

No sense of ownership in weak participation: a forest conservation experiment in Tanzania

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ONLINE APPENDIX

Appendix A: Descriptive statistics

Table A.1. Descriptive statistics at the individual level, by treatment group

Group	Mean	<i>p</i> -value
Gender (1=female)		
No choice	0.492 (0.037)	0.920
Choice	0.484 (0.036)	
Age		
No choice	47.519 (1.186)	0.302
Choice	45.716 (1.160)	
Forest trips/week		
No choice	1.478 (0.117)	0.377
Choice	1.628 (0.117)	
Commercial forest user (1=yes)		
No choice	0.102 (0.022)	0.181
Choice	0.153 (0.026)	
Relative forest use (1-3) ^a		
No choice	1.503 (0.049)	0.209
Choice	1.579 (0.053)	
Forest reliance (1-3) ^b		
No choice	2.604 (0.038)	0.843
Choice	2.600 (0.038)	
Experienced loss (0-2) ^c		
No choice	1.102 (0.061)	0.196
Choice	0.995 (0.059)	
Farm size (acres)		
No choice	5.060 (0.833)	0.680
Choice	4.455 (1.086)	
Roof type (1-3) ^d		
No choice	2.444 (0.066)	0.664
Choice	2.489 (0.063)	
Literate (1=yes)		
No choice	0.754 (0.032)	0.632
Choice	0.784 (0.030)	

N=480. Standard errors in parentheses.

^a The participant states to use less (1), about the same (2) or more (3) forest products than other households in the village.

^b The participants regards the forest to be non-important (1), important (2) or essential (3) for the household.

^c The participants has experienced no (0), manageable (1) or severe (2) income shortfall/unexpectedly large expenditure in the past 12 months.

^d Most of the participant's roof consists of thatch (1), wood (2) or tin (3).

Table A.2. Descriptive statistics at village level

Village	Region	Population	Nearest road	Nearest town	Public trans.	Nearest forest	Forest size	PFM	External project	Cattle
Bugulula	Geita	8012	2	10	Y	1.5	15737	N	N	3704
Chibingo	Geita	6016	0	8	Y	1.5	N/A	N	N	1112
Msasa	Geita	6587	8	12	N	4	47800	Y	N	1616
Saragulwa	Geita	12047	12	36	Y	5	47700	N	Y	1383
Bugege	Geita	1899	2.5	2.5	N	1	400000	N	N	200
Kokirie	Kili	3490	2	30	Y	2	107828	N	Y	0
Miwaleni	Kili	1002	6.9	18	N	0.4	95	N	N	1955
Mandaka-										
Mnono	Kili	3600	7	7	N	4	2502	N	N	444
Mtakuja	Kili	5380	5	12.5	Y	12.5	2505	Y	N	2000
Mande	Kili	3100	4	7	Y	1.5	8	N	N	288
Nndawa	Lindi	973	12	12	N	2	969	Y	Y	17
Namupa	Lindi	1462	8	8	N	3	325	Y	Y	0
Ntene A	Lindi	2299	25	83	Y	2	19834	Y	Y	9
Rutamba-										
ya Zamani	Lindi	1925	20	25	Y	1	1325	Y	N	47
Simana	Lindi	3345	5	8	N	1.5	320	Y	N	0

Y=yes, N=no, Kili=Kilimanjaro, PFM=participatory forest management. Distances in km and forest size in ha. Sources: local NGOs and village leaderships.

