

## Supplementary Materials

**Table S1.** Fertilisation regime applied in the sole-crop and agroforestry systems in Van Chan and Tuan Giao.

Tree/Crop	System	Basal Application (kg ha <sup>-1</sup> Year <sup>-1</sup> )	Top-Dressing (kg ha <sup>-1</sup> Year <sup>-1</sup> )
Maize	SM	Mineral NPK fertiliser (5–10–3): 600	Urea: 280 KCl: 120
	LMG	Mineral NPK fertiliser (5–10–3): 540 in the first three years; 520 in years 4 and 5; 500 in years 6 and 7	Urea: 250 in the first three years; 240 in years 4 and 5; 230 in years 6 and 7 KCl: 110 in the first three years; 105 in years 4 and 5; 100 in years 6 and 7
Longan	SL	Mineral NPK fertiliser (5–10–3): 400 Manure: 6000	Mineral NPK fertiliser (5–10–3): 400 Manure: 8000 in years 5–7
	LMG	Mineral NPK fertiliser (5–10–3): 240 Manure: 3600	Mineral NPK fertiliser (5–10–3): 240 Manure: 4800 in years 5–7
Son tra	SST	Mineral NPK fertiliser (5–10–3): 500 Manure: 7500	Mineral NPK fertiliser (5–10–3): 450
	STG	Mineral NPK fertiliser (5–10–3): 500 Manure: 7500	Mineral NPK fertiliser (5–10–3): 450
	STM	Mineral NPK fertiliser (5–10–3): 500 Manure: 7500	Mineral NPK fertiliser (5–10–3): 450

SM: sole-crop maize, SL: sole-crop longan, LGM: longan–maize–forage grass, SST: sole-crop son tra, STG: son tra–guinea grass, STM: son tra–mulato grass. Mineral NPK fertiliser (NPK 5–10–3), urea (46% N), and potassium chloride (48.6% K). Manure (composted animal manure).

**Table S2.** Cost of cropping inputs and prices paid for products at the study sites, 2012–2018 (data provided by the provincial extension department).

Inputs	Price (USD Seedling <sup>-1</sup> or kg <sup>-1</sup> or Bottle <sup>-1</sup> or Day <sup>-1</sup> )						
	2012	2013	2014	2015	2016	2017	2018
Longan (seedlings)	4.80	2.13	2.10	2.00	1.98	1.98	1.93
Son tra (seedlings)	1.68	1.66	1.64	1.55	1.54	1.54	1.50
Guinea grass (kg)	0.14	0.14	0.14	0.13	0.13	0.13	0.13
Mulato grass (kg)	0.14	0.14	0.14	0.13	0.13	0.13	0.13
Maize seeds (kg)	5.28	5.21	5.14	4.88	5.07	5.06	4.93
Urea (kg)	0.48	0.47	0.33	0.29	0.29	0.29	0.28
NPK (kg)	0.22	0.24	0.19	0.18	0.18	0.18	0.17
KCl (kg)	0.41	0.40	0.40	0.35	0.35	0.35	0.34
Animal manure (kg)	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Pesticides (bottle)	1.20	1.18	1.17	1.11	1.10	1.10	1.07
Labour (day)	4.80	4.74	4.68	4.43	4.41	4.40	4.29
Products	Sale Price (USD kg <sup>-1</sup> )						
Longan (fruit)	1.44	1.42	1.17	0.80	0.79	0.88	0.43
Son tra (fruit)	0.58	0.57	0.70	0.44	0.44	0.44	0.43
Maize (dry grain)	0.31	0.28	0.26	0.21	0.20	0.20	0.19
Grass (fresh biomass)	0.07	0.07	0.07	0.07	0.07	0.07	0.06

Exchange rate US dollars (USD) to Vietnamese dollars (VND) in 2012, 2013, 2014, 2015, 2016, 2017, and 2018 was 20,825, 21,105, 21,388, 22,550, 22,687, 22,710, and 23,336 VND per USD, respectively).

**Table S3.** Groups selected for farmer group discussions (FGD).

Province	District	Commune	Village	Famer Groups			Total FGD
				Poor Male (n)	Poor Female (n)	Non-Poor (Mix of Males and Females) (n)	
Yen Bai	Van Chan	Son Thinkh	Van Thi 3	5	5	5	3
			Van Thi 4*	5	5	5	3

Dien Bien	Tuan Giao	Toa Tinh	Hua Sa A* Long	5 5	5 5	5 5	3 3
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\*Experiment locations.

**Table S4.** List of questions used in farmer group discussions.

1	What do you think about the performance of trees/crops/grass in agroforestry compared with sole crops in terms of growth and productivity? How, why, solutions? What do you think about the economic aspects of agroforestry compared with sole-crop cultivation? How, why, solutions?
2	How can individual components in agroforestry provide benefits? Can these benefits be determined in the long term? Why and how? What are the effects of agroforestry compared with sole-crop cultivation on: (i) Soil loss and soil fertility? How, why, solutions?
3	(ii) Resilience under local weather conditions, extreme conditions (drought, storm, snow)? How and why, solutions? (iii) Susceptibility to weeds/pest/disease? How, why, solutions?
4	What do you think about agroforestry as an option for farmers in your village/commune in terms of land, labour, financial/investment requirements compared with sole-crop cultivation? How, why, solutions?
5	Is there access to a market for the tree/grass/annual crop products from agroforestry? How, why, solutions? What do you think about the market in the future? Stable, unstable, other? How, why, solutions? What do you think about the future development of agroforestry in your village/commune/district? How, why, solutions? Which products would you be most interested in?
6	What would be required to encourage a larger number of farmers in your village/commune/district to adopt agroforestry? How, why, solutions? What are the constraints to the expansion of agroforestry? Solutions enabling expansion?