

Table S1. Litter production, decomposition and mass on the ground in tropical rainforests.

Types of forests	Fertility of soils	Annual precipitation (mm)	Litterfall production (t/ha/year)	Litter mass (t/ha)	Litter decomposition (<i>k</i>) (year)	References
Lowland rain forest. Mulu. Sarawak ridge	Oligotrophic	3300–4600	7.70	5.90	1.30	[9]
Lowland rain forest. Valley alluvium. Sarawak	Eutrophic	3300–4600	9.40	5.50	1.70	
Lowland rain forest. Pasoh. Malaysia	Eutrophic	2054	10.60	3.20	3.30	
Lowland rain forest. Penang. Malaysia	Eutrophic	2054	7.50	4.90	1.50	
Lowland rain forest. Manaus. Brasil	Oligotrophic	2300	7.60	7.20	1.10	
Lowland rain forest. Barro Colorado. Panamá	Eutrophic	2000	13.30	11.20	1.20	
Lowland rain forest. Kade. Ghana	Eutrophic	1179	9.70	4.90	2.00	
Heath forest. Mulu. Sarawak	Oligotrophic	3300–4600	8.10	6.10	1.20	
Forest over limestone. Mulu. Sarawak	Eutrophic	3300–4600	10.40	7.10	1.50	
Freshwater swamp forest. Tasek Bera. Malaysia	Eutrophic	2054	9.20	4.80	1.90	[10]
Lowland forest. Amazon caatinga. San Carlos. Venezuela	Oligotrophic	3565	4.95	6.50	0.76	
Lowland forest. Oxisol. San Carlos. Venezuela	Oligotrophic	3565	5.87	11.30	0.52	
Lowland evergreen forest. Banco. Ivory Coast	Oligotrophic	2096	8.19	2.50	3.30	
Dipterocarp forest. Pasoh. Malaysia	Eutrophic	2054	6.30	1.90	3.30	
Lowland rain forest. La Selva. Costa Rica	Eutrophic	4300	7.83	2.30	3.47	
Lowland moist forest. Barro Colorado. Panamá	Eutrophic	2000	11.30	3.50	3.20	[60]
Forest of <i>Eucalyptus</i> post-mining area in Brasil	Oligotrophic	1287	8.32	15.6	0.36	
Forest of <i>Anadenanthera peregrine</i> post-mining in Brasil	Oligotrophic	1287	3.95	5.71	0.70	
Mixed forest of native species post-mining area in Brasil	Oligotrophic	1287	6.32	12.5	0.42	
Post-mining secondary forest. Chocó. Pacífico. Colombia	Eutrophic	8000	9.67	4.62	2.09	This study
Mature rain forest Chocó. Pacífico. Colombia	Oligotrophic	8000	4.29	0.64	6.72	This study

Table S2. Litter nutrient content in tropical rainforests.

Types of forests (Soils)	Precipitation (mm/year)	N (%)	P (%)	K (%)	Ca (%)	Mg (%)	N/P ratio	Reference
Lowland tropical forest in Ghana (Moderately fertile)	1630	2.1	0.09	0.85	2.0	0.45	23.3	[77]
Lowland tropical rain forest. Panama (Ultisol)	1800	0.96	0.081	0.74	2.23	0.55	11.85	[42]
Secondary forests. Guatemala	2000	1.4	0.07	0.24	2.12	0.35	20.0	[38]
Mature forest. Guatemala	2000	1.9	0.06	0.22	0.98	0.71	31.6	[38]
Lowland tropical rain forest. Panama (Ultisol)	2300	1.34	0.047	0.36	1.45	0.40	28.5	[42]
Lowland tropical rain forest. Panama (Histosol)	3100	1.13	0.034	0.27	1.15	0.33	33.2	[42]
Lowland tropical rain forest. Panama (Ultisol)	3500	1.28	0.037	0.57	1.46	0.26	34.5	[42]
Lowland tropical forest. Colombia (Infertile Oxisol/Ultisol)	3000	1.3	0.03	0.54	0.80	0.22	43.3	[77]
Lowland tropical forest. Venezuela (Infertile Oxisol/Ultisol)	3565	1.59	0.03	0.38	0.17	0.11	53.0	[77]
Caatinga tropical forest. Venezuela (Spodosols/Psamments)	3565	0.70	0.05	0.58	0.77	0.36	14.0	[77]
Open Bana tropical forest. Venezuela (Spodosols/Psamments)	3565	0.58	0.02	0.55	0.74	0.22	29.0	[77]
Lowland tropical rain forest. India	3900	1.7	0.06	0.58	2.03	0.58	28.3	
Tropical rain forest. Costa Rica (Inceptisol)	4300	1.9	0.09	0.33	0.80	0.20	21.1	
Tropical rain forest. Costa Rica (Ultisol plateau)	4300	1.6	0.07	0.20	0.83	0.23	22.8	
Tropical rain forest. Costa Rica (Ultisol slope)	4300	1.7	0.07	0.24	0.71	0.20	24.2	
Tropical rain forest. India	5000	1.5	0.32	0.27	1.12	0.45	4.68	
Tropical rain forest. India	5000	1.1	0.03	0.19	1.14	0.87	36.6	
Tropical rain forest. India	5000	0.8	0.04	0.41	1.15	0.90	20.0	[38]
Tropical rain forest. India	5000	1.0	0.24	0.15	0.76	0.32	4.16	
Tropical alluvial forest. Malaysia	5000	0.9	0.03	0.26	2.44	0.20	30.0	
Keranga forest. Malaysia	5000	0.6	0.01	0.23	0.88	0.16	60.0	
Dipterocarp rain forest. Malaysia	5000	1.0	0.01	0.45	0.15	0.11	100.0	
Calcareous forest. Malaysia	5000	1.2	0.04	0.16	3.1	0.33	30.0	
Lowland rain forest. India	6400	1.5	0.06	0.66	1.38	0.39	25.0	
Post-mining secondary forest. Chocó. Pacífico. Colombia	8000	1.21	0.11	0.24	0.68	0.26	11.0	This study
Mature rain forest Chocó. Pacífico. Colombia	8000	1.39	0.03	0.13	2.89	0.15	46.3	This study