Appendix B: Robustness tests

Robustness test of H4

Table A.3 reports the implied harvest rate of each participant i decision regressed on treatment and control variables. x_{it-1} is the lagged harvest rate decision and $\frac{\sum_{j \neq i, t-1} x_{j \neq i, t-1}}{7}$ is the lagged average harvest rate decisions of the other seven participants in the same session. Village fixed effects are included to control for possible biases in that the distribution of treatments is not identical in each village, and round dummies are included to control for time trends (not reported). There is no significant impact of *choice* on the harvest decisions of the participants in any of the three PES levels,

Table A.3. Regressing choice level harvest rate on treatments and controls

Variable	Harvest rate	
Choice	-0.043	(0.031)
60% (relative to 20%)	-0.081**	(0.033)
100% (relative to 20%)	-0.129***	(0.029)
Choice*60% (relative to 20%*choice)	0.049	(0.039)
Choice*100% (relative to 20%*choice)	0.028	(0.034)
$x_{i,t-1}$	0.648***	(0.033)
$\frac{\sum_{j \neq i, t-1} x_{j \neq i, t-1}}{7}$	0.013	(0.069)
Constant	0.132**	(0.050)
R^2	0.477	
N	2687	

Session clustered standard errors in parentheses.***,**,*, significant at the 1, 5 or 10% level. Includes village and round dummies (not reported).

Round one analyses

Round dynamics may affect the results. To robustness test, the following therefore replicates the analyses presented in Tables 2 and 5-6 by only including the harvest choices (still in the form of harvest rates) in the first round of the experimental sessions. The results are similar and the conclusions are the same as for the analyses with all harvest choices. In table A.4 (replicating Table 2), the mean harvest rates in the first round are not significantly different in the *No-choice* and *Choice* treatment groups ($p=0.555$).

Table A.4. Individual harvest rates in round 1

Group	Mean		N
Control	0.558	(0.062)	96
<i>No-choice</i>	0.327	(0.046)	192
<i>Choice</i>	0.290	(0.041)	175

Session clustered standard errors in parentheses.

In Table A.5 (replicating Table 5), there is also no significant effect on first round harvest rates by the treatment interacted with the positive associative self-anchoring variables.

Table A.5. Testing for associative self-anchoring with round 1 harvest rates

	(1) Absolute positive	(2) Relative positive
Choice	-0.037 (0.090)	-0.078 (0.059)
Positive	-0.053 (0.089)	-0.087 (0.046)
Choice*positive	-0.009 (0.094)	0.065 (0.058)
Constant	0.340*** (0.069)	0.349*** (0.031)
R^2	0.167	0.173
N	367	367

Dependent variable: individual harvest rate in round 1.

Session clustered standard errors in parentheses. ***, **, *: significant at the 1, 5 or 10% level. Includes village dummies (not reported).

In table A.6 (replicating Table 6), there is no significant difference between the first round harvest rates by the treatment in any of the three PES levels.

Table A.6. Individual harvest rates in round 1 by PES level

Group	20%		60%		100%	
<i>No-choice</i>	0.544	(0.039)	0.294	(0.077)	0.144	(0.034)
<i>Choice</i>	0.446	(0.052)	0.297	(0.065)	0.136	(0.035)
p -values	0.113		0.957		0.859	
N	120		124		123	

Session clustered standard errors in parentheses. ***, **, *: significant at the 1, 5 or 10% level.

Appendix C: Letter evaluations

Table A.7 presents the mean ratings of each letter, the number of participants who were presented with the given letter and how many. The fractions of participants who had the letter as their first letter vary. In particular, 44 of the 47 who were asked about the letter *A* had the letter as the first letter in their stated name. The reason is that in addition to the first letter in their stated name, participants

were asked about a letter not present in their stated names, and the letter *A* is a common letter in Tanzanian names. Three letters - *Q*, *U*, *X* - were not presented to any participant as no one had any as their first letter, leaving no basis for comparison.

Table A.7. Overview of letter evaluations

Letter	Mean rating	<i>N</i>	<i>N</i> as first letter
A	4.340 (0.167)	47	44
B	4.047 (0.143)	64	24
C	3.641 (0.228)	39	15
D	3.969 (0.171)	32	11
E	3.633 (0.052)	480	29
F	3.725 (0.174)	69	25
G	3.870 (0.167)	54	13
H	4.060 (0.152)	67	35
I	4.667 (0.167)	9	6
J	3.773 (0.148)	75	31
K	4.083 (0.140)	36	13
L	3.860 (0.201)	43	21
M	4.070 (0.115)	114	61
N	3.889 (0.229)	27	9
O	3.333 (0.374)	15	4
P	3.940 (0.158)	50	16
R	3.579 (0.054)	480	29
S	4.010 (0.121)	103	56
T	3.829 (0.223)	35	12
V	3.675 (0.228)	40	11
W	3.571 (0.571)	7	2
Y	3.818 (0.377)	11	5
Z	4.455 (0.157)	22	8

Standard errors in parentheses.

