



Behavioural experiments with farmers – pre-registration

Content: This document archives the protocols and associated material developed for and used within the H2020 Foodland project to measure farmers' risk and time preferences as well as their voluntary contributions to a public good.

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II. Introduction to behavioural experiments

Behavioural economics applied to the theory of individual choices enables the understanding of individuals' responses to certain stimuli and under several hypotheses on individual behaviours (Eber and Willinger, 2005). Its value resides in the control of the parameters by the experimenter. Laboratory experiments are widely used since individuals' behaviours in a laboratory have proven to be good indicators of their real-world behaviours (Smith, 1976). Incentivised experiments ensure that participants are motivated and fully committed to the tasks they are asked to perform (Eber and Willinger, 2005), thus revealing their real preferences (Kocher et al., 2015).

On the supply side of food products, neoclassical economic theory assumes that agricultural producers are profit maximising entities, and thus adopt innovations based on a rational cost-benefit calculation; however, this hypothesis rarely holds in real world situations (Kahneman, 2003). On the one hand, smallholders show non-separability in consumption and production decisions, leading to non-trivial outcomes (Singh, Squire and Strauss, 1986). On the other hand, human beings are subject to systematic biases, which have been described by behavioural economics. These include time inconsistency, aversion to small risks (Ellis, 1993), other-regarding preferences, and heuristic cues such as imitation. Since these behavioural biases are unconscious and to the well-established gap between stated and revealed preferences, individuals' behavioural characteristics have been studied by means of incentivized behavioural economics experiments such as public good games, dictator games, or lotteries. Despite the growing literature studying smallholders' decisions by means of lab-in-the field experiments in developing countries including sub-Saharan Africa, few studies have tested the acquired knowledge in subsequent field experiments (Narloch, Pascual and Drucker, 2013; Moros and Vélez, 2019). It is recognized that we cannot generalize results which are mostly based on samples drawn from industrialized and rich societies (Henrich et al. 2010), and it is necessary to develop behavioural studies in contexts different from these societies.

The aim, in these experiments, was to design and run lab-in-the-field economic experiments to identify behavioural factors influencing, either as a barrier or as a driver, smallholders' decision-making (primarily their willingness to uptake innovations). The experiments were run as a baseline, prior to any further involvement in the case studies. All the experiments were financially incentivised i.e., economic rewards through participation fees and payoffs). Gender-related aspects and the needs of vulnerable groups were considered in the experimental protocol(s).

The experiments were implemented alongside surveys exploring socio-economic characteristics of the participating farmers, in collaboration with local partners and NGOs. When the participants were involved in the experimental sessions, each one of them was informed about the procedure, the technique, and the right to draw back at any time also through ad hoc materials. After each data collection each participant was de-briefed to ensure that the participant still accepted the data to be used for research. All collected data was anonymized, stored on a server protected by password, and solely used in aggregated form to ensure the safeguard of the participants' rights.

References

Eber, N., and Willinger, M. (2005). *L'économie expérimentale. La Découverte*

Smith, V. L. (1976). "Experimental Economics: Induced Value Theory." *The American Economic Review* 66(2): 274-279.

Kocher, M.G., P. Martinsson, D. Matzat, C. Wollbrant. 2015. "The role of beliefs, trust, and risk in contributions to a public good." *Journal of Economic Psychology* 51:236–244.

Kahneman, D. 2003. Maps of Bounded Rationality: Psychology for Behavioural Economics. *The American Economic Review* 93(5):1449 – 1475.

Singh, I., L. Squire, J. Strauss. 1986. *Agricultural Household Models: Extensions, Applications, and Policy*. Baltimore, MD: The Johns Hopkins University Press.

Ellis, F. 1993. *Peasant Economics. Farm Households in Agrarian Development*. Second Edition. Cambridge: Cambridge University Press.

Narloch, U., U. Pascual, A.G. Drucker. 2013. "How to achieve fairness in payments for ecosystem services? Insights from agrobiodiversity conservation auctions." *Land Use Policy* 35:107–118.

Moros, L., M.A. Vélez. 2019. "Payments for Ecosystem Services and Motivational Crowding in Colombia's Amazon Piedmont." *Ecological Economics* 156:468–488.

Henrich, J., Heine, S. J., Norenzayan, A. (2010). The weirdest people in the world? *Behavioural and Brain Sciences*, 33 (May), 61–135.

III. A brief explanation of each section

This document contains:

- List of the Food Hubs where the data collection took place
- Farmers' Sampling Strategy: guidance provided to the data collection teams on how to select participants for the experiments and counter any sampling issues
- Informed consent to participate in the research: consent form that each participant was required to sign ahead of participation
- Informed consent procedure for illiterate participants: version of the consent form that each participant was required to sign ahead of participation used for illiterate participants
- Data Protection: information provided to participants about the use of their data
- Consent for the processing of personal data: consent form gathering participants' permission to process their data
- Informed consent procedure for illiterate: consent form gathering participants' permission to process their data used for illiterate participants
- Alternative versions of the instructions to be used per country: Table displaying the sequence of games played by participants per sub-sample, and corresponding versions of the instructions
- Experimental Instructions: instructions (including guidance for enumerators) to be read aloud by experimenters during sessions, using the versions and order indicated in the table presented in the previous section "Alternative versions of the instructions to be used per country"
- Session material: guidance provided to enumerators, listing all the resources required to conduct each experimental session and the required preparations
- FoodLAND Banknotes: images of the bank notes used by the participants in the experiment

IV. List of the Food Hubs where the data collection took place

The sample sizes consisted of at least 400 units – adults over the age of 18 years – in each of the Food Hubs. The smallholders whose behavioural characteristics have been elicited in three selected Food Hubs were involved in the implementation of randomized control trials (RCTs).

Country	Food Hub Name	Sample Size
Morocco	Zoyout Dir Beni Mellal (Meknes)	500 Farmers participating in the experiments
Tunisia	Jendouba.	500 Farmers participating in the experiments
Kenya	Mukurweini	500 Farmers participating in the experiments
Tanzania	Mvomero	482 Farmers participating in the experiments
Uganda	Kajjansi /Masaka.	406 Farmers participating in the experiments
Ethiopia	Akaki /Nifas Silk (ET)	n.a.

Table 1: Name of all the Food Hubs, by country, where the behavioural experiments took place.

The Ethiopia experiment could not take place due to the Tigray war, hence there were no farmers participating in the study.

V. Farmers' Sampling Strategy

1. This strategy should be adopted in all the 14 FoodLAND Food Hubs, including the eight Food Hubs where no economic experiment will be run. As a preliminary stage, you should define clear boundaries of the Food Hub area, i.e., which villages and towns belong to it, and which do not. This will be used as a reference area to calculate all statistics and run all activities (experiments, questionnaires, training, RCTs where relevant).
2. Within this area, you need to randomly select a sample of 500 farmers that is representative of the farmers in the Food Hub (please read "fish farmers" if this is the case in your Food Hub).
3. Since each Food Hub has a different size and a different settlement structure, if the number of villages/localities is large, you can adopt a two-stage sampling by randomly selecting the villages/localities first, and then the farmers (as explained below). The number of smallholders in each single village/locality should be enough to create one or more 20-people groups. The selection could be restricted to villages/localities with land area covered with crops relevant to the project. If your Food Hub presents villages/localities with very different level of accessibility or development, we suggest that you select villages representative of all these conditions. Please contact UNIBO and the JHI if you need to discuss the selection of the villages. If your Food Hub includes a single town, or a limited number of settlements, you can avoid this stage.
4. Within the villages/localities selected (where the experiments, the questionnaires, and the training will be run), the sampling will be based on the lists of farmers living and working there. Please make sure that the farmers in the lists meet your definition of smallholder. In order to adopt a gender perspective, you can extend the definition of smallholder farmer to the individuals actively involved in the farming activities (i.e., no matters the tenure status of the land). In this case, all the statistics should be calculated accordingly.
5. Please make sure that, for each person in these lists, you know the gender, the age, and the farm size (land area), which will be used for stratification. If some of these variables are not available, please contact UNIBO and the JHI and we will discuss other options.
6. If your Food Hub has a limited number of settlements and thus your lists cover all the farmers in the Food Hub, you do not need any additional information; otherwise, you need to know the distribution of farmers by age, gender and farm size in the whole Food Hub (or at least an approximate distribution). You can recover this information for example from the last Census; for this reason, we suggest that your Food Hub borders follow administrative borders.
7. As a following step, since we adopt a stratified sampling, you need to calculate the size of strata: based on official statistics (or on your lists, if they cover the whole Food Hub), calculate the share of farmers belonging to each group in the Food Hub (e.g., young men with small farms are 30%, old men with small farm 20%, old women with small farm 5%, young women with large farms 1%, etc.). Using these shares, calculate how many farmers should belong to each stratum in a theoretical sample of 400 farmers. Please contact UNIBO and the JHI if this stage is not clear, and we will identify the best sampling strata together.
8. When you recruit farmers for the experiments, you need to align to the shares calculated as above; thus, if you see that, for example, too many young farmers have already attended the sessions in previous villages/ localities, in the following ones you should recruit more old farmers to compensate; equally, if you see that too many men have attended, you should try to recruit more women; if you see that too many large farmers have attended, try to gather more small farmers; etc.
9. It would be beneficial to replicate this strategy in each village/locality from the start, otherwise you could end up with a need of young farmers and only old villages left! This means that you can try to replicate the shares of farmers in each experimental group of 20 farmers, or that you can try to gather specific types of farmers where it is easier.

10. The sample built as above (i.e., with representative strata) should account for 400 farmers; the additional 100 farmers should be sampled as follows:
- If the initial sample of 400 farmers already includes 1/3 of women, you can allocate the additional 100 farmers using the same methodology (i.e., you replicate the size of the strata).
 - Otherwise, you ask some of the households led by a male farmer that both him and his partner attend the experiments, but in a different session (we are assuming that there are no same sex couples, therefore all partners of male farmers are women). Please remember to do this from the beginning, because it would be difficult to gather the partners later and you will know from the beginning if women are less than 1/3 of the farmers.
 - If you reach 1/3 of women before reaching 500 farmers, you can recruit the additional farmers to reach 500 using the initial stratification approach, or oversample other groups that are underrepresented (e.g., elderly farmers).
11. If you do not manage to reach 1/3 of females even after this stage (for example because the male farmers do not want to involve their partners), please let UNIBO and the JHI know, and we will arrange some in-depth qualitative interviews with the female farmers who are able to attend.

In the following, we provide two examples of calculation of sample strata for countries with a different share of female farmers.

Example 1: In this country female farmers are a small minority. We assume that according to statistics, there are 50,000 farmers in the Food Hub area; this number is used to calculate the relative size of the sample strata, and thus the required size of each stratum in the initial sample of 400 farmers

Sample strata ¹	Farmers ²	Shares	Sample	Partners (women)
Men, young, small size	16,500	33.0%	132	0
Men, young, large size	3,000	6.0%	24	0
Men, old, small size	23,500	47.0%	188	0
Men, old, large size	4,000	8.0%	32	0
Women, young, small size	1,200	2.4%	9	35
Women, young, large size	200	0.4%	2	6
Women, old, small size	1,500	3.0%	12	50
Women, old, large size	100	0.2%	1	9
TOTAL	50,000	100%	400	100

In the sample calculated based on the real population, women are 24 out of 400, i.e., 6.0%. This share is much lower than the required 33.3%. If all the additional 100 participants are chosen among female partners of the male farmers, the share of women is $(100+24)/500=24.8\%$, which is still below the target of 33.3%. This means that you would need to recruit 100 women amongst the partners/wives of the participating farmers, following the distribution of the latter in terms of farm size, as shown in the last column. If this cannot be achieved, we can discuss a different solution. In addition, since the total share of women is still low, we will organise qualitative interviews with women; please get in touch with the JHI and UNIBO for this.

