Supplementary Table 1. Reported soil organic carbon stocks and their differences between native forests and pasturelands in Mexico.

Original Native Forest Ecosystems and Study Locations	Soil Depth (cm)	Forest SOC (Mg Cha^{-1})	Pastureland SOC (Mg Cha^{-1})	Absolute SOC Difference (Mg C ha^{-1})	Relative SOC Difference (%)	References
Dry Tropical Forests						
Dry tropical forests, Chamela, Jalisco	0–60	75.5	60.2	−15.3	−20.26	Jaramillo et al., 2003 [32]
Dry tropical forests, Chamela, Jalisco	0–60	58.5	59.4	0.9	1.54	Jaramillo et al., 2003 [32]
Dry tropical forests, Chamela, Jalisco	0–10	31.38	28.52	−2.86	−9.1	Trilleras et al., 2015 [35]
Dry tropical forests, Chamela	0–10	31.38	28.61	−2.77	−8.8	Trilleras et al., 2015 [35]
Dry tropical forests, Chamela	0–10	31.38	24.87	−6.51	−20.7	Trilleras et al., 2015 [35]
Dry tropical forests, Chamela-Cuixmala	0–5	16.3	13.3	−3	−18.4	García-Oliva et al., 2006 [31]
Tropical deciduous forests, Chamela	0–6	21.2	18.5	−2.7	−12.7	García-Oliva et al., 1994 [30]
Tropical deciduous forests, Chamela	0–6	21.2	19.8	−1.4	−6.6	García-Oliva et al., 1994 [30]
Tropical dry forests, Chamela	0–10	39.8	21.8	−18	−45.2	Sandoval-Pérez et al., 2009 [33]
Tropical deciduous forests, Chamela, Jalisco	0–5	4.7	1.8	−2.9	−61.7	Cotler et al., 2006 [29]
Dry tropical forests, National, Mexico	0–20	69.6	21.4	−48.2	−69.3	Segura-Castruita et al., 2005 [34]
Highland Forests						
Evergreen cloud forests, Chiapas highlands	0–100	242.8	124.8	−118	−48.6	De Jong et al., 1999 [45]
Pine-oak forests, Chiapas highlands	0–100	174.4	124.8	−49.6	−28.4	De Jong et al., 1999 [45]
Pine forests, Chiapas highlands	0–100	172.6	124.8	−47.8	−27.7	De Jong et al., 1999 [45]
Pine forests, Cofre de Perote, Veracruz	0–20	226.6	141.4	−85.2	−37.6	Campos et al., 2007 [36]
Alder-Liquidamber forest, Oaxaca	0–30	154.5	94.5	−60	−38.8	Gonzalez et al., 2010 [47]
Fir forests, highlands, State of Mexico	0–20	138.5	62	−76.5	−55.2	Álvarez-Arteaga et al., 2017 [43]
Cypress Forests, highlands, State of Mexico	0–20	129.1	62	−67.1	−52.0	Álvarez-Arteaga et al., 2017 [43]
Oak forests, highlands, State of Mexico	0–20	112.6	55.3	−57.3	−50.9	Álvarez-Arteaga et al., 2017 [43]
Pine forests, highlands, state of Mexico	0–20	145.5	73.6	−71.9	−49.4	Álvarez-Arteaga et al., 2017 [43]
Temperate Fir forest, Mexico city	0–30	145.6	90	−55.6	−38.2	Vela-Correa et al., 2012 [49]
Temperate Oak forest, Mexico city	0–30	121.3	90	−31.3	−25.8	Vela-Correa et al., 2012 [49]
Temperate Pine forest, Mexico city	0–30	119.4	90	−29.4	−24.6	Vela-Correa et al., 2012 [49]
Pine-oak forests, Cuitzeo watershed, Michoacan, Mexico	0–10	130	48.6	−81.4	−62.6	Covaleda et al., 2011 [44]
Pine-oak forests, Michoacan central highlands, Mexico	0–30	101	89.9	−11.1	−11.0	Ordoñez et al., 2008 [48]
Pine forests, Cofre de Perote, Mexico	0–134	449	216.4	−232.6	−51.8	Gamboa & Galicia 2012 [46]
Fir forests, Cofre de Perote, Mexico	0–100	225.6	192.7	−32.9	−14.6	Gamboa & Galicia 2012 [46]
Pine-oak forests, National, Mexico	0–20	65.5	21.4	−44.1	−67.3	Segura-Castruita et al., 2005 [34]
Montane mesophyll forests	0–20	104.9	21.4	−83.5	−79.6	Segura-Castruita et al., 2005 [34]
Humid Tropical Forests						
Humid tropical forests, Lacandona Chiapas, Mexico	0–100	176.3	86	−90.3	−51.2	De Jong et al., 2000 [37]
Humid tropical forests, Lacandona Chiapas, Mexico	0–100	135.9	86	−49.9	−36.7	De Jong et al., 2000 [37]

Humid tropical forests, Los Tuxlas Veracruz, Mexico	0–5	56.6	18.7	−37.9	−67.0	Tobón et al., 2011 [42]