Appendix D: Including nay-sayers

Table A.8 reveals that participants who voted for the other payment scheme (nay-sayers, $N=17$) have a higher individual mean harvest rates than participants who voted for the PES scheme (yea-sayers, $N=175$) (bootstrapped *t*-test with 9999 repetitions and standard errors clustered at the session level). This could be because of spiteful behavior arising from losing the referendum, or because of unobservables that determine both voting and harvesting behaviors. Attempts to predict the probability to vote for the PES scheme by observables from the questionnaire produce no significant determinants.

Table A.8. Difference in mean harvest rate by vote

Vote	Mean harvest rate	<i>p</i> -value
Nay	0.450 (0.073)	0.050
Yea	0.291 (0.031)	

Session clustered standard errors in parentheses.

The following tables report the tests performed in Tables 2, 3, 5, 6 and A.7 with all participants. Including the nay-sayers in the tests does not change the findings.

Table A.9. Mean individual harvest rates

Group	Mean		N
Control	0.570	(0.060)	96
<i>No-choice</i>	0.328	(0.044)	192
<i>Choice</i>	0.305	(0.032)	192

Session clustered standard errors in parentheses.

Table A.10. Participants' PES evaluation by the choice treatment

Statement	No choice	Choice	p -values
Normative evaluation	2.333 (0.110)	2.224 (0.106)	0.479
Factual evaluation	3.526 (0.082)	3.599 (0.071)	0.893
PES and crowding-out	3.453 (0.072)	3.391 (0.077)	0.616
N	192	192	

Standard errors in parentheses. p -values produced by Wilcoxon ranksum tests.

Table A.11. Testing for associative self-anchoring

	(1) Absolute positive	(2) Relative positive
Choice	-0.072 (0.092)	-0.069 (0.069)
Positive	-0.088 (0.075)	-0.084 (0.049)
Choice*positive	0.056 (0.076)	0.084 (0.059)
Constant	0.342*** (0.057)	0.321*** (0.032)
R^2	0.087	0.091
N	384	384

Dependent variable: individual mean harvest rate through the session. Session clustered standard errors in parentheses. ***, **, *: significant at the 1, 5 or 10% level. Includes village dummies (not reported).

Table A.12. Mean individual harvest rates

Group	20%	60%	100%
<i>No-choice</i>	0.523 (0.057)	0.337 (0.059)	0.125 (0.028)
<i>Choice</i>	0.440 (0.051)	0.315 (0.017)	0.159 (0.032)
p -values	0.306	0.726	0.430
N	128	128	128

Session clustered standard errors in parentheses. ***, **, *: significant at the 1, 5 or 10% level.

Table A.13. Regressing choice level harvest rate on treatments and controls

Variable	Harvest rate
Choice	-0.037 (0.032)
60% (relative to 20%)	-0.082** (0.034)
100% (relative to 20%)	-0.129*** (0.040)
Choice*60% (relative to 20%*choice)	0.046 (0.038)
Choice*100% (relative to 20%*choice)	0.027 (0.035)
$x_{i,t-1}$	0.638*** (0.034)
$\frac{\sum x_{j \neq i, t-1}}{7}$	0.027 (0.072)
Constant	0.134** (0.048)
R^2	0.468
N	2808

Session clustered standard errors in parentheses. ***, **, *: significant at the 1, 5 or 10% level. Includes village round dummies (not reported).

Appendix E: Experiment materials in English and Swahili

Instructions (English)

Thank you everyone for accepting this invitation. We will spend almost three hours explaining the activity, playing and conducting a short survey at the end. Let's start!

