

Appendix 3. Supplementary tables for Garrett et al. “Explaining the persistence of low income and environmentally degrading land uses in the Brazilian Amazon.”

Table A3.1: Correlation table for all explanatory variables analyzed in this study.

	Labor	Educ.	Female	Area	Water	Forest %
Labor	1	0.17***	0.08	-0.08	0.13***	0.07
Education	0.17***	1	0.07	0.02	-0.04	0.01
Female	0.08	0.07	1	-0.07	-0.08	-0.01
Area	-0.08	0.02	-0.07	1	0.04	0.12**
Water	0.13***	-0.04	-0.08	0.04	1	0.12*
Forest %	0.07	0.01	-0.01	0.12**	0.12*	1
Machine	0.01	-0.15***	-0.13**	0.16***	0.07	0.15***
Govt. Credit	0.04	-0.04	-0.13**	0.12*	0.05	0.15***
Govt. Assist	0.06	-0.01	0.01	-0.08	0.00	-0.02
Ag. Association	0.12*	0.07	0.14**	-0.06	0.00	0.06
Defn. Title	0.03	-0.11*	-0.02	0.21***	0.08	0.13**
Origin-North	0.03	0.04	-0.05	-0.13**	0.01	-0.06
Origin-Northeast	-0.04	-0.04	-0.09	-0.06	0.02	-0.11*
Origin-South	0.1*	0.06	-0.09*	0.02	-0.06	0.18***
Origin-Southeast	-0.02	-0.13**	-0.09	0.22***	0.00	0.05
Residence Time	0.15***	-0.06	0.12*	-0.06	0.11*	-0.07
Distance to Town	-0.04	0.00	-0.07	-0.01	0.03	0.39***

Notes: Results represent Spearman’s rank correlation coefficients. * indicates a significant bivariate correlation at the 95% level, ** = 99%, and *** = 99.9%.

Table A3.1: Correlation table for all explanatory variables analyzed in this study, ctd.

	Machine	Govt. Credit	Govt. Assist	Ag. Association	Definitive Title
Labor	0.01	0.04	0.06	0.12*	0.03
Education	-0.15***	-0.04	-0.01	0.07	-0.11*
Female	-0.13**	-0.13**	0.01	0.14**	-0.02
Area	0.16***	0.12*	-0.08	-0.06	0.21***
Water	0.07	0.05	0.00	0.00	0.08
Forest %	0.15***	0.15***	-0.02	0.06	0.13**
Machine	1	0.37***	0.04	0.13***	0.18***
Govt. Credit	0.37***	1	0.29***	0.25***	0.15***
Govt. Assist	0.04	0.29***	1	0.23***	-0.03
Ag. Association	0.13***	0.25***	0.23***	1	-0.01
Defn. Title	0.18***	0.15***	-0.03	-0.01	1
Origin-North	-0.07	-0.03	0.08	0.1*	-0.03
Origin-Northeast	0.03	0	-0.05	-0.08	-0.30***
Origin-South	-0.04	-0.05	0.09*	0.03	-0.15**
Origin-Southeast	-0.13**	-0.04	-0.09*	0.03	0.38***
Residence Time	-0.02	0.08	0	0.21***	0.28***
Distance to Town	0.04	0.15***	0.27***	0.06	-0.09

Notes: Results represent Spearman’s rank correlation coefficients. * indicates a significant bivariate correlation at the 95% level, ** = 99%, and *** = 99.9%.

Table A3.1: Correlation table for all explanatory variables analyzed in this study, ctd.

	Origin-North	Origin-Northeast	Origin-South	Origin-Southeast	Residence Time	Distance to Town
Labor	0.03	-0.04	0.1*	-0.02	0.15***	-0.04
Education	0.04	-0.04	0.06	-0.13**	-0.06	0.00
Female	-0.05	-0.09	-0.09*	-0.09	0.12*	-0.07
Area	-0.13**	-0.06	0.02	0.22***	-0.06	-0.01
Water	0.01	0.02	-0.06	0.00	0.11*	0.03
Forest %	-0.06	-0.11*	0.18***	0.05	-0.07	0.39***
Machine	-0.07	-0.15***	0.25***	0.14	-0.06	0.04
Govt. Credit	-0.03	-0.06	0.11*	0.07	-0.01	0.15***
Govt. Assist	0.08	0	-0.05	-0.04	0.08	0.27***
Ag. Association	0.1*	-0.05	0.09*	-0.09*	0	0.06
Defn. Title	-0.03	-0.08	0.03	0.03	0.21***	-0.09
Origin-North	1	-0.51***	-0.3	-0.23***	0.07	0.06
Origin-Northeast	-0.51***	1	-0.16***	-0.12**	0.15***	-0.03
Origin-South	-0.3	-0.16***	1	-0.07	-0.21***	-0.01
Origin-Southeast	-0.23***	-0.12**	-0.07	1	-0.12*	-0.09
Residence Time	0.07	0.15***	-0.21***	-0.12*	1	-0.18***
Distance to Town	0.06	-0.03	-0.01	-0.09	-0.18***	1

Notes: Results represent Spearman's rank correlation coefficients. * indicates a significant bivariate correlation at the 95% level, ** = 99%, and *** = 99.9%.

