

International Interventions to Build Social Capital: Evidence from a Field Experiment in Sudan Online Appendix

Alexandra Avdeenko* and Michael J. Gilligan[†]

April 7, 2015

Game Descriptions

Willingness to Share with the Needy. We measured subjects' willingness to share with the needy with a simple alteration of the standard dictator game. Subjects were given 3 Sudanese pounds in six half-pound coins. They were asked to decide how much, if anything, of that amount to donate to a local needy family. The subjects were not told the name of the needy family to protect the family's privacy and avoid any differences between subjects in their affinity with the needy family. Each subject was called individually to the games area. The six half-pound coins were set side by side on sheet of paper with a line drawn across the middle. The subjects were instructed to push the amount they wished to donate to the needy family across the line on the paper and they were told that any remaining amount would be added to the lump sum that they received at the end of the session. The average amount sent was roughly 1.47 pounds, about half the pot.

Trust and Trustworthiness. We used the standard trust game (Berg, Dickhaut and McCabe, 1995) to measure trust and trustworthiness. The game was conducted in two rounds. In the first round all subjects were called, one by one, to the private game area. They drew a number from a bag. That number determined whether they were a *sender* or a *receiver* and senders and receivers were anonymously paired according to the number they drew.¹ Senders did not know the identity of their receiver and vice versa. Both senders and receivers were given an initial endowment of three

*Department of Economics, University of Mannheim, L7 3-5, 8131, avdeenko@uni-mannheim.de.

[†]Professor, Department of Politics, New York University, 19 West 4th St. 2nd Floor, New York, NY 10012, michael.gilligan@nyu.edu.

¹In actual game play in the field we used the neutral terms Player 1 and Player 2 for sender and receiver respectively.

pounds in half-pound coins. Receivers had no decision to make in the first round. Senders were asked how many coins they wanted to send to their receiver, knowing that we would triple that amount and that in the second round their receiver would decide how much to return to their sender. The six coins were placed side by side on a sheet of paper with a line through the middle. Senders indicated their choice by pushing the number of coins they wanted to send to the receiver over a line on the sheet of paper. We then tripled that amount and added the receiver's endowment of three pounds to show the sender exactly how much money the receiver would have in front of her when she made the decision about how much to return. Once all players had been called to the game area, round one ended and we began round two by calling each player back one by one. Senders had no decision to make in the second round but they were reminded of the decision that they made in round one. Receivers were shown their pot (triple what the sender had sent plus their initial endowment of three pounds) in half-pound coins placed side by side on the game sheet. Receivers indicated the amount they wished to return to the sender by pushing that number of coins over the line on the sheet of paper. The modal amount sent in the first round was about half the pot, 1.41 pounds, and about 71 percent of the subjects sent half the pot or less. The average amount returned by the receiver to the sender was about one-third of the total amount available to the receiver.

Public Goods. We used a dichotomous public goods game similar to the one described in [Barrett \(2005\)](#). This game does not require supervision of the subjects to play. Each subject was given two folded cards. One of the cards had an X written inside the fold and the other card was blank inside the fold. Play proceeded in two rounds. In the first round subjects were asked to turn in one of their cards. For each "X" card that was turned in every person in the group received 20 piasters (0.20 pounds) regardless of whether they turned in their X card or not. In the second round we asked the subjects to turn in their remaining card. If a subject turned in an X card in the second round that subject (and only that subject) was given an additional two pounds on top of the amount determined by the number of X cards turned in in the first round. If the subject turned in the blank card in the second round that subject was given no extra money, only the 20 piasters per X card turned in in the first round. About three-fourths of the subjects contributed to the collective good in our sample.

We also measured two possible confounders to our measures of prosocial preferences:

Risk. It has been shown that persons with greater risk tolerance may exhibit behavior that mimics trust but is actually a greater willingness to gamble on the cooperative behavior of the other player.² To control for this potential confounder we measured our subjects' attitudes toward risk. Subjects were asked to choose one from among five lotteries each with two possible outcomes. The lotteries were decided by a random draw performed by the subject. The expected value of all of the lotteries was two Sudanese pounds but the lotteries contained increasing levels of risk. The first lottery contained no risk, with subjects receiving two pounds regardless of the result of the draw so the expected payoff had a variance of zero. In the riskiest lottery subjects would receive zero pounds if they lost and four pounds if they won, for a variance in the expected payoff of four pounds. In other words this game offered a five point scale of willingness to gamble for a higher payoff. Risk averse people should choose lottery 1 and increasingly risk acceptant people should choose increasingly higher numbered lotteries.³ Lottery 3—a decision between three pounds and one pound—was the median and modal lottery chosen. About 28 percent of the subjects chose the riskiest two lotteries so we have good variation on our measure of willingness to gamble.

