Appendix 1. SUPPLEMENTARY FIGURES AND TABLES

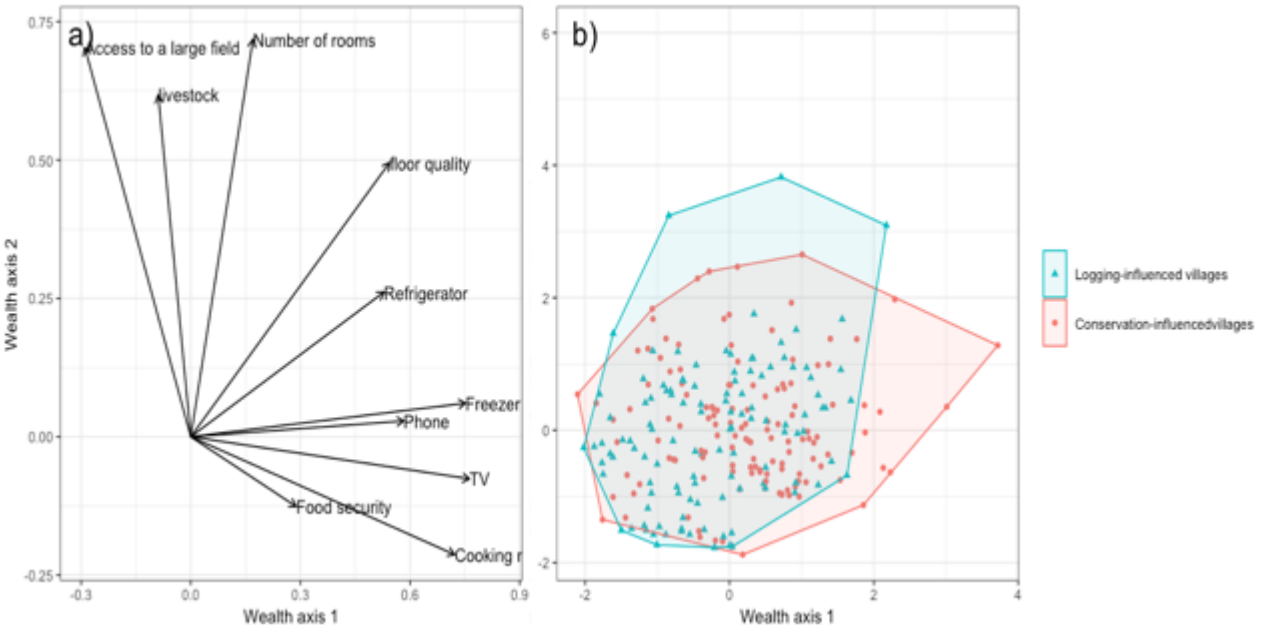

Figure A1.1: Indicators of wealth. Principal Component Analysis plots showing a) loadings of measures of wealth and b) individual scores with a convex hull for each study area. Wealth axis 1 represents consumer gods such as freezer, phone TV and cooking materials while wealth axis 2 distinguishes between households with more rooms, more livestock and those who have access to a large field (as opposed to gardens)