¹ This is just an example of potential strata, and the final thresholds between groups can be defined by the local partners based on their knowledge of the local situation (e.g., the farm size can be used as a filtering variable instead of a stratifying variable, thus excluding 'large' smallholders; or the age groups can be three – young, adults, old).

² These examples are based on the assumption that you know the characteristics of all farmers in your Food Hub.

Example 2: In this country female farmers are almost 1/3. We assume that according to statistics, there are 70,000 farmers in the Food Hub; this number is used to calculate the relative sizes of the sample strata, and thus the required size of each stratum in the initial sample of 400 farmers

Sample strata ¹	Farmers ²	Shares	Sample 1	Sample 2	Partners (women)
Men, young, small size	13,100	18.7%	75	82	0
Men, young, large size	6,400	9.1%	36	40	0
Men, old, small size	24,300	34.7%	139	153	0
Men, old, large size	9,200	13.1%	53	58	0
Women, young, small size	4,500	6.4%	26	28	15
Women, young, large size	1,700	2.4%	10	11	7
Women, old, small size	8,500	12.1%	48	53	28
Women, old, large size	2,300	3.3%	13	15	10
TOTAL	70,000	100.0%	400	440	60

In the sample calculated based on the real population, women are 97 out of 400, i.e., 24.3%. This share is lower than the required 33.3%, but you do not need 100 female partners to achieve this target. To know how many female partners to involve, you can use the following formula:

$$12. p = \frac{167-500f}{1-f}; \quad s = 500 - p.$$

f = share of female farmers in the Food Hub (here 0.243); p = partners to be called; s = new sample size.

Using this formula, you obtain that you need to involve $p = 60$ female partners. Hence, the new sample of $s = 440$ farmers can be sampled according to the initial strata, and your final sample strata become like those in the red columns at the end of the table. The distribution of the female partners should align to distribution of male farmers in terms of farm size, as shown in the last column.

VI. Informed consent to participate in the research

The undersigned _____ resident in _____, _____

DECLARES

to have read the aforementioned information sheet received, to have understood both the information contained therein and the information provided orally by the staff involved in the research project and to have had ample time and opportunity to ask questions and obtain satisfactory answers from the staff in charge and to receive information on any unexpected incidental findings.

to have understood that participation in the study is completely voluntary and without any charge, that one can withdraw from the study at any time, without having to give explanations and without this involving any disadvantage or prejudice.

to have understood the nature and activities that participation in the study entails and the related risks.

Consequently, the undersigned

CONSENT NOT CONSENT

to participate in the research, in the knowledge that such consent is freely expressed and can be revoked at any time without this leading to any disadvantage or prejudice.

_____, _____
(Place and date)

(Signature of the participant)

(Signature of the person collecting the consent)

VII. Informed consent procedure for illiterate participants

A literate witness must sign (if possible, this person should be selected by the participant and shall have no connection to the research team). Participant who is illiterate should make her/his mark as well.

I have witnessed the accurate reading of the consent form to the potential participant, and the participant has had the opportunity to ask questions. I confirm that the individual has given consent freely.

(Name of the witness)

(Signature of the witness)

(Mark of the participant)

(Signature of the person collecting the consent)

VIII. Data Protection

You are invited to participate in a study conducted within the framework of the project "FOOD and Local, Agricultural, and Nutritional Diversity" (**FOODLAND**) funded by the European Commission. This study aims to bridge local agricultural production with food consumption and to contribute to the reduction of malnutrition and is carried out in the *[indicate your University/Institute]*.

Pursuant to *[indicate your relevant regulation]*, please note that *[indicate your University/Institute]* is the Data Controller and will process your personal data in compliance with the requirements of *[indicate your relevant regulation]*.

PARTIES INVOLVED IN PROCESSING

- **Data Controller**

[enter identification and contact details: University/Institute as well as postal and email addresses]

- **Data Protection Officer of** *[indicate your University/Institute]*

[enter contact details: postal and email addresses]

PURPOSES AND METHODS OF PROCESSING

Your personal data will be processed by specifically authorised persons, both with and without the use of automated equipment, for the following purposes:

(A) PARTICIPATION IN THE RESEARCH AND RELATED OPERATIONS AND ACTIVITIES

If you give your consent to participate in the study in question, some of your personal data (including data relating to food allergies and intolerances) will be collected through survey (questionnaire) and/or panel / focus groups (tests).

Information you will provide will be processed by *[indicate your University/Institute]*, which will replace any identification data with a code. Please note that your data will be subject to anonymisation only after the final wave of data collection will take place (year 4 of the project in 2024), since, over the period,

1 - you will be asked to answer a further questionnaire [or interview or participate in a focus group] that will be compared and elaborated also in the light of the answers already provided.

2 - it is in the interest of the University/Institute to be able to contact you again in order to deepen some aspects of the research or ask for clarifications]

3 - it is in the interest of the University/Institute to be able to contact you again if you have expressed the will to participate in implementing and validating pilot open innovations.

Personal data without identification details may also be communicated to third parties involved in FoodLAND for research purposes.

The pseudonymized data collected and stored for the realization of the study in question, will be kept for a period no longer than 5 years from the data collection end date. Any paper document (i.e., the questionnaires) will be kept separately from the collected data, stored in a locked cupboard, and destroyed no later than 5 years from the data collection end date. Only the fully anonymized dataset will be preserved indefinitely for research reproducibility.

(B) CONSERVATION FOR ADMINISTRATIVE PURPOSES

Your data will also be processed for administrative accounting purposes and kept for the time strictly necessary for the pursuit of these purposes, except for the ten-year period to ensure the fiscal, accounting and administrative requirements required by law and, possibly, longer terms, not determinable a priori, because of different conditions of lawfulness of the treatment (for example, legal actions that make the treatment necessary for over ten years).

LEGAL BASIS AND NATURE OF THE PROVISION OF DATA

The legal basis of the treatments described above is to be found in the consent, pursuant to *[indicate your relevant regulation]*. The consent to the processing for the purposes described above is free and optional.

However, it is specified that the provision of data for the purposes referred to in point (A) is not mandatory but is essential for the conduct of the study. The refusal to grant them will not allow you to participate in the study in question.

The provision of data for the purposes referred to in point (B) is necessary to comply with legal obligations regarding the conservation of administrative and accounting documents. In this case the legal basis can be found in the *[indicate your relevant regulation]*.

RIGHTS OF THE DATA SUBJECT

Without prejudice to the limitations placed on exercise of the rights of data subjects, you, as a participant in this study and therefore a data subject, may exercise the rights granted pursuant and consequent to, including the right to request access to your personal data and its rectification or erasure, as well as to restrict the processing of your data, object to its processing and request its portability.

Please note that any consent given by you is given freely and may be revoked at any time, without any penalties or adverse effects, and without prejudicing the lawfulness of processing based on the consent given prior to revocation.

Requests to exercise the above rights may be presented to *[indicate your University/Institute]* by contacting [...], at the following address *[indicate the official references of the internal structure that collects/processes the data]*, Tel. [...], Fax. [...], e-mail [...]

Lastly, should you believe that the processing of your personal data is in infringement of the provisions of *[indicate your relevant regulation]*, you have the right to lodge a complaint with the national/institutional data protection authority, pursuant to *[indicate your relevant regulation]*, or to refer to the appropriate courts.

IX. Consent for the processing of personal data

I, the undersigned _____, born on _____ in _____,

pursuant to [indicate your relevant regulation] and having read the above "Information on the processing of personal data".

give consent

deny consent

for the processing - REQUIRED for the purpose of participating in the study in question – of my [(3) daughter's] personal data for scientific research purposes in the manner and for the reasons described in the section entitled "Purposes and methods of processing", as of point (A).

Date

Signature

X. Informed consent procedure for illiterate

A literate witness must sign (if possible, this person should be selected by the participant and shall have no connection to the research team). Participant who is illiterate should make her/his mark as well.

I have witnessed the accurate reading of the consent form to the potential participant, and the participant has had the opportunity to ask questions. I confirm that the individual has given consent freely.

(Name of the witness)

(Signature of the witness)

(Mark of the participant)

(Signature of the person collecting the consent)

XI. Alternative versions of the instructions to be used per country:

<i>Sequence of alternative versions of instructions to be used for each subsample (from left to right)</i>							
Country	Introduction to the experiments	PGG Round 1	PGG Round 2	Trust	Risk preferences	Time preferences	Payment of participants
Ethiopia	V2	Round 1_T0	Round 2_T0	Trust game	Same Risk protocol for all	Same Time protocol for all	Same payment instructions for all
Tunisia	V1	Round 1_T0	Round 2_T0	n.a.			
Kenya 1*	V1	Round 1_T0	Round 2_T2	n.a.			
Kenya 2*	V1	Round 1_T2	Round 2_T0	n.a.			
Tanzania 1*	V1	Round 1_T0	Round 2_T5	n.a.			
Tanzania 2*	V1	Round 1_T5	Round 2_T0	n.a.			
Morocco 1*	V1	Round 1_T3	Round 2_T0	n.a.			
Morocco 2*	V1	Round 1_T7	Round 2_T4	n.a.			
Uganda	V1	Round 1_T3	Round 2_T0	n.a.			

Notes: PGG = Public Good Game; * When 2 rows exist for a same country, data collection teams were instructed that half of the sessions should use the sequence presented in row 1 and the other half the sequence presented in row 2, using a random allocation of the sequences between sessions.

How to read this Table?

One row shows the sequence of instructions in order (from left to right) to be used within each subsample. For example, in Tunisia, the enumerators were provided with the following versions of the instructions, in the order presented below:

1. Introduction to the experiments_V1
2. PGG Round 1_T0
3. PGG Round 2_T0
4. Risk attitudes protocol
5. Time preferences protocol
6. Payment instructions

All the versions of the instructions presented in the above table are provided in the next section.

Description of treatments in the PGG:

- T0: the PGG has a standard format (participants put their tokens in the common pool, equal initial endowment, multiplication factor = 2, benefits their own group)
- T2 if the initial endowment is unequal (participants put their tokens in the common pool, unequal initial endowment, multiplication factor = 2, benefits their own group)
- T3 if the participant plays to benefit the other group (participants put their tokens in the common pool, equal initial endowment, multiplication factor = 2, benefits the other group)

- T4 if the participant can take money from the common pool (participants take from the common pool, equal initial endowment, multiplication factor = 2, benefits their own group)
- T5 if the multiplication factor is 1.5 (participants put their tokens into the common pool, equal initial endowment, multiplication factor = 1.5, benefits their own group)
- T7 if participants take from the common pool and play to benefit the other group (participants take from the common pool, equal initial endowment, multiplication factor = 2, benefits the other group)

XII. Experimental Instructions

[All text in red font are comments for the enumerator only – not to be read to participants]

Text highlighted in yellow is to be appropriately adjusted by data collection team

Introduction to the experiments - V1

Dear Madam/Sir,

You are invited to take part in public research conducted within the framework of the project "**FOOD and Local, Agricultural, and Nutritional Diversity (FoodLAND)**" funded by the European Commission. Before deciding whether to participate, it is important that you have all the information necessary to adhere in an informed and responsible manner. Please ask the person who is proposing this study all the questions you may consider appropriate.