Discount Rate. We measured discount rates by offering the subjects a choice of receiving an amount on the day of the games or to opt for a larger amount to be disbursed in one week. We presented each subject with six different situations. The first situation gave the subject an option of receiving two pounds on the day of the games or 2.5 pounds in a week. In each subsequent situation (2 through 6) we raised the amount that the subject would receive in a week by half a pound always keeping the amount received on the game day at two pounds. Subjects were asked to specify their preference in each of the six possible situations. Once the subject specified his or her preference in each situation the subject drew a number 1 through 6 from a bag to determine which payoff they would receive. In this way we constructed a seven-point scale of subjects' discount rates (or patience) ranging from zero (the subject chose to receive two pounds on the game day in all six cases) to six (the subject chose to receive the higher amount in a week in all six cases). The villagers displayed remarkable patience: 202 subjects selected the higher amount in a week in all six cases and this was the modal category. The median subject selected the higher amount in a week in all cases except the first one (the choice between two pounds today and 2.5 in a week).

²Schechter (2007) found evidence that the amount sent in the trust game was positively correlated with willingness to take risks among subjects in rural Paraguay, but Ben Ner and Halldorsson (2010) found no such link.

³The lotteries have the same expected value, so risk neutral people will be indifferent between the five lotteries. Risk neutrality requires a very specific parameterization of the subject's utility function so we considered it unlikely that there were any precisely risk-neutral people in our sample and as such were not concerned about this ambiguity for those specific types of risk preferences.

Balance and Descriptive Statistics

Our game invitation was extended to the person interviewed in the survey. Often due to work or other commitments the respondent would send another adult member of the household in his or her place. Thus strictly speaking our laboratory respondents are not a random sample but are selected by the household. We have no reason to suspect that households in the treated communities sent more (or less) prosocial members to the lab than did households in the control communities and so we do not think this small violation of randomization affects our results. Descriptive statistics of games participants and, where available, survey respondents are provided in Table A.3. Our games participants were a bit more likely to be younger, single and female than our survey respondents but not significantly so. The larger percentage of females in the lab sample helps account for the larger percentage of “family workers” and the smaller percentage of “self-employed” in the lab sample than in the survey sample. The economic sectors of our games participants are statistically indistinguishable from those of the survey respondents. Descriptive statistics for “traders” are identical in both samples. There are slightly fewer agriculturalists in the game sample but the difference is small compared to the standard deviation. We included the category “housekeeping” as an economic sector in our survey of games participants but it was not included in the household survey, which, along with the slightly larger percentage of women among games participants, accounts for the slightly smaller number of agriculturalists in that group. The percentage of persons in the housekeeping sector is virtually identical to that who reported being employed as family workers. Upon request we provide more post-treatment information on the demographics of the treated and control villages.

Table A.1: CDF Activities

Percentage	
<i>Panel A: Responses from the Household Questionnaire</i>	
<i>Did you or a member of your family receive any type of training during the previous year? N= 384</i>	
Yes	0.16
<i>If the answer was “yes”, which type of training was received (N=60)?</i>	
Management of subprojects	0.33
How to open bank account	0.03
Financial management/ how to deal with financial matters	0.05
Development of leadership skills	0.03
Project planning	0.10
Project supervision	0.10
Management and operation of water plants	0.05
Communication skills	0.03
Rapid results initiative	0.02
Graphical evaluation of the community	0.13
Environmental sanitation training	0.48
Other	0.18
<i>Who currently provides community centers? (N= 224)</i>	
<i>Scale: (1) CDF (0) Self-provision, leaders, government, NGOs, others, or nobody.</i>	
CDF	0.50
<i>Panel B: Community Leader’s Responses</i>	
<i>Has the community benefitted from any new infrastructure in the last three years?</i>	
<i>The following responses refer only to villages where the answer was “yes” and indicate who has funded and/or implemented the projects in the community. It refers to the latest project, if several were implemented. Leaders could indicate several projects.</i>	
CDF: Construction of primary schools (N= 11)	0.82
CDF: Electricity lines/ Solar energy (N= 9)	0.11
CDF: Water point (N= 9)	0.22
CDF: Construction of health facility (N= 9)	0.11
Community: Construction of roads (N= 9)	0.11
Community: Construction of primary schools (N= 11)	0.00
Community: Staffing of primary school (N= 11)	0.00
Community: Organize Security (N= 9)	0.11
Community: Community/ Street clean-up (N= 8)	0.12
Community: Mosque (N= 10)	0.20
Community: Youth Center (N= 9)	0.22