The following exercise is a different and entertaining way to actively participate in a project about forests. Besides participating in this exercise and earning money, you will answer a few questions afterwards. The funds to cover the expenses have been donated by a scientific body. The reason why we use money and paper trees is to create situations as similar to your real life situations as possible

The situation is one where a group, *you*, must make decisions about the use of a forest. You have been selected and asked to participate in a random draw from a list of all families in this village. This is done to make sure that all have the same chance of participating.

This exercise is different than exercises in which other persons in this community or others may have played already. Therefore, comments you have heard from other persons do not necessarily apply to this exercise.

Please pay a lot of attention to the instructions. If you understand the instructions, you will be able to make better decisions in the exercise. Please, remain seated and *do not speak with other participants*. If you have a question, raise your hand and we will answer your question.

So to the experiment, let's pretend this group has a forest of initially these 80 trees [point to the paper trees]. For **9 rounds**, equivalent to for example years or wood harvest seasons, each of you will enter the forest and decide how many trees to harvest. You will each earn **100 shillings** for each tree you decide to harvest. Think of this as equivalent to firewood, charcoal, timber etc. You can harvest a minimum of 0 trees from the forest and a maximum given by this table [Show the maximum harvest table]. You indicate how many trees you harvest by picking them [Show how trees are harvested]. The trees will be put up temporarily after you have harvested, such that each of you faces the same forest size.

After all of you have privately and anonymously harvested trees in one round, you are all gathered here and the total number of removed trees in that round is announced.

Then the forest grows: for every 10 standing trees, 2 trees are added. [Show how trees are added]

[If in treatment group 1-3:]

You will get an additional payment of your choice. There will be a referendum to ensure that you get the payment you want. You will get 3 minutes to discuss together. Then you will vote in private on which payment you want.

You can choose between:

- Sell half of your trees. The 40 trees are valued at 2000 shillings, meaning you will be earn 250 shillings before the exercise starts. The forest is then decreased to 40 trees.

OR

- You will be paid for not harvested trees. Since another country also benefits from your forest they would like to contribute to forest conservation, and therefore offer you a forest conservation payment. In addition to earning what we have already said, you will get [20/ 60/ 100] shillings for each tree you decide not to harvest. Therefore, if you decide to harvest 2 trees and you could have harvested 5 trees you will earn 200 shillings for the harvested trees, as before. But in addition you will earn [60/ 180/ 300] shillings for the 3 trees you did not harvest.

[Leave the participants alone for 3 minutes. Then they indicate their choice in private. After the referendum is held:] you have chosen to introduce [chosen payment]. Why did you choose this payment and not the other? [Note reasons]

[If in treatment group 4-6:]

You will get an additional payment. Instead of selling trees you will get paid for not harvested trees. Since other countries also benefit from your forest they would like to contribute to forest conservation, and therefore offer you a forest conservation payment. In addition to earning what we have already said, you will get [20/ 60/ 100] shillings for each tree you decide not to harvest. Therefore, if you decide to harvest 2 trees and you could have harvested 5 trees you will earn 200 shillings for the harvested trees, as before. In addition you will earn [60/ 180/ 300] shillings for the 3 trees you did not harvest. You now get 3 minutes in private where you can discuss the exercise.

[If in control group (7):]

You now get 3 minutes in private where you can discuss the exercise.

An example [Show as you explain]: Suppose that each of you harvests 3 trees each. When all of you are gathered here we then see that 24 trees are removed, leaving 56 trees. You each earn 300 shillings from the 3 harvested trees.

[If in group 1-3:]

In addition, as you have decided: you will receive [40/ 120/ 200] shillings from the forest conservation project.

[If in group 4-6:]

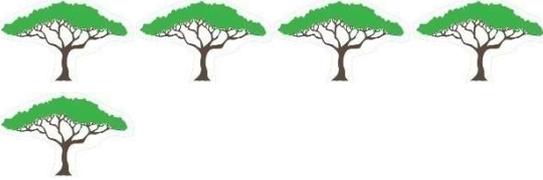
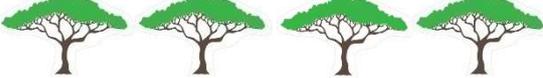
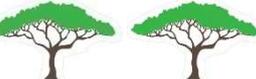
In addition: you will receive [40/ 120/ 200] shillings from the forest conservation project.