Thank you for coming today. We are researchers from the FoodLAND project. FoodLAND stands for "Food and local, agricultural and nutritional diversity". We would like to know farmers' attitude towards innovations, and for doing so we will play a number of games. Please listen to the instructions of the games as carefully as possible because only people who understand the games will be able to play them well.

All the people you can see in this room will play the same games as you. For some games, you will be paired with one person in the other room, but you will not know their identity, and their identity will not be revealed, even at the end of the session. We will ask each of you to make different decisions. Your decisions as well as other participants' decisions will be made in private, and individual decisions will not be revealed even at the end of the session.

The games you will play recreate situations you might face when deciding whether to adopt innovations on your farm. Just as the decisions you make on your farm impact your profit and wellbeing, each of the games will allow you to earn real money. And as in real life, the amount of money that you will earn depends on your decision and, for group games, on the decisions of others too. But sometimes, the amount you will earn will also depend on chance.

There are no wrong or right decisions; therefore, we ask you to decide based exclusively on your preferences. Your total earnings will be communicated to you privately at the end of the full session today. Besides the money that you will earn from the games, you will receive a participation stipend of **XX LC** to thank you for your participation today. We will now distribute this money. **[Enumerators: Distribute the participation stipend money to everyone and prepare receipt to be signed at the end of the session]**

We kindly ask you not to speak aloud, and not to communicate with your other participants until the end of the session unless asked to do so. If you fail to comply with this rule, you will have to leave the session and you will not receive your earnings in the games.

There are **X** enumerators especially trained to help you during today's games. Those of you who need help will be assisted individually by the enumerators during the whole session. All of you will receive a copy of the instructions and an envelope with one sheet of paper for each game. You, or the

enumerator assisting you, will write down your answers directly on these sheets of papers. To ensure the privacy of your decisions, we strongly recommend you not to take these sheets of paper out of the envelope unless asked by the enumerators.

If you have any question, please raise your hand and an enumerator will come close to you to listen and will provide an answer for everyone; please do not ask your questions aloud. Is everything clear until now? Otherwise please raise your hand.

[Enumerators to check if anyone has any question and in case answer them for everyone]

Your endowment and your earnings in the games will be expressed in tokens. This is because these same games are being run in other African countries that have different currencies. At the end of the session, your total earnings in tokens will be converted in LC at the following rate:

$$X \text{ tokens} = X \text{ LC}$$

At the end of the session, we will pay you the final amount earned in the games in real cash and individually, without letting others know your final earning. This will be in addition to the participation stipend that you have just received. Since your decisions are private, we strongly recommend that you do not tell anyone your decisions during, or after the end of the session. We kindly ask you not to reveal to the other participants the total amount earned until you leave the room. Once you have left the room, you are free to decide whether you want to share this information. If you do not have any question, we will proceed with the first game.

Introduction to the experiments - V2

[Lead Enumerator: Please read the script below slowly and clearly to the participants. Check if they follow. Repeat the script if necessary].

Thank you for coming today. We are researchers from the FoodLAND project. We would like to know farmers' attitude towards innovations, and for doing so we will play a number of games. Please listen to the instructions of the games carefully.

All the people you can see in this room will play the same games as you. We will not share information about their or your identity, even at the end of the session. If you know some of them, we ask you not to share information about their identity with other participants. We will ask each of you to make different decisions. Your decisions as well as other participants' decisions will be made in private, and individual decisions will not be revealed, even at the end of the session.

The games you will play recreate situations you might face when deciding whether to adopt innovations on your farm. Just as the decisions you make on your farm impact your earnings and wellbeing, each of the games will allow you to earn real money. And as in real life, the amount of money that you will earn depends on your decision and, for group games, on the decisions of others too. But sometimes, the amount you will earn will also depend on chance.

There are no wrong or right decisions; therefore, we ask you to decide based exclusively on your preferences. In some of the games you will be given FoodLAND tokens in the form of fake banknotes that you will use to play the games. At the end of the session, you will get **X LC** for **10** units of FoodLAND tokens. Besides the money that you will earn from the games, you will receive a stipend of **XX LC** to thank you for your participation today. Your total earnings will be communicated to you privately at the end of the full session today. Other participants will not know your total earnings.

If you have any question, please raise your hand and an enumerator will come close to you to listen and will provide an answer for everyone.

[Lead Enumerator to check if anyone has any question and in case answer them for everyone]

We kindly ask you not to speak aloud, and not to communicate with other participants until the end of the session. If you fail to comply with this rule, you will have to leave the session and you will not receive your earnings in the games and only get to keep the participation stipend. After having played the games, we'll take a break.

There are **X** enumerators especially trained to help you during today's games. Those of you who need help will be assisted individually by an enumerator during the whole session. All of you have received a large envelope containing 5 smaller envelopes and a pen/pencil. The smaller envelopes contain answer sheets. You, or the enumerator assisting you, will write down your answers directly on these sheets of papers. Please, do not to take these sheets of paper out of the envelope unless asked by the enumerators.

In the big envelope you will find 5 smaller envelopes, each with a different shape on them, each shape corresponds to a different game we will play today. The shapes are triangle, star, cross, square and circle.

[Reminder of envelopes content for enumerators:

-  - Includes Questionnaire 1, 150 units (100/200 in T2) of FoodLAND currency, and visuals (images 03 and 04)
-  - Includes 150 units of FoodLAND currency (100/200 in T2)

 - Includes 100 units of FoodLAND currency, practice questions, and Questionnaire 2

 - Includes answer sheet 1

 - Includes answer sheet 2]

If you have any question, please raise your hand and an enumerator will come close to you to listen and will provide an answer for everyone; please do not ask your questions aloud.

[Lead Enumerator to check if anyone has any question and in case answer them for everyone]

We will now proceed with the first game.



Public Good Game - Round 1_T0

[Enumerators: There are 2 groups of 10 participants in this game. If there are less than 20 farmers present at the session, please create 2 groups of equal size, sending home one farmer if needed. Please pay the stipend money to the farmer sent home].

[Lead Enumerator: randomly divide participants into two sub-groups by extracting half of the unique IDs].

Thank you again for coming today. We will now play the game. Please remain seated at your desk. The game is to proceed in silence; talking or moving are prohibited, and if you talk with one of the other participants, you will be asked to leave the room.

Please now take the small envelope with a triangle shape on it.

In this game, the participants present today will be split in two groups. You will be in the same group as half of the participants, while the remaining half will form another group.

Each of you will be asked to make a decision that will influence both your earnings, and the earnings of other members of **your group**. Each of you will receive 150 tokens.

You and each member of your group will have the opportunity to put as many of these tokens as you want on a common account, or to keep some or all of them for yourself. The tokens that you keep for yourself will remain with you and will contribute to your earnings.

After all the members of your group have had the opportunity to put tokens on the common account, the enumerators will top up your group's common account with the same amount as the total that was put in the common account, so that the amount is doubled. This will then be shared equally amongst the members of your group. Each member of your group, including you, will receive their share **regardless of the amount they put on the common account**.

[Lead Enumerator: Please provide here concrete examples standardised for all the sessions, for example: you are a part of an association that wants to gather funds to help support a project. This project would benefit you and your group, and you are free to decide how much you want to contribute to the common account that will be shared at the end. The individual amount you contribute will stay anonymous.].

Do you have any questions? **[Enumerators: Please answer the questions for everyone]**

Before we proceed with the real decision, we will give you some examples that illustrate the possible outcomes of that game. **[Enumerators: Please replace the values in the examples to take account of the actual number of people if the number of people n in each group is less than 10. Please refer to the visuals (images) inserted in the envelopes to help explain the examples].**

- If everyone puts everything in the common account, **1,500 tokens** will be in it. Twice this sum (**3,000 tokens**) is then divided equally among all participants, such that each participant will earn **300 tokens**.
- If everyone keeps the tokens for themselves, no money will be in the common account, thus leaving no money to be divided equally. Each participant will then earn their initial endowment of 150 tokens.
- Remember that you can put any amount between 0 and 150 tokens in the common account.



Now we will ask you some questions to help you understand the game. Please take questionnaire 1 from your personal envelope with a triangle, fill it in and put it back in your personal envelope with a triangle. An enumerator will assist you in case of need.

Now we will play the game. One enumerator will come at your desk with an empty envelope and will ask you to make your decision. When you are approached, please extract from the envelope with the triangle the tokens that you want to put in the common account and put them in the empty envelope provided by the enumerator. Please make sure that the amount contributed is not seen by other players. Your decision won't be communicated to anyone but will be noted by the enumerator. Likewise, you won't know what other participants have chosen.

Once everyone in the room has made their decisions, we will count the total number of tokens put in the common account, the enumerators will add the same amount as the total put in your group's common account, so that the amount is doubled. This amount will be shared equally between you and all members of your group. The result will be communicated to you at the end of the session.

Do you have any questions? **[Enumerators: Please answer the questions for everyone]**

Now we will play for this round. An enumerator will assist you.

[Enumerators:

1- approach the participants one by one, give them the empty common account envelopes and ask them to make their decision. Make sure that they clearly identify which envelope is the common account one.

2- once all envelopes are distributed, remind them the rules: "You can take any amount from your personal envelope to put in the common account envelope. Return the common account envelope to me and keep your personal envelope with your tokens with you. You can exchange these for real money at the end of the session".

3- once everyone has made their decision, collect all common account envelopes (make sure to check the participant ID), and continue reading].

Thanks for making your decision.

Please put the small envelope with a triangle back in the large envelope and wait in silence while we count the total number of tokens in the common accounts and make the calculations. **[Enumerators: make the calculations; make sure that participants do not communicate with each other while waiting].** The enumerators will now distribute to everyone the envelopes with your share of twice the money put on the common account by participants in your group. Please have a look at this amount without communicating it to other players, and then put the envelope in the large envelope. These tokens are in addition to the tokens you kept for yourself during the game and will be exchanged for real money at the end of the session. **[Enumerators to distribute envelopes with the tokens].**



Public Good Game - Round 1_T2

[Enumerators: There are 2 groups of 10 participants in this game. If there are less than 20 farmers present at the session, please create 2 groups of equal size of even number, sending home farmers if needed. Please pay the stipend money to the farmers sent home].

[Lead Enumerator: randomly divide participants into two sub-groups by extracting half of the unique IDs].

Thank you again for coming today. We will now play the first game. Please remain seated at your desk. The game is to proceed in silence; talking or moving are prohibited, and if you talk with one of the other participants, you will be asked to leave the room.

Please now take the small envelope with a star shape on it.

In this game, the participants present today will be split in two groups. You will be in the same group as half of the participants, while the remaining half will form another group.