Note: This table offers more detail about CDF activities in the villages. *Panel A* uses information from the household questionnaire (2011). In the first portion of *Panel A* we use a zero-one variable equal to one if at least one household member received the training. The variable shows the extent of CDF training among treated villages—about 16 percent of households received some training in the third and final year of the program alone. Thus over the course of the three year program a substantial number of households received some training from CDF. Furthermore as shown in the second portion of *Panel A* several households reported receiving more than one type of training: Using a zero-one variable equal to one if someone in the household received each of the various types of training 153 percent of households report receiving the various types of training listed. The third portion of *Panel A* provides a linear probability estimate of the percentage of treated villages that received community centers from CDF. Missingness is high for this variable (about 42 percent) but, among those who responded, half report that CDF provided a community center for their village. *Panel B* gives further details about CDF programming from answers provided by village chiefs interviewed in the treated villages (2011). Chiefs could indicate one of the following providers: (1) Community; (2) Government; (3) Private Company; (4) Private Industrial; (5) Political Party; (6) NGO; (7) CDF; (8) Petroleum Company; (9) Other; (10) Not applicable. We report results for cases where the chief responded *CDF* and *Community* and only for applicable cases, i.e. where infrastructure was built. The statistics show the following features of CDF programming: First CDF was a major supplier of public infrastructure especially schools. Furthermore villages sometimes received more than one project (i.e. the percentage of villages that received something is greater than 100 percent). Finally while villages did supply mosques and youth centers in some cases, they were very unlikely to supply schools and water points on their own.

Table A.2: **Pre-Treatment Balance Individual Level Survey Responses**

	(1) Mean Control	(2) (s.e.)	(3) Increment in Treated	(4) (s.e.)	(5) <i>N</i>
<i>Household Characteristics:</i>					
Female respondent	0.10***	(0.02)	0.00	(0.03)	576
Married	0.93***	(0.04)	-0.02	(0.02)	576
Number of wives	1.21***	(0.04)	0.05	(0.06)	515
Household head has permanent occupation	0.19***	(0.04)	0.02	(0.05)	576
Of those who have a permanent job, the main occupation of the household head is:					
– Farmer	0.64***	(0.11)	-0.13	(0.13)	115
– Herder	0.11*	(0.06)	-0.01	(0.07)	115
– Trader	0.14***	(0.04)	-0.01	(0.06)	115
Family income is enough to cover family needs and have some savings.	0.18***	(0.04)	0.00	(0.05)	576
Average house consumption of drinking water (in jurikans/tins).	24.71**	(9.04)	12.22	(16.17)	528
<i>Community Cohesion:</i>					
Scale: (4) Agree (3) Somewhat agree (2) Somewhat disagree (1) Disagree					
Community members are likely...					
– to cooperate with each other to solve community problems.	3.79***	(0.08)	0.03	(0.09)	576
– to cooperate with each other to solve private problems.	3.67***	(0.06)	0.01	(0.08)	576
– to participate & contribute for a development project (directly benefit).	3.52***	(0.11)	0.01	(0.14)	576
– to participate & contribute for a development project (not directly benefit).	3.15***	(0.09)	0.14	(0.12)	575
Community members can bring community issues to community meeting and discuss.	3.45***	(0.11)	0.07	(0.13)	576
Getting often together with community members for community issues.	2.86***	(0.04)	0.11*	(0.07)	576
Community leadership listens and responds to community needs.	3.45***	(0.07)	0.07	(0.09)	576
Community members do not have the power to replace community leaders.	2.42***	(0.23)	0.09	(0.25)	576
Scale: (1) Agree (2) Somewhat agree (3) Somewhat disagree (4) Disagree					
It is difficult to get the whole community to agree on any decision.	2.72***	(0.18)	-0.05	(0.23)	576
Is any member of the household a member of any community organization? Yes.	0.19***	(0.04)	0.00	(0.05)	575

Note: Each row presents results from separate OLS estimations. Column (1) reports the control mean, column (2) reports the corresponding standard error, column (3) in boldface reports the OLS-estimated average difference between treated and control villages, column (4) the corresponding standard errors, column (5) the number of observations. Standard errors are clustered at the village level and presented in parentheses. *, **, *** indicate significance at the 10 percent, 5 percent, and 1 percent level, respectively. In all cases pre-treatment differences between control and treated communities were substantive small and in all but one cases they were statistically insignificant, showing that we have excellent pre-treatment balance. The strong balance on pre-treatment measures of community cohesion is particularly encouraging. *Source:* Household questionnaire 2008.

