

Extended Data Table 3 | Comparison of the difference between potential and actual biomass stocks to components of the global carbon balance, including land-use change (LUC) emissions and net terrestrial biosphere sink

	i) cumulative, before 1800	ii) cumulative, since 1800	iii) Cumulative (i + ii)	This Study (potential-actual biomass stock difference)
(1) LUC emissions	353 PgC (310–395); calculated from (2) and (3)	140 PgC (100–180, Sabine et al. ⁶⁸) [IPCC ⁴ : 100–260 PgC]	493 PgC (410–575) [IPCC ⁴ : 410–655 PgC]	447 PgC (375–525)
(2) Terrestrial biosphere sink	-270 PgC (Peat, e.g. Carcaillet et al. ⁶⁵ , Kleinen et al. ⁶⁶ , Yu et al. ⁶⁷)	-101 PgC (-61–-141; Sabine et al. ⁶⁸)	-371 PgC (-331–-411)	
(3) Net terrestrial balance (1)+(2)	83 PgC 40–125 (Kaplan et al. ²⁰)	39 PgC (11–67; Sabine et al. ⁶⁸)	122 PgC (51–192)	

The difference in biomass stock of 447 PgC (375–525) is well in line with estimates of total (before and since 1800) cumulative emissions from LUC. For details and discussion, see Supplementary Information. Datasets are from refs 4, 20, 65–68.