Experience of Inclusive Institutions and the Value of Participation: Experimental Evidence from Bangladesh

(latest version)

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Abstract

A prerequisite for institutional development is that citizens prefer the new institutions to the old ones. In this paper, I advance our understanding of institutional development by investigating how citizens value inclusive institutional arrangements and how these values evolve. Using a novel lab-in-the-field experiment, I provide the first incentivized measure of the value that citizens place on taking collective decisions via a participatory process. Then, exploiting randomly assigned exposure to inclusive institutions through a Community-Driven Development (CDD) program, I provide causal evidence of whether experiencing such institutions changes citizens' evaluations of participatory governance. My results indicate that citizens prefer taking collective decisions by an inclusive process, and these positive evaluations are reinforced by the exposure to the CDD program. The overall effect is primarily driven by an increase in the value that citizens attach to inclusive decision-making practices per se, above and beyond instrumental considerations. Consistent with the previous literature, changes in citizens' values of participatory practices do not translate into changes in real-world participation behaviors or increased adoption of inclusive institutions. I discuss potential reasons for these results, and their implications for interventions aimed at fostering institutional development.

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1 Introduction

A broad consensus holds that capable, democratic institutions are a fundamental pillar of economic prosperity and necessary to end extreme poverty in a sustainable way (Page and Pande, 2018). Strengthening governance is therefore now a top priority in developing countries (World Bank, 2017). However, there remains much to be learnt about how institutions form and develop, and how changes in institutions can be fomented.[1] One important open debate among both policy-makers and researchers concerns whether or not exposure to democratic or inclusive institutions can lead to sustainable institutional changes.[2]

In order to advance this debate, it is crucial to understand how citizens value democratic and inclusive institutions and how these values are influenced by citizens' experiences with institutions. How citizens value different institutions is ex-ante ambiguous, because different institutional settings imply different costs and benefits for agents.[3] Further, a prerequisite for sustainable institutional change is that citizens prefer the new institutions to the old ones: because they like them intrinsically, because they believe they work better, or both (Casey, 2018).[4] In this paper, I combine a novel lab-in-the-field experiment and a temporary exogenous shock to local institutions in order to answer the following questions: If given a choice, would citizens choose to adopt democratic and inclusive institutions in order to take collective decisions? Does experiencing inclusive institutions affect how citizens value them?

Learning about how citizens value institutions, and how these values change in response to the experience of institutions, is difficult for two reasons. First, measuring socio-political values is methodologically challenging. Previous research has focused on stated preferences or realized behaviors and institutions. The latter can be more easily observed, but they do not necessarily reflect values and preferences.[5] Subjective survey measures provide some evidence, but respondents may – consciously or unconsciously – refrain from truthfully reporting

[1] Attempts to elaborate unifying theories of institutional development are complicated by its many "irregularities", e.g. the evolution of democracies into autocracies (Acemoglu and Robinson, 2017; Acemoglu et al., 2013), or the failure of political reforms to deliver the expected outcomes (Acemoglu and Robinson, 2008; Anderson et al., 2015).

[2] For example, Casey et al. (2018) show that experts in public policy and academia held very divergent prior beliefs about the effect of programs designed to make local institutions more inclusive and democratic on actual institutional change in the long run.

[3] For example, democratic systems may deliver better socio-economic outcomes or encourage cooperative behaviors (Dal Bó et al., 2010), and citizens might appreciate living in a democracy per se and the possibility to express their view on issues of common interest (Coate et al., 2008). At the same time, well functioning democracies require well-informed voters (Banerjee et al., 2011; Ferraz and Finan, 2008; Stromberg, 2004) and citizens bear the costs of participating in elections.

[4] A second requirement is that citizens possess the requisite political will to change existing power dynamics (Casey, 2018).

[5] For example, individual values and preferences may not translate into realized behaviors if the latter are influenced by social concerns or otherwise constrained.

their views and opinions (Bertrand and Mullainathan, 2001), for example because of social desirability concerns. The risk of reporting biases is particularly severe in the context of initiatives that promote the adoption of democratic and inclusive practices (Mansuri and Rao, 2013). Second, it is difficult to provide a causal link between experience and citizens' value of institutional regimes. The institutions to which citizens have previously been exposed may themselves reflect preferences and institutions and values coevolve. A further concern is that institutional changes are often embedded within broadly transformative economic, social and political reforms, thus making it hard to isolate the direct effect of experiencing new institutions on how citizens value them.

My study resolves both these challenges. First, I implement a novel lab-in-the-field experiment which provides the first incentivized measure of how citizens value taking collective decisions via inclusive institutions. Then, exploiting randomly assigned exposure to inclusive institutions through a Community-Driven Development (CDD) program, I provide the first causal evidence of whether exposure to such institutions changes these values.[6] The lab-in-the-field experiment and the CDD program are implemented in the same rural communities in Bangladesh.

In order to provide empirical evidence on citizens' value of inclusive institutions and its evolution with the experience of institutions, I focus on one specific institutional setting: participatory decision-making. A central feature of this approach is that decisions regarding a community or a group are delegated to the community or the group itself, and typically taken via debates and deliberations during public meetings. The reason for this focus is grounded in how institutional reforms can take place in practice. At the local level, one common approach to the promotion of inclusive institutions relies exactly on creating spaces and processes for community engagement and public deliberations on designing, budgeting, monitoring and evaluating public policies (World Bank, 2017).[7] Participatory governance is largely widespread, for example in direct democracies (e.g. town meetings), as a way of delivering development programs, or for decentralization reforms.[8] In the lab-in-the-field

[6]The non-descriptive analysis is based on the pre-analysis plan submitted to the AEA-RCT registry: AEARCTR-0001809.

[7]Another approach to supporting more inclusive local institutions is to strengthen civil society and assist citizens in organizing and building civil society organizations, social movements and other participatory associations and networks.

[8]In direct democracies, citizens directly express their views on laws and policies, often during town or village meetings (Hinnerich and Pettersson-Lidbom, 2014). Participatory governance has emerged as one of the dominant approaches in the development sector. Over the past few decades, development projects based on community participation have received a massive injection of funding (for example the World Bank currently supports 190 active CDD projects in 78 countries, for a total value of $19.2 billion (Wong and Guggenheim, 2018), and international aid agencies increasingly condition access to their funds on the adoption of beneficiary participation components (Banerjee et al., 2010). Decentralization reforms are often based on deliberative fora intended to actively engage stakeholders in community decision-making (Ban et al.,

experiment, I elicit agents' willingness-to-pay (WTP) for participatory decision-making relative to an alternative option designed to have the same unconditional expected monetary outcome as the participatory process. The group decisions in the experiment consist of distributive choices among the group members for a total monetary value of 300 Bangladeshi taka per task, the equivalent of the Bangladeshi rural daily wage.[9] The participatory process requires participants to discuss face-to-face in an unregulated negotiation process in groups of three, and take distributive choices for the group by unanimous consensus.[10] The alternative procedure consists of receiving the distributive choice of another group, randomly extracted within the same community. The elicitation procedure is fully incentivized: agents' WTP for participation determines the rules for group decision-making in the last stage of the experiment, with approximately one-third of the Bangladeshi rural daily wage at stake for each participant.

I find that taking decisions via an inclusive process is preferred by a large majority of participants in my sample, and 47% of the agents have a strictly positive WTP for participatory decision-making. However, the support for participatory decision-making is highly polarized, with 26% of the participants willing to pay 8% or more of the Bangladeshi rural daily wage for participatory decision-making, and 22% of the participants willing to forgo the same amount or more to avoid it. Participation is also highly selected: subjects who choose to participate are those with a greater influence over decisions (e.g. leaders and those with higher education) and lower costs of participation (e.g. men, possibly because of the existing social norms in the Bangladeshi rural context).

Then, I use an exogenous shock to local institutions through a CDD program in order to investigate how the values of participatory decision-making evolve. The CDD program is a water-safety intervention with strong participatory components (Cocciolo et al., 2019a). The CDD program assigns decision-making powers to communities that otherwise have no jurisdiction over the provision of local public goods or services, and therefore can be interpreted as a participation experience. The community decision-making process imposes rules which ensure that everyone is guaranteed the *de jure* right to express her voice, providing first-hand exposure to an inclusive institutional arrangement. The CDD program is ran-

2012; Besley et al., 2005).

[9] 1 BDT = 0.013 USD in December 2016.

[10] Following the design of the CDD program, the unanimity requirement is intended to induce groups to seek a decision outcome that all group members can agree on, rather than one that only satisfies a majority. Because unanimity voting also assigns veto power to all group members, the theoretical literature on public choices traditionally concluded that unanimity performs worse than non-unanimous voting rules. However, recent contributions have challenged these conclusions, for example showing that unanimity and majority voting produce similar outcomes when decisions are taken by collective deliberation (Goeree and Yariv, 2011) or that unanimity can induce truthful communication and optimal information aggregation (Breitmoser and Valasek, 2017).

domly assigned to eligible communities and it is limited in time and scope. Exposure to the CDD program can be interpreted as a learning experience of the material and non-material costs and benefits of inclusive institutions (e.g. costs of participation; households' access to safe water). Importantly, it has no impact on political or socio-economic dimensions that can be directly related to how citizens value institutions. These features allow me to estimate the causal effect of this temporary exogenous shock to local institutions on WTP for participatory decision-making.[11]

I find that the value that citizens attribute to participatory decision-making is significantly larger in communities that experienced inclusive institutions through the CDD intervention. This effect is primarily driven by a 9 percentage point increase in the share of citizens that are willing to pay 8% or more of the Bangladeshi rural daily wage for participatory decision-making. The lab-in-the-field experiment design enables me to separately estimate the effect of the CDD program on the instrumental and intrinsic value of participatory decision-making. The expected monetary gain from taking part in decision-making is smaller in treated than in control communities and therefore, the main effect is entirely driven by an increase in the intrinsic value that citizens place on participatory processes per se, above and beyond instrumental motives.

The exposure to inclusive institutions can affect how citizens value them via three channels: it might lead to efficiency gains in future public consultations with similar characteristics; it might induce citizens to update their beliefs about the benefits and costs of these types of institutional arrangements; or it might generate a taste for inclusive practices. Being exposed to the CDD program does not change the quality of the bargaining outcomes – in terms of realized inequality or total contributions in public good games – nor the negotiation time, but it is associated with a lower risk of conflicts, therefore reducing the psychological costs and efforts associated with a face-to-face negotiation dynamics. Agents in treated communities are less overconfident in their ability to influence collective decisions in their favor and therefore, they report lower expected monetary outcomes from participating in decision-making and lower negotiation skills. Suggestive evidence indicates that the effect of the CDD program on the value of participation does not vary with the quality of community decisions or the welfare impact of the intervention, but it is larger in communities where there was a more active participation in the decision-making process. Overall, these results indicate that the main effect is not driven by improvements in or learning about the decision outcomes of

[11] In this paper, I follow an emerging literature that adopts lab-in-the-field experiments as a tool to develop better measures to evaluate the impact of development programs on social norms, values and preferences (e.g. Attanasio et al., 2015; Polan, 2016), including Fearon et al. (2009), Fearon et al. (2015), and Avdeenko and Gilligan (2015) in the context of participatory governance. While these previous contributions rely on standard experimental measures of social cohesion and social capital, in my project, I introduce a novel measure of procedural utility.

inclusive institutions. Two possible explanations remain. One is that experiencing the CDD program reduces the non-monetary costs of future public deliberations (e.g. conflicts). The other is that, in line with classical economic models of habit formation in consumption, experiencing a CDD program generates a taste for inclusive practices, for example by inducing learning about their intrinsic qualities (e.g. autonomy and legitimacy).