Table A.3: **Game Participant and Survey Respondent Post-Treatment Background Variables**

	(1)		(2)	
	Games Participants		Survey Participants	
	<i>mean</i>	<i>sd</i>	<i>mean</i>	<i>sd</i>
Sex	0.55	0.50	0.69	0.46
Age	40.38	15.55	45.32	14.80
Single (never married)	0.10	0.30	0.05	0.22
Married monogamously	0.73	0.44	0.76	0.43
Married polygamously	0.12	0.33	0.07	0.25
Divorced/ separated	0.02	0.15	0.03	0.17
Widowed	0.02	0.15	0.09	0.28
Number of people in household	7.55	3.69	6.04	2.83
No basic education*	0.60	0.49	0.66	0.47
Self-employed	0.54	0.50	0.88	0.32
Family worker	0.31	0.46	0.03	0.16
Employee	0.04	0.21	0.09	0.29
Agriculture	0.45	0.50	0.62	0.49
Commerce, trading	0.12	0.33	0.12	0.33
Housekeeping**	0.32	0.47	–	–
Other economic sector	0.05	0.22	0.13	0.34
Party-member**	0.29	0.45	–	–
Distance to game venue on foot (in min.)**	14.29	15.36	–	–
<i>N</i>	475		576	

Note: The table presents key characteristics of individuals in two samples, which overlap but are not identical: (1) participants in the behavioral activities and (2) survey respondents from households where behavioral-activity participants live. *Games subjects who reported zero years of education; Survey respondents who were illiterate. ** Information collected only for game participants. *Source:* Background data for participants of behavioral measures 2011 and household questionnaire 2011.

Heterogeneous Effects

Table A.4: Heterogeneous Effects of Treatment on Social Capital (Mean Effect from Behavioral Outcomes)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Male	Age	Married	Education in years	People in household	Party membership	In Kassala
ATE	-0.21** (0.09)	0.16 (0.19)	-0.40*** (0.12)	-0.16 (0.10)	0.09 (0.15)	-0.19** (0.09)	-0.18*** (0.05)
Sex	0.15 (0.10)						
Sex x treatment	0.17 (0.13)						
Age		0.01** (0.00)					
Age x treatment		-0.01* (0.00)					
Married			-0.22** (0.10)				
Married x treatment			0.33** (0.14)				
Education				0.00 (0.02)			
Education x treatment				0.02 (0.02)			
In HH					0.03*** (0.01)		
In HH x treatment					-0.03* (0.01)		
Party-member						-0.01 (0.10)	
Party-member x treatment						0.24 (0.15)	
Kassala							-0.05 (0.11)
Kassala x treatment							0.13 (0.16)
Control Mean	-0.08 (0.07)	-0.23 (0.15)	0.20** (0.08)	-0.00 (0.08)	-0.21** (0.09)	0.00 (0.07)	0.03 (0.03)
<i>N</i>	470	470	475	470	470	469	475

Note: The purpose of this table is to examine whether the program caused significant increases in pro-social norms among subsets of the treated village populations. OLS-estimated mean ATEs similar to that in the lower panel of Table 5, are reported. Each row reports results from regressions including the dichotomous treatment variable, a variable for membership in the relevant subsample and an interaction between these two dichotomous variables. The respective subsamples are listed at the headings of each column. In each case the variables are dichotomous except for "People in household" where we use the total number of people in the household. Standard errors are clustered at the village level and presented in parentheses. *, **, *** indicate significant at the 10 percent, 5 percent, and 1 percent level, respectively. The results clearly indicate that the program did not cause a significant increase in pro-social norms in any of the subsamples. Although the interaction between marital status and treatment is somewhat large and significant its joint effect combined with the treatment and marital-status dichotomous variables is not significant. The remaining interactive effects are the wrong sign or statistically insignificant. *Source:* Behavioral measures 2011.

