## **Public Goods Game**

Script read collectively to participants

Thank you for spending time to cooperate with us and attending this study. For the time that you are taking out from work to spend here, we will give a payment of 50 rupees. This money is yours to keep, is being given to you in place of your day's wages and will be given to you at the end of the program. We have also made arrangements for a meal for you.

Please remember that if at any time you feel that you do not wish to participate in this study, you are free to leave whether we have started the program or not.

We would like to play a game with every person assembled here. Please play this game seriously because you can earn more money in this game. The money earned in this game, along with your 50 rupees, will be given to you one at a time at the end of this program. Hence, at the end of the program, you will receive 50 rupees but on top of that you will also receive the money that you have earned in the game.

For this program you must remember four points:

<u>First point</u> – For this game, you will be divided into groups of six players. These six players will play the game with each other. However, you will never know who the other 5 players in your group are, either during or after the game. These other 5 players will also never know who you are, either during or after the game. You will never meet the other players in your group or be able to know their names either during or after the game.

I will give you a token like this. Every token has a different symbol (number) on it. In this program, this token will be your only identity. Besides me and the other research assistant, do not show this token to anyone assembled here. And even I will not tell anyone what decisions you have taken. And besides me, no one else will know your token numbers. Which six people from the village play the game with each other will be determined by randomly matching token numbers.

<u>Second point</u> - All the decisions you will make in the game will be for real money. You will receive real money at the end of the program in accordance with the decisions you have made and how much you have earned.

**Third point** - The money that you will earn today does not belong to me. It has been given to me by the school to conduct this program. It does not matter to the school whether this money is spent or not.

<u>Fourth point</u> – Once I have told you the rules of the game, please do not discuss the game between yourselves and also do not discuss it with other people from the village who are yet to play the game. This is very important. You cannot ask questions or talk about the game until this program is over. You will get a chance to ask questions when you are in the private room. Please be sure that you obey this rule, because even one

person defaulting can spoil the game for everyone. If even one person starts talking about the game while sitting here, then we will not be able to play the game in your village. Once you have played the game, you will not be able to talk to or meet with all the remaining people assembled here who have not yet played the game.

I will now tell you the rules of this game<sup>1</sup>. It is important that you listen carefully and understand these rules, because only those people who understand the rules will be able to play.

For this game you will all be divided into groups of six players and each group will be given a group pot. Each individual in the group will receive an endowment of 50 rupees (meaning one kori) in rupee 5 coins. This 50 rupees is separate from the original rupees 50 payment that you get. These 50 rupees (one kori) are yours. Now, you can deposit as much of these 50 rupees (one kori) as you wish to the group pot, in 5 rupee increments. This means that if you wish you can deposit nothing in the group pot, or you can deposit 5, 10, 15, 20, 25, 30, 35, 40, 45 or 50 rupees (one kori) in your group pot. The money that you do not deposit in the pot will be yours to keep and to take home.

- 1. First each of the 6 players in the group decide how much of their 50 rupees they would like to contribute/deposit in the group pot.
- 2. After all 6 players of a group deposit in the pot; I will:
  - Count the total money collected in the group pot
  - Double this collected amount
  - Distribute it equally amongst the 6 players of the group.

Hence at the end of the game, you will receive the amount of money that you did not deposit in the group pot, plus an equal share of double the total amount of money accumulated in the group pot. Therefore in this game you have to decide how much of your 50 rupees (one kori) you wish to keep for yourself, and how much you wish to deposit in your group pot. Note that you will make your decision independently and in private so that none of the other members of your group can ever know your decision. All decisions will only be taken once because each person will only play the game once.

Now I will give you some examples so that you can understand the game properly:

**First example** - If all the women and men in your group deposit their whole 50 rupees (one kori) in the group pot, then the pot will accumulate a total of 50 multiplied by 6 meaning 300 rupees (six koris). 300 rupees (six koris) doubled is 600 rupees (twelve koris). If 600 rupees (twelve koris) are divided into 6 equal shares, then one share will contain 100 rupees (two koris). Therefore each group player will receive 100 rupees (two koris).