Each of you will be asked to make a decision that will influence both your earnings, and the earnings of the other members of **your group**. Each of you will randomly receive one of two endowment amounts. Half of the members of your group will receive 100 tokens, and the other half will receive 200 tokens. The amount you receive will be only known by yourself, and you cannot share this information with other participants.

[Enumerators: Ahead of each session, prepare half of the envelopes (randomly extracted) with 100 tokens, and half of the envelopes with 200 tokens. In each group, make sure to distribute the same number of envelopes with 100 and 200 tokens].

You and each member of your group will have the opportunity to put as many of these tokens as you want on a common account, or to keep some or all of them for yourself. The tokens that you keep for yourself will remain with you and will contribute to your earnings.

After all the members of your group have had the opportunity to put tokens on the common account, the enumerators will top up your group's common account with the same amount as the total that was put in the common account, so that the amount is doubled. This will then be shared equally amongst the members of your group. Each member of your group, including you, will receive their share **regardless of their initial endowment and of the amount they put on the common account**.

[Lead Enumerator: Please provide here concrete examples standardised for all the sessions, for example: you are a part of an association that wants to gather funds to help support a project. This project would benefit you and your group, and you are free to decide how much you want to contribute to the common account that will be shared at the end. The individual amount you contribute will stay anonymous.].

Do you have any questions? **[Enumerators: Please answer the questions for everyone]**

Before we proceed with the real decision, we will give you some examples that illustrate the possible outcomes of that game. **[Enumerators: Please replace the values highlighted in yellow in the examples to take account of the actual number of people if the number of people n in each group is less than 10].**



- If everyone puts everything in the common account, **1,500 tokens** will be in it. Twice this sum (**3,000** tokens) is then divided equally among all participants, such that each participant will earn 300 tokens.
- If everyone keeps the tokens for themselves, no money will be in the common account, thus leaving no money to be divided equally. Each participant will then earn their initial endowment of 100 or 200 tokens.
- Remember that you can put any amount between 0 and 100 or 200 tokens in the common account.

Now we will ask you some questions to help you understand the game. Please take questionnaire 1 from your personal envelope with a star, fill it in and put it back in your personal envelope with a star. An enumerator will assist you in case of need.

Now we will play the game. One enumerator will come at your desk with an empty envelope and will ask you to make your decision. When you are approached, please extract from the envelope with the star the tokens that you want to put in the common account and put them in the empty envelope provided by the enumerator. Please make sure that the amount contributed is not seen by other players. Your decision won't be communicated to anyone but will be noted by the enumerator. Likewise, you won't know what other participants have chosen.

Once everyone in the room has made their decisions, we will count the total number of tokens put in the common account, the enumerators will add the same amount as the total put in your group's common account, so that the amount is doubled. This amount will be shared equally between you and all members of your group. The result will be communicated to you at the end of the session.

Do you have any questions? **[Enumerators: Please answer the questions for everyone]**

Now we will play for this round. An enumerator will assist you.

[Enumerators:

1- approach the participants one by one, give them the empty common account envelopes and ask them to make their decision. Make sure that they clearly identify which envelope is the common account one.

2- once all envelopes are distributed, remind them the rules: "You can take any amount from your personal envelope to put in the common account envelope. Return the common account envelope to me and keep your personal envelope with your tokens with you. You can exchange these for real money at the end of the session".

3- once everyone has made their decision, collect all common account envelopes (make sure to check the participant ID), and continue reading].

Thanks for making your decision.

Please put the small envelope with a star back in the large envelope and wait in silence while we count the total number of tokens in the common accounts and make the calculations. **[Enumerators: make the calculations; make sure that participants do not communicate with each other while waiting].** The enumerators will now distribute to everyone the envelopes with your share of twice the money put on the common account by participants in your group. Please have a look at this amount without communicating it to other players, and then put the envelope in the large envelope. These tokens are in addition to the tokens you kept for yourself during the game and will be exchanged for real money at the end of the session. **[Enumerators to distribute envelopes with the tokens].**



Public Good Game - Round 1_T3

[Enumerators: There are 2 groups of 10 participants in this game. If there are less than 20 participants present at the session, please create 2 groups of equal size, sending home one farmer if needed. Please pay the stipend money to the farmer sent home].

[Lead Enumerator: randomly divide the participants into two sub-groups by extracting half of the unique IDs. These participants represent group A, while the others represent group B.].

Thank you again for coming today. We will now play the first game. Please remain seated at your desk. The game is to proceed in silence; talking or moving are prohibited, and if you talk with one of the other participants, you will be asked to leave the room.

Please now take the small envelope with a triangle shape on it.

In this game, the participants present today will be split in 2 groups. You will be in the same group as half of the participants, while the remaining half will form another group.

Each of you will be asked to make a decision that will influence both **your individual earnings**, and the earnings of people in **the other group**. People in the other group do not have a say in the decision.

You and the other members of your group will receive 150 tokens each. You and each member of your group will have the opportunity to put as many of these tokens as you want on a common account, or to keep some or all of them for yourself. The tokens that you keep for yourself will remain with you and will contribute to your earnings.

After all the members of your group have had the opportunity to put tokens on the common account, the enumerators will top up your group's common account with the same amount as the total that was put in the common account, so that the amount is doubled. This will then be shared equally amongst the members of the **other group**. This means that the tokens put in your group's common account by you and your group will benefit members of the **other group**.

Both groups will be asked to make the same decision, but at the end of the sessions, one group will be randomly selected, and only the decisions made by the members of the selected group will be implemented. This means that members of the group selected will receive what they have kept for themselves, and members of the other group will receive the money from the common account of the group selected. Both groups have the same chance of being selected, so please play as if your group was to be selected.

[Lead Enumerator: Please provide here concrete examples standardised for all the sessions, for example: you are a part of an association that wants to gather funds to help support other farmers' production. Those funds would benefit different people and you are free to decide how much you want to contribute to the common account that will be shared at the end. The individual amount you contribute will stay anonymous.].

Do you have any questions? [Enumerators: Please answer the questions for everyone]

Before we proceed with the real decision, we will provide you some examples that illustrate the possible outcomes of this game. [Enumerators: Please replace the values in the examples to take account of the actual number of people if the number of people n in each group is less than 10 and refer to visuals/images].

- If everyone from your group keeps their 150 tokens for themselves, no money will be put in the common account, thus leaving no money to be divided between the participants in the other



group. Each participant in your group will then earn 150 tokens, while the participants in the other group will earn zero tokens.

- If everyone from your group puts everything in the common account, **1,500 tokens** will be in there. Twice this sum (**3,000 tokens**) will be equally divided among all the participants in the other group, so that each of them will earn 300 tokens. You and the other members of your group will earn zero tokens.
- Remember that you can put any amount between 0 and 150 tokens in the common account.

Do you have any questions? **[Enumerators: Please answer the questions for everyone]**

Now we will ask you some questions to help you understand the game. Please take questionnaire 1 from your personal envelope with a triangle, fill it in and put it back in your personal envelope with a triangle. An enumerator will assist you in case of need.

Now we will play the game. One enumerator will come at your desk with an empty envelope and will ask you to make your decision. When you are approached, please extract from the envelope with the triangle the tokens that you want to put in the common account and put them in the empty envelope provided by the enumerator. Please make sure that the amount contributed is not seen by other players. Your decision won't be communicated to anyone but will be noted by the enumerator. Likewise, you won't know what other participants have chosen.

Once everyone in the room has made their decisions, we will count the total number of tokens put in the common account, the enumerators will add the same amount as the total put in your group's common account, so that the amount is doubled. This amount will be shared equally between the 10 participants of the other group if your group is selected randomly at the end of the game.

Do you have any questions? **[Enumerators: Please answer the questions for everyone]**

[Enumerators:

1- approach the participants one by one, give them the empty common account envelopes and ask them to make their decision. Make sure that they clearly identify which envelope is the common account one.

2- once all envelopes are distributed, remind them the rules: "Your group is group A/B. Please keep this in mind for when the result of the extraction will be announced. You can take any amount, including nothing and up to 150 tokens, from your personal envelope to put in the common account envelope. Return the common account envelope to me and keep your personal envelope with you. You can exchange these for real money at the end of the session."

3- once everyone has made their decision, collect all common account envelopes (make sure to check the participant ID), and continue reading].

Thanks for making your decision.

Please put the small envelope with a triangle back in the large envelope.

Now we will randomly extract one of the two groups, and only their decision will be implemented. Each of you has been told which group you belong to. This box contains a red ball and a white ball. If I extract the red ball, the decisions of people in group A will be implemented; if I extract the white ball, the decisions of group B.



[Enumerators: show to the participants that your box indeed contains a white and a red ball, mix them, and let another enumerator extract one, then continue reading].

I have extracted a red/white ball; therefore, the decisions of group A/B will be implemented. The decisions of the other group will not be implemented, which means that the members of the group that has not been selected [A/B] will give us back their triangle envelopes at the end of the game, and we will give them their share of group [A/B]'s common account in exchange.

[Enumerator: Please prepare an envelope for everyone in the group which has NOT been extracted containing their earning from the common account of the other group; do not distribute them yet].



Public Good Game - Round 1_T5

[Enumerators: There are 2 groups of 10 participants in this game. If there are less than 20 farmers present at the session, please create 2 groups of equal size, sending home one farmer if needed. Please pay the stipend money to the farmer sent home].

[Lead Enumerator: randomly divide participants into two sub-groups by extracting half of the unique IDs].

Thank you again for coming today. We will now play the first game. Please remain seated at your desk. The game is to proceed in silence; talking or moving are prohibited, and if you talk with one of the other participants, you will be asked to leave the room.

Please now take the small envelope with a star shape on it.

In this game, the participants present today will be split in two groups. You will be in the same group as half of the participants, while the remaining half will form another group.

Each of you will be asked to make a decision that will influence both your earnings, and the earnings of other members of **your group**. Each of you will receive 150 tokens.

You and each member of your group will have the opportunity to put as many of these tokens as you want on a common account, or to keep some or all of them for yourself. The tokens that you keep for yourself will remain with you and will contribute to your earnings.

After all the members of your group have had the opportunity to put tokens on the common account, the enumerators will top up your group's common account with an amount equal to half the total that was put in the common account by all members of **your group**. This will then be shared equally amongst the members of your group. Each member of your group, including you, will receive their share **regardless of the amount they put on the common account**.

[Lead Enumerator: Please provide here concrete examples standardised for all the sessions, for example: you are a part of an association that wants to gather funds to help support a project. This project would benefit you and your groups, and you are free to decide how much you want to contribute to the common account that will be shared at the end. The individual amount you contribute will stay anonymous.]

Do you have any questions? **[Enumerators: Please answer the questions for everyone]**

Before we proceed with the real decision, we will give you some examples that illustrate the possible outcomes of that game. **[Enumerators: Please replace the values in the examples to take account of the actual number of people if the number of people n in each group is less than 10 and refer to visuals/images].**

- If everyone put everything in the common account, 1,500 tokens will be in it; 1 and a half times this sum (2,250) will be divided equally between all participants in your group, such that each of you will earn 225 tokens.
- If everyone keeps the tokens for themselves no money will be in the common account, thus leaving no money to be divided equally. Each participant will earn their initial endowment of 150 tokens.
- Remember that you can put any amount between 0 and 150 tokens in the common account.