Afterwards, the forest grows by 10 trees to 66. Round 1 **of a total of 9 rounds** is then completed. Remember that everything you do is anonymous, so nobody can find out how much you harvest. Any questions? [Answer all questions]

Let us try a practice round! This is just for learning so you will not earn anything from this round. [Complete a full round. Answer any further questions]

Ok, now we reset the forest to 80 trees, and start the real exercise. Anything you will earn from now on will be noted and paid to you in real money at the end of the exercise.

The upper limit table presented to participants (English)

Forest size	Max. possible harvest
40-160	5 
32-39	4 
24-31	3 
16-23	2 
8-15	1 
0-7	0

Participant questionnaire (English)

Basic information	
Participant no.	
Age	
Gender (1=female, 0=male)	
About forest use	
1	How many times per week do you go to the forest to collect forest products? (In the <u>dry</u> season and the <u>rainy</u> season)
2	Have you sold any forest products during the last month? (1=yes, 0=no)
3	How much forest products do you use compared to other families in the village? (1=less, 2=about the same, 3=more)
4	How important is the forest to you? (1= not important, 2=important, 3=essential)
5	Do you consider the happiness of others in the village when you harvest forest products? (1=yes, 0=no)
About forest conservation and wealth	
7	If your religious leaders prohibit deforestation, would you reduce your use of the forest? (yes=1, 0=no)
8	If payments for living trees are to be introduced, would you prefer the payments to be made to the community or directly to the individuals? (1=community, 0=individual)
9	How many acres of land does your household own?
10	How much livestock do you have? (number of <u>c</u> attle, <u>g</u> oats, <u>d</u> onkeys, <u>s</u> heep)
11	What type of material is (most of) your house's roof? (1=thatch; 2=wood ; 3=tin; 4=tiles; 9=other, specify)
12	Do you have any particular position in the village leadership? (1=yes, 0=no) If yes, what?
13	Has your household faced any major income shortfalls or unexpectedly large expenditures during the past 12 months? For example: death or serious illness in family, serious crop failure, lost wage employment, land loss or any other loss? (0=No, 1=yes but manageable, 2=yes severe)

14	Can you get help from others in the village if you are in need? For example if you need extra money because someone in your family is sick? (0=no, 1=sometimes, 2=yes)	
15	Do you in general trust people in the village? (0=no, 1=sometimes, 2=yes)	
I will make some statements, please tell me to what degree you agree to each claim		5=Strongly agree/ 4=agree/ 3=ambivalent/ 2=disagree/ 1=strongly disagree
24	It is right that those who benefit from the clean air that our forests produce contribute to conserving the forest.	
25	It is not proven that paying for living trees decreases deforestation.	
26	Paying for living trees make other forest use considerations less important; like tradition, culture and religion.	
27	The village council is doing the best possible actions to improve the lives of its inhabitants.	
About the experiment		
28	I felt like I owned the forest.	
29	I felt like I owned the forest conservation project	
30	Did you participate together with any close friends or family in the experiment? (1=yes, 0=no) If yes, how many?	
31	Did you have any particular harvest strategy in the experiment? Why/why not?	
32	I am going to say four letters. Please indicate your first, intuitive reaction to them: rate them by likeability (5=strongly like, 4=like, 3=ambivalent, 2=dislike, 1=strongly dislike):	E: _____ R: _____ ____:_____ ____:_____ (1 st letter of 1 st name and one letter not in names)
33	Do you know how to read and write? (1=yes, 0=no)	

Village level interview guide (English)