My paper contributes to a number of literatures. It is most generally related to the broad literature on the formation and development of institutions, and in particular how citizens' values are shaped by the institutional setting to which they are exposed.[12] Understanding the effects of institutions on citizens' values can have important policy implications. For example, exposure to democratic or inclusive institutions can have a more sustainable impact on citizens' choices and behaviors if these changes are mediated by a shift in preferences, values and norms.[13] One limitation in the existing empirical literature is that evidence is based on stated preferences or realized behaviors.[14] Subjective survey measures may be biased, for example because of social desirability concerns, and realized behaviors and institutions do not necessarily reflect citizens' values. A second concern is that previous papers often rely on "institutional shocks" from the past history that had a transformative impact on many aspects of the political, social and economic environment, such as in the case of transition from socialism (Aghion et al., 2010) or communism in East Germany (Alesina and Fuchs-Schündeln, 2007) or North Korea (Kim et al., 2017). In my paper, I provide the first direct causal evidence of the link between experiencing democratic and inclusive institutions and the value that citizens attach to them. I also take advantage of a shock to local institutions which is limited in time and scope, with no impact on political or socio-economic dimensions that can be directly related to how citizens value institutions.

Previous literature on procedural utility has primarily focused on individual decision-making.[15] The existing evidence does not easily generalize to the case of group decision-

[12]Recent theoretical contributions model the two-way interplay between values and institutions and how they coevolve: values and norms influence policies and institutions, whereas policies and institutions in turn model values and norms (Aghion et al., 2010; Besley and Persson, 2019).

[13]A large body of research in political science and sociology holds that democratic values play a key role in inducing and supporting democratic institutions, for example because democratic attitudes can sustain citizens' willingness to struggle for democracy and cumulated values can increase the stability of democracies (Besley and Persson, 2019; Persson and Tabellini, 2009).

[14]For example, Aghion et al. (2010), Alesina and Fuchs-Schündeln (2007) and Kim et al. (2017) use survey measures that capture citizens' attitudes and trust towards the state. Other papers instead rely on political preferences and turnout in relation to past voting experience (Fujiwara et al., 2016) or in relation to the exposure to democratic regimes (Fuchs-Schundeln and Schundeln, 2015), violent conflicts (Blattman, 2009) or events building national identity and civic duty (Madestam and Yanagizawa-Drott, 2011).

[15]The economic concept of procedural utility was first advanced by Frey et al. (2004) and Frey and Stutzer (2005). The existing evidence in the context of individual decision-making indicates that agents evaluate the decision processes per se (Bolton et al., 2005), their voting rights (Güth and Weck-Hannemann, 1997), and their autonomy and decision power (Bartling et al., 2014; Fehr et al., 2013; Neri and Rommeswinkel, 2017;

making, which – especially in case of face-to-face unregulated public negotiations – entails a different set of potential costs and benefits for participants.[16] Using ex-post survey measures of satisfaction, previous studies provide suggestive evidence of whether and how citizens evaluate that a development program is implemented via a deliberative and participatory process (Alatas et al., 2012; Beath et al., 2017; Madajewicz et al., 2018; Olken, 2010). In a recent review, Casey (2018) stresses the need to better understand the potential participation costs of participatory initiatives. My paper provides the first incentivized measure of the net value that citizens attach ex-ante to different decision-making processes in the context of group deliberations.

Finally, my paper relates to the literature on the effect of participatory initiatives on local institutions. By encouraging participation and dialogue between social groups, CDD programs are often promoted as a potential channel to build social cohesion and strengthen democratic values and practices (Mansuri and Rao, 2013).[17] However, exposure to CDD programs does not seem to affect local governance (Casey et al., 2012; Humphreys et al., 2012; van der Windt et al., 2018).[18] Fearon et al. (2015) and Casey et al. (2018) argue that exposure to CDD programs seems to create "zombie" institutions that exist on paper but in practice remain unadopted.[19] As stressed in Casey (2018), it remains to be explained why CDD programs, despite being effective in bringing public goods to poor communities, fail to induce local institutional changes. One potential explanation is simply that the temporary experience of democratic and inclusive institutions does not increase the value that citizens

Owens et al., 2014).

[16]Deliberative processes might create a sense of legitimacy for resource allocation, and beneficiaries often seem to value being consulted and involved. However, the exercise of voice and choice can be costly, for instance because of the opportunity cost of the time dedicated to participation, the psychological costs of conflictual deliberations, or the material/social costs incurred when citizens take positions that are contrary to the interests of powerful groups (Mansuri and Rao, 2004).

[17]Additionally, community participation is often proposed as a method to improve the quality of development programs and service delivery. Community participation can effectively incorporate local knowledge into planning, implementation and monitoring of interventions (Alatas et al., 2012), generate accountability for service delivery (Björkman et al., 2017; Björkman and Svensson, 2009; Reinikka and Svensson, 2011; World Bank, 2014) and reinforce stakeholders' sense of ownership over project assets (Alatas et al., 2012). However, successful experiences of community mobilization are counterbalanced by projects with limited welfare impacts (Banerjee et al., 2010; Khwaja, 2004; Olken, 2007) or whose outcomes are distorted in favor of local elites (Alatas et al., 2019; Labonne and Chase, 2009) or wealthier communities (Baird et al., 2013). Recent reviews agree that the available evidence indicates that CDD effectively delivers public goods at a relatively low cost (Casey, 2018; White et al., 2018).

[18]Exposure to CDD programs does have significant effects on self-reported pro-social values and norms (Avdeenko and Gilligan, 2015; Ibanez and Rao, 2005; Labonne and Chase, 2011), but it is unclear how these findings are driven by experimenter demand effects.

[19]For example, Beath et al. (2013) find that local elected councils function effectively several years after their creation as part of a CDD program in Afghanistan, but communities rely on them to take collective decisions only when specifically called upon by external agencies. Similarly, Casey et al. (2018) show that communities that received a CDD program in Sierra Leone are more likely to have a village development committee, but these committees are not being used for much in practice.

attach to them. In this paper, I show that this hypothesis appears unlikely to explain the absence of changes in local institutions.

The findings of this paper elucidate one potential mechanism for institutional development. Citizens value being involved in decision-making for their community, and this can encourage initiatives from governments and international organizations aimed at promoting community participation and decentralization reforms. While previous evidence indicates that participatory initiatives have no impact on local governance, I find that experiencing inclusive institutions does strengthen the value that citizens attach to them. What can explain these supposedly contrasting results? One possible explanation is that experiencing inclusive institutions increases the value that citizens attach per se to being involved in decision-making, but it also induces more realistic expectations of the personal benefits from participation, with an ambiguous effect on the overall demand for institutional reforms.[20] An alternative explanation is that the exposure to CDD programs can change the social values of participatory practices in receiving communities, but these changes will not necessarily translate into realized institutional reforms, as institutions are persistent and constrained by the existing social and political structures within a society. This explanation would have significant policy implications, as it would suggest that interventions aimed at fostering institutional development should focus on relaxing such potential constraints.

In the remainder of the paper, I first describe the data collection (Section 2) and the sample (Section 3). Section 4 illustrates the design of the lab-in-the-field experiment and the details of the WTP elicitation, and Section 5 describes my novel measure of the value of participatory decision-making. Section 6 presents the CDD program and explains why it can be used as an exogenous shock to local institutions. In Section 7, I test whether experiencing inclusive institutions through the CDD program has an impact on the value of participatory decision-making measured via the lab-in-the-field experiment, and discuss potential mechanisms. Section 8 concludes with policy implications and avenues for future work.

[20] In my lab-in-the-field experiment, agents choose between a participatory process and a non-participatory process with the same unconditional expected monetary outcome. The design allows me to interpret the willingness-to-pay measure as a proxy of the intrinsic value that citizens attribute to participatory practices, above and beyond instrumental considerations. My results do not necessarily extend to settings where different institutional arrangements have different expected monetary outcomes as well as different intrinsic qualities.

2 Data

The project relies on data collected during a baseline household survey, a baseline water source census, the implementation of the CDD program and the lab-in-the-field experiment (Figure A.1). The set up allows me to link individual data from the lab-in-the-field experiment to detailed information collected during the baseline survey and the project implementation, and I exploit this rich data in order to explore the mechanisms that might drive the effect of the CDD program on the value that people place on participatory decision-making.

Baseline data collection

The baseline data collection was carried out between August 2015 and February 2016, before the randomization of the CDD treatment status and before the implementation of the intervention. The household survey includes information on household composition, health, wealth, network, leadership and participation in the life of the community. I rely on this information in order to stratify the sample of participants in the lab-in-the-field experiment by household leadership status (Section 3), and to estimate heterogeneous treatment effects.

CDD program

The CDD intervention started in October 2015 and had been completed by November 2017. I rely on rich implementation data in order to characterize the dynamics of community discussion, the degree of household participation in the community debate and deliberation, and the distribution of project benefits within the community. I exploit this data in order to provide suggestive evidence of whether the effect of the CDD program on the value of participatory decision-making is driven by the characteristics of the community discussion, the quality of community decisions or the welfare impact of the intervention.

Lab-in-the-field experiment

The lab-in-the-field experiment was run between December 2016 and May 2017.[21] The experiment was always conducted after decisions regarding the CDD program had been taken by the community during the community meetings.[22] Participants successfully invited to the

[21] Every day, we conduct the lab-in-the-field experiment in a different community. We work sequentially in nearby communities, and I do not expect information about the lab to spread so rapidly across communities through existing social networks.

[22] In order to avoid possible confounding effects, in almost all communities we run the experiment after the full implementation of the CDD program: after the community failed to raise contributions or after the tubewell installation was complete. In only 7 communities, the lab-in-the-field experiment was conducted after a decision had been taken at the community meeting but before the completion of the tubewell installation work.

experiment complete an individual survey on social values and attitudes before the experimental session (Appendix D. 4). During the experimental session, a team of six enumerators record the outcomes from each task and the time required for each group/player to complete each task, as well as their observations on group dynamics, their perceived level of conflict within the group and individual bargaining skills. After the experimental session and before payments are disbursed, participants complete a short individual questionnaire on their understanding of the tasks and satisfaction (Appendix D. 6).

3 Sample

3.1 Selection of communities

The communities enrolled in the CDD programs are 171, 42 in the control and 129 in the treated group. Because of budget constraints, I carry out the lab-in-the-field experiment in 96 communities (35 control and 61 treated communities) in 8 Unions.[23] Table 2 reports some baseline socio-economic characteristics of the communities selected for this study.

I select the communities in which to conduct the lab-in-the-field experiment primarily via an optimization procedure that maximizes the balance between the treatment and the control group.[24] The main rationale for this optimization procedure is small sample bias reduction. In Appendix C, I describe the optimization procedure in detail, and I report the set of pre-intervention observables used to test the balance between the treatment and the control group. As ensured by this optimization procedure, treated and control communities selected for the lab-in-the-field experiment are balanced (Table C.3). As indicated in the pre-analysis plan, in one of the robustness checks I correct standard errors in order to take into account this sample selection procedure. The results are robust, and because the corrected standard errors are smaller than the uncorrected ones, I use the most conservative approach in the remainder of the analysis.

The sample departs from this selection rule in two respects. One, I excluded six communities where the CDD program failed because of hydro-geological reasons that impeded the installations of new safe water sources ("exogenous failures"). At the time of sample selec-

[23]Unions are the smallest rural administrative and local government units in Bangladesh. Each Union is made up of nine Wards, and one village is usually designated as a ward. The lab-in-the-field experiment was run between December 2016 and May 2017. Because the baseline data collection in the Gaibandha District was scheduled in the spring 2017, and the CDD program in the summer/fall 2017, I carried out the lab-in-the-field experiment only in the 8 Unions in the Bogra District.