Now we will ask you some questions to help you understand the game. Please take questionnaire 1 from your personal envelope with a star, fill it in and put it back in your personal envelope with a star. An enumerator will assist you in case of need.

Now we will play the game. One enumerator will come at your desk with an empty envelope and will ask you to make your decision. When you are approached, please extract from the envelope with the star the tokens that you want to put in the common account and put them in the empty envelope provided by the enumerator. Please make sure that the amount contributed is not seen by other players. Your decision won't be communicated to anyone but will be noted by the enumerator. Likewise, you won't know what other participants have chosen.

Once everyone in the room has made their decisions, we will count the total number of tokens put in the common account of your group, and we will add an amount equal to half of the total. The new total amount will be shared equally between you and all members of your group. The result will be communicated to you at the end of the session.

Do you have any questions? **[Enumerators: Please answer the questions for everyone]**

Now we will play for this round. An enumerator will assist you.

[Enumerators:

1- approach the participants one by one, give them the empty common account envelopes and ask them to make their decision. Make sure that they clearly identify which envelope is the common account one.

2- once all envelopes are distributed, remind them the rules: "You can take any amount from your personal envelope to put in the common account envelope. Return the common account envelope to me and keep your personal envelope with your tokens with you. You can exchange these for real money at the end of the session".

3- once everyone has made their decision, collect all common account envelopes (make sure to check the participant ID), and continue reading].

Thanks for making your decision.

Please put the small envelope with a star back in the large envelope and wait in silence while we count the total number of tokens in the common accounts and make the calculations. **[Enumerators: make the calculations; make sure that participants do not communicate with each other while waiting].**

The enumerators will now distribute to everyone the envelopes with your share of twice the money put on the common account by participants in your group. Please have a look at this amount without communicating it to other players, and then put the envelope in the large envelope. These tokens are in addition to the tokens you kept for yourself during the game and will be exchanged for real money at the end of the session. **[Enumerators to distribute envelopes with the tokens**



Public Good Game - Round 1_T7

[Enumerators: There are 2 groups of 10 participants in this game. If there are less than 20 participants present at the session, please create 2 groups of equal size, sending home one farmer if needed. Please pay the stipend money to the farmer sent home].

[Lead Enumerator: randomly divide the participants into two sub-groups by extracting half of the unique IDs. These participants represent group A, while the others represent group B.].

Thank you again for coming today. We will now play the first game. Please remain seated at your desk. The game is to proceed in silence; talking or moving are prohibited, and if you talk with one of the other participants, you will be asked to leave the room.

Please now take the small envelope with a triangle shape on it.

In this game, the participants present today will be split in 2 groups. You will be in the same group as half of the participants, while the remaining half will form another group.

Each of you will be asked to make a decision that will influence both **your individual earnings**, and the earnings of people in **the other group**. People in the other group do not have a say in the decision.

1,500 tokens [Enumerators: Please replace with $n*150$ if the number of people n in each group is different from 10] will be placed in a common account for your group. Each member of your group will have the opportunity to take any amount up to 150 tokens out of your group's common account, or to leave all the tokens in the common account. The tokens that you take will remain with you and contribute to your earnings while reducing your group's common account.

After all the members of your group have had the opportunity to take tokens out of the common account, the enumerators will top up your group's common account with the same amount as what is left in the common account, so that the remaining amount is doubled. This will then be shared equally amongst the members of the **other group**. This means that the tokens left in your group's common account by you and your group will benefit members of the **other group**.

Both groups will be asked to make the same decision, but at the end of the sessions, one group will be randomly selected, and only the decisions made by the members of the selected group will be implemented. This means that members of the group selected will receive what they have kept for themselves, and members of the other group will receive the money from the common account of the group selected. Both groups have the same chance of being selected, so please play as if you group was to be selected.

[Lead Enumerator: Please provide here concrete examples standardised for all the sessions, for example: you are a part of an association that wants to gather funds to help support other farmers' production. Those funds would benefit different people and you are free to decide how much you want to contribute to the common account that will be shared at the end. The individual amount you contribute will stay anonymous.].

Do you have any questions? [Enumerators: Please answer the questions for everyone]

Before we proceed with the real decision, we will provide you some examples that illustrate the possible outcomes of this game. [Enumerators: Please replace the values in the examples to take account of the actual number of people if the number of people n in each group is less than 10, please refer to the images].



- If everyone from your group leaves everything in the common account, **1,500 tokens** will be in there. Twice this sum (**3,000 tokens**) will be equally divided among all the participants in the other group, so that each of them will earn 300 tokens. You and the other members of your group will earn zero tokens.
- If everyone from your group takes out 150 tokens for themselves, no money will remain in the common account, thus leaving no money to be divided between the participants in the other group. Each participant in your group will then earn 150 tokens, while the participants in the other group will earn zero tokens.
- Remember that you can take any amount between 0 and 150 tokens from the common account.

Do you have any questions? **[Enumerators: Please answer the questions for everyone]**

Now we will ask you some questions to help you understand the game. Please take questionnaire 1 from your personal envelope with a triangle, fill it in and put it back in your personal envelope with a triangle. An enumerator will assist you in case of need.

Now we will play the game. One enumerator will come at your desk with an envelope containing your share of the common account and will ask you to make your decision. When you are approached, please extract from the common account envelope provided by the enumerator the tokens that you want to take for yourself and put them in your envelope with the triangle. Please make sure that the amount you take is not seen by other players. Your decision won't be communicated to anyone but will be noted by the enumerator. Likewise, you won't know what other participants have chosen.

Once everyone in the room has made their decisions, we will count the total number of tokens left in the common account, the enumerators will add the same amount as what is left in your group's common account, so that the amount is doubled. This amount will be shared equally between the participants in the other group if your group is selected randomly at the end of the game.

Do you have any questions? **[Enumerators: Please answer the questions for everyone]**

Now we will play for this round. An enumerator will assist you.

[Enumerators:

1- approach the participants one by one, give them the common account envelopes containing their share (150 tokens) and ask them to make their decision. Make sure that they clearly identify which envelope is the common account one.

2- when distributing the common pool envelopes, remind them the rules: "Your group is group A/B. Please keep this in mind for when the result of the extraction will be announced. You can take out any amount up to 150 tokens from the common account envelope and put it in your personal envelope. Return the common account envelope to me and keep your personal envelope with a triangle for you. You can exchange these for real money at the end of the session."

3- once everyone has made their decision, collect all common account envelopes (make sure to check the participant ID is written on the common account envelope), and continue reading].

Thanks for making your decision.

Please put the small envelope with a triangle back in the large envelope.

Now we will randomly extract one of the two groups, and only their decision will be implemented. Each of you has been told which group you belong to. This box contains a red ball and a white ball. If I extract the red ball, the decisions of people in group A will be implemented; if I extract the white ball, the decisions of group B.



[Enumerators: show to the participants that your box indeed contains a white and a red ball, mix them, and let another enumerator extract one, then continue reading].

I have extracted a red/white ball; therefore, the decisions of group A/B will be implemented. The decisions of the other group will not be implemented, which means that the members of the group that has not been selected [A/B] will give us back their triangle envelopes at the end of the game, and we will give them their share of group [A/B]'s the common account in exchange.

[Enumerator: Please prepare an envelope for everyone in the group which has NOT been extracted containing their earning from the common account of the other group; do not distribute them yet].



Questionnaire 1

Please complete the questionnaire and put the sheet of paper in the envelope.

1. If you keep your 150 tokens for yourself and all other participants also keep their 150 tokens for themselves:
 - a. How much will you earn individually? _____
 - b. How much will be on your group's common account for the members of the **other** group to share? _____
2. If you and other participants in your group put a total of 500 tokens in your group's common account, how much will the **other group** receive? _____
3. Of all the people in this room how many do you know personally?



Public Good Game - Round 2_T0

While enumerators count the tokens put in your group's common account, we will play a second round of this game, with slightly different rules.

Please now take the small envelope with a star shape on it.

This round will follow the same rules of the previous one with the only difference that the tokens put in the common account will be distributed among members **of your own group**, including yourself, instead of the other group.

We will start again from the beginning: you and the other members of your group will receive 150 tokens each. You and each member of your group will have the opportunity to put as many of these tokens as you want on a common account, or to keep some or all of them for yourself. These are new tokens and the earnings from the previous round will not be affected. The tokens that you keep for yourself will remain with you and contribute to your final earnings.

After all the members of your group have had the opportunity to put tokens in the common account, the enumerators will top up your group's common account with the same amount as what was put in the common account, so that the total amount is doubled. This will then be shared equally amongst the members of **your group**. This means that the tokens put in your group's common account by you and your group will benefit members of **your own group**. Each member of your group, including you, will receive their share **regardless of the amount they put in the common account**.

The decisions of both groups will be implemented at the end of the session.

[Lead Enumerator: Please provide here concrete examples standardised for all the sessions, for example: you are a part of an association that wants to gather funds to help support a project. This project would benefit you and your group, and you are free to decide how much you want to contribute to the common account that will be shared at the end. The individual amount you contribute will stay anonymous.]

Do you have any questions? **[Enumerators: Please answer the questions for everyone]**

Before we proceed with the real decision, we will provide you some examples that illustrate the possible outcomes of this game. **[Enumerators: Please replace the values in the examples to take account of the actual number of people if the number of people n in each group is less than 1010 and refer to visuals / images].**

- This time, if everyone puts everything in the common account, **1,500 tokens** will be in it; twice this sum is divided equally among all participants of your group, such that each of you will earn 300 tokens.
- If instead you and all the members of your group keep your 150 tokens for yourselves there will be nothing in the common account. You will each earn your initial 150 tokens and nothing else from the common account.
- Remember that you can put any amount between 0 and 150 tokens in the common account.

Do you have any questions? **[Enumerators: Please answer the questions for everyone]**

Now we will play this round of the game. Again, one enumerator will come at your desk with an empty envelope and will ask you to make your decision. When you are approached, please extract from the envelope with the star the tokens that you want to put in the common account and put them in the



empty envelope provided by the enumerator. Please make sure that the amount contributed is not seen by other players. Your decision won't be communicated to anyone but will be noted by the enumerator. Likewise, you won't know what other participants have chosen.

[Enumerators: approach the participants one by one, give out the empty common account envelopes (make sure to check the participant ID) and ask them to make their decision. Remind them the rules: "You can take any amount, including nothing and up to 150 tokens, from your personal envelope to put in the common account envelope. Return the common account envelope to me and keep your personal envelope with you. You can exchange these for real money at the end of the session." Once everyone has made their decision, collect the common account envelopes and continue reading].

Thanks for making your decision.

Please put the small envelope with a star back in the large envelope and wait in silence while we count the total number of tokens in the common accounts and make the calculations.

[Enumerator: Please prepare an envelope for everyone containing their earning from the common accounts (star game) and distribute these to participants. Also distribute to the group which was NOT extracted in the first round (triangle) the earnings from the common account of the other group in an envelope and, in exchange, collect back their TRIANGLE envelope containing the tokens they had kept].

We will now distribute in envelopes your earnings from the common accounts. These tokens are in addition to the tokens you kept during the game and can be exchanged for real money at the end of the session. Please put the small envelope in the large envelope.

We will now move on to another game.



Public Good Game - Round 2_T2

Now we will play a second round of this game.