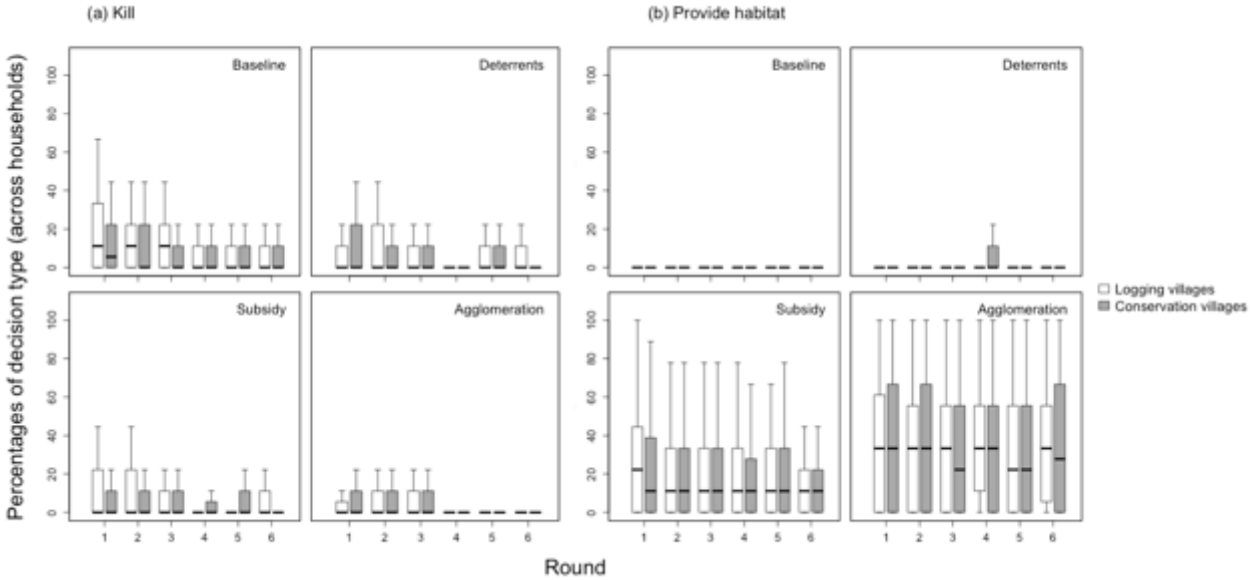

Figure A1.2: Distribution of observed percentages of decisions to kill and to provide habitats in each treatment and round, across households and groups. Solid black bars represent the median proportion, boxes the interquartile range and error bars extend to 1.5 times the IQR limits.

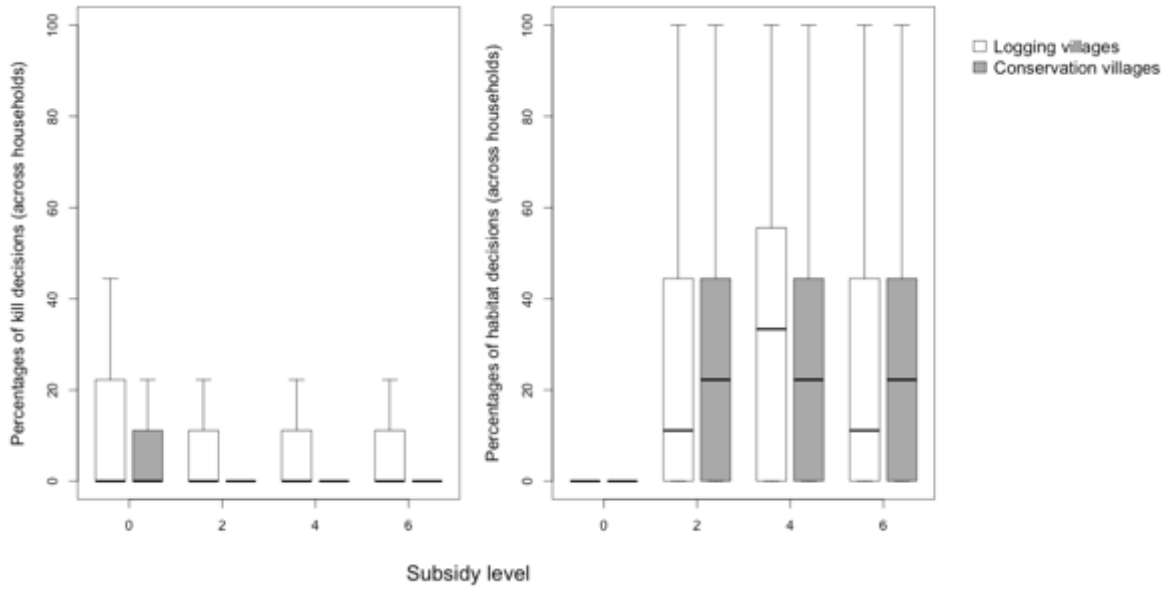

Figure A1.3: Distribution of observed percentages of decisions to kill and to provide habitats per subsidy level across households and groups. Solid black bars represent the median proportion, boxes the interquartile range and error bars extend to 1.5 times the IQR limits.