Humid tropical forests, Tabasco, Mexico	0–20	70.2	50.7	−19.5	−27.8	Geissen et al., 2009 [38]
Humid tropical forests, Tabasco, Mexico	20–40	41.6	34.3	−7.3	−17.5	Geissen et al., 2009 [38]
Tropical cloud forests, Cofre de Perote, Veracruz, Mexico	0–20	91.2	141.4	50.2	55.0	Campos et al., 2007 [36]
Humid tropical forests, Los Tuxlas Veracruz, Mexico	0–100	210.3	166.6	−43.7	−20.8	Hughes et al., 2000 [39]
Humid tropical forests, Los Tuxlas Veracruz, Mexico	0–100	210.3	163	−47.3	−22.5	Hughes et al., 2000 [39]
Humid tropical forests, Los Tuxlas Veracruz, Mexico	0–100	210.3	154	−56.3	−26.8	Hughes et al., 2000 [39]
Humid tropical forests, Los Tuxlas Veracruz, Mexico	0–100	210.3	193	−17.3	−8.2	Hughes et al., 2000 [39]
Humid tropical forests, Los Tuxlas Veracruz, Mexico	0–100	210.3	157	−53.3	−25.3	Hughes et al., 2000 [39]
Humid tropical forests, Los Tuxlas Veracruz, Mexico	0–10	94.2	46.4	−47.8	−50.7	Roa-Fuentes et al., 2015 [41]
Humid tropical forests, National, Mexico	0–20	110.5	21.4	−89.1	−80.6	Segura-Castruita et al., 2005 [34]
Tropical Mangrove						
Tropical mangrove, Cometa, Centla, Mexico	0–15	49.37	73.66	24.29	49.2	Kauffman et al., 2016 [52]
Tropical mangrove, Cometa, Centla, Mexico	15–30	60.87	72.99	12.12	19.9	Kauffman et al., 2016 [52]
Tropical mangrove, Cometa, Centla, Mexico	30–50	103.27	21.99	−81.28	−78.7	Kauffman et al., 2016 [52]
Tropical mangrove, Cometa, Centla, Mexico	50–100	215.35	41.84	−173.51	−80.6	Kauffman et al., 2016 [52]
Tropical mangrove, Vidal, Centla, Mexico	0–15	62.2	45.31	−16.89	−27.2	Kauffman et al., 2016 [52]
Tropical mangrove, Vidal, Centla, Mexico	15–30	55.46	31.49	−23.97	−43.2	Kauffman et al., 2016 [52]
Tropical mangrove, Vidal, Centla, Mexico	30–50	47.58	22.2	−25.38	−53.3	Kauffman et al., 2016
Tropical mangrove, Vidal, Centla, Mexico	50–100	190.32	27.81	−162.51	−85.4	Kauffman et al., 2016 [52]
Tropical mangrove, Gallego, Centla, Mexico	0–15	54.58	51.85	−2.73	−5.0	Kauffman et al., 2016
Tropical mangrove, Gallego, Centla, Mexico	15–30	58.32	61.19	2.87	4.9	Kauffman et al., 2016 [52]
Tropical mangrove, Gallego, Centla, Mexico	30–50	98.19	67.15	−31.04	−31.6	Kauffman et al., 2016 [52]
Tropical mangrove, Gallego, Centla, Mexico	50–100	171.27	90.73	−80.54	−47.0	Kauffman et al., 2016 [52]
Mangroves, Mexico national	0–20	106.1	21.4	−84.7	−79.8	Segura-Castruita et al., 2005 [34]
Tropical Scrub and Rangelands						
Tropical thorn scrub, Sonora, Mexico	0–20	22.6	23.1	0.5	2.2	Morales-Romero et al., 2015 [51]
Tropical thorn scrub, Sonora, Mexico	0–20	22.6	21.5	−1.1	−4.9	Morales-Romero et al., 2015 [51]
Tropical thornscrub, Sonora, Mexico	0–20	22.6	22.6	0	0.0	Morales-Romero et al., 2015 [51]
Natural rangelands, Sonora, Mexico	0–30	39	23.4	−15.6	−40.0	Ibarra-Flores et al., 1999 [50]
Natural rangelands, Tamaulipas, Mexico	0–30	46.8	39	−7.8	−16.7	Ibarra-Flores et al., 1999 [50]
Natural rangelands, Yucatan, Mexico	0–30	273.3	140.7	−132.6	−48.5	Ibarra-Flores et al., 1999 [50]
Tropical shrub lands, Mexico national	0–20	30.6	21.4	−9.2	−30.1	Segura-Castruita et al., 2005 [34]
Thorn scrubs, Mexico national	0–20	30	21.4	−8.6	−28.7	Segura-Castruita et al., 2005 [34]
Sub-mountainous scrubs, Mexico national	0–20	55.5	21.4	−34.1	−61.4	Segura-Castruita et al., 2005 [34]
Xerophytic scrubs, Mexico national	0–20	24	21.4	−2.6	−10.8	Segura-Castruita et al., 2005 [34]
Wetlands, Mexico national	0–20	62	21.4	−40.6	−65.5	Segura-Castruita et al., 2005 [34]