Please now take the small envelope with a star shape on it.

This round will follow the same rules of the previous one, with the only difference that the initial endowment will **differ** for different participants in your group. Each of you will randomly receive one of two endowment amounts. Half of the members of your group will receive 100 tokens, and the other half will receive 200 tokens. The amount you receive will be only known by yourself, and you cannot share this information with other participants.

[Enumerators: Ahead of each session, prepare half of the envelopes (randomly extracted) with 100 tokens, and half of the envelopes with 200 tokens. In each group, make sure to distribute the same number of envelopes with 100 and 200 tokens].

You and each member of your group will have the opportunity to put as many of these tokens as you want on a common account, or to keep some or all of them for yourself. The tokens that you keep for yourself will remain with you and will contribute to your earnings.

After all the members of your group have had the opportunity to put tokens on the common account, the enumerators will top up your group's common account with the same amount as the total that was put in the common account, so that the amount is doubled. This will then be shared equally amongst the members of your group. Each member of your group, including you, will receive their share **regardless of their initial endowment and of the amount they put on the common account.**

Again, an enumerator will come at your desk with an empty envelope and will ask you to make your decision. When you are approached, please extract from the envelope with the star the tokens that you want to put in the common account and put them in the empty envelope provided by the enumerator. Please make sure that the amount contributed is not seen by other players. Your decision won't be communicated to anyone but will be noted by the enumerator. Likewise, you won't know what other participants have chosen.

Do you have any questions? **[Enumerators: Please answer the questions for everyone]**

Now we will play this round of the game. When you are approached, please extract from the envelope with a star the tokens that you want to put in the common account and put them in the empty envelope provided by the enumerator.

[Enumerators: approach the participants one by one, give them the empty common account envelopes (make sure to check the participant ID), and ask them to make their decision. Remind them the rules: "You can take any amount from your personal envelope to put in the common account envelope. Return the common account envelope to me and keep your personal envelope with your tokens with you. You can exchange these for real money at the end of the session"; once everyone has stated their decision continue reading].

Thanks for making your decision.

Please put the small envelope with a star back in the large envelope and wait in silence while we count the total number of tokens in the common accounts and make the calculations. **[Enumerator: Please prepare envelopes for everyone containing earning from the common accounts].**

We will now distribute in envelopes your earnings from the common accounts. These tokens are in addition to the tokens you kept during the game and can be exchanged for real money at the end of the session. Please put the small envelope in the large envelope.



Public Good Game - Round 2_T4

While enumerators count the tokens remaining in your group's common account, we will play a new round of this game, with slightly different rules.

Please now take the small envelope with a star shape on it.

This round will follow the same rules of the previous one, with the only difference that the tokens left in the common account will be distributed among members **of your own group**, including yourself, instead of the other group.

We will start again from the beginning with your group's common account containing **1,500 tokens**. **[Enumerators: Please replace with $n*150$ if the number of people n in each group is less than 10].** Each participant can take any amount up to 150 tokens out of the common account or leave all the tokens in the common account. These are new tokens and the earnings from the previous round will not be affected. The tokens that you take from the common account will remain with you and contribute to your earnings while reducing your group's common account.

After all the members of your group have had the opportunity to take tokens out of the common account, the enumerators will top up your group's common account with the same amount as what is left in the common account, so that the remaining amount is doubled. This will then be shared equally amongst the members of **your group**. This means that the tokens left in your group's common account by you and your group will benefit members of **your own group**. Each member of your group, including you, will receive their share **regardless of the amount they took out of the common account**.

The decisions of both groups will be implemented at the end of the game.

[Lead Enumerator: Please provide here concrete examples standardised for all the sessions, for example: you are a part of an association that wants to gather funds to help support a project. This project would benefit you and your groups, and you are free to decide how much you want to contribute to the common account that will be shared at the end. The individual amount you contribute will stay anonymous.]

Do you have any questions? **[Enumerators: Please answer the questions for everyone]**

Before we proceed with the real decision, we will provide you some examples that illustrate the possible outcomes of this game. **[Enumerators: Please replace the values in the examples to take account of the actual number of people if the number of people n in each group is less than 10].**

- This time, if everyone leaves everything in the common account, **1,500 tokens** will be in it; twice this sum is divided equally among all participants, such that each of you will earn 300 tokens.
- If instead you and all the members of your group take out 150 tokens of the common account, no money will remain in the common account. You will each earn the 150 tokens you took out of the common account.
- Remember that you can take any amount between 0 and 150 tokens from the common account.

Do you have any questions? **[Enumerators: Please answer the questions for everyone]**

Now we will play this round of the game. Again, one enumerator will come at your desk with an envelope containing your share of the common account and will ask you to make your decision. When



you are approached, please extract from the common account envelope provided by the enumerator the tokens that you want to take for yourself and put them in your envelope with the star. Please make sure that the amount you take is not seen by other players. Your decision won't be communicated to anyone but will be noted by the enumerator. Likewise, you won't know what other participants have chosen.

[Enumerators: approach the participants one by one, give out the common account envelopes containing 150 tokens to the participants (make sure to check the participant ID), and ask them to make their decision. Remind them the rules: "You can take out any amount up to 150 tokens from the common account envelope and put it in your personal envelope. Return the common account envelope to me and keep your personal envelope with you. You can exchange these for real money at the end of the session." Once everyone has made their decision, collect all common account envelopes (make sure to check the participant ID is written on the common account envelope), continue reading].

Thanks for making your decision.

Please put the small envelope with a star back in the large envelope and wait in silence while we count the total number of tokens in the common accounts and make the calculations.

[Enumerator: Please prepare an envelope for everyone containing their earning from the common accounts (star game) and distribute these to participants. Also distribute to the group which was NOT extracted in the first round (triangle) the earnings from the common account of the other group in an envelope and, in exchange, collect back their TRIANGLE envelope containing the tokens they had kept].

We will now distribute your earnings from the common accounts in envelopes. These tokens are in addition to the tokens you kept during the game and can be exchanged for real money at the end of the session. Please put the small envelope in the large envelope.

We will now move on to another game.



Public Good Game - Round 2_T5

Now we will play a second round of this game.

Please now take the small envelope with a triangle shape on it.

This round will follow the same rules of the previous one, with the only difference that, instead of increasing by half, the tokens in the common account will **double** before being distributed.

Again, each of you will receive 150 tokens. These are new tokens and the earnings from the previous round will not be affected. You and each member of your group will have the opportunity to put as many of these tokens as you want on a common account, or to keep some or all of them for yourself. The tokens that you keep for yourself will remain with you and contribute to your final earnings.

After all the members of your group have had the opportunity to put tokens on the common account, the enumerators will top up your group's common account with the same amount as the total that was put in the common account, so that the amount is doubled. This will then be shared equally amongst the members of your group. Each member of your group, including you, will receive their share **regardless of the amount they put on the common account**.

Do you have any questions? **[Enumerators: Please answer the questions for everyone]**

Before we proceed with the real decision, we will give you some examples that illustrate the possible outcomes of that game. **[Enumerators: Please replace the values in the examples to take account of the actual number of people if the number of people n in each group is less than 10 and refer to visuals/images].**

- This time if everyone puts everything in the common account, **1,500 tokens** will be in it. Twice this sum (**3,000 tokens**) is then divided equally among all participants, such that each participant will earn **300 tokens**.
- As in the previous round, if everyone keeps the tokens for themselves, no money will be in the common account, thus leaving no money to be divided equally. Each participant will then earn their initial endowment of 150 tokens.
- Remember that you can put any amount between 0 and 150 tokens in the common account.

Do you have any questions? **[Enumerators: Please answer the questions for everyone]**

Now we will play this round of the game. Again, one enumerator will come at your desk with an empty envelope and will ask you to make your decision. When you are approached, please extract from the envelope with the star the tokens that you want to put in the common account and put them in the empty envelope provided by the enumerator. Please make sure that the amount contributed is not seen by other players. Your decision won't be communicated to anyone but will be noted by the enumerator. Likewise, you won't know what other participants have chosen.

[Enumerators: approach the participants one by one, give them the empty common account envelopes (make sure to check the participant ID), and ask them to make their decision. Remind them the rules: "You can take any amount from your personal envelope to put in the common account envelope. Return the common account envelope to me and keep your personal envelope with your tokens with you. You can exchange these for real money at the end of the session"; once everyone has stated their decision continue reading].

Thanks for making your decision.

Please put the small envelope with a triangle back in the large envelope and wait in silence while we count the total number of tokens in the common accounts and make the calculations.



[Enumerator: Please prepare envelopes for everyone containing earning from the common accounts].

We will now distribute in envelopes your earnings from the common accounts. These tokens are in addition to the tokens you kept during the game and can be exchanged for real money at the end of the session. Please put the small envelope in the large envelope.

[Enumerators: Please distribute the envelopes.]

We will now move on to another game.



Trust game

A. TRUST EXPERIMENT

[Enumerators: ask two NGO members to play in each of the rooms; if the number of the players in the two rooms is not the same, an enumerator will play the role of the missing trustor/trustee sending 50% of the tokens and/or sending back 50% of the tokens received. The instructions are followed exactly in the same way in both rooms].

Again, thank you for coming today. We will now play a third game. Please remember not to speak aloud, and not to communicate with other participants. The game is played in pairs of individuals. Each of you will be paired with a different person who is in another room. Apart from people from this village, two members of the NGO **XXX** will also play this game with you. One of them will play in this room, the other one in the other room, meaning that you could be paired with them. You will not be told who you have been paired with, either during or after the end of today's session. Only [name of enumerator] knows who is to play with whom, and they will never tell anyone else. Both each of you and each of the people in the other room will receive 100 tokens as an initial endowment. These are in addition to the participation stipend and the tokens earned in the previous games. Each of you will earn some tokens based on their decision and on the decision of the person they have been paired with.

You have noticed that there are other people in this room who are participating in the same game. You will not be paired with any of these people. **[names of the enumerators]** will be leading the game for the two rooms. They will oversee handling your envelopes as explained later. In addition, they will verify that the instructions have been followed as explained.

In this game there are two roles: the first role is the one of Sender; the second role is the one of Receiver.

First stage: (see Trust Game table)

In this game, you will play as **Sender**. You as a Sender have the opportunity to increase your earning by sending a portion of your 100 tokens to the person you have been paired with in the other room, which is the Receiver. Your decision is private and no one, either in this or in the other room will know it. The number of tokens you send is the only decision that you will be asked to make as a Sender. Whatever amount you decide to give to the person you have been paired with will be tripled by the enumerators before it is passed on to the Receiver in the other room.

Once the Receiver you have been paired with has received three times the amount you sent them, they can decide to send back some, all, or none of this amount to you. In your role as Sender, you will earn the tokens you have kept from your initial endowment of 100, plus the tokens returned to you by the Receiver you are paired with in the other room. The Receiver in the other room will keep the tokens that they did not send back to you.

Do you have any question? If you do, please raise your hand and the enumerator will come and answer it. **[Enumerators to answer questions]**

Before playing for real we will ask you to make some calculations to ensure that you have understood the instructions. If you provide a wrong answer, the enumerators will explain you the game once again. Remember that your answers to these questions will not affect your final earnings. **[Enumerators:**



take note of the answers of the participants even if they are wrong. If they provide the right answer congratulate them, otherwise explain the calculations. Do so for each of the following questions].