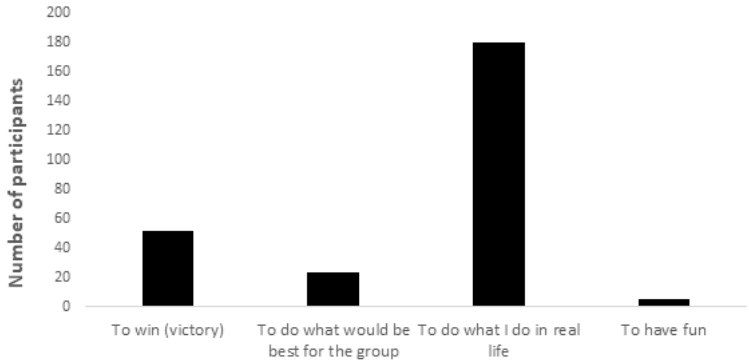

Figure A1.4: Follow-up question asking participants about their main goal in the game

Table A1.1a: Factor loading of the interpersonal community trust indices

	One-factor solution
"Most of the time, people in my community are mostly trying to help each other"	0.76
"Generally speaking, most people in my community are honest and can be trusted"	0.61
"In general, people in my community lend money to each other when needed, and get the money they have lent back"	0.61
Proportion of variance explained = 0.44, Cronbach's alpha = 0.70	
SS loadings = 1.32, Correlation of (regression) scores with factors = 0.85, Root mean square of the residuals = 0	

Table A1.1b: Factor loading of the institutional trust indices

	One-factor solution
Trust in the National Park Agency	0.81
Trust in the Ministry of Water and Forests	0.88
Trust in the Ministry of Agriculture	0.70
Proportion of variance explained = 0.64, Cronbach's alpha = 0.84	
SS loadings = 1.92, Correlation of (regression) scores with factors 0.93, Root mean square of residuals (RMSE) = 0	

Table A1.1c: Factor loading of the equity indices

	One-factor solution
"The current government strategy fairly balances local livelihoods and conservation interests"	0.81
"We feel able to influence decision-making related to elephant conservation and local livelihoods (through effective participation)"	0.67
"The government strategy on conservation and development equally benefits my community"	0.60
Proportion of variance explained = 0.45, Cronbach's alpha* = 0.70	
SS loadings = 1.34, Correlation of (regression) scores with factors = 0.87, Root mean square of residuals (RMSE) = 0	

Table A1.2: Socio-economic and attitudinal variables included in the models

Variables	Description	Summary statistics (N=260)	
Region ID	Binary variable indicating whether a household was surveyed in the conservation-influenced or logging-influenced villages	National park villages	140 (54%)
Institutional Trust Index	Numeric variable representing the weighted factor scores from three measures of institutional trust (trust towards the Park agency, the Ministry of Water and Forests and the Ministry of Agriculture; figure S1; Cronbach's alpha* = 0.84, the one-factor solution explained 64% of the total variance)	Min Max Median	-0.9 1.4 -0.3
Community trust index	Numeric variable representing the weighted factor scores from three measures of trust among local communities; figure S1; Cronbach's alpha* = 0.70, the one-factor solution explained 44% of the total variance)	Min Max Median	-1.4 1.0 0.2
Equity	Numeric variable representing the weighted factor scores from three measures of equity among local communities (Equitable government policy, perceived influence on decision-making and equitable distribution of benefits; figure S1; Cronbach's alpha* = 0.70, the one-factor solution explained 46% of the total variance)	Min Max Median	-0.5 3 -0.4
Positive well-being impacts of elephants	Numeric variable indicating the households' perceptions of the positive impacts of elephants on well-being (figure S1)	Mean Std. dev. Mean	-2 2 1.2
Negative well-being impacts of elephants	Numeric variable indicating the households' perceptions of the positive impacts of elephants on well-being (measured on a Likert scale of -2 to +2) (figure S1)	Mean Std. dev. Median	-2 2 -0.4
Experienced crop damage	Binary variable indicating whether a household has experienced crop damage (0=No, 1=Yes) (figure S1)	Yes	161 (62%)
Primary occupation: Agriculture	Binary variable indicating whether a household's primary occupation is agriculture	Yes	117 (47%)
Age	Numeric variable indicating the age of the participant	Mean Std. dev. Median	42.6 15 42
Gender	Categorical variable (two categories in our data, so treated as binary) indicating the gender of the participant	Male	96 (36%)
Education	Numeric variable indicating the years of official schooling of the participant	Mean Std. dev. Median	6.1 3 6