[24]I follow an optimization algorithm that selects as the best sample – out of 1,000 random samples – the one with the highest pvalue from the F-test on the balance of pre-intervention observables between treated and control villages. The random sampling procedure respects the stratification by Union of the CDD intervention, and it is balanced on contribution approaches.

tion (December 2, 2016), the implementing partner was exploring the possibility to adopt an improved installation technology, and therefore make a second installation attempt in communities where the first one failed. In order to avoid contaminating the CDD program with the lab-in-the-field experiment before the intervention was complete, I did not run the lab-in-the-field experiment in communities where the CDD program "failed exogenously". Since these cases only concern one Union (Deuli), in one pre-specified robustness check I verify that the main treatment effect does not vary if I include or exclude this Union.[25]

Two, I oversampled four communities where the CDD program failed due to tensions and disagreements within the community or lack of interest in the CDD program ("endogenous failures").[26] At the time of sample selection, in agreement with project staff, I excluded these communities because of feasibility constraints.[27] As the project staff gained experience with the implementation of the lab-in-the-field experiment, I was able to revise this decision and add these four communities to the sample of 92 communities selected via the optimization algorithm. Because I oversampled communities where the CDD program "failed endogenously", the estimates of the main treatment effect might be downward biased. In order to correct this bias, I pre-specified to weight all regressions by the probability of each community being selected by the optimization algorithm.[28] In addition, in one of the pre-specified robustness checks, I verify that the main findings are not driven by the choice to include or exclude these four oversampled communities.

3.2 Selection of participants

36 people per community participated in the lab-in-the-field experiment. Households invited to the lab-in-the-field experiment are randomly selected among those interviewed during the

[25]The cases of "exogenous failures" are concentrated in one Union only, specifically in the South-Eastern region of Deuli Union. This results in a non-homogeneous geographic distribution of eligible treated and control communities in Deuli Union. In Deuli Union, communities involved in the lab-in-the-field experiment are widespread in the whole area if they belong to the control group, but they are mainly from the North-Western area if from the treated group.

[26]The CDD program failed "endogenously" in four communities: (i) one where the community was not interested in holding the meeting; (ii) two where the community did not reach an agreement during the community meetings; (iii) one where the installation failed for one tubewell and cash contributions failed for the other tubewell.

[27]Although aware of the fact that this selection might create an upward bias in my estimates, this choice was imposed by feasibility constraints. We thought it was unfeasible to conduct the lab-in-the-field experiment in communities where the implementation of the CDD program created tensions within the communities and between the community and project staff.

[28]In order to derive the weights, I repeat the optimization procedure 1,000 times on the full sample of communities in the CDD program and for each community, I calculate the probability of being included in the optimal sample. All results are robust if I used a slightly different weighting scheme, which weights only the four over-sampled communities by their probability of being selected by the optimization algorithm that I implemented to maximize balance.

baseline household survey. The randomization is stratified based on two dimensions: gender and leadership status of the household. Enumerators invite one man and one woman per household, ensuring that overall, 18 men and 18 women are invited per experimental session.[29] In each community, I invite two households identified as leaders by other households in their community to the experimental session. Invited households endogenously choose which household member, if any, that will take part in the experimental session.[30] The final sample of participants is determined by each player's final decision to actually take part in the experimental session. Table A.1 reports the realized and planned sample stratification by gender and leadership status.

In Tables 2, A.3 and A.4, I report the results from three pre-specified tests, which test whether this self-selection into the lab-in-the-field experiment differed in treated and control communities. Tables 2 and Table A.3 show that the sample of players that accepted to participate in the experimental session and the final sample of players actually participating are balanced across treatment status. Table A.4 demonstrates that the attrition rate from the experimental session does not significantly differ in treated and control communities.[31] The overall evidence reported in Tables 2, A.3 and A.4 indicates that the self-selection process into the lab-in-the-field experiment did not differ in treated and control communities and therefore, the final sample of players is comparable across treatment status.

4 Lab-in-the-field experiment

The purpose of the lab-in-the-field experiment is to measure how citizens value inclusive decision-making practices. I model the individual expected utility associated with the decision-making process p as having three components: the expected individual monetary outcome from the decisions taken under arrangement p;[32] the intrinsic value that agents might place

[29] Inviting one man and one woman per household proved to be crucial in order to facilitate the participation among women. However, in rare cases, only one household member accepted to take part in the experimental session. Since groups in the lab-in-the-field experiment are gender-homogeneous, there is no risk that members of the same household are assigned to the same group.

[30] Enumerators are instructed to invite household members that can actively participate in the experimental session and understand the rules of the different tasks, primarily the household head and his spouse. In case one or two members from the household do not accept to participate, our project staff look for a replacement household/player within the same community, following a pre-defined (randomized) order that maintains the sample balance on gender and leadership status. In order to maintain the desired balance between leader and non-leader households taking part in the experiment, enumerators replace households with the same leadership status.

[31] I calculate the attrition rate as the share of players that accepted to participate in the experimental session, but ultimately did not.

[32] This term depends on the context in which decisions are taken. For example, it can be considered as access to safe water in the context of an arsenic-mitigation program, or receiving a cash-transfer in the context of a social safety net program.

on taking decisions via arrangement p (procedural utility); and the expected time cost of participating in the decision-making process p:[33]

$$Value_p = Expected\ outcome_p + Procedural\ Utility_p - Time\ cost_p \quad (1)$$

In the context of participatory governance, the procedural utility term from arrangement p can be interpreted as the net evaluation of procedure p, as resulting from, for example, the legitimacy of the decision outcomes, the value of autonomy and self-expression, stress and risk of conflicts, social and psychological costs of negotiating, actively participating in deliberations and publicly disagreeing. Although the value that citizens attach to taking common-interest decisions via procedure p can be modelled in a more comprehensive fashion, this framework does exactly mirror the experimental design.[34] The main objective of the design is to disentangle instrumental and intrinsic motives and ensure that the time cost component does not vary across decision-making processes.

One experimental session is carried out in each community separately.[35] Each experimental session is conducted with 12 groups of three people each and it is divided into 5 main stages, illustrated in Figure 1.[36] Participants are involved in a bargaining task and in a WTP elicitation procedure. These two components are repeated twice for two different bargaining tasks, and in the last stage of the experiment, the choices made during the WTP elicitation relative to one randomly extracted bargaining task are realized.[37]

In this paper, I focus on the WTP elicitations, which allow me to measure my main variable of interest: the net value that agents attach to taking decisions regarding their group in a participatory way. During the WTP elicitations, participants are presented with group tasks inspired by redistribution games and public good games. Under different price conditions, participants can choose how to solve these group tasks during the last stage of

[33]These three components mirror the three terms in the Downsian "calculus of voting" framework (Downs, 1957; Riker and Ordeshook, 1968; Tullock, 1968). In the context of individual decision-making, Bartling et al. (2014) already discuss that preferences for being in control of own decisions might be driven by instrumental and intrinsic motives.

[34]For example, altruistic agents might evaluate different institutional settings not only based on their own expected outcome, but also considering the expected outcomes of others and the fairness of the resulting distribution. Because different decision-making processes can be associated with different levels of uncertainty, my simple framework can also be extended in order to take into account the variance of the decision outcomes and agents' risk aversion.

[35]In Appendix D. 5 I report the scripts of the experimental session.

[36]The lab-in-the-field experiment is conducted in collaboration with Selene Ghisolfi. In a related paper, Ghisolfi (2019) studies the dynamics of group-bargaining occurring during Task 1 and Task 2. Despite the fact that we joined forces for fund raising and the implementation of the experiment, our research projects are originated, developed and designed independently.

[37]As specified in the pre-analysis plan, in this paper, I pool together the choices made during the WTP elicitation relative to each bargaining task. None of the results would be substantially different if I instead looked at each bargaining task separately.

the experiment: if via a participatory process or not. In order to incentivize participants to report their preferences truthfully, each of their choices has a positive probability of being implemented during the last stage of the experiment.

Within the basic framework outlined in Equation 1, the WTP measure can be interpreted as the sum of the expected monetary gain from participating in decision-making (instrumental value); the intrinsic value associated with retaining group decision rights relative to the alternative process (intrinsic value); and the time cost differential. This decomposition is reported in Equation 1. By design, the time cost differential is set to 0 and the instrumental value of participation is set to 0 for players that consider themselves as average bargainers. These features allow **us** to interpret the WTP measure as a close approximation of the intrinsic value of participation. In order to support these claims, I elicit beliefs **in** own expected outcomes from the two decision-making processes and obtain a direct measure of the instrumental value of participation.

$$
\begin{aligned}
WTP = & \underbrace{Own\ expected\ outcome_P - Own\ expected\ outcome_{NP}}_{\text{Instrumental value of Participation vs Non-Participation}} \\
& + \underbrace{Procedural\ utility_P - Procedural\ utility_{NP}}_{\text{Intrinsic value of Participation vs Non-Participation}} \\
& + \underbrace{Time\ cost_P - Time\ cost_{NP}}_{\text{Time cost of Participation vs Non-Participation} = 0}
\end{aligned}
\tag{2}
$$

The experimental design is guided by two additional considerations. First, the reporting bias and the experimenter demand effect can be particularly severe in the context of evaluating initiatives that promote the adoption of democratic and inclusive practices: the exposure to participatory messaging may make members of program communities more likely to report a higher appreciation of inclusive institutions, even without any substantial change in evaluations (Mansuri and Rao, 2013).[38] I adopt various techniques to minimize the influence of experimenter demand, the most important being fully incentivizing the elicitation procedures, with approximately one-third of the rural Bangladeshi wage at stake.[39] Another

[38]Social desirability bias is a concern only if it applies differentially in control and treated communities. The sign of the bias is ex-ante ambiguous. Agents in treated communities might be more likely to report a higher value of participation to please my local partner, given the messaging on the importance of participation in community decision-making during the implementation of the CDD program. The opposite might be true if agents in control communities are more likely to report a higher value of participation, hoping to convince my local partner to implement the CDD program in her community.

[39]I carefully concealed potential signals about the study objectives and the true experimental hypothesis. I never revealed the goals of the policy evaluation to the project staff or the participants. During the experimental session, project staff used real-life examples tailored to the local context in order to explain

challenge is related to the low literacy rate of the population involved in the study, which constrained the design choices in order to ensure full understanding from all participants. Throughout the whole experimental session, instructions are provided verbally by project staff. The field supervisor introduces the lab-in-the-field experiment to all participants and gives the main instructions for each task. Enumerators play a crucial role in ensuring that all participants fully understand the rules of each task: they provide additional clarifications whenever needed, and explain in detail the WTP elicitation procedure individually to each participant.[40]

4.1 Group negotiation tasks

The experimental decision-making process is designed to mimic the procedures and the implementation rules that are typical of participatory initiatives. Participants are divided into groups of three and discuss face-to-face in an unregulated negotiation process in order to take decisions for the group, which entails common and individual economic interests. In addition, group decisions should be taken by unanimous consensus, and groups have a maximum of 20 minutes to reach an agreement. These features impose similar dynamics and constraints as in the CDD program studied in this paper (Section 6), where decisions are taken by the community during an open negotiation, community members know each other and will meet each other after the deliberation, and communities have a maximum of 3 community meetings to reach a unanimous agreement, otherwise they lose the possibility to receive the intervention.

The group tasks are a "Redistribution task" and a "Contribution task", played in random order.[41] Participants receive an initial individual endowment, and then complete the negotiation exercise with their group peers.[42] During the "Redistribution task", participants

the bargaining games and the choice between different decision-making processes, but I never referred to the CDD program.
The ability of incentives to mitigate reporting biases is still debated. In a recent study, de Quidt et al. (2018) find that experimenter demand is not reduced in incentivized tasks versus unincentivized tasks. However, they use low-stake incentives of approximately 1 USD with US participants, and conclude that the effect of incentives should be further explored in future studies.