You are playing as a Sender; you receive 100 tokens. Imagine that you decide to keep all the tokens for yourself. How many tokens will you have at the end of the experiment? ____ **[100]** How many tokens will the Receiver in the other room have at the end of the experiment? ____ **[100]**

You are playing as a Sender; you receive 100 tokens. Imagine that you decide to send all your 100 tokens to the Receiver in the other room. The Receiver receives 300 (3×100) tokens and sends back to you 200 tokens. How many tokens will you have at the end of the experiment? ____ **[200]** How many tokens will the Receiver in the other room have at the end of the experiment? ____ **[200]**

You are playing as a Sender; you receive 100 tokens. Imagine that you decide to send 50 tokens to the Receiver. How much do they receive? ____ **[150]** Imagine that the Receiver decides to return you 80 tokens. How many tokens will you have at the end of the experiment? ____ **[50+70=120]** How many tokens will the Receiver in the other room have at the end of the experiment? ____ **[170]**

Thank you for answering these trial questions. Now we will play for real. You are playing as a Sender. You have 100 tokens. We will call you one by one; take your envelope, which contains a sheet of paper relative to this game. We will give you a new envelope and 100 tokens; you need to insert in the envelope the number of tokens you want to send to the Receiver in the other room and give the envelope to the enumerator. If needed, an enumerator will assist you in performing this task. **[Enumerators: call the participants one by one and collect the envelopes; report the sum contained in the envelope in the Trust Game Table, together with the participant's unique identifier; once all the participants have returned their envelope, continue reading here below]**

Thank you for playing this game. Please wait in silence while the enumerators triple amounts that you have sent.

[Enumerator: triple the amounts sent; write the tripled amount close to the space for the unique identifier of participants in the other room; deliver the Trust Game Table to the enumerators in the other room and collect their Trust Game Table in turn; write down the unique identifiers of people in your room in the Trust Game Table and be ready to communicate them the amount received]

Second stage: (see Trust Game table)

While we, in this room, have been deciding how much to send to participants in the other room, other room's participants have also been given the same instructions as you have just received. They were paired to one of the participants in this room and they could give them none, all or part of their initial endowment of 100 tokens. You will now play as a **Receiver**, i.e., the paired participant who receives three times the tokens and can return some of them. Each participant in the other room has decided to send none, some, or all their endowment to their paired participant. You can decide to keep all of these tokens for yourself or send back some or all of them to your peer in the other room. The sharing of the tokens received is the only decision that you will be asked to make as a Receiver. The number of tokens that you decide to keep for yourself represents your final earnings in this game. Please be aware that the Sender who sent you these tokens is NOT the same person who received your money when you were playing as a Sender previously; therefore, they may have received none, less, or more of the tokens that you had sent as a Sender.



Now one person at a time will be asked to come forward. Please take your envelope with the sheet of paper relative to this game. We will give you a second envelope with three times the number of tokens that were sent to you by your paired participant in the other room. You will put in your envelope the number of tokens that you want to keep for yourself and leave in the envelope those that you want to send back to your peer, and you can return to your seat. If your peer has sent no tokens, you will receive no tokens and you can return to your seat. If needed, an enumerator will assist you in performing this task.

[Enumerator: call each participant, tell them and give them the tripled number of tokens that they have received, ask them how many tokens they want to send back to the participant who was paired with them in the other room] The Sender has sent you ____ tokens, which once tripled correspond to ____ tokens. Please leave in the envelope only the amount that you want to send back to the Sender in the other room. You can send back, none, some, or all of your tokens. ____ **[Communicate them the number of money kept and that this constitutes their earning if their real role is the one of trustee]** Ok; therefore, as a Receiver you will earn ____ tokens. **[Record the amount sent back in the Trust Game Table using the unique identifier and make the calculation for both roles; once all participants have made their choice, exchange the Trust Game Table with the enumerators in the other room].**

Thank you for playing as a Receiver.

While we, in this room, have been deciding how many tokens to send back to participants in the other room, participants in the other room have also been given the same instructions. Now the enumerators will call you and give you the tokens that the participant you were paired with has sent you back, and thus the earning from playing as Sender.

[Enumerator: call each participant; tell them how many tokens and give them the envelope where these were sent back by their paired participant; tell them how much they would earn as Senders] You have sent ____ tokens to the participant in the other room; they sent back ____ tokens; considering the tokens that you had kept for yourself, as Sender you have ____ tokens. This are in addition to the tokens that you have kept for yourself when playing as a Receiver. **[Once all participants have been called, continue reading]**

Thank you again for participating today. You will receive your payment at the end of the session today, jointly with payments from other games. Now we will proceed with another game.

Risk-preferences protocol and questionnaire

Risk attitude measurement experiment.

Please remember to remain seated and not to communicate with other people in the room. Now take the small envelope with a square shape ■ on it.

In this game, you will be asked to make 10 decisions, one after the other.

Your task is to choose between two alternative lotteries, A and B. The lotteries differ in the number of tokens that can be won in each of them. Each of the 10 decisions bear a different chance of earning tokens; the number of tokens to be won also varies between lottery A and B in each of the 10 decisions.

[Lead Enumerator: Please provide here concrete examples standardised for all the sessions, for example: present an analogy between irrigated and non-irrigated zones for options A and B related to a frequency of good and bad years from 1 to 10 with different profitability according to the scenarios. The balls represent years. You must choose according to your level of risk assessment: in which moment will you move from the irrigated zone (A) to the non-irrigated zone (B); (would you plant your crop that year or not and in which area); according to the proposed gain possibilities (80 to 100) and (5 to 190).].

After you have made your decisions, we will randomly select one of the 10 decisions to execute for real. We will drop the other 9 decisions and you will not get any cash from them. Each of the 10 decisions is equally likely to be selected. Your selected lottery (A or B) corresponding to the randomly selected decision number will be executed. Using a box with an appropriate number of red and white balls, you will randomly pick a ball from the box. The colour of the picked ball will indicate the number of tokens won. Here is a hypothetical example, whereby a decision corresponding to 3/10 and 7/10 odds of winning the tokens is randomly drawn.

[Here 2 enumerators to “play” (as in acting) the whole process.

Actors: Lead enumerator + mobile enumerator

Lead enumerator to prepare a box containing 3 red balls and 7 white balls

Lead enumerator: “This is an example of one of your 10 decisions: in this box there are 3 red balls and 7 white balls. In option X, if you draw a red ball, you win 100 tokens, if white you win 80 tokens. In option Y, if you draw a red ball, you win 190 tokens, if white you win 5 tokens. Which option, X or Y, would you like to be executed?”

Mobile enumerator: “I choose option X”

Lead enumerator: “I am now going to randomly pick a ball from the box.” Lead enumerator to pick a ball. “The ball I randomly picked is white. I will take note of this, and you will receive your earnings at the end of the session, based on the lottery you have chosen.”]

Now please take from your envelope with the square shape ■ the sheet of paper relative to this game and select option A or B for each of the 10 decisions. Remember, only one of the decisions will be executed in the end. If needed, an enumerator will assist you in performing this task. After answering all decisions, please insert your answer sheet in the envelope with the square shape ■.

[1 to 1 Enumerators: Help illiterate people write down their choices without intervening in the decisions. Please limit the communication with the participants to the minimum and refrain from any

comments or suggestions on performance. Communication should be limited to asking about the bid choice and writing down the decision. All the lotteries must be asked and answered].

[1 to 1 Enumerators: Double check that all the lottery options are answered by everyone].

[Lead enumerator: Read the following instructions]

Now, we will randomly select one of the 10 decisions to execute. I will pick a random paper sheet with a number from the box; in the box there are 10 paper sheets; each has a number from 1 to 10 on it. The randomly drawn paper sheet represents the decision that we will execute, and thus the chance of winning. **[Lead Enumerator: show that indeed the box contains 10 paper sheets with number 1 to 10 and pick the paper sheet].**

The decision drawn is ____, which means ____ red balls and ____ white balls will be in the box. If you draw a red ball, you win 100 tokens if you chose lottery A and 190 tokens if you chose lottery B. If you draw a white ball, you win 80 tokens if you chose lottery A and 5 tokens if you chose lottery B.

Each of you will now randomly draw a red or white ball from the box. An enumerator will approach you with the box, so that you can make your extraction. When approached by the enumerator, please give them your envelope with the answer sheet.

[Enumerators: approach the participants one by one]. Please give us your envelope. **[Enumerators: open the envelope, take answer sheet, check ID number and make the participant extract a ball].** The drawn ball is red/white. I will take note of this, and you will receive your earnings at the end of the session. **[Enumerator: take note of the result (ball colour) on top of the envelope and show to the farmers that you have noted the right colour].**

[Enumerators: after everyone have extracted their ball and you have collected all square envelopes continue reading].

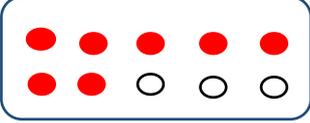
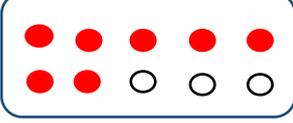
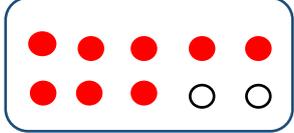
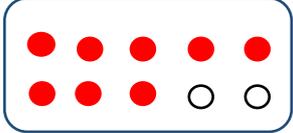
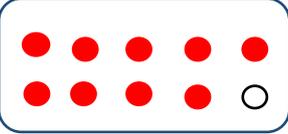
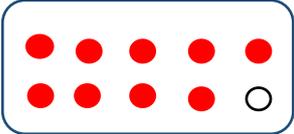
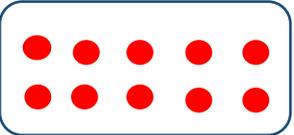
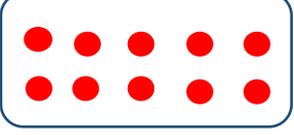
We will now move to the last game.

Participant ID: _____

Which lottery do you prefer to play – lottery A or lottery B? Please make 10 choices. Remember that only one of the decisions will be randomly selected for extraction. The red and white balls in the pictures symbolise your chance of randomly drawing the balls in each decision.

No.	Lottery A	Lottery B	Your Choice (Lottery A or B?)
1	<p>● =100 tokens. ○=80 tokens</p>	<p>● =190 tokens. ○=5 tokens</p>	
2	<p>● =100 tokens. ○=80 tokens</p>	<p>● =190 tokens. ○=5 tokens</p>	
3	<p>● =100 tokens. ○=80 tokens</p>	<p>● =190 tokens. ○=5 tokens</p>	
4	<p>● =100 tokens. ○=80 tokens</p>	<p>● =190 tokens. ○=5 tokens</p>	
5	<p>● =100 tokens. ○=80 tokens</p>	<p>● =190 tokens. ○=5 tokens</p>	
6	<p>● =100 tokens. ○=80 tokens</p>	<p>● =190 tokens. ○=5 tokens</p>	

Please also answer page 2.