* Cronbach's alpha is a measure of internal consistency or scale reliability, i.e. how closely related a set of items are as a group, coefficient of .70 or higher is considered acceptable in most social science research (Cronbach 1951).

Table A1.3: Socio-economic characteristics of surveyed households

Variables	Description	Summary statistics		Coding used in combined wealth indices
		Conservation-influenced villages (CV) (N=120)	Logging-influenced villages (LV) (N=140)	
Crop damage	Whether the household has experienced any damage by elephant for the past 12 months (in any of their fields)	69.2 % Yes	55 % Yes	NA
Magnitude of crop damage	Whether crop losses by elephant were high (damage > 60%) (for households who have experienced crop damage)	68% Yes	54.5% Yes	NA
Frequency of elephant visit	Numeric variable indicating the number of crop-raiding incidents by elephants for the past 12 months	Median: 2.0 Mean: 3.0 Std. dev.: 3.3	Median: 1.0 Mean: 2.5 Std. dev.: 3.8	NA
Food security	Number of months for which HH has enough to eat	Median: 9.0 Mean: 7.6 Std. dev.: 3.6	Median: 10 Mean: 8.5 Std. dev.: 3.3	Continuous variable (0-12 months)
Tropical livestock	Numeric variable indicating total livestock owned by the household in tropical livestock unit (Chilonda and Otte 2006)	Median: 0.01 Mean: 0.16 Std. dev.: 0.28	Median: 0.00 Mean: 0.16 Std. dev.: 0.41	Continuous variable (0–1.3)
Cooking materials	Materials used by the household for cooking	21%: Fuelwood 45%: Fuelwood and stove, 18%: Stove, 16%: Four-flame oven	33%: Fuelwood 41% Fuelwood and stove, 15% = Stove, 11%: Four-flame oven	Cooking materials (Fuelwood = 1, Fuelwood and stove = 2, Stove=3, Four-flame oven = 4)
Number of rooms	Total number of rooms	Median: 4, Mean: 5.5, Std. dev.: 4.0	Median: 4, Mean: 4.7, Std. dev.: 3.4	Continuous variable
Floor quality	Type of floor in the primary dwelling	78.5 % Concrete	59.1 % Concrete	Floor type (0= Soil, 1=Concrete
Large Field (>0.7 ha)	Whether households have access to a large field	50% Yes	63% Yes	Access to a large field (0=No, 1=Yes)
Refrigerator	Number of refrigerators owned by the household	Median: 0.0 Mean: 0.17 Std. dev.: 0.41	Median: 0.0 Mean: 0.12 Std. dev.: 0.35	Continuous variable
Freezer	Number of freezers owned by the household	Median: 1.0 Mean: 0.87 Std. dev.: 0.66	Median: 1.0 Mean: 0.68 Std. dev.: 0.76	Continuous variable
Television	Number of televisions owned by the household	Median: 1.0 Mean: 0.87 Std. dev.: 0.65	Median: 1.0 Mean: 0.64 Std. dev.: 0.57	Continuous variable

Mobile phone	Number of mobile phones owned by the household	Median: 1.0 Mean: 1.27 Std. dev.: 0.74	Median: 1.0 Mean: 1.07 Std. dev.: 0.48	Continuous variable

Table A1.4: Odds ratio estimates from the full GLMM model showing the effect of treatments and other households' characteristics on farmers' propensity to kill elephants in the games. Random effects included in the model were individuals and groups.