Basic information	
Village number	
Village name	
District	
Region	
Socio-economic conditions	
Population (persons and <u>h</u> ouseholds)	p: _____ h: _____
No. of able/contributors (persons)	
Total budget of the village	
Distance to nearest major road from the village centre (km)	
Distance to closest town from the village centre (km)	
Distance to the forest frontier from the village centre (km)	
Do you have access to public transport? If yes, how many times per week?	
Livelihoods	
Distance to forest frontier from the village centre (km)	
How many forests are near the village? What are the sizes (ha)?	
What is the forest ownership arrangement(s)?	
Do villagers need permission to harvest forest products in the forest(s) by the village?	
Any external forest conservation project involved?	
Approximate total number of livestock (cattle, goats, donkeys, sheep)	c: _____ g: _____ d: _____ s: _____
Do you regard deforestation as a problem for the local community? If yes, who or what is the main driver?	
Do you have any forest user groups in the village? If yes, how many?	

Instructions (Swahili)

[Note: To avoid confusion in presenting each experiment, each treatment had their own instruction sheet in Swahili, unlike the English presentation of the instructions above. The following instructions present the *choice* treatment implemented at the 60% PES level]

Tunawashukuru kila mmoja kwa kukubali wito huu. Tutatumia muda takribani masaa matatu kuelezea shughuli, kucheza na kushiriki hatimaye katika utafiti mfupi. Haya tuanze!

Zoezi linalofuatalo ni la tofauti na la kuhamasisha kushiriki kwa dhati katika miradi ya misitu. Pamoja kushiriki katika zoezi hili na kupata fedha, utajibu maswali machache baadaye. Fedha ya kufanikisha gharama imetolewa na bodi ya Sayansi. Sababu ya kutumia fedha na miti ya karatasi ni kutengeneza mazingira yanayofanana na maisha ya kawaida kadiri iwezekanavyo.

Halihalisi ni kwamba kikundi, *nyinyi*, mnapaswa kufanya maamuzi kuhusiana na matumizi ya msitu wa asili (msitu wenu). Mmechaguliwa bila kuzingatia kigezo au utaratibu fulani na kuombwa kushiriki kutoka katika orodha ya kaya zote zilizoko hapa kijijini. Hii inafanyika kuhakikisha kuwa kila mmoja ana fursa ya kuchaguliwa.

Tafadhari sikiliza kwa makini maelekezo haya. Ukielewa maelekezo, utaweza kufanya maamuzi sahihi wakati zoezi. Tafadhari, *tuwe na utulivu na kila mmoja asizungumze na mshiriki mwenzake*. Kama una swali lolote, nyoosha mkono kisha uulize swali lako.

Hivyo, tuchukulie kwamba kila mtu ana miliki msitu wenye jumla ya miti 80 [eleza miti ya karatasi]. Kwa *mizunguko 9*, ambayo ni sawa miaka au misimu ya mavuno ya mbao, kila mmoja wenu atakwenda katika msitu na kuamua idadi ya miti atayovuna. Kila mmoja atapata *shililingi 100* kwa kila mti atakao amua kuvuna. Fikiri hili kama kuni, mkaa, mbao, n.k. [Onesha na kuelezea jedwali la kiwango cha juu cha uvunaji wa miti]. Uoneshe idadi ya miti unayovuna kwa kuilaza (ukimaanisha kuukata au kuuondoa) [Onesha namna amavyo miti inavunwa]. Miti hii itawekwa kwa muda baada ya wewe kuivuna, ili kwamba kila mmoja wenu akute msitu wenye ukubwa uleule.

Baada ya nyinyi nyote kuvuna miti kwa *siri/bila mshiriki mwingine kujua* katikaawamu ya kwanza, nyinyi nyote mtakusanyika hapa na idadi ya miti iliyovunywa/kuondolewa katika mzunguko huo itatangazwa.

Kisha msitu utakua: kwa kila miti 10 iliyosimama, miti miwili inaongezeka [Onesha namna ambavyo miti inaongezeka]. Maswali? [Sisitiza kwamba lolote linaruhusiwa].