[40] I do not expect this feature to worsen the concerns related to the experimenter demand effect. I always discussed the purposes of the lab-in-the-field experiment with project staff in terms of understanding the dynamics of group bargaining and preferences for participation in the context of rural Bangladesh. I never revealed that the project aims at evaluating how the CDD intervention affects evaluations of inclusive institutions. Additionally, while the field supervisor was also involved in the implementation of the CDD program, the enumerators took no role in it.

[41] For both group tasks, participants complete one training round and one round with real money at stake. Before starting the training round, participants answer a few questions to verify their understanding of the rules and how their final rewards are calculated. In order to enable all players, even those with poor numerical skills, to effectively take part in the group discussion, participants complete the tasks using simple and intuitive visual aids.

[42] Within each community, players are randomly pre-assigned to the equality/inequality treatment. Equal-

receive their individual endowment and negotiate on how to redistribute a group endowment of 30 tokens among themselves. In the "Contribution task", participants decide how much of their initial endowment to contribute to the creation of a common pool of resources, equivalent to twice the sum of the contributions, and simultaneously negotiate on how to distribute it. The "Redistribution task" mimics a situation when beneficiary communities receive development interventions or public service provisions for free, but they are involved in decision-making regarding how to redistribute project benefits within the community. The "Contribution task" is the experimental counterpart of community projects that, in addition, requires communities to co-fund the project with cash or labor contributions.[43]

For this paper, the "Contribution task" and the "Redistribution task" serve two main purposes. First, during Task 1 and Task 2, all participants experience the participatory process, the discussion dynamics and observe the outcomes of the deliberation. This is a crucial feature in order to allow participants to make meaningful choices when I present them with the option to choose the decision-making process for Task 3. Second, it allows me to directly observe players' performance within an open negotiation process, which I expected to play an import role in driving their preferences for the decision-making process for Task 3. Importantly, in order to avoid that participants' choices over the future decision-making process are confounded by gender norms, all groups are gender-homogeneous.

4.2 WTP elicitation

During the WTP elicitation, I randomly assign their initial individual endowment for Task 3 to participants, and I inform them that during Task 3, they might again face the same group task as in the "Contribution task" or the "Redistribution task", with new group peers, randomly selected and ex-ante unknown. I offer them the possibility to decide ex-ante how they want their group to take decisions during Task 3. The first option is the participatory decision-making process: the same negotiation process that they already experienced under Task 1 and Task 2. The other option is not to participate in decision-making and receiving an assigned distribution of tokens. In this latter case, the group receives the outcome distribution

ity: before each task, participants receive an initial endowment of 10 tokens. Inequality: before each task, participants in each group randomly receive initial endowments of 15, 10 token or 5 tokens.

[43] Community contributions – in cash, kinds, or labor – are a key component of CDD programs. Co-financing requirements, other than reducing implementation costs, are seen as a way to elicit information about demand and enhance the sense of ownership over project assets. However, this approach is far from being uncontroversial. A requirement for financial contributions may prevent poorer communities from accessing the intervention. Cash contributions may transfer greater decision power to the local elite and wealthier individuals, creating a channel through which elites are legitimated to capture project benefits. In Cocciolo et al. (2019a), we provide the first experimental evaluation of the effect of contribution requirements on community decision-making and the impact of a project to provide a local public good.

determined by another group, randomly selected within the same community, during that task.[44]

I measure the individual willingness to pay for participatory decision-making using a binding auction design. I start by presenting participants with a hypothetical choice between "participatory decision-making" and "assigned distribution" at zero price. I present ten other choices to all participants by varying the price attached to the participatory option, ranging from -5 tokens to +5 tokens.[45] I define individual WTP as the highest price attached to the participatory option at which the participant does not choose the "assigned distribution" option.

By design, because future group peers are randomly selected and ex-ante unknown and the outcome received under the "assigned distribution" is a random draw from the previous outcomes of other players within the same community, an average player has the same unconditional expected monetary outcome under the participatory process or the "assigned distribution" procedure. Additionally, all monetary rewards are disbursed at the end of the experimental session, after all groups have completed Task 3 and after a short individual questionnaire. Therefore, there is no time saving from avoiding the participatory decision-making process.[46] These are the key features of the design which, following Equation 2, allow me to interpret the WTP measure as a close approximation of the intrinsic value of participation in group decisions.

This interpretation of the WTP measure only applies to participants that consider themselves average negotiators. For players that expect to receive above- or below-average outcomes from participating in group decisions, the WTP measure should be interpreted as the sum of the instrumental and intrinsic components. In order to measure the share of participants whose instrumental value of taking part in the group negotiation is zero, I elicit players' beliefs about their expected outcomes under the two decision-rules. After each WTP

[44]Each person in the group receives the final number of tokens obtained during that group task by the person in the assigned group with the same initial individual endowment. The group is randomly selected within the same equality/inequality treatment.

[45]I do not allow players to submit choices that are inconsistent across prices. In these cases, enumerators are required to review players' choices and, if necessary, clarify the WTP elicitation procedure. Using audit data automatically recorded with the tablets, I am able to measure the frequency of initial inconsistencies in the WTP elicitation procedure, which is 18% relative to Task 1 and 15% relative to Task 2 (Table A.2).

[46]The overall time of the experimental session could have been reduced in case no group completed Task 3. However, in the absence of coordination between participants during the WTP elicitation, the ex-ante probability of this event is negligible. Indeed, this event never occurred in any of the 96 experimental sessions, and on average 7 out of 12 groups completed the negotiation stage for Task 3.

Despite all participants being required to spend the same amount of time at the experiment, participating in decision-making in the last stage of the experimental session obviously requires additional efforts from the participants. The mental, social and psychological costs of a face-to-face negotiation process are intrinsic characteristics of participatory decision-making which, in my simple framework outlined in Equation 1, are included in the *Procedural utility* term.

elicitation, I ask participants to report the number of tokens they think they would receive from the "Redistribution task"/"Contribution task" if group decisions are taken via the participatory process or via the "assigned distribution" procedure. I incentivize their answers by awarding a prize if their guess under the "assigned distribution" option is correct. The beliefs elicitation is not incentivized for the participatory decision-making option, as it would not be incentive compatible given the ability of players to collude during Task 3. The beliefs elicitation allows me to calculate the instrumental value of participation as the difference between the individual expected monetary outcome from participatory decision-making and the individual expected monetary outcome from the "assigned-distribution" alternative. I also derive an explicit measure of the intrinsic value of participatory decision-making as the difference between the WTP measure and the instrumental value of participation (Equation 2).

I complete the WTP elicitation with one participant per group, randomly selected and individually assisted by one enumerator. This approach ensures that one of each participant's choices will be implemented in the last stage of the experiment, without diluting the real incentives associated with the WTP elicitation procedure.[47] The design presents several further advantages. First, because I present all price conditions to all participants and I implement their choices for Task 3, the elicitation procedure is incentive compatible and it ensures that it is optimal for all participants to truthfully report their preferences.[48] Second, by design, players do not know the identity of their group members for Task 3, ensuring that their choices are not driven by selection effects. Finally, choices are elicited with the assistance of one enumerator, privately and independently from other players, ensuring the understanding from all participants and preventing individual choices from being influenced by peer pressure or reputation concerns.[49]

[47] Although I sacrifice a larger sample size, this feature also allows me to assign one enumerator to each participant during the WTP elicitation within the available budget and the time constraints of the experimental session, and it avoids adding further complexities to the design. Conducting the WTP elicitation with all participants would also have implied a further complication of the design, introducing an additional rule to aggregate choices expressed by participants assigned to the same group in Task 3, for example a majority rule or implementing the choice of one player per group, randomly extracted.

[48] To influence the results, experimenter demand effects should be more important for the respondent than the real expected gains (in terms of expected monetary outcomes and procedural utility) from answering truthfully.

[49] Enumerators take several steps in order to ensure understanding from all participants. Before the WTP elicitations, enumerators verify the understanding of each participant in the two decision-making processes. Enumerators stress that each of their choices might be implemented in Task 3 and therefore, it is best for them to truthfully report their preferences. They stress that choices are confidential and that, by design, other players cannot infer their answers from the decision-making process implemented during Task 3. In order to facilitate participants in their choices, enumerators remind them about their outcome in the previous round, ask them whether they liked or disliked the bargaining stage and to what extent they expect to be influential in the last stage given their initial tokens. Relative to the first WTP elicitation procedure, the instruction time is on average 3.5 minutes, the WTP elicitation almost 2 minutes and the beliefs elicitation

4.3 Realization of choices

Before the last stage of the experimental session, each participant that completed the WTP elicitation is randomly assigned one task ("Contribution task" or "Redistribution task") and one price between -5 tokens and +5 tokens.[50]

The decision rule for Task 3 depends on whether, relative to the assigned task at the assigned price, the participant did previously choose the participatory option or not. Participants with a WTP equal to or higher than the assigned price complete Task 3 together with their new group peers, and pay/receive the assigned price. Participants with a WTP lower than the assigned price, as well as their new group peers, do not complete the last negotiation stage and receive the outcome distribution determined by another group randomly selected within the same community.[51] During the last stage of the experimental session, there is approximately one-third of the Bangladeshi rural daily wage at stake, and this feature should minimize concerns related to reporting biases and experimenter demand effects.

The random selection of the task and the price for participatory decision-making relative to Task 3 is privately conducted by the enumerators with each participant that completed the WTP elicitation stage. The randomly selected price is never disclosed to other players, and this guarantees that individual choices expressed during the WTP elicitation are never fully revealed by the decision-making process implemented during Task 3. This is a further mechanism to ensure that individual choices during the WTP elicitation are not influenced by peer pressure or reputation concerns.[52]

1.5 minutes (Table A.2).

[50] The random assignment of the group negotiation task and the price for the participatory option are defined via two separate lotteries, where each option has the same probability of realization.

[51] In this case, participants are required to wait until all groups have completed the last group negotiation task. Because payments are disbursed at the end of the full experimental session, and after the completion of a short individual survey, no participants leave the experimental session earlier that others. While waiting, participants can interact with each other. The ideal setting would have been to occupy participants that do not complete the group negotiation task with a short individual task. But I desisted after exploring many possible alternative tasks without finding one that I was convinced would carry no (positive or negative) intrinsic utility for all agents. However, because the lab-in-the-field experiment is conducted in small communities where people know each other and have daily extensive interactions, I do not expect a few extra minutes of interactions with other villagers to be highly valuable for the participants.

[52] It should be noted that participants' outcomes are observable under the participatory decision-making alternative but non-observable under the "assigned-distribution" alternative. This difference in outcome observability might lower the estimated WTP for participation, in case participants prefer to conceal their earnings (Jakiela and Ozier, 2016). However, two considerations mitigate these concerns: (i) because the outcome from the first two rounds is always observable, the value of non-disclosing the earnings from the third round only is reduced; (ii) participants complete each stage with new group members, and therefore their total outcome is never fully disclosed.

4.4 Payment

Payments are disbursed at the end of the experimental session, only after all groups have completed the last group negotiation during Task 3 and after the completion of a short individual questionnaire on satisfaction. Participants receive a fixed net show-up fee of 40 Bangladeshi Takas.[53] They receive a bonus equal to the sum of their outcomes from Task 1, Task 2 and Task 3, converting 1 token into 5 BDT. Players that completed the WTP elicitations receive(pay) the randomly assigned price in case they chose the "participatory decision-making" option under the randomly assigned scenario (task-price). Correct beliefs about outcomes under the "assigned distribution" option are rewarded with 30 BDT. Participants can expect a total reward of between 250 BDT and 500 BDT, equivalent to 0.8-1.7 local daily wage.[54] Therefore, when players in the WTP elicitations express their preferences on the decision-making process for Task 3, approximately one-third of the local daily wage is at stake.