	Proportion of kill decisions	
Predictors	*Odds Ratios*	*95 % CI*
(Intercept)	**0.09** ***	**0.03 – 0.24**
Deterrents	**0.81** ***	**0.73 – 0.90**
Subsidy	**0.72** ***	**0.64 – 0.80**
Agglomeration	**0.57** ***	**0.50 – 0.64**
Rounds in the game	0.97	0.93 – 1.00
Rounds into session	**0.99** ***	**0.98 – 0.99**
Lagged kill decisions of other participants	**1.05** ***	**1.03 – 1.08**
Total number of elephants in the landscape	1.02 *	1.00 – 1.04
Region ID (conservation-influenced villages)	**0.36** ***	**0.22 – 0.59**
Equity index	**0.73** **	**0.58 – 0.93**
Community trust index	1.13	0.91 – 1.41
Institutional Trust index	1.04	0.85 – 1.27
Positive well-being impacts of elephants	**0.88** *	**0.79 – 0.97**
Negative well-being impacts of elephants	1.01	0.87 – 1.16
Experienced crop damage	0.76	0.51 – 1.13
Primary occupation: Agriculture	1.03	0.68 – 1.53
Wealth axis 1	1.20	0.97 – 1.48
Wealth axis 2	1.07	0.87 – 1.31
Age	0.99	0.98 – 1.01
Gender	0.98	0.66 – 1.46
Education	1.01	0.94 – 1.08
Support for deterrents * Equity index	**1.18** *	**1.03 – 1.35**
Subsidy * Equity index	1.04	0.90 – 1.20
Agglomeration * Equity index	**1.25** **	**1.08 – 1.44**
τ_{00}	1.29 $_{HHID:GameID}$	
	0.51 $_{GameID}$	
Observations	4976	
Marginal R^2 / Conditional R^2	0.082 / 0.406	

Table A1.5: Odds ratio estimates from the full GLMM model showing the effect of treatments and other households' characteristics on farmers' propensity to provide habitats in the games. Random effects included in the model were individuals and groups.

	Proportion of habitat decisions	
Predictors	*Odds Ratios*	*95% CI*
(Intercept)	**0.00** ***	**0.00 – 0.01**
Deterrents	1.00	0.85 – 1.17
Subsidy	**7.29** ***	**6.37 – 8.35**
Agglomeration	**12.97** ***	**11.18 – 15.05**
Rounds in the game	0.98	0.96 – 1.01
Rounds into session	**1.03** ***	**1.02 – 1.03**

Lagged habitat decisions of other participants	**1.07** ***	**1.06 – 1.07**
Total number of elephants in the landscape	**1.07** ***	**1.04 – 1.09**
Region ID (conservation-influenced villages)	0.85	0.55 – 1.30
Equity index	1.01	0.81 – 1.26
Community trust index	0.92	0.73 – 1.16
Institutional Trust index	1.06	0.86 – 1.32
Positive well-being impacts of elephants	1.00	0.90 – 1.12
Negative well-being impacts of elephants	0.99	0.85 – 1.15
Experienced crop damage	1.11	0.74 – 1.65
Primary occupation: Agriculture	0.91	0.60 – 1.38
Wealth axis 1	0.96	0.78 – 1.18
Wealth axis 2	0.86	0.70 – 1.06
Age	1.00	0.98 – 1.01
Gender	1.45	0.97 – 2.17
Education	1.03	0.96 – 1.10
τ_{00}	1.84 $_{HHID:GameID}$	
	0.15 $_{GameID}$	
Observations	4976	
Marginal R^2 / Conditional R^2	0.302 / 0.568	

Table A1.6: Effects of subsidy levels and other game conditions on kill and habitat decisions (only the monetary treatments were included in the model). For categorical variables the level that is represented by the intercept term is shown in parentheses.