Further Information

Table A.5: List of Communities

(1) Locality	(2) Name	(3) Type
State: Kassala		
Aroma	Al Azargawe	Control
Aroma	Amadam	Control
Aroma	Al Sasraib	Treated
Aroma	Al Sidaira	Treated
Aroma	Tamantty	Treated
Aroma	Ariyab	Treated
Seteit	Magareef	Control
Seteit	Al Sewail	Control
Seteit	Taboseib	Treated
Seteit	Al Amara K	Treated
Seteit	Arab 26	Treated
Seteit	Al Rimaila	Treated
State: North Kordofan		
Gubeish	Dira	Control
Gubeish	Sibiel	Control
Gubeish	Um Zameel	Treated
Gubeish	Al Shohait	Treated
Gubeish	Al Sabagh	Treated
Gubeish	Abo Raie	Treated
Um Ruaba	Abar Shawal	Control
Um Ruaba	Umm Daiwan	Control
Um Ruaba	Umm Sayala	Treated
Um Ruaba	Al Beraissa	Treated
Um Ruaba	Haggam	Treated
Um Ruaba	Umm Tilaih	Treated

Note: The top half of the table lists study communities in the state of Kassala and the lower portion list the study communities from the state of North Kordofan. Column (1) lists the respective community's locality (roughly equivalent to a county in the United States). The name of the community is listed in column (2), and whether the community was treated or not is listed in column (3).

Table A.6: **Timing of Interviews and Games**

(1) Community	(2) Date of Survey Enumeration (at community level)	(3) Date of Games	(4) Difference (in days)
Al Azargawe	25.10	27.10	2
Amadam	24.10	28.10	4
Al Sasraib	26.10	29.10	3
Al Sidaira	24.10	27.10	3
Tamantty	16.10	24.10	8
Ariyab	20.10	28.10	8
Magareef	18.10	22.10	4
Al Sewail	23.10	27.10	4
Newseib	20.10	22.10	2
Al Amara K	21.10	26.10	5
Arab 26	25.10	27.10	2
Al Rimaila	16.10	25.10	9
Dira	20.10	16.11	27
Sibiel	25.10	15.11	21
Umm Zarafat	17.10	16.11	30
Al Shohait	21.10	19.11	29
Al Sabagh	23.10	17.11	25
Abo Raie	24.10	17.11	24
Abar Shawal	25.10	1.11	7
Umm Daiwan	24.10	1.11	8
Umm Sayala	19.10	2.11	14
Al Beraissa	21.10	2.11	12
Haggam	22.10	2.11	11
Umm Tilaih	17.10	1.11	15
Mean			11.54

Note: This table contains information on timing of the household survey enumeration and the subsequent laboratory activities in each village. Column (1) reports the name of the community, column (2) the date of the household survey enumeration in day.month format; column (3) the date when the behavioral measures were collected in day.month format, and column (4) the difference in dates between the date of the household survey and the behavioral measures.

Table A.7: Participatory Governance

	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Constant</i>	(s.e.)	ATE	(s.e.)	<i>N</i>	<i>z-score</i>
<i>Scale: (1) Yes (0) No, i.e. interaction took place, but not personally... ...or individual only heard about the institution.</i>						
Had the opportunity to interact with community leader personally.	0.86***	(0.05)	0.02	(0.06)	548	
Had the opportunity to interact with local staff personally.	0.48***	(0.12)	0.06	(0.13)	447	
Had the opportunity to interact with CDF staff personally.	0.15***	(0.05)	0.30***	(0.06)	423	
Had the opportunity to interact with NGO personally.	0.14*	(0.08)	0.13	(0.08)	340	
Had the opportunity to interact with religious leaders personally.	0.70***	(0.08)	0.02	(0.09)	515	
Had the opportunity to interact with social workers personally.	0.05	(0.03)	0.13**	(0.05)	101	
<i>Scale: (3) Agree (2) Somewhat agree (1) Somewhat disagree (0) Disagree</i>						
Community leadership listens and responds to community needs.	2.59***	(0.12)	0.08	(0.13)	546	
Community members can bring community issues to community meeting and discuss openly.	1.98***	(0.23)	0.63**	(0.24)	474	0.22***
Community leader listens and responds to community better now than one year ago.	1.94***	(0.28)	0.69**	(0.29)	505	(0.07)
If I have a problem regarding service delivery in my community, I express my concerns to community leaders.	2.62***	(0.11)	0.09	(0.11)	548	
If I have a problem with another community member, I express my concerns to community leaders.	2.69***	(0.09)	0.01	(0.12)	557	
I am satisfied with the way that decisions that affect all community members are made.	2.75***	(0.05)	-0.01	(0.07)	550	
<i>Scale: (1) Yes (0) No</i>						
Can you express community needs to local government officials?	0.61***	(0.06)	-0.02	(0.07)	576	
Can you express personal needs to local government officials?	0.57***	(0.05)	0.03	(0.06)	570	
Would you agree that over the last one year, you feel more confident expressing.	0.61***	(0.08)	0.14	(0.09)	462	
<i>Scale: (1) Yes (0) No, the community leaders would decide.</i>						
If some decision related to a development project needed the whole village would be called.	0.64***	(0.00)	0.06	(0.09)	576	