**Second example** - If everyone in your group deposits nothing in the group pot, then the pot will contain nothing and each of your group players will receive only your endowment of 50 rupees (two koris).

<sup>&</sup>lt;sup>1</sup> All game rules and examples were demonstrated with real money and a money box.

Third example - If one group player does not deposit anything in the pot and the remaining five group players deposit their whole 50 rupees (one kori) in the group pot, then the pot will accumulate a total of 50 multiplied by 5 meaning 250 rupees (five koris). 250 rupees (five koris) doubled is 500 rupees (ten koris). And if 500 rupees (ten koris) are divided into six equal shares, then one share will contain 83 rupees (one kori and thirteen). Therefore each of the five group players who deposited their whole 50 rupees (one kori) into the pot will receive 83 rupees (one kori and thirteen) and the one group player who deposited nothing in the pot will receive 83 rupees (one kori and thirteen) plus his endowment of 50 rupees which he kept for himself. Therefore he will receive a total of 133 rupees (two koris and thirteen). Hence, if one group player does not deposit anything in the pot, and the remaining five group players deposit their whole endowment of 50 rupees (one kori), then this first player will earn more money than the remaining five players and will also earn more money than he would have earned if all six players had deposited their whole endowment of 50 rupees into the group pot as illustrated in the first example.

**Fourth example** - If one group player deposits 50 rupees (one kori) in the group pot and all the other players deposit nothing, then the pot will accumulate a total of 50 rupees (one kori). 50 rupees (one kori) doubled is 100 rupees (two koris). And if the 100 rupees (two koris) are divided into 6 equal shares, then each share will contain 16 rupees (six rupees and eight annas). Hence the group player who deposited his whole endowment of 50 rupees (one kori) in the group pot will receive 16 rupees (six rupees and eight annas) and the remaining five group players will receive 16 rupees (six rupees and eight annas) plus their endowments of 50 rupees which they kept for themselves. Therefore they will each receive a total of 66 rupees (one kori, six rupees and eight annas). Hence if only one group player deposited his whole endowment of 50 rupees (one kori) into the group pot but the remaining five group players do not deposit anything, then this first player will earn less money than the remaining five players and will also earn less money than he would have earned in the other three examples given so far.

## Hence,

- 1. If all 6 group players deposit some money in the group pot, then they will earn more money than if no one deposits anything in the pot.
- 2. If most group players deposit some money in the group pot, but a few group players do not deposit any money, then the few players who did not deposit any money earn more than the players who did deposit money.
- 3. If most group players do not deposit any money in the pot, and a few players do deposit some money, then these few group players earn the least amount of money.

Now I will ask you some questions to check whether you have understood the rules of the game or not.

- 1. How many players are there in each group?
- 2. How will we decide which 6 players are in a group together?
- 3. Can you ever know who the other players in your group are?
- 4. Can the other players in your group ever know your identity?
- 5. What is the endowment that each player of the group receives at the beginning of the game?

- 6. Do you have to play the game with 50 rupees payment that you get for the day or is this a new 50 rupees?
- 7. What do you have to do with 50 rupees that you get?
- 8. If you so wish, can you take the decision to deposit nothing in the group pot?
- 9. If you so wish, can you take the decision to deposit the whole 50 rupees (one kori) into the group pot?
- 10. Once all 6 group players have decided how much money they want to deposit in the group pot, then what will I do?
- 11. What will your total earnings be from the game? As in where all will you get money from?
- 12. Will you be given your earnings in real money at the end of the game?
- 13. Why are each of you being given a token?
- 14. Will I tell any other person in the village what decision you made in the game? Why not?

Does anybody want to leave this program? Is everyone happy to participate?

Now we will begin. You will each pick a number out of this bowl to determine the order in which you will play the game. You will come into the private room one by one. Y (research assistant) will tell you when it is your turn to come into the room. Then I will ask you some questions to check whether you have understood the rules of the game or not. If you answer my questions correctly and completely understand the game then you will play the game. Arrangements for a meal have been made for you all.

## **Public Goods Game**

Script and test questions read individually to participants

Hello,

Once again are you happy to participate in the game?