Utapata **ongezeko** la malipo ya uchaguzi wako. Kutakuwa na kupiga kura kuhakikisha kuwa unapata malipo utakayo. Mtapata dakika tatu kujadiri pamoja. Kisha mtapiga kura kwasiri juu ya malipo mnayotaka.

Mnaweza kuchagua kati ya:

- kuuza nusu msitu wako. Miti 40 zina thamani ya shilingi 2000. Utapata shilingi 250 kila mmoja kabla ya kuanza. Misitu imepungua hadi miti 40.

- Tunawalipa (malipo ya kuhuifadhi msitu): Malipo ya ziada kwa kila mtu. Kwa kuongezea

juu ya kile tulichokwisha kusema, mtapata shilingi **60** kwa kila mti mtakaoamua kuutokuuvuna. Kwa hiyo, kama ukiamua miti miwili na ungeweza kuvuna miti 5 utapata shilingi 200 kwa miti iliyovunwa, kama mwanzo. Lakini kwa kuongezea utapata shilingi **180** kwa miti mitatu ambayo hukuvuna.

[Waache washirikri pekee yao kwa dakika 3. Kisha waoneshe uchaguzi wao kwa siri. Baada ya kupiga kora:] mmechagua kulipwa kwa kuhifadhi msitu, kulipwa kwa miti msiyovuna. Kwanini mlichagua malipo na vinginevyo? [Andika sababu]

Kwa mfano [Onesha huku ukielezea]: Kwa mfano kila mmoja wenu akivuna miti 3. Wakati ninyi nyote mmekusanyika pamoja baada ya mzunguko mmoja, tutaona kwamba miti 24 imeondolewa na kubakisha miti 56 katika msitu. Kwa hiyo kila mmoja atapata shilingi 300.

Hata hivyo, kama mlivyoamua, kila mmoja atapata shilingi **120** kutoka katika mradi wa uhifadhi wa msitu.

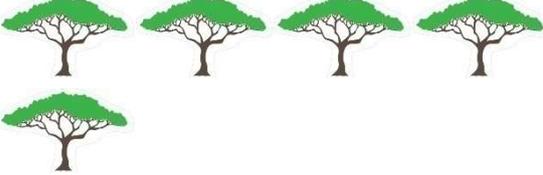
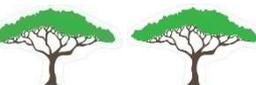
Baadaye msitu utakuwa kwa miti 10 na kufikisha msitu wenye miti 66. Mzunguko wa kwanza kati ya **mizunguko 9** umekamilika. Kumbuka kuwa kila unachokifanya ni siri, ili mtu asijue kiasi cha miti uliyovuna.

Kuna swali lolote? [Jibu maswali yote]

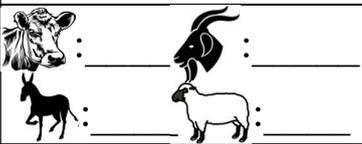
Tuanze kwa mzunguko wa jaribio. Huu ni kwa ajili ya kujifunza, hivyo hautalipwa chochote kutoka katika mzunguko huu. [Kamilisha mzunguko huu. Jibu maswali yoyote yatakayofuata].

Sawa, sasa tunapanga upya msiti wenye miti 80. Kisha tunaanza zoezi halisi. Chochote utakachopata kuanzia sasa kitaandikwa na utapata malipo yake kwa fedha halisi baada ya zoezi.

The upper limit table presented to participants (Swahili)

Kiwango cha rasilimali	Kiwango cha juu cha uvunaji kwa kila mshiriki
40-160	5 
32-39	4 
24-31	3 
16-23	2 
8-15	1 
0-7	0

Participant questionnaire (Swahili)