	Proportion of kill decisions		**Proportion of habitat decisions**	
Predictors	***Odds Ratios***	***95% CI***	***Odds Ratios***	***95% CI***
(Intercept)	**0.02** ***	**0.01 – 0.04**	**0.03** ***	**0.02 – 0.06**
Treatments (Subsidy)				
Agglomeration	**0.78** ***	**0.69 – 0.88**	**1.93** ***	**1.78 – 2.10**
Subsidy level (2)				
Subsidy level 4	0.87	0.54 – 1.43	0.83	0.55 – 1.27
Subsidy level 6	0.94	0.48 – 1.84	1.09	0.63 – 1.86
Rounds in the game	0.98	0.93 – 1.04	0.98	0.95 – 1.01
Rounds into session	**0.99** *	**0.98 – 1.00**	**1.04** ***	**1.03 – 1.05**
Lagged kill decisions of other participants	**1.07** ***	**1.03 – 1.10**		
Lagged habitat decisions of other participants			**1.06** ***	**1.04 – 1.07**
Total number of elephants in the landscape	**1.05** **	**1.02 – 1.09**	**1.06** ***	**1.03 – 1.08**
Random Effects				
Variance	1.61 $_{HHID:GameID}$		2.42 $_{HHID:GameID}$	
	0.96 $_{GameID}$		0.43 $_{GameID}$	
Observations	2580		2580	
Marginal R^2 / Conditional R^2	0.009 / 0.444		0.076 / 0.505	
**** p<0.05 ** p<0.01 *** p<0.001***				

Table A1.7: Robustness tests: Odds ratio estimates from three GLMM models showing the effect of treatments and three variables of interest (1: Equity, 2: Region ID, 3: positive well-being impacts of elephants) on farmers' propensity to kill elephants in the games. Random effects included in the model were individuals and groups.

	Proportion of kill decisions (1)		**Proportion of kill decisions (2)**		**Proportion of kill decisions (3)**	
Predictors	*Odds Ratios*	*CI*	*Odds Ratios*	*CI*	*Odds Ratios*	*CI*
(Intercept)	0.04 ***	0.02 – 0.06	0.06 ***	0.04 – 0.10	0.03 ***	0.02 – 0.05
Deterrents	0.84 **	0.76 – 0.94	0.83 ***	0.75 – 0.93	0.83 ***	0.75 – 0.93
Subsidy	0.75 ***	0.67 – 0.83	0.74 ***	0.66 – 0.83	0.74 ***	0.66 – 0.83
Agglomeration	0.59 ***	0.52 – 0.67	0.58 ***	0.52 – 0.66	0.58 ***	0.52 – 0.66
Equity index	0.73 **	0.58 – 0.92				
Rounds	0.97	0.93 – 1.00	0.97	0.93 – 1.01	0.97	0.93 – 1.01
Rounds into the session	0.99 ***	0.98 – 0.99	0.99 ***	0.98 – 0.99	0.99 ***	0.98 – 0.99
Lagged kill decisions of other participants	1.05 ***	1.03 – 1.08	1.05 ***	1.03 – 1.07	1.05 ***	1.03 – 1.07
Total number of elephants in the landscape	1.02 *	1.00 – 1.04	1.02 *	1.00 – 1.04	1.02 *	1.00 – 1.04
Support for deterrents * Equity index	1.19 **	1.05 – 1.36				
Subsidy * Equity index	1.10	0.96 – 1.26				
Agglomeration * Equity index	1.26 ***	1.10 – 1.45				
Region ID (conservation-influenced villages)			0.36 ***	0.22 – 0.60		
Positive well-being impacts of elephants					0.86 **	0.79 – 0.95
Random Effects						
τ_{00}	1.45 $_{HHID:GameID}$		1.46 $_{HHID:GameID}$		1.40 $_{HHID:GameID}$	
	0.88 $_{GameID}$		0.61 $_{GameID}$		0.87 $_{GameID}$	
Observations	5156		5156		5156	
Marginal R^2 / Conditional R^2	0.016 / 0.424		0.057 / 0.421		0.023 / 0.422	
** p<0.05 ** p<0.01 *** p<0.001*						