5 Value of participatory decision-making

Despite the widespread adoption of participatory development, the question of whether agents value collective decision-making rights has not previously been explored. Democratic and inclusive institutions entail monetary and non-monetary benefits (e.g. the legitimacy of the decision outcomes, the value of autonomy and self-expression) and costs for citizens (e.g. the social and psychological costs of exercising voice and decision rights). In a recent review, Casey (2018) stresses that, while participation costs have received little attention in the literature, these considerations should be carefully taken into account when designing and evaluating participatory programs. In this section, I provide novel evidence on this topic by describing the individual demand for participatory decision-making as well as the instrumental and intrinsic value that citizens attribute to it.

A large majority of the participants in my sample prefer to take group decisions in a participatory way: 71% of the participants prefer the participatory option at the 0 price condition (WTP $\geq$ 0), and 47% have a strictly positive WTP for participatory decision-making. By aggregating participants' choices with a simple majority rule, I observe that 84% of the communities would choose to adopt a participatory decision-making process at 0 price, and 35% of them even at positive prices. This is in line with the consensus emerging from the

[53] Because the Bangladeshi law requires a flat 10 BDT tax from those with a daily income larger than 400 BDT, the gross show-up fee is 50 BDT for participants with a total outcome higher than 400 BDT.

[54] The average daily income in rural Bangladesh is approximately 300 BDT (Bangladesh Bureau of Statistics, 2010).

behavioral literature, where several studies show that agents value the decision process per se (Bolton et al., 2005), their voting rights (Güth and Weck-Hannemann, 1997), their autonomy and decision power (Bartling et al., 2014; Fehr et al., 2013; Neri and Rommeswinkel, 2017; Owens et al., 2014). By design, the WTP range is constrained between +5 and -5 tokens, corresponding to +25 and -25 BDT. Despite these amounts being small in absolute terms, the maximum and minimum WTP allowed by the design are significant amounts within the experiment, as they represent 25% of the median expected monetary outcome from each group negotiation task. They are also non-trivial amounts in the local context where this study took place, as 25 BDT (5 tokens) correspond to 8% of the average daily income in rural Bangladesh.[55] The average WTP is 0.3 tokens: on average, agents in my sample value the participatory option 2% more than the non-participatory option.[56]

Figure 2 shows the distribution of the WTP measure in my sample. Preferences are polarized on three main focal points, characterizing three types of agents. 26% of the agents display a strong support for inclusive arrangements: under any offered price condition (up to 8% of the rural Bangladeshi wage), they prefer that decisions for their groups are determined through a participatory decision-making process rather than exogenously assigned. 24% of the participants have a weak preference for participation (WTP = 0), choosing the participatory option over the "assigned distribution" alternative only at 0 or negative prices, but not at positive prices. 21% of the agents display a strong disfavor for participatory decision-making, being willing to forgo any offered compensation (up to 8% of the rural Bangladeshi wage) in order to avoid the next group deliberation.

As discussed in Section 4, players with self-perceived average bargaining skills should attribute the same unconditional expected monetary outcome to the participatory process and the "assigned distribution" alternative. Figure 3 validates this key feature of the design, showing that a large majority of participants (71%) expect to receive the same monetary outcome under the "participatory decision-making" option and the "assigned distribution" alternative.[57] A remaining 11% and 18% of the participants expect, respectively, to be penalized or benefit from taking part in decision-making.[58] On average, agents in my sample

[55] Approximately 300 BDT.

[56] As a comparison, Bartling et al. (2014) find that decision-makers in their sample value remaining in control of decision-making 16.7% more than delegating to external agents. If agents equally value autonomy and control across different settings, one possible explanation for these results is that group decision-making implies additional costs for individual decision-making.

[57] I calculate the instrumental value of participatory decision-making as the difference in expected outcomes under the "participatory decision-making" option and the "assigned distribution" alternative.

[58] The experimental data allows me to verify whether players have correct beliefs about the monetary outcome from participating and non-participating in decision-making. Figures A.3 and A.4 show that, respectively, 55% and 27% of the participants have correct beliefs about their own monetary outcome from participating or non-participating in decision-making. On average, the errors are small: more than 60% of the participants predict their monetary outcome from participating and non-participating in decision-making

associate participating in decision-making with a positive instrumental value: the average expected monetary outcome from the participatory process is 5% higher than the average expected monetary outcome from the alternative option. Critically, the polarization of evaluations observed in Figure 2 is not mirrored in the distribution of the instrumental value of participatory decision-making, indicating that players that display a strong support or a strong disfavor for participation must be motivated by intrinsic considerations.

The WTP measure can be interpreted as the net intrinsic value of participatory decision-making, but only for players that expect to receive the same monetary outcome from participating in decision-making or not. For the remaining 29% of the players, the WTP measure captures both the instrumental value and the intrinsic value of participatory decision-making. In order to obtain an explicit measure of the intrinsic value of participatory decision-making for all participants in the experimental session, I apply Equation 2 and calculate the intrinsic value of participatory decision-making as the difference between the WTP measure and the instrumental value of participation. 45% of the participants associate taking part in decision-making with a positive intrinsic value, above and beyond instrumental consideration, but for 38% of them, the social and psychological costs of participation prevail.[59] However, on average, agents in my sample associate participating in decision-making with a small negative intrinsic value. Comparing Figure 2 and Figure 4 confirms that intrinsic motives drive the highly polarized views of players on participatory practices.

Because the intrinsic value of participatory decision-making is obtained as a residual term between the WTP and the instrumental value measures, it potentially captures a variety of social attitudes and values that are not explicitly modelled in the simple framework outlined in Equation 1. In order to address these concerns, in Table A.5 I explore whether the WTP, instrumental value and intrinsic value measures correlate with a battery of social attitudes and values elicited before the lab-in-the-field experiment. As expected, the instrumental value of participatory decision-making is higher for those players that perceive themselves as good negotiators. The WTP measure and the instrumental/intrinsic value of participatory decision-making are not driven by other social attitudes and values, such as trust towards others, risk aversion, fairness preferences or generosity.[60] Therefore, the available evidence suggests that the WTP and the intrinsic value measures can be interpreted as good proxies

within a +/- 2 token range. The accuracy of beliefs is partially explained by the small variation in the outcomes from the group negotiation tasks. Ghisolfi (2019) shows that groups seem to follow fairly homogeneous strategies on how to solve the group tasks, especially in the "Redistribution task". For example, among groups with an equal distribution of initial individual endowments, 80% and 63% distribute the group resources equally when solving, the "Redistribution task"/"Contribution task", respectively.

[59] As a comparison, Bartling et al. (2014) find that 83% of the participants in their sample have a positive intrinsic value of individual decision rights, while 17% have a negative one.

[60] All measures reported in Table A.5 are non-incentivized, except "Generosity", which represents the amount donated in an incentivized dictator game.

of the value that agents place on participatory practices per se.

My findings elucidate the anecdotal evidence on real-world participatory initiatives. Mansuri and Rao (2013) argue that beneficiaries of development programs seem to value being consulted and involved in decision-making, and deliberative processes might create a sense of legitimacy for the resource allocation. On the other hand, Mansuri and Rao (2004) stress that the exercise of voice and choice can be costly, for instance because of the psychological efforts that public deliberations entail or the material/social costs when participation requires taking positions that are contrary to the interests of powerful groups. Alatas et al. (2012) show that community decision-making often entails extended effort and fatigues for participants. My findings indicate that, while on average the social and psychological costs implied by public deliberations prevail on their intrinsic benefits, the intrinsic value associated with participating in decision-making is highly heterogeneous across agents.

The rich data collected before and during the lab-in-the-field experiment allows me to explore the determinants of this heterogeneity. The group dynamic and the quality of the negotiation process experienced in the previous experimental group tasks are critical factors in shaping evaluations of participatory decision-making, primarily via instrumental motives (Table 3). For example, the instrumental value of participatory decision-making is higher for players that were able to obtain a higher outcome in the previous group task, and in groups with a higher realized inequality. Agents seem to take into account the group negotiation task that they previously experienced, and accordingly update their beliefs about their ability to influence the group deliberation in their favor. In line with the theoretical predictions in Osborne et al. (2000), these strategic considerations partially drive participation choices, and agents that expect to be able to exert a greater influence on decisions are more likely to self-select into participation.

Choosing to participate in decision-making is also correlated with socio-economic characteristics associated with lower costs of participation (Table 4). For example, the value of participation is higher for leaders and lower for women. Because the instrumental value of participation does not differ across socio-economic groups, differences in the WTP for participatory decision-making must be driven by intrinsic motives. Leader households may place a higher value on participation because they are more used to being involved in community decision-making and therefore associate taking part in a public debate with lower social/psychological costs. The opposite might be true for women, as they rarely play an active role in the public sphere in the Bangladeshi rural context and therefore, their participation choices might be constrained by social norms and self-perceived barriers to publicly expressing own opinions and possibly disagreeing with others.[61] These considerations are in line with the

[61] In line with this result, Afzal et al. (2018) find that the demand for agency and the value of deciding

positive self-selection of beneficiaries in community meetings that is often observed during the implementation of CDD programs (Besley et al., 2005; Labonne and Chase, 2009; White et al., 2018). It is worth noticing that CDD programs often mandate a participation quota for historically marginalized groups, such as women or the poor. Casey (2018) raises concerns that explicit requirements to include the poorest and most marginalized groups in project activities might constitute a regressive tax, for example because of time-opportunity costs. My evidence extends these considerations beyond time-opportunity costs, explicitly looking at the instrumental and intrinsic value of participation for different socio-economic groups. For example, because women associate participatory decision-making with a lower value, we should be aware about the potential hidden welfare costs of mandating women participation in community decision-making.

6 The CDD program

Does experiencing inclusive institutions affect how citizens value them? In order to answer this question, I combine the value of participatory decision-making measured via the lab-in-the-field experiment with random exposure to inclusive institutions through a CDD program. The CDD program is an arsenic mitigation program conducted in rural Bangladesh (Cocciolo et al., 2019a). The program consists of a package of technical advice and subsidies for the installation of new sources of safe drinking water, and it has strong participatory components.

Communities take all key decisions regarding project implementation and maintenance: (i) how many water sources to install in the community; (ii) where to construct them; (iii) how to divide the required contributions between households, if required; and (iv) which are the households responsible for the management and maintenance of each new water source. These decisions are crucial because they determine which households will have access to the new safe water source and the sustainability of the new public infrastructure. Communities take all decisions at meetings organized by project staff. Project staff organize information meetings in order to increase the awareness of water safety issues and stressing the importance that everyone takes an active part in the community meeting. The community meetings are held only if minimum participation requirements are met. All decisions must be taken by unanimous consensus during the meeting in the presence of project staff. The project is not implemented in communities where an agreement is not found after a maximum of three community meetings. The rules and procedures imposed on the decision-making process are designed to reduce the likelihood that influential groups or individuals could co-opt the decision-making process, and ensure that everyone is guaranteed the *de jure* right to express

autonomously are smaller among Pakistani women than among Pakistani men.

his/her voice.

This inclusive consensus-based approach contrasts sharply with pre-existing formal and informal institutions in rural Bangladesh. Villages in Bangladesh do not have any jurisdiction on the provision of local public goods and services, and decisions are taken by local government bodies (e.g. Union Parishad, Upazila (sub-district) Council or District government), or local offices of ministries/government agencies.[62] In the villages targeted by the CDD program, informal local institutions are typically not inclusive and local collective actions are rare. Our baseline household survey data reveals that 63% of the households are usually not involved in taking decisions regarding their community, 6% attended a village meeting in the last 6 months, and 4% participated in a collective action organized in the community in the last 3 years. When they happen, community informal decision-making processes are typically restricted to elites and influential individuals and women rarely play an active role in the public sphere. In this context, the CDD program is innovative for two reasons: first because it gives full decision rights to communities; second, because it ensures that the decision-making process is inclusive. This consideration motivates this study, which evaluates whether this temporary introduction of a more participatory process can have an effect on beneficiaries' preferences on how collective decisions in their village should be taken.

