ECPN Public Goods Game

## Public Goods Behavioral "Game"

We use a behavioral game to measure attitudes towards the farmer/pastoralist outgroup. Behavioral games create a strategic choice-making situation for subjects and researchers observe subjects’ behavioral choices. Behavioral games are particularly useful at measuring behavior and their underlying attitudes in a tangible way. As opposed to survey responses, which are riddled with cognitive and response biases and more accurately affect how an individual wishes they would behave in a situation than how they would actually behave, a behavioral game displays an individual’s real behavior in a real situation.

We use the public goods “game” to observe subjects’ contributions to a public account that will be used to fund a development project that benefits them *and* their paired conflict community. The socially desirable behavior -- contributing to a public account -- is costly and so subjects must make a difficult trade-off between their own interests and the interests of the broader community. In this case, that broader community contains both members of their group and members of the group they are or were in conflict with.

In our game, the fifty participating members from each community receive $5 as a reward for participating in ECPN. They are told that they can keep the money or contribute it to a public pool for a collective good, and that we will match any contributions to the public pool. Thus, though the socially desirable behavior is costly, it generates more overall good in the utilitarian sense than the selfish behavior.

More contributions towards the community fund by full participants would show more than a psychological change in attitudes towards outgroup members; it shows that participants are willing to undertake a truly altruistic behavior for outgroup members and literally accept less money so that the outgroup receives a benefit. $5 is not an inconsequential amount of money in this area. According to our baseline survey, the average annual income in these communities is around $150 -- $5 amounts to almost three weeks of income. Willingness to contribute that money to a public fund that helps the outgroup demonstrates powerfully that the program has affected a significant change in intergroup relations.

### Implementation of the Public Goods Game

The public goods behavioral game will be conducted in all communities, both treatment and control. An advance team should visit each community to secure their consent to receive funds for development *at least one week* before we come to do the public goods game.[[1]](#footnote-1) At this time, we can explain to the community leaders (and whoever we should talk with to gain consent) that we have a grant that allows us to give $250 to 50 community members, that they can keep the money or donate it, and that we can match the amount of money donated.

The public goods game will be conducted immediately after the endline survey. The next day, the ECPN team will gather the 50 research subjects together in one private location.[[2]](#footnote-2) The subjects will be thanked for their participation, and told that the research is now done and we will use the research to show the effects of ECPN. To thank them for participating, we can give each of them $5/2000 Naira.[[3]](#footnote-3) The subjects can keep this money or donate it to the community to fund a public good that will help people in the farmer community and the pastoralist community.[[4]](#footnote-4) It is important to mention that both groups will benefit.

We should then give the participants an envelope with their unique subject ID on it. This will allow us to know their contribution, but will keep it anonymous to anyone who does not have the subject ID-Name key. We must be sure to give each participant the correct envelope. We then tell the group that each envelope contains 2,000 Naira, and that there is a donation box n the next room[[5]](#footnote-5). They should go into that room, put whatever money they want to keep in their pocket, leave whatever amount they want to donate in the envelope, and place the envelope in the donation box. We tell them that we will tally the money and announce tomorrow how much money each community has raised for the public good.

### Scripts

#### Game

Hello everyone. Thank you all for participating in our program and research. In the past few days, you have all answered our final survey questions. That survey was the final piece of our research, so thank you very much for answering. We will use those surveys and other information to determine the effect of the ECPN program on these communities.

To thank [**you/your community**] for participating in the ECPN program, we would like to give you all $5/2000 Naira. You can keep this money or donate any amount of it back to [**public good decided on**] that will help your community and the [**farmer/pastoralist**] community. For every amount of money that people donate to the [**public good**], we can match those donations. So if someone donates 1,000 Naira to the [**public good**], 2,000 Naira will go towards the [**public good**]. If someone donates all of the 2,000 Naira, 4,000 Naira will go towards the [**public good**].

*Pass out subject-ID labeled envelopes with 2,000 Naira in them.*

These are your individual donation envelopes. All the donations will be private -- only you will know how much money you donated. In [**the next room/that structure**] is a donation box. Please go into the room, put however much of the 2,000 Naira you wish to donate to the [**public good**] in the envelope, put in your pocket whatever amount you want to keep for yourself, and place the envelope in the donation box. You may then leave and continue your day. Tomorrow we will come back and announce how much money your community will receive for the [**public good**].

#### Result Announcement

Your community did very well and is one of the most generous communities in ECPN! You will receive $X amount towards the [**public good**].

### Problems & Questions

1. In treatment communities, do we have this public good as the project the participants worked on? If all the treatment communities use boreholes and all of the control communities something else, we could not distinguish "people like boreholes" from "people were changed by ECPN". I am guessing it costs more than $500 to dig a borehole, so we could not have that in the control communities. But **we should try to vary where this money will go in treatment communities, or we should find something that can be standardized in treatment and control communities.**
2. Related, the control communities did not engage in any project, so the funds cannot go to the upkeep of a project. How can we find a public good that will help both the farmers and pastoralists in those places? What do both groups want/need?
   * Joint markets?
   * Motorcycles they could share?
   * Upgrades to a school building both groups use, or other buildings?
   * Upgrades to a Mosque both groups use (in sites where both farmers and pastoralists are Muslim. Though this might not be a good public good to use because everyone might see donating as necessary to be pious).
   * Upgrade to a road that both groups use?
   * Community leaders (elder council, chief and ardo, leading community members) decide? Important to involve women.
   * The 50 people we surveyed decide?
3. In some locations we do not have 50 participants. Draft more participants randomly when we survey, or give the original participants more money?
4. Places that we can gather everyone, and do this in private? Could be a problem, especially for pastoralist communities.
5. Frame it as "giving this money to your community" or "giving this money to you"? One should encourage more giving, another should encourage more keeping.
6. Modifications to the game: The current idea, "intergroup interaction causes more contributions to a public good" could be amended to "intergroup interaction changes how people respond to X incentives/information for contributing to a public good." I think this could let us test mechanisms for how intergroup interaction affects thoughts about the outgroup. If intergroup interaction changes perceptions of what behavior is socially desirable in their group, we'd expect information stating that people in their group don't tend to contribute would nullify the effects of intergroup interaction. If individual attitudes change, we'd expect 'social norm' information to have less of an effect, and that contributions would increase if people were primed to think about the interactions before they are asked to contribute.
7. There are other things I bet I am missing.

1. We also need to obtain consent to do the survey again. In control sites, we have not visited for a long time. Will we be able to get consent, and could knowledge that we are coming to bring "funds for development" affect survey responses about farmers/pastoralists? [↑](#footnote-ref-1)
2. We could also do this individually instead of in a group. [↑](#footnote-ref-2)
3. We should think about different ways to frame why we are giving them this money. If we think everyone will keep the money, we want to frame it as a reason they should donate: "To thank **your community** for participating, we can give each of you $5/2000 Naira. [↑](#footnote-ref-3)
4. Our current thinking is that the subjects can donate this money back to the public good the community worked on with the pastoralists. In the majority of cases, I think this will be diesel gas for a generator that runs the borehole...why does the borehole need a generator, instead of using a pump? [↑](#footnote-ref-4)
5. If this is conducted outside, then we should instead put the donation box in a nearby structure, or at least have it hidden behind something. [↑](#footnote-ref-5)