Table A3.2: Tukey tests for per hectare farm income by land use

	Difference (US\$)
Specialty>Other-Livestock	3,109***
Specialty>Cattle	3,054***
Specialty>Cattle-Crop	2,786***
Specialty>Soy	2,246***
Specialty>Mixed-Crop	1,848**
Specialty>Staple	1,551**
Staple>Other-Livestock	1,558*
Staple>Cattle	1,503***
Staple>Cattle-Crop	1,234*
Mixed Crop>Cattle	1,206*

Notes: One-way ANOVA comparing the effect of land use on income, $p < 0.0001$, $df = 6$, $F = 12.2$. # of observations = 420. Only significant results reported.

Table A3.3: Per hectare farm income by land use

	Mean (US\$)	SD (US\$)
Other-Livestock (n=22)	195	198
Cattle (n=134)	250	1,202
Cattle-Crop (n=33)	518	872
Soy (n=21)	1,002	477
Mixed-Crop (n=48)	1,456	2,619
Staple (n=135)	1,753	2,317
Specialty (n=27)	3,304	4,585

Table A3.4: Correlation table between perceived overall life quality and other measures of satisfaction

Rural work quality	Urban work quality	Transportation	Cultural activities	Education	Health services	Neighbors	Safety
0.22***	0.13***	0.31***	0.15***	0.00	0.16***	0.18***	0.29***

Notes: Results represent Spearman's rank correlation coefficients. * indicates a significant bivariate correlation at the 95% level, ** = 99%, and *** = 99.9%.

Table A3.5 Additional results for ordered logit subjective wellbeing model

Model	I	II	III	IV
Other Satisfaction Measures				
Safety	0.87***	--	--	--
Neighbors	0.77*	--	--	--
Transportation	0.43*	--	--	--
Monetary Outcomes				
Farm Expenditures	-0.52	--	--	--
Farm Income	-0.43	-0.37	--	--
Forest Income	0.58	1.09	--	--
Off-farm Income	-0.12	-0.08	--	--
Income Diversity	--	--	--	--
Land Use				
Cattle	-0.36	-0.26	-0.35	--
Cattle-Crop	0.46	0.79	0.69	--
Mixed-Crop	1.59*	1.35*	1.09†	--
Staples	-0.02	0.14	0.09	--
Soy	0.92	0.95	0.36	--
Specialty	0.14	0.22	0.15	--
Household Attributes				
Family Labor	-0.03	-0.02	-0.01	0.01
Education	-0.13	-0.01	0.00	-0.01
Female	-0.58	-0.48	-0.50	-0.53
Any Machinery	0.20	0.12	0.10	0.14
Farm Size	1.22	1.03†	0.53	0.41
Water Access	-0.49	-0.22	-0.17	-0.06
Forest Area	-0.34*	-0.29†	-0.29†	-0.20
Govt. Credit	0.09	-0.08	-0.09	-0.13
Govt. Extension	0.21	0.14	0.16	0.18
Agric. Association	0.09	0.10	0.10	0.12
Definitive Land Title	-0.26	-0.23	-0.3	-0.24
Origin - Northeast	0.23	0.5	0.49	0.43
Origin - South	-0.35	-0.23	-0.24	0.02
Origin - Southeast	0.62	0.62	0.69	0.45
Residence Time	0.22	0.26.	0.24.	0.25.
Distance to Town	-0.01	-0.02*	-0.01†	-0.02**
Santarém	0.40	0.53†	0.54†	0.50†
AIC	472	507	504	501
Log-likelihood	-203.80	-225.47	-226.90	-231.55

Notes: Results presented in the table are the regression coefficients resulting from variations of equation 2, which relates perceived life quality to other satisfaction measures, income, land use, and household attributes. It is a supplement to Table 3 in the main text. Model I includes farm expenditures as an additional explanatory factor, model II excludes other satisfaction metrics, model III excludes income, and model IV excludes land use. n = 328; † indicates significance at the 90% level, * = 95% level, ** = 99%, and *** = 99.9%.