Importantly, the CDD program is limited in time and scope, suggesting that the impact of the CDD program on citizens' value of inclusive institutions, if any, should derive from the experience of the dynamics and outcomes of the public debate and deliberations realized during the community meetings. Other than the exposure to the participatory decision-making process, the CDD program increased the availability of safe drinking water in beneficiary communities. This can be an important aspect for the interpretation of my results, because realized changes in households' access to safe drinking water can contribute to individuals' learning about the welfare benefits of inclusive institutions. In Section 7.2, I provide suggestive evidence on this mechanism.

The CDD program also entails few interactions between project staff and beneficiary communities, but it is unclear whether and how trust in my local partner can affect citizens' value of participatory decision-making.[63] All communities had extensive interactions with my local partner already during the baseline data collection and the organization of the public lottery meeting.[64] It is very likely that trust between all study communities and my local

[62]Unions are the smallest rural administrative and local government units in Bangladesh. Each Union is made up of nine Wards, and one village is usually designated as a ward. In Bangladesh, the lowest level at which elections are held is for the election of the Union Parishad (Union council) chairman and members.

[63]Concerns about experimenter demand effects are discussed in Section 4, and they are the main reason why the WTP elicitation in the lab-in-the-field experiment is fully incentivized with relatively large real stakes.

[64]My local partner did not previously work in the communities involved in the CDD program, but it was

partner was already built at these stages, before the implementation of the intervention, as it was a prerequisite to conduct pre-intervention project activities in the area.[65] Indeed, self-reported trust towards local NGOs is not different in treated and control communities.

The CDD program does not have an impact on other political or socio-economic dimensions that can be directly related to how citizens value institutions (Table A.14). Improved access to safe water can affect the time devoted to household chores and labor activities, but in the context of rural Bangladesh, households are not willing to walk a long way to access safe water, water collection is almost entirely a women's responsibility, and women have limited options outside home production.[66] Participating in community decision-making and collective actions can boost community cohesiveness and trust and extend the existing network structure. However, communities targeted by the CDD program are small – between 50 and 250 households – and relatively homogeneous (e.g. in terms of religion), community members well know each other well, and they report high trust and good community relations. In this context, the dynamics fueled by the CDD program can hardly make a durable impact on the level and quality of household interactions.

The CDD program targets communities with high levels of arsenic contamination. The intervention is located in north-western Bangladesh, in Shibganj and Sonatala Upazilas in Bogra District and in Gobindaganj Upazila in Gaibandha District, and it is implemented by the Bangladeshi NGO "NGO Forum for Public Health". This area was selected for the intervention because government officials and national media (Daily Observer, 2014) reported high levels of arsenic contamination and low levels of prior intervention. Based on water test results from a census of all existing sources of drinking water in the community (performed during the baseline data collection), 171 communities were enrolled in the program, of which 129 were randomly selected to receive the intervention. Treated communities were randomly assigned to three contribution requirements: under the cash contribution approach communities are required to co-fund the installation costs; under the labor contribution approach communities are required to provide labor to help with the installation work: under the waiver approach, the new water source is installed for free. The randomization of the pro-

in charge of all stages of the project: baseline data collection, organization of the public lottery meeting, implementation of the CDD program and the lab-in-the-field experiment.

[65] An additional "NGO effect" might derive from the role played by my local partner during the community meetings and during the installation stage, where communities were able to observe that my local partner indeed respected and implemented project decisions as agreed by the communities. However, these interactions were sparse and specifically related to the practical details of the intervention: on average, project staff visited beneficiary communities 9 times over the full duration of the project cycle (8 months), and most of the visits were organized after the community meetings (and after the lab-in-the field experiment) in order to organize the tubewell installations.

[66] Baseline survey data indicates that 76% of the households are willing to switch to a new safe water source located 2 minutes by walk from their house, but only 20% if the water source is located 5 minutes away (Cocciolo et al., 2019b).

gram was performed during public lottery meetings, where we invited representatives from each eligible community. In order to guarantee complete transparency of the randomization process and full understanding by beneficiaries, the randomization was only stratified by Union.[67]

The intervention was implemented between October 2015 and November 2017. All communities selected to receive the program initially decided to participate, with the exception of one community. Communities agreed on tubewell location(s) during the first community meeting in 91% of the cases, and during the second community meeting in 8% of the cases. In only one case did the intervention fail because the community was not able to find a consensus on the tubewell location(s). The CDD program successfully installed at least one tubewell in 64% of the treated communities. In communities assigned to the labor or waiver approach, the causes of failures are only related to hydrogeological constraints impeding installation or lack of suitable land. However, in cash communities, the low uptake is primarily due to communities failing to raise the required cash contributions. On average, the CDD program installed 1.1 tubewells in communities assigned to the labor or waiver approach, and 0.2 in communities assigned to the cash approach. The majority of tubewells (64%) are located on private land, and they are on average around 300 feet deep. For each installed tubewell, the community selected two caretakers, one man and one woman. All caretakers participated in a one-day training course and are provided with a toolkit for basic maintenance, as well as contact details for local engineers who are able to provide services for more advanced repairs if necessary. The details of the implementation are reported in greater detail in Cocciolo et al. (2019b).

7 CDD program and value of participation

One important open debate among both policy-makers and researchers concerns whether the exposure to democratic or inclusive institutions can lead to sustainable institutional changes. A prerequisite for sustainable institutional change is that citizens prefer the new institutions to the old ones. In this section, I provide evidence of this mechanism by combining my experimental measure of citizens' value of participatory practices (Section 5) with a random shock to local institutions via a CDD program (Section 6). The lab-in-the-field experiment design allows me to test the effect of experiencing inclusive institutions on how citizens value

[67] The program is randomized at "Treatment Unit" level. Treatment Units are communities of 50-250 households. Treatment Units are defined using administrative household lists at the village level. Villages with less than 50 households are excluded from the study, and larger villages are divided into several smaller Treatment Units along pre-existing geographic boundaries. I refer to "communities" or "Treatment units" interchangeably.

them, as well as explaining whether the main effect is driven by changes in the instrumental value or the intrinsic value of inclusive institutions.

The effect of the CDD program is estimated using the following specification:

$$y_{igc} = \alpha + \beta T_c + \eta d_c + \epsilon_{igc} \tag{3}$$

where y_{igc} is the outcome of interest of player i in group g and community c, T_c indicates whether community c received the CDD program or not, d_c are Union fixed effects and standard errors are clustered at the community level.[68] The estimation strategy relies on the random assignment of the CDD program, and therefore I do not include **any** controls in the main specification. In one of the robustness checks (Table B.3), I show that the magnitude and significance of the main treatment effect are not affected by this choice. Because the actual exposure to the treatment depends on the community decision on whether to receive the CDD program and individual and household decisions about involvement in its implementation (e.g. participation in the community meeting(s) and contribution to the installation costs/work), β provides the intention-to-treat effect.

7.1 Main treatment effect

The main finding of the paper is that previous experience of inclusive institutions via the CDD intervention significantly increases the value that subjects attach to participatory decision-making (Table 5). This effect represents an increase of 3 percentage points of the WTP for participation relative to the median expected outcome from the future group task, and an increase of 1 percentage point of the WTP for participation relative to the average Bangladesh rural daily wage.[69] The main effect is driven by a 9 percentage point increase in the share of participants that choose the participatory process under any offered price condition (up to 8% of the rural Bangladeshi daily wage).

Next, I make use of the belief elicitation in order to calculate the instrumental value of participatory decision-making as the difference in expected outcomes from the participatory decision-making option and the "assigned distribution" alternative. I apply Equation 2 and calculate the intrinsic value of participatory decision-making as the difference between the WTP of participation and its instrumental value. The CDD program has a positive effect on the value of participation, despite a negative effect on its instrumental value (Table 6). Agents in treated communities have less optimistic expectations of the benefits from participatory

[68] Following the pre-analysis plan, the regressions, unless specified, are estimated pooling together the data from the "Redistribution task" and the "Contribution task".

[69] The estimated effect doubles if I take into account that the WTP variable is censored both from above and below at 5/-5 tokens (column (2)).

decision-making: experiencing the CDD program leads to a lower share of players that expect to gain from participating in decision-making and an increase in the share of players that expect to receive the same monetary outcome from the participatory decision-making option and the "assigned distribution" alternative (Figure 6). The main treatment effect is driven by an increase in the intrinsic value of participatory practices, above and beyond instrumental considerations (Table 6). In treated communities, fewer agents have a negative intrinsic value of participatory decision-making, with a correspondingly larger share of those with a positive intrinsic value (Figure 7).[70]

Despite CDD programs often being promoted as a way of empowering the more marginalized groups (e.g. women, non-elites, the poorer) in society, I do not find that the main treatment effects vary significantly across socio-economic groups (Table A.8). It should be noted, though, that my study is under-powered to detect these heterogeneous effects. One alternative explanation might be that the implementation of CDD interventions necessarily interacts with the existing social structure in receiving communities. For example, in the context of the CDD program studied in this paper and carried out in rural Bangladesh, despite a strong commitment to guarantee equal voice and decision rights to all community members, women rarely played an active role in the discussion and the decision-making process was often polarized by a few influential persons. These dynamics might explain why the treatment effect is not significantly larger for those social groups that, in the absence of the program, would be less involved in community decision-making.

7.2 Mechanisms

The exposure to inclusive institutions can affect how citizens value them via three channels: it might lead to efficiency gains for future public consultations with similar characteristics; it might induce citizens to update their beliefs about the benefits and costs of these types of institutional arrangements; or it might generate a taste for inclusive practices. In this section, I provide evidence on each of these channels.

Efficiency

I investigate the efficiency channel by using the experimental data on the discussion dynamics and the decision outcomes from the group negotiation tasks completed during the lab-in-the-field experiment (Table 7). The negotiation stage delivers the same outcomes in treated and control communities, for instance in terms of inequality in the final outcome distribution or the total contributions raised in a public good game ("Contribution task").

[70] In Tables A.6 and A.7, I test these distributional shifts within a regression framework.

The average bargaining time is also not significantly different for groups previously exposed to the CDD program. However, the risk of conflicts is significantly lower in communities that received the CDD program.[71] Because project staff plays an important mediation role during the community meetings, one interpretation of this effect is that the exposure to the CDD program provided communities with new tools to avoid or solve conflicts and tensions during public debates.[72] Consistent with these results, experiencing the CDD program might lead to an increase in the intrinsic value of participatory decision-making via a reduction in the social costs and psychological efforts associated with a face-to-face group deliberation.

Beliefs updating

Previous experience of inclusive institutions via the CDD program might lead to beliefs updating about the benefits and costs of these types of institutional arrangements. During the lab-in-the-field **experiment,** I elicit beliefs about the expected outcome from participation and non-participation in group decision-making, and therefore I can provide direct evidence on this channel. I find that players in treated communities associate participatory practices with a lower instrumental value (Table 6). This effect is entirely driven by a lower expected outcome from participating in group deliberations, which can be explained by lower self-perceived negotiation skills in treated communities (Table 8). Experiencing inclusive institutions via the CDD program might induce agents in treated communities to adjust their beliefs about their ability to influence the decision-making process and shift community decisions in their favor. Indeed, suggestive evidence indicates that players in treated communities are less likely to overestimate their monetary outcome from participating in the last negotiation task, and more likely to predict it correctly (Table 9). This effect is specific to the beliefs about the own monetary outcome from participatory decision-making: exposure to the CDD program does not affect the probability of correctly predicting the monetary outcome from the non-participatory option (Table A.10).

