3.60	0.24
Central America	0.70	0.13	0.04
Central Asia	0.32	0.22	0.03
East Asia	1.90	1.38	0.12
Eastern and Southern Africa	5.54	1.98	0.43
Europe	7.18	2.33	0.15
North Africa	0.13	0.09	0.01
North America	19.36	6.85	0.11
Russia	31.64	4.91	0.06
South America	38.66	4.64	0.53
South Asia	0.76	0.47	0.07
SouthEast Asia	11.32	3.72	0.30
West and Central Africa	11.45	0.61	0.05
Western Asia	0.31	0.25	0.04
Global	136.82	31.18	2.18
	Manageable Carbon - Total (Pg C)		
Asia Pacific	37.12	10.99	0.84
Central America	6.42	2.79	0.96
Central Asia	8.62	3.58	0.70
East Asia	34.66	28.03	1.62
Eastern and Southern Africa	54.18	15.78	2.77
Europe	32.93	10.86	1.12
North Africa	0.99	0.52	0.08
North America	123.48	40.66	1.35
Russia	117.48	28.21	0.51
South America	179.39	28.65	4.36
South Asia	8.83	5.68	0.87
SouthEast Asia	44.40	21.59	2.18
West and Central Africa	71.62	5.84	0.55
Western Asia	5.68	4.89	0.96
Global	725.81	208.07	18.85
	Vulnerable Carbon - Total (Pg C)		
Asia Pacific	24.19	7.99	0.64
Central America	4.02	1.65	0.54
Central Asia	7.64	2.82	0.58
East Asia	21.66	17.50	1.05
Eastern and Southern Africa	35.03	9.84	1.73
Europe	19.18	6.14	0.67
North Africa	0.59	0.33	0.05
North America	66.07	22.08	0.76
Russia	52.49	10.90	0.29
South America	134.73	18.18	2.64
South Asia	5.32	3.42	0.52
SouthEast Asia	33.15	14.86	1.46
West and Central Africa	52.97	3.90	0.35
Western Asia	2.96	2.55	0.49
Global	460.01	122.17	11.78

1. Zomer RJ, Bossio DA, Trabucco A, van Noordwijk M, Xu J. 2022. Global carbon sequestration potential of agroforestry and increased tree cover on agricultural land. *Circular Agricultural Systems* 2:3
2. Spawn, SA. & Gibbs, HK. 2020. Global Aboveground and Belowground Biomass Carbon Density Maps for the Year 2010. *ORNL DAAC, Oak Ridge, Tennessee, USA*. doi:10.3334/ornldaac/1763.
3. UNEP-WCMC. (2000). *Mountains of the World*. Cambridge (UK): UNEP-WCMC. <https://doi.org/10.34892/jh4m-0h26>
4. Noon ML, Goldstein A, Ledezma JC, Roehrdanz PR, Cook-Patton SC, et al. 2021. Mapping the irrecoverable carbon in Earth's ecosystems (1.0) [Data set]. *Zenodo* doi:10.5281/zenodo.4091029.