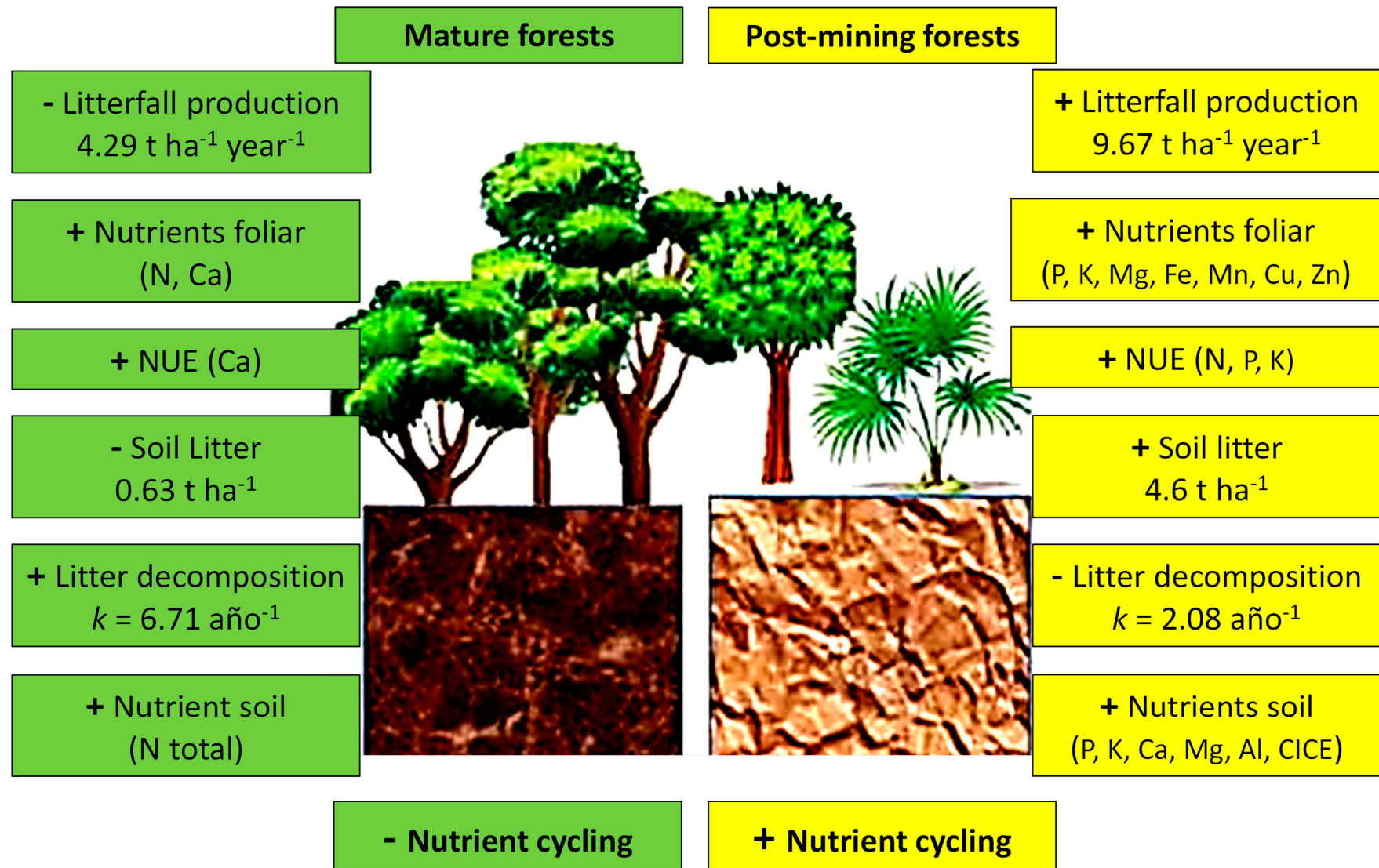


Figure S1. Synthesis of nutrients cycling in mature and post-mining tropical rain forests (mature and post-mining) of the Colombian Pacific.