Preferences

The third channel is the hardest to test, because I cannot directly observe preferences. I provide suggestive evidence on this channel by exploring how the main treatment effect varies

[71] The variable "Tense bargaining" is based on enumerators' observations during the group negotiation tasks. Table A.9 validates this measure, showing that it positively correlates with features of the negotiation tasks that indicate a more intense bargaining dynamics, such as bargaining time and inequality in the final distribution of experimental tokens.

[72] The CDD program can be interpreted as a short training on dispute resolutions. Hartman et al. (2018) evaluate the impact of a campaign to promote alternative dispute resolution (ADR) practices, and find that it reduces the hostilities and the violence associated with local disputes, but not the incidence of disputes. Because of data limitations, I cannot further elucidate whether the risk of conflicts decreases in response to the CDD program because less disputes arise or because disputes are less likely to escalate.

with the characteristics of the CDD program.[73] I find that the effect of the CDD program on the value of participation does not vary with the quality of community decisions or the welfare impact of the intervention. Moreover, it is not larger in communities with a poorer baseline water quality and therefore most in need of the intervention (Table 10), and it does not vary with the randomly assigned implementation rules (Table A.11), despite these being associated with different success rates (Cocciolo et al., 2019a). The main treatment effect is not larger in communities where the chosen sites for tubewell installation provide the largest possible welfare improvement, nor for households that benefited the most from the CDD program in terms of access to safe water (Table 11).

Experiencing inclusive institutions via the CDD program seems to change the value of participatory decision-making because agents learn about the intrinsic qualities of these types of institutional arrangements. For instance, the CDD program has a larger effect on the value of participatory decision-making in smaller communities (Table A.12), where the community meetings are more inclusive and actively participated (Cocciolo et al., 2019c).[74] In line with this result, it is not attendance per se that drives the main treatment effect, but rather active participation of the community in the decision-making process, for example in terms of the number of sites for tubewell installations discussed during the community meeting or the share of households that raised their voice during the debate (Table 12).

Finally, in Table A.13, I address possible concerns that the effect of the CDD program on the value of participatory decision-making might pick up effects on other social values and preferences. Because I do not detect any effect of the CDD program on other social values and attitudes – such as trust towards others, fairness attitudes, generosity, or distributional preferences – the available evidence supports the interpretation of the results that I advance in this paper.[75]

Intrinsic motives

The evidence presented in this section indicates that the effect of the CDD program on

[73] Community characteristics – such as democratic values, cooperation attitudes, and the ability of collective actions – may themselves influence the outcomes of the CDD program. Therefore, these results should be taken as suggestive and exploratory.

[74] Cocciolo et al. (2019c) exploit a project rule that generates an exogenous variation in the size of communities that receive the arsenic-mitigation program. In order to implement the CDD program in communities of a manageable size, administrative units smaller than 250 households are treated as one treatment unit, and administrative units larger than 250 households as two treatment units, and so on and so forth at other thresholds which are multiples of 250. Critically, by design, the number of households per offered tubewell varies smoothly across thresholds. Cocciolo et al. (2019c) show that the distribution of administrative units is smooth across all thresholds, and that the predicted treatment unit size, conditional on a smooth function of administrative unit size, does not systematically predict any important baseline characteristics.

[75] Inequality preferences are elicited via an incentivized task where external spectators take distributive choices for other groups in their community (Ghisolfi, 2019).

the value of participation is not driven by improvements in or learning about the decision outcomes of inclusive institutions. Two possible explanations remain. One is that the main treatment effect is driven by a reduction of the social costs and psychological efforts associated with taking part in face-to-face deliberations. The other is that, in line with classical economic models of habit formation in consumption, experiencing a CDD program generates a taste for inclusive practices, for example by reinforcing preferences for autonomy or the legitimacy of decision outcomes when taken via a participatory process. Consistently with both explanations, previous exposure to inclusive institutions increases the value associated with participatory practices because of intrinsic motives: via a reduction of the non-monetary costs associated with participatory practices (e.g. conflicts) or because of learning about their intrinsic qualities.

7.3 Robustness checks

In Appendix B, I show that the main results are robust to several robustness checks. First, I verify that the main findings are robust to the non-random sample selection of communities in the lab-in-the-field experiment. The first concern is related to the initial exclusion from the optimal sample of communities where the CDD program failed endogenously,[76] and their ex-post inclusion in the sample obtained via the optimization procedure described in Section 3.1 and Appendix C. Both excluding or including the communities where the project failed endogenously from the optimal sample would bias the results, most likely in opposite directions. In my preferred specifications, I use the full sample with weights that take into account the ex-ante probability of each community being selected in the optimal sample.[77] In Table B.1, I compare the main estimates with two natural robustness checks, including (without weights) and excluding from the final sample the four communities where the CDD project failed endogenously and which were originally considered not eligible for the lab-in-the-field experiment. As expected, the main coefficient of interest is downward biased when these communities are included in the sample without the weight correction. In these cases, the implementation of the CDD program was problematic, it raised problems and conflicts in the

[76] Originally, I considered four communities where the project failed endogenously as ineligible for this project: (i) one where the community was not interested in holding the meeting; (ii) two where the community did not reach an agreement during the community meetings; (iii) one where the installation failed for one tubewell and cash contributions failed for the other tubewell. I excluded TUs where the project "failed endogenously" because at that stage, in agreement with the field team, I considered it unfeasible to conduct the lab-in-the-field experiment in communities where the project failed due to tensions and disagreements within the community or lack of interest in the CDD program. Although aware of the fact that this selection might bias our estimates, this choice was imposed by feasibility constraints.

[77] In order to derive the weights, I repeat the optimization procedure 1,000 times on the full sample of communities in the CDD program, and I calculate the probability of each community being included in the optimal sample.

community and ultimately, we failed to deliver the intervention. Therefore, it is reasonable to expect targeted beneficiaries living in these communities to be skeptical about participatory decision-making approaches, as they mostly experienced the costs but not the benefits potentially associated with them. Similarly, I estimate a larger treatment effect when I exclude these communities where the CDD program failed endogenously from the final sample. These differences are marginal and go in the expected directions, thus supporting the choice of using weighted regressions as preferred specifications.

The second concern relates to the exclusion of communities where we were not able to deliver the CDD intervention due to hydro-geological constraints in Deuli Union. Installation failures are unlikely to be correlated with our main outcome variables, or with the CDD treatment assignment, which is random by design. However, they are a function of geography: treated communities where installations failed due to hydro-geological constraints are mainly concentrated on the South-Eastern side of Deuli Union. As a result, control and treated communities selected for the lab-in-the-field experiment are not equally distributed in the area: treated communities are mainly from the North-Western side of Deuli Union, while control communities are homogeneously spread in the area. In Table B.1, I compare the results from my preferred specification with the estimates obtained by excluding Deuli Union, the only strata where we experienced issues in the implementation of the project due to hydro-geological factors. The main findings are robust to the exclusion of this strata and, if anything, the results are stronger and more significant.

The third concern arises from the optimization procedure adopted in order to identify the sample of communities in which to implement the lab-in-the-field experiment, described in detail in Section 3.1 and Appendix C. The main rationale for this non-random sample selection is small sample bias reduction, a valid concern posed by the sample size consisting of less than one hundred communities. In order to correct inference, I obtain boostrapped standard errors by implementing a two-step bootstrapping procedure that replicates the optimization procedure for sample selection (Appendix C). I obtain B=350 "optimal bootstrapped samples", which I use to obtain bootstrapped standard errors of the main coefficient of interest. Each "optimal bootstrapped sample" is obtained from K=1,000 samples, bootstrapped at the community level by Union and treatment status, by selecting the sample with the highest pvalue from the F-test on the balance of pre-intervention observables between treated and control villages. As the bootstrapped standard errors for the main coefficient of interest are smaller (Table B.2), in my preferred specification and main analysis, I report the most conservative specification with unadjusted standard errors.

Finally, Table B.3 confirms that the coefficient of interest is robust to the inclusion of different sets of controls, including optimal sets of controls as identified by Lasso algorithms:

both the magnitude and the significance of the main coefficient of interest show minimal variations when controls are included in the main specification.

8 Conclusions

In this paper, I evaluate the impact of experiencing democratic and inclusive institutions through a CDD program on the value that citizens attribute to them. Specifically, I focus on a novel measure of procedural utility measured in a controlled setting: the value that citizens place on taking collective decisions via a participatory process.

The majority of citizens (weakly) prefer taking common decisions via democratic and inclusive institutions. However, participation in the decision-making process is selected, with women and the elderly being less likely to engage in public consultations while leaders and more educated agents place a higher value on participation. Preferences are driven by instrumental and non-instrumental considerations, and are influenced by the outcomes and the quality of similar decision-making processes already experienced by agents.

The value of participatory decision-making increases with exposure to the CDD program. The overall effect is primarily driven by an increase in the intrinsic value of participation in response to the CDD program, as subjects in treated communities have lower expectations of the instrumental gains of participation. This suggests that the exposure to participatory governance has an impact on the value that citizens attach to inclusive decision-making practices per se, above and beyond instrumental considerations.

A remaining open question is whether my results will extend outside the lab-in-the-field experiment setting, to contexts where participatory decision-making is applied to real-world community decisions and real-world alternative decision-making processes, such as a Top-Down approach or pre-existing informal local institutions. In a companion project conducted in the same Bangladeshi communities (Cocciolo et al., 2019d), we address these considerations by eliciting truthful individual evaluations for different types of institutional arrangements with respect to the future implementation of an intervention to provide a local public good.[78] This companion project will give new insights into citizens' evaluations

[78] We offer communities the possibility to participate in a future development program to install a new communal source of safe drinking water. We offer participants the possibility to choose, under different subsidy levels, between three alternative decision-making processes: (i) a top-down approach, where project staff takes key decisions; (ii) an unregulated community participation process, where communities take decisions under their own local institutions; and (iii) a consensus-based community participation process, where project decisions are taken by unanimous consensus during community meetings in the presence of project staff, under the same rules as the CDD program implemented by Cocciolo et al. (2019a). We incentivize the elicitation procedure by randomly selecting a subset of communities to truly receive the future project, and defining the implementation rules by taking into account respondents' answers in the WTP elicitation procedure (majority rule). Because each community has a positive probability of receiving the possibility

of different institutional arrangements and the impact of past exposure to participatory governance in a real-world setting.

The evidence presented in this paper complements the results by Fearon et al. (2015), Beath et al. (2013) and Casey et al. (2018) that stress that, even in case new inclusive and effective institutions are available to communities, it remains unclear whether and under which conditions they will choose to make use of them endogenously instead of relying on traditional pre-existing institutions. A prerequisite for the endogenous adoption of the newly created institutions is that citizens prefer them to the old institutional arrangement: because they like them intrinsically, because they think they work better, or both (Casey, 2018). In my paper, I provide evidence on the existence of this channel. Are these changes in citizens' value of inclusive institutions and participation sufficient in order to induce changes in individual participation choices and, ultimately, on local governance? In line with the existing literature, preliminary results suggest that this is not the case in the context of this study (Table 13).

Why are institutions persistent despite the fact that individual preferences and values do respond to exogenous shocks, such as the exposure to democratic and inclusive decision-making processes? One possible explanation is that, while experiencing inclusive institutions increases the value that citizens attach per se to being involved in decision-making, it also induces more realistic expectations of the personal benefits of participation, with an ambiguous effect on the overall demand for institutional reforms. An alternative explanation is that the exposure to democratic and inclusive institutions can change citizens' value of participatory practices, but these changes fail to translate into realized institutional reforms because institutions are persistent and constrained by the existing social and political structures within a society. This explanation would have significant policy implications, as it would suggest that interventions aimed at fostering institutional development should focus on relaxing any such potential constraints. These questions are beyond the scope of this paper, but they create important avenues for future work.

to install the new safe water source, respondents should truthfully report their preferences, as long as they believe that there is a non-zero probability that their preferences influence the final decision.