Note: Each row presents results from separate OLS estimations. Column (1) reports the constant (i.e. the control-group mean) and column (2) its corresponding standard error. Column (3) reports the OLS-estimated average treatment effect and column (4) the corresponding standard error. Column lists (5) the number of observations and column (6) reports the mean effect across all 16 measures as reported Table 6 in the main text. Standard errors are clustered at the village level and presented in parentheses. *, **, *** indicate significance at the 10 percent, 5 percent, and 1 percent level, respectively. *Source:* Household questionnaire 2011.

Table A.8: **Status of Women**

	(1) <i>Constant</i>	(2) <i>(s.e.)</i>	(3) <i>ATE</i>	(4) <i>(s.e.)</i>	(5) <i>N</i>	(6) <i>z-score</i>
<i>Scale: (3) Agree (2) Somewhat agree (1) Somewhat disagree (0) Disagree</i>						
In this community, an ordinary woman can influence decisions about community affairs.	1.00***	(0.17)	0.46**	(0.21)	544	
Women in this community should have equal political rights with men.	1.64***	(0.20)	0.28	(0.23)	543	
<i>Scale: (0) Agree (1) Somewhat agree (2) Somewhat disagree (3) Disagree</i>						
Community leaders should always be male.	0.74***	(0.10)	0.30**	(0.12)	560	0.20***
<i>Scale: (1) Yes, women('s) (0) No</i>						
Do you think some people benefit more than other people from decisions made at community meetings?	0.40***	(0.04)	0.00	(0.05)	494	(0.10)
Do you think some people's opinions/voices are considered at community meetings?	0.53***	(0.08)	0.07	(0.09)	487	

Note: Each row presents results from separate OLS estimations. Column (1) reports the constant (i.e. the control-group mean) and column (2) its corresponding standard error. Column (3) reports the OLS-estimated average treatment effect and column (4) the corresponding standard error. Column lists (5) the number of observations and column (6) reports the mean effect across all five measures as reported Table 6 in the main text. Standard errors are clustered at the village level and presented in parentheses. *, **, *** indicate significance at the 10 percent, 5 percent, and 1 percent level, respectively. *Source:* Household questionnaire 2011.

Table A.9: **Social Cohesion**

	(1)	(2)	(3)	(4)	(5)
	<i>Constant</i>	(s.e.)	ATE	(s.e.)	<i>N</i>
<i>Scale: (3) Agree (2) Somewhat agree (1) Somewhat disagree (0) Disagree</i>					
Community members, outside your family, are likely to cooperate with each other to solve a community problem like water supply, roads, and security.	2.63***	(0.09)	0.16	(0.10)	563
Cooperation with community members outside family to solve a development problem has improved in the last year.	2.27***	(0.13)	0.48***	(0.14)	558
Community members, outside your family, are likely to cooperate with each other to solve a private problem like harvest loss, money need.	2.44***	(0.09)	0.18***	(0.10)	556
Cooperation with community members outside of the family to solve personal problems like harvest or money loss has improved in the past year.	2.16***	(0.17)	0.48***	(0.18)	549
Community members are likely to participate and contribute for a development project that directly benefits them.	2.49***	(0.16)	0.26	(0.18)	565
Community members are more likely than a year ago to participate and contribute for a development project that directly benefits them.	2.26***	(0.18)	0.45***	(0.18)	535
Community members are likely to participate/ contribute for a development project that does not directly benefit them but benefits majority of the members.	1.66***	(0.12)	0.34***	(0.16)	521
Community members are more likely than a year ago to participate and contribute for a development project that does not directly benefit them.	1.64***	(0.09)	0.45***	(0.13)	513
Getting the whole community to agree on a decision is easier today than a year ago.	1.72***	(0.25)	0.91***	(0.26)	486
<i>Scale: (0) Agree (1) Somewhat agree (2) Somewhat disagree (3) Disagree</i>					
It is difficult to get the whole community to agree on any decision.	2.01***	(0.14)	0.01	(0.18)	532
<i>Scale: (3) Often (2) Sometimes (1) Rarely</i>					
How often do you get together with other members of the community for community matters?	2.42***	(0.05)	0.20***	(0.07)	520

- Continued on next page -

Table A.9 [Continued from previous page]