Taarifa za msingi	
Na. ya Mshiriki	
Umri	
Jinsia (1=ke, 0=me)	
1	
Huwa unaenda msituni kukusanya mazao ya msitu mara ngapi kwa wiki? (Msimu cha kiangazi na msimu wa masika)	☀️: _____ ☁️: _____
2	
Uliuza mazao yoyote ya msitu ndani ya mwezi uliopita? (1=ndiyo, 0=hapana)	
3	
Kiasi gani cha mazao ya msitu wewe hutumia kulinganisha na kaya zingine hapa kijijini? (1=kidogo, 2= karibu sawa,3=zaidi)	
4	
Namna gani msitu ni muhimu kwako? (1= siyo muhimu, 2=ni muhimu, 3= lazima)	
5	
Huwa unazingatia furaha ya wengine hapa kijijini unapovuna mazao ya msitu? (1=ndiyo, 0=hapana)	
Kuhusu uhifadhi wa msitu na mali	
7	
Kama viongozi wako wa dini watazuia ukataji miti, utapunguza matumizi ya mazo ya misitu? (ndiyo=1, 0=hapana)	
8	
Kama malipo kwa ajili ya miti inayoishi yataanzishwa, ungependa malipo hayo yafanyike kwa jumuiya au kwa mtu mmoja mmoja? (1= jumuiya, 0=mtu mmoja mmoja)	
9	
Kaya yako inamiliki eneo la ardhi la ekari ngapi?	
10	
Mna mifugo wangapi? (Idadi ya ng'ombe, mbuzi, punda, kondoo)	
11	
Nyumba zako nyingi zimeezekwa kwa kutumia nini? (1=nyasi; 2=mbao (dari); 3=bati; 4=vigae; 9= maezeco mengineyo, ainisha)	
12	
Una nafasi yoyote maalumu katik uongozi wa kijiji? (1=ndiyo, 0=hapana) Kama ndiyo, ni ipi?	
13	
Kaya yako imewahi kupata changamoto za kifedha au matumizi makubwa musiyotarajia kwa miezi 12, kwa mfano: kifo au kuunguza sana katika familia, hasari kubwa ya mazao, kufukuzwa au kukosa kazi, kupoteza ardhi au hasari nyingine yoyote (0=hapana, ndiyo inayodhibitika=1, ndiyo isiyodhibitika=2)	

14	Unameza kupata msaada kutoka kwa watu wengine hapa kijijini unapokuwa mhitaji? Kwa mfano unapohitaji fedha za ziada kwa sababu mtu mmoja katika familia yako anaumwa? (0=hapana, 1=mara chache, 2=ndiyo)	
15	Je unawaamini watu kwa ujumla katika kijijini chako? (0=hapana, 1=mara chache, 2=ndiyo)	
Nitasoma sentensi na utaniambia ni kwa kiwango gani unakubaliana nayo		5=Nakubali kabisa/ 4=Nakubali/ 3=nipo katikati/ 2=sikubali/1=sikubali kabisa
24	Ni kweli kwamba wale wanaofaidika na hewa safi inayotokakana na misitu yetu wanachangia katika uhifadhi wa mazingira.	
25	Haijahakikishwa kwamba kulipia miti inayoishi hupunguza ukataji wa miti.	
26	Kulipia miti iliyo hai kunapunguza umuhimu wa kuzingatia matumizi mengine ya misitu; kama desturi,utamaduni na dini.	
27	Halimashauri ya kijiji inafanya mambo kadiri inavyowezekana kuboresha maisha ya wakazi wake.	
Kuhusu jaribio		
28	Nilihisi kama nimemiliki msitu.	
29	Nilihisi kama nimemiliki mradi wa msitu.	
30	Umeshiriki pamoja na rafiki yako wa karibu au ndugu yako katika jaribio. (1=ndiyo,0=hapana) kama ndiyo,wangapi?	
31	Ulikuwa na mkakati wowote wa kuvuna miti katika jaribio? Kwanini/Kwanini hapana?	
32	Nitasema herufi nne. Tafadhali oneshwa herufi hunayoipenda yakwanza, mwitikio wa hisia kwao:wakadirie kulingana na wanavyopenda. (5=napenda sana , 4=napenda, 3=katikati, 2=sipendi, 1=sipendi kabisa):	E:_____ R:_____ ____:_____ ____:_____
33	Unajua kusoma na kuandika? (1=ndiyo, 0=hapana)	