No.	Lottery A	Lottery B	Your Choice (Lottery A or B?)
7	<p>● =100 tokens. ○ =80 tokens</p> 	<p>● =190 tokens. ○ =5 tokens</p> 	
8	<p>● =100 tokens. ○ =80 tokens</p> 	<p>● =190 tokens. ○ =5 tokens</p> 	
9	<p>● =100 tokens. ○ =80 tokens</p> 	<p>● =190 tokens. ○ =5 tokens</p> 	
10	<p>● =100 tokens. ○ =80 tokens</p> 	<p>● =190 tokens. ○ =5 tokens</p> 	



Time preferences protocol and questionnaire

Again, thank you for coming today. Please remember to stay silent, not to move from your seat, and not to communicate with other participants.

[Enumerators: do not distribute the FoodLAND banknotes in this game]

We will now play another game. Please now take the small envelope with a circle shape ● on it.

We will ask you to make 10 decisions. In each decision, you can choose to receive the equivalent of 100 tokens converted in local currency after two weeks, or you can choose to wait and receive more than 100 tokens in four weeks. The amount you would receive in 4 weeks will differ for each decision.

[Lead Enumerator: Please provide here concrete examples standardised for all the sessions, for example: You have an opportunity to store a non-perishable agricultural product (that won't have any additional costs) and sell them in two weeks at 100 tokens, or in four weeks at a higher price (ten possibilities shown in the table). The prices are set today and cannot change in the future.]

We ask you to fully consider the two options, and make your decisions carefully based only on your own preferences. Whatever the option you choose, we will give you a deposit voucher and you will come back to collect your money two or four weeks later. You will have the opportunity to receive this money by phone payment: if you prefer to use this method, you will have the opportunity to provide a mobile phone to the enumerators at the end of the session today.

Do you have questions? **[Lead Enumerator: Reread the script and answer questions as necessary].**

At the end of the game, we will pick a random paper sheet with a number from a box; in the box there are 10 paper sheets, each has a number from 1 to 10 on it. The randomly drawn paper sheet represents the decision that we will execute. We will tell you the number, review the decision you have made, and pay you according to your choice in that decision. Do you have any question?

[Lead Enumerator: Ask respondents if they have any questions and answer questions as necessary. Show to the respondent all the paper sheets (1 to 10) and the box. Make sure the numbers are not visible from the outside when making the extraction].

Now, let's start the experiment. Please take your answer sheet from your envelope with a circle ● on it and decide for each of the ten questions. Once you have made your ten decisions, please answer to the two questions at the bottom. If needed, an enumerator will assist you in performing this task. After you have filled your answer sheet, please put it back in the envelope with a circle on it.

[1 to 1 Enumerators: Go close to the players who need help and fill the table together].

[Lead Enumerator: Once all people have filled their answer sheet and put it back into the envelope, continue reading. Mobile Enumerators: please collect envelopes with circles, check ID number].

Thank you for your decisions. We will now select a single decision that will be used to pay you either in 2 or in 4 weeks. We will extract one of the sheets of paper with numbers representing the decisions.

[Lead Enumerator to extract a sheet of paper]. The sheet of paper extracted is the number _____, therefore the timing and the amount of your payment will be determined by your chosen alternative in this decision. We will give you a voucher at the end of the session and you can come in two/four weeks to collect your tokens in local currency. Alternatively, you can receive this money by phone payment: if you prefer to use this method, you will have the opportunity to provide a mobile phone to the enumerators at the end of the session today.



[Enumerator to start entering data from envelopes while participants fill the FoodLAND questionnaire].

We are now done with the games. While we are preparing your payments, we will kindly ask you to fill in a questionnaire about your farm. But first, we will take a break.

We are now done with the games. While we are preparing your payments, we will kindly ask you to fill in a questionnaire about your farm. But first, we will take a break.



Participant ID: _____

We will ask you to make 10 decisions. In each decision, you can choose to receive the equivalent of 100 tokens converted in local currency after two weeks, or you can choose to wait and receive more than 100 tokens in four weeks. The amount you would receive in 4 weeks will differ for each decision. You will not receive 100 additional tokens for each of the 10 decisions but only once, as only one of the decisions will be extracted for implementation. After completing the decision task, please answer the 2 questions below.

No.	Option A: in two weeks	Option B: in 4 weeks	Choose A or B
01	100 tokens in 2 weeks	105 tokens in 4 weeks	
02	100 tokens in 2 weeks	111 tokens in 4 weeks	
03	100 tokens in 2 weeks	118 tokens in 4 weeks	
04	100 tokens in 2 weeks	124 tokens in 4 weeks	
05	100 tokens in 2 weeks	131 tokens in 4 weeks	
06	100 tokens in 2 weeks	138 tokens in 4 weeks	
07	100 tokens in 2 weeks	145 tokens in 4 weeks	
08	100 tokens in 2 weeks	152 tokens in 4 weeks	
09	100 tokens in 2 weeks	159 tokens in 4 weeks	
10	100 tokens in 2 weeks	166 tokens in 4 weeks	

Questions		Answers
01	What amount of money would you be willing to receive six months from now to save the 100 tokens today?	
02	How much do you trust that you will receive the money in 2- or 4-weeks' time? (Code)	

Code: 1 = Very little; 2 = Little; 3 = Average; 4 = Good; 5 = Very good.

Payment of participants

Payment of participants

[Enumerators: Payment can be done at the end of the session, before participants return home].

[Enumerators: Please use the data entry table to help you calculate the total payoff for each participant and the value and time delay for the voucher to be issued to participants; prepare vouchers and receipts for each participant]

[Enumerator: Please call the participants one by one to pay them the stipend money, their payoff, give them the voucher, and make them sign the receipt for the total amount; please collect back from them all envelopes containing their tokens. You must count their tokens and check with them that they agree with the amount received].

Thank you again for your participation today. To thank you for your participation, you will receive ____ **LC**.

In addition, you have earned during the games:

- ____ tokens in the first game (triangle envelope),
- ____ tokens in the second round of this game (star envelope),
- and ____ tokens in the second game (square envelope),

for a total of ____ tokens, which correspond to ____ **LC**.

Here is an envelope with your money. **[Enumerator to give cash in envelope]**

Here is the voucher to withdraw the earnings of the last game: ____ tokens in **2/4** weeks, which corresponds to ____ **LC**. **[Enumerator to give voucher]**. If you would like to be paid by phone, please give your phone number to the enumerator now. **[Enumerators to write down phone number on receipt and enter in data entry table]**.

Please now sign this receipt stating that you have received a total amount of ____ **LC** in cash and will receive ____ **LC** in **2/4** weeks. **[Enumerator to collect signature on voucher]**

Thank you again. This is now the end of the session.

Payment of participants

Please do not reveal to the other participants the total amount earned until you leave the building/session. Once you have left the building/session you are free to decide whether you want to share this information. Please remember to come back in two/four weeks with your voucher to withdraw the remaining money.

END OF SESSION. Thank you very much for your participation

XIII. Session material

Incentivized Economic Experiments with Farmers *Cooperative Attitude, Risk Attitude, and Time Preferences*

- Materials –

Before the start of the experiment, prepare one big envelope for each participant. In the big envelope there should be four smaller envelopes, each corresponding to a different game. The big envelopes and each of the four small envelopes should have the unique participant ID on it. The four small envelopes should also have 4 different symbols on them. All the sheets of paper in the small envelopes should also include the same shape of the small envelope, and the unique ID of the participant.

Each of the four small envelopes has a different content:

 -triangle shape corresponding to the round of the public good game where the amount contributed is **doubled**: should include questionnaire 1, and visuals (images 03 and 04), and 150 tokens in FoodLAND banknotes (1 banknote of value 1, 2 banknotes of value 2, 1 banknote of value 5, 2 banknotes of value 10, 1 banknote of value 20, 2 banknotes of value 50)

 - star shape corresponding to the round of the public good game where the amount contributed is **multiplied by 1.5**: should include visuals (images 05 and 06), and 150 tokens in FoodLAND banknotes (1 banknote of value 1, 2 banknotes of value 2, 1 banknote of value 5, 2 banknotes of value 10, 1 banknote of value 20, 2 banknotes of value 50)

 - square shape corresponding to the risk attitudes experiment: should include the relative answer sheet

 - circle shape corresponding to the time preferences game: should include the relative answer sheet

The big envelopes, containing the 4 smaller envelopes must be distributed to the participants before the start of the session.

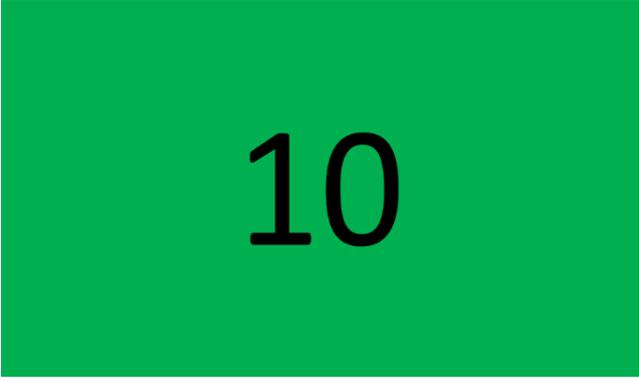
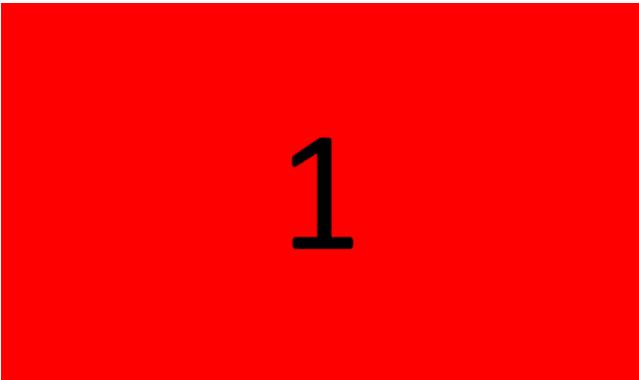
List of experiment materials per each session of 20 participants:

- Participant information list, with participant ID
- Procedural script for the enumerators
- Stipend and reward money
- Stipend receipts
- Ping-pong balls (at least 9 red and 8 white), replicated for enumerator's who approach farmers simultaneously

- Box for the balls and paper sheets, ideally non-see-through, replicated for enumerator's who approach farmers simultaneously
- FoodLAND banknotes – used in public good game, enough banknotes to pay between 23 and 353 tokens for each participant in the round with multiplication factor 1.5, and between 30 and 420 in the round with multiplication factor 2. This could be achieved with the following combination of notes (per participant **and per round**): 2 banknotes of value 1, 4 banknotes of value 2, 2 banknotes of value 5, 4 banknotes of value 10, 2 banknotes of value 20, 6 banknotes of value 50, 2 banknotes of value 100 – total of 22 banknotes per person per round
- Numbered paper sheets – from 1 to 10 (10 sheets minimum)
- Minimum 20 pens per session
- Minimum 20 large envelopes
- Minimum 80 small envelopes
- 20 Questionnaire 1
- 20 risk attitude measurement experiment sheets
- 20-time preferences experiment sheets
- Digital data entry table
- Vouchers for delayed money collection – 2 types (collection after 2 or 4 weeks)
- Minimum 20 small bottles of hand sanitiser
- Minimum 20 disposable face masks
- Visuals (20 of each image/visual to be inserted in the envelopes) for the experiments (Public Good Game)

XIV. FoodLAND Banknotes

Back on the left column and front on the right column





20



50



100