Now I will explain the rules of this game to you one more time. For this game you will all be divided into groups of six players and each group will receive a group pot. Each player in the group will receive an endowment of 50 rupees (meaning one kori) in rupee five coins. Each person has to decide how much of their 50 rupees (one kori) they want to deposit in their group pot and how much they want to keep for themselves. The money that you do not deposit in the pot will be yours to keep.

Meaning,

If you deposit five rupees in the group pot then how much money remains?

If you deposit 10 rupees in the group pot then how much money remains?

If you deposit 25 rupees in the group pot then how much money remains?

If you deposit 50 rupees in the group pot then how much money remains?

If you deposit nothing in the group pot then how much money remains?

- So the money that you do not deposit in your group pot, the money that remains, will be yours to keep.
- And on top of that once each of the 6 people in your group have decided how much money they want to deposit in the group pot and how much they want to keep for themselves, then I will:
  - o Count the money deposited in your group pot,
  - o Double the total amount of money deposited
  - Then divide this doubled amount equally between the six people in your group.
- Hence at the end of the game, you will receive:
  - The amount of money out of your endowment of 50 rupees (one kori) that you did not deposit in the group pot,
  - o plus an equal share of double the total amount of money accumulated in the group pot.
- You cannot know what decisions the remaining five people in your group have taken and they cannot know what decision you have taken.

Now I will ask you some questions to check whether you have understood the rules of the game or not.

**First question** – If all the six players in your group want to keep their 50 rupees (one kori) for themselves and do not want to deposit any money in the group pot then no money will accumulate in the group pot. If nothing accumulates in the pot then no one gets any share out of the pot but all you six group players have kept your endowment of 50 rupees (one kori) for yourselves.

So,

- i. How much money will you earn?
- ii. How much money will each of the other players in your group earn?

**Second question** - If each of the six players in your group deposit their endowments of 50 rupees (one kori) into the group pot, then the group pot will accumulate 300 rupees (six koris). 300 rupees (six koris) doubled is 600 rupees (twelve koris). If I divide 600 rupees (twelve koris) equally between six people, then each share will contain 100 rupees (two koris).

So.

- i. How much money will you earn?
- ii. How much money will each of the other players in your group earn?

**Third question** - If all the other five players of your group want to keep their 50 rupees (one kori) for themselves and do not want to deposit anything in the group pot and you want to deposit your 50 rupees (one kori) in the group pot, then the group pot will accumulate only 50 rupees (one kori). 50 rupees (one kori) doubled is 100 rupees (two koris). And if I divide 100 rupees (two koris) equally between six people, then each share will contain 16 rupees (six rupees and eight annas).

So,

- i. How much money will you earn?
- ii. How much money will each of the other players in your group earn?

Therefore if all the six players in your group keep their 50 rupees (one kori) for themselves and do not deposit anything in the group pot, the group pot will accumulate no money and each player will only receive their endowment of 50 rupees (one kori). If all six players in your group deposit their 50 rupees (one kori) in the group pot, then the group will accumulate 300 rupees (six koris). 300 rupees (six koris) doubled is 600 rupees (twelve koris) and if I divide 600 rupees (twelve koris) equally between six people, then each share will contain 100 rupees (two koris). So all you six group players will receive 100 rupees (two koris) each. But you cannot know whether the remaining five players in your group have deposited anything in the group pot or not. So if the remaining five players do not deposit anything in your group pot and you deposit your whole endowment of 50 rupees (one kori) then you will earn less money and they will earn more money.

Now tell me, can you know who the other five players in your group are or what decision they have made?

Can any of the other players know your name or the decision you have made?

Now you will play the game. Remember that you must take your decision independently and there is no right or wrong answer in this game. Here are your 50 rupees (one kori) in 10 rupee five coins. You must decide how much of these 50 rupees (one kori) you want to deposit in your group pot and how much of it you want to keep for yourself. Remember that if you so wish you can deposit nothing in the pot, or five, 10, 15 or any amount in between or the whole 50 rupees. Please put the amount you want to deposit in the pot and keep the rest on your side. Thank you.

Please now go and sit with the other that have played the game. Please do not talk to anyone who has not played yet.