	(1)	(2)	(3)	(4)	(5)
	<i>Constant</i>	(s.e.)	ATE	(s.e.)	<i>N</i>
How often do you get together with other members of the community for celebration	2.62***	(0.08)	0.14	(0.09)	539
How often do you get together with other members of the community for non-traditional events	2.53***	(0.03)	0.11*	(0.06)	473
<i>Scale: (1) Hostile (2) Never accepting (3) Sometimes accepting (4) Always accepting</i>					
Rate the social distance between yourself and the following groups:					
– Between yourself and next-door neighbor	3.91***	(0.05)	0.02	(0.06)	539
– Between yourself and returnees	3.67***	(0.13)	0.02	(0.17)	248
– Between yourself and new migrants	3.63***	(0.10)	0.01	(0.14)	256
– Between yourself and ex-combatants	3.71***	(0.15)	0.05	(0.18)	219
<i>Scale: (1) No (0) Yes</i>					
Affected by any conflict in (2010-2011) that concerned the theft of livestock	0.88***	(0.04)	-0.02	(0.05)	576
Affected by any conflict in (2010-2011) concerning the theft of an item	0.98***	(0.01)	-0.01	(0.01)	573
Affected by any conflict in (2010-2011) that involved a weapon	1.00***	(0.00)	-0.01**	(0.00)	575
Affected by any conflict in (2010-2011) that involved physical violence	1.00***	(0.00)	-0.02**	(0.01)	571
<i>Scale: (3) Not at all (2) Somewhat (1) Very much</i>					
To what extent do the following differences tend to divide people in your community? Differences...					
– In education	1.87***	(0.04)	-0.01	(0.05)	576
– In wealth/ material possessions	1.85***	(0.05)	-0.04	(0.06)	576
– In landholdings	1.85***	(0.05)	0.01	(0.06)	575
– In social status	1.88***	(0.04)	0.01	(0.05)	575
– Between younger and older generations	1.85***	(0.06)	0.03	(0.07)	576
– Between men and women	1.82***	(0.07)	-0.04	(0.08)	576
– Between long-time inhabitants and newsettlers	1.93***	(0.04)	-0.05	(0.04)	573
– In political party affiliations	1.85***	(0.04)	-0.04	(0.06)	573
– Other differences	1.91***	(0.03)	-0.04	(0.04)	561
<i>Scale: (1) No (0) Yes</i>					
Do these differences cause problems?	0.97***	(0.01)	-0.01	(0.02)	576
Do you think some people benefit more than other people from decisions made at community meetings?					
– New immigrants	0.77***	(0.05)	-0.00	(0.05)	382

- Continued on next page -

Table A.9 [Continued from previous page]

	(1)	(2)	(3)	(4)	(5)
	<i>Constant</i>	(s.e.)	ATE	(s.e.)	<i>N</i>
– Ex-combatants	0.87***	(0.04)	-0.04	(0.05)	351
– Relatives of leaders	0.65***	(0.05)	-0.02	(0.06)	466
– Poorer people	0.46***	(0.08)	-0.04	(0.10)	495
– Richer people	0.72***	(0.06)	-0.04	(0.07)	479
– Older people	0.48***	(0.07)	-0.05	(0.08)	506
– Younger people	0.64***	(0.06)	-0.06	(0.08)	496
– Women	0.60***	(0.04)	-0.00	(0.05)	494
– Men	0.50***	(0.07)	-0.01	(0.09)	507

Scale: (1) Yes (0) No

Are those groups opinions/voices considered at community meetings?

– New immigrants	0.43***	(0.06)	0.02	(0.07)	377
– Ex-combatants	0.42***	(0.07)	0.01	(0.08)	344
– Relatives of leaders	0.72***	(0.08)	-0.01	(0.10)	464
– Poorer people	0.69***	(0.07)	-0.01	(0.09)	482
– Richer people	0.72***	(0.09)	0.02	(0.11)	478
– Older people	0.71***	(0.06)	0.07	(0.07)	501
– Younger people	0.69***	(0.07)	0.03	(0.09)	495
– Women	0.53***	(0.08)	0.07	(0.09)	487
– Men	0.79***	(0.08)	0.02	(0.10)	510

z-score:0.07
(0.04)

Note: Each row presents results from separate OLS estimations. Column (1) reports the constant (i.e. the control-group mean) and column (2) its corresponding standard error. Column (3) reports the OLS-estimated average treatment effect and column (4) the corresponding standard error. Column lists (5) the number of observations and column (6) reports the mean effect across all 49 measures as reported in the main text. Standard errors are clustered at the village level and presented in parentheses. *, **, *** indicate significance at the 10 percent, 5 percent, and 1 percent level, respectively. *Source:* Household questionnaire 2011.

Table A.10: **Training and Information**

	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Constant</i>	(s.e.)	ATE	(s.e.)	<i>N</i>	<i>z-score</i>
<i>Scale: (5) Very satisfied (4) Satisfied (3) Neutral (2) Not satisfied (1) Never satisfied</i>						
Satisfaction with <i>ease of access to information</i> on community development projects	3.30***	(0.17)	0.57***	(0.18)	487	
Satisfaction with <i>ease of access to information</i> on community matters (socio-political)	3.45***	(0.16)	0.24	(0.19)	503	
Satisfaction with <i>ease of access to information</i> on training	3.14***	(0.22)	0.31	(0.25)	313	
Satisfaction with <i>quality of information</i> on community development projects	3.34***	(0.18)	0.46***	(0.20)	470	
Satisfaction with <i>quality of information</i> on community matters (socio-political)	3.44***	(0.15)	0.16	(0.19)	489	
Satisfaction with <i>quality of information</i> on training	3.22***	(0.23)	0.23	(0.26)	303	0.34***
<i>Scale: (1) Yes (0) No</i>						
Access to information improved since last year	0.34***	(0.09)	0.23***	(0.10)	562	(0.12)
Has the sources of information increased?	0.31***	(0.08)	0.20***	(0.09)	561	
Has the quality of information improved?	0.32***	(0.08)	0.18***	(0.10)	562	
Received any training during the last year?	0.08	(0.05)	0.08	(0.07)	576	

Note: Each row presents results from separate OLS estimations. Column (1) reports the constant (i.e. the control-group mean) and column (2) its corresponding standard error. Column (3) reports the OLS-estimated average treatment effect and column (4) the corresponding standard error. Column lists (5) the number of observations and column (6) reports the mean effect across all 10 measures as reported Table 6 in the main text. Standard errors are clustered at the village level and presented in parentheses. *, **, *** indicate significance at the 10 percent, 5 percent, and 1 percent level, respectively. *Source:* Household questionnaire 2011.

Table A.11: **Role of NGOs**

	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Constant</i>	(s.e.)	ATE	(s.e.)	<i>N</i>	<i>z-score</i>
<i>Scale: (1) Very influential (0) Not very influential</i>						
NGO is influential	0.53***	(0.05)	0.13	(0.08)	337	
<i>Scale: (1) Yes (0) No, i.e. interaction took place, but not personally... ...or individual only heard about the institution.</i>						
Interaction with NGO: Yes, personally	0.14***	(0.08)	0.13	(0.08)	340	
<i>Scale: (1) Yes (0) No</i>						
NGO provides primary source of info on development projects	0.01	(0.01)	0.07***	(0.02)	469	0.30***
NGO provides primary source of info on community (socio-political)	-0.00***	(0.00)	0.00	(0.00)	501	(0.08)
NGO provides primary source of info on training	-0.00	(0.00)	0.14***	(0.04)	245	
<i>Scale: (1) NGO (0) Others</i>						
If you have a problem, whom you turn to address the problem?	-0.00	(0.00)	0.01***	(0.01)	575	
Who currently provides community centers?	0.09	(0.09)	-0.08	(0.09)	320	

Note: Each row presents results from separate OLS estimations. Column (1) reports the constant (i.e. the control-group mean) and column (2) its corresponding standard error. Column (3) reports the OLS-estimated average treatment effect and column (4) the corresponding standard error. Column lists (5) the number of observations and column (6) reports the mean effect across all seven measures as reported Table 6 in the main text. Standard errors are clustered at the village level and presented in parentheses. *, **, *** indicate significance at the 10 percent, 5 percent, and 1 percent level, respectively. *Source:* Household questionnaire 2011.

References

- Barrett, Scott. 2005. *Environment and statecraft: the strategy of environmental treaty-making*. New York: Oxford University Press.
- Ben Ner, Avner and Freyr Halldorsson. 2010. "Trusting and Trustworthiness: What are they, what affects them and how to measure them?" *Journal of Economic Psychology* 31:64–79.
- Berg, Joyce, John Dickhaut and Kevin McCabe. 1995. "Trust, Reciprocity and Social History." *Games and Economic Behavior* 10(1):122–142.
- Schechter, Laura. 2007. "Traditional trust measurement and the risk confound An experiment in rural Paraguay." *Journal of Economic Behavior and Organization* 62(2):272–292.