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Figures

Figure 1: Timeline of the experiment

- **Task 1** ("Contribution task" or "Redistribution task")
- **WTP elicitation** w.r.t. to Task 1:
  - Elicitation of WTP for participatory decision-making
  - Beliefs elicitation
- **Task 2** ("Contribution task" or "Redistribution task")
- **WTP elicitation** w.r.t. to Task 1:
  - Elicitation of WTP for participatory decision-making
  - Beliefs elicitation
- **Task 3** according to the decision taken during the WTP elicitation

Figure 2: Distribution of WTP for participatory decision-making

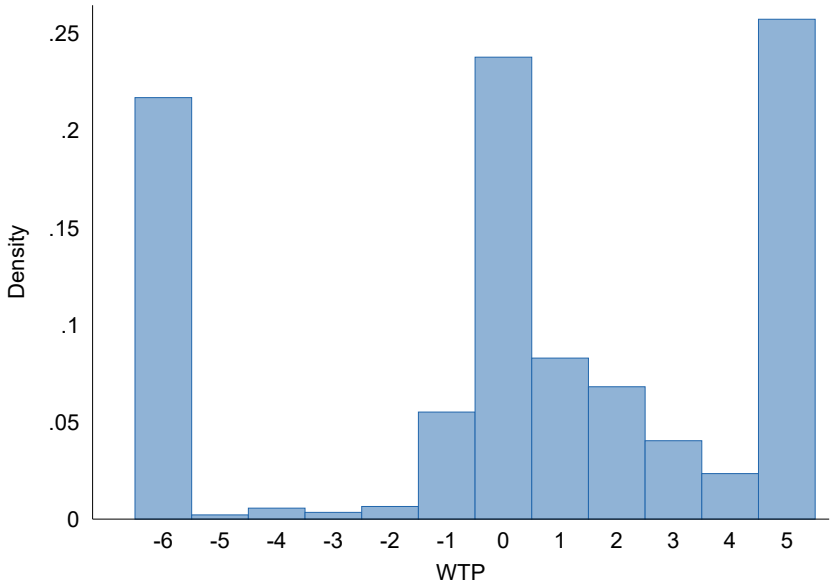
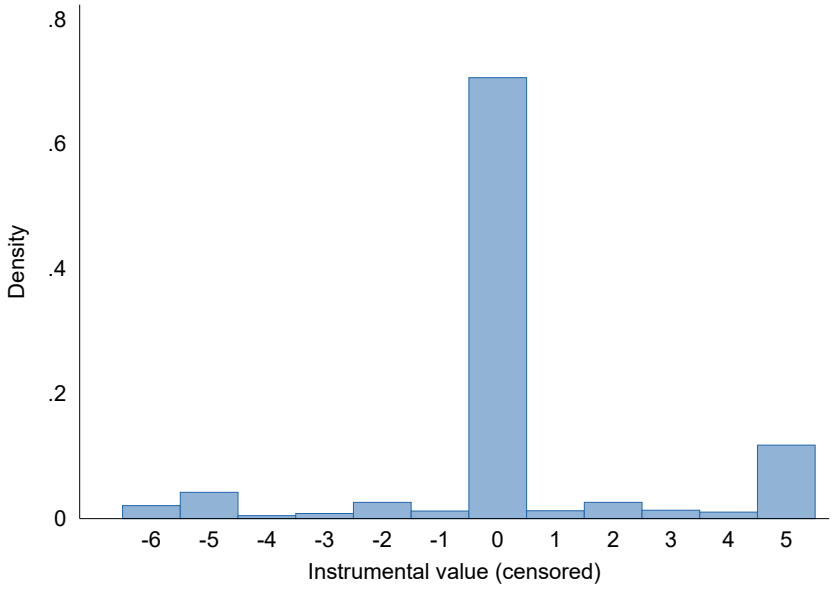
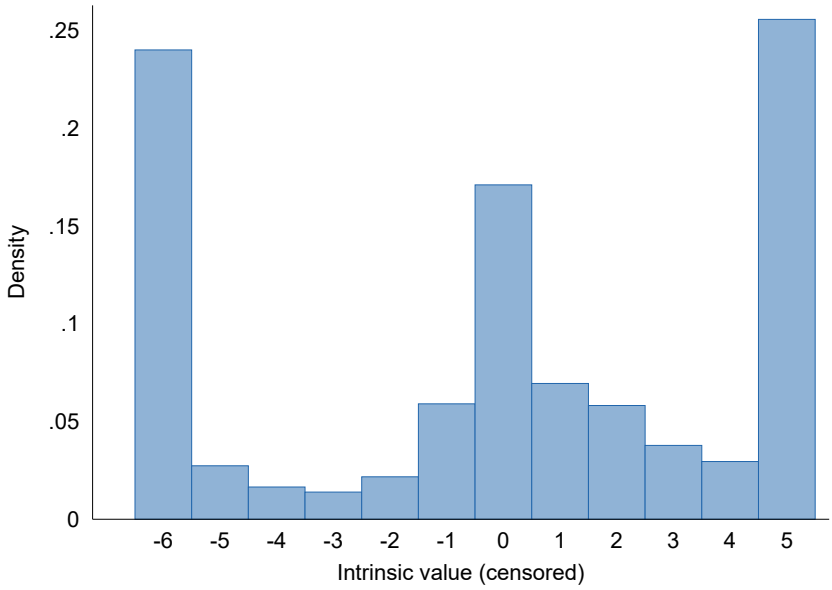


Figure 3: Instrumental value of participatory decision-making



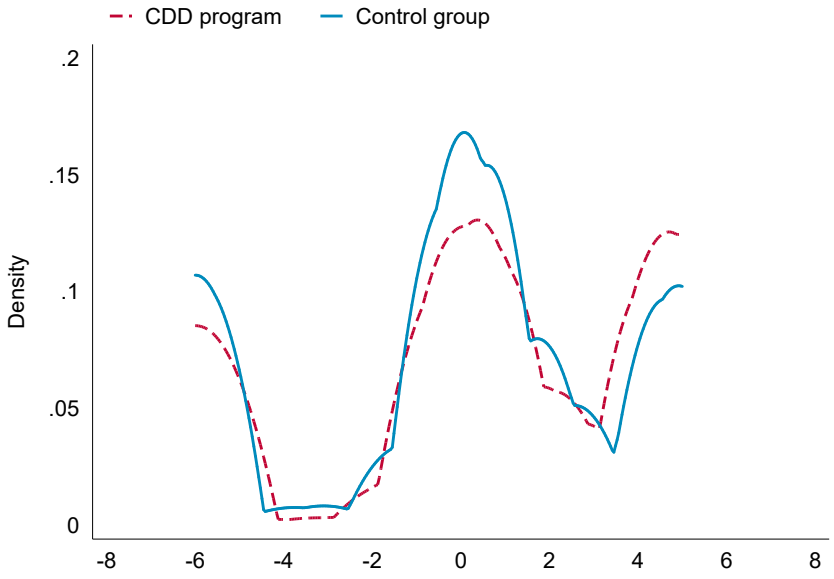
Notes: Instrumental value = difference between the expected monetary outcome from participatory decision-making and the expected monetary outcome from the assigned-distribution alternative.

Figure 4: Intrinsic value of participatory decision-making



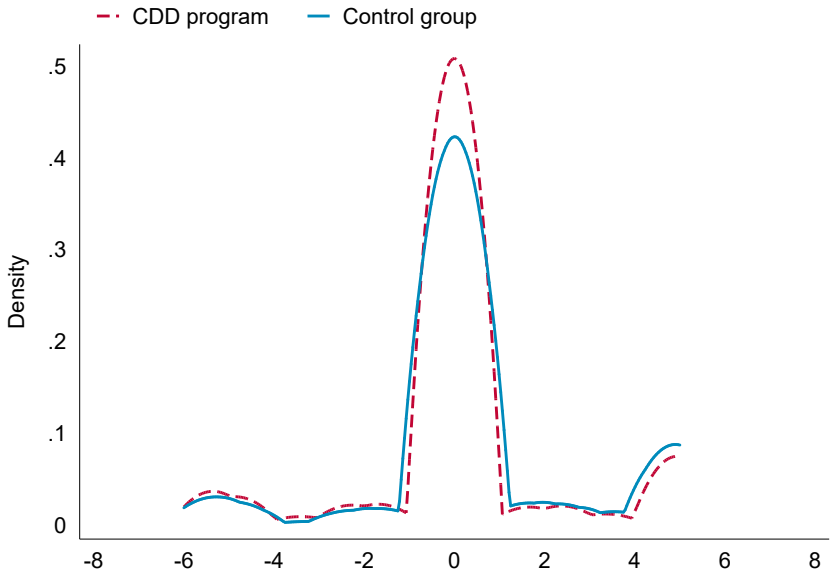
Notes: Intrinsic value = difference between the WTP measure and the instrumental value measure.

Figure 5: Willingness to pay for participatory decision-making



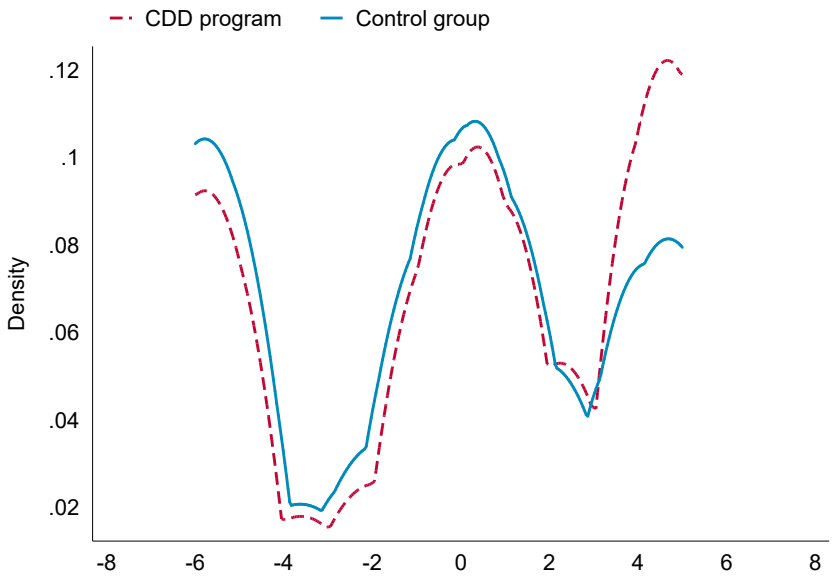
Notes: Kernel density (Epanechnikov kernel). Pvalue from KolmogorovâĂŞSmirnov test of the equality of distributions = 0.000.

Figure 6: Instrumental value of participatory decision-making



Notes: Kernel density (Epanechnikov kernel). Instrumental value = difference between the expected monetary outcome from participatory decision-making and the expected monetary outcome from the assigned-distribution alternative. Pvalue from Kolmogorov-Smirnov test of the equality of distributions = 0.113.

Figure 7: Intrinsic value of participatory decision-making



Notes: Kernel density (Epanechnikov kernel). Intrinsic value = difference between the WTP measure and the Instrumental value measure. Pvalue from KolmogorovâĂŞSmirnov test of the equality of distributions = 0.000.

Tables

Table 1: Price list for the elicitation procedure

Option 1	Option 2
Participatory decision-making	Assigned distribution
Participatory decision-making - 1	Assigned distribution
Participatory decision-making - 2	Assigned distribution
Participatory decision-making - 3	Assigned distribution
Participatory decision-making - 4	Assigned distribution
Participatory decision-making - 5	Assigned distribution
Participatory decision-making + 1	Assigned distribution
Participatory decision-making + 2	Assigned distribution
Participatory decision-making + 3	Assigned distribution
Participatory decision-making + 4	Assigned distribution
Participatory decision-making + 5	Assigned distribution

Table 2: Sample balance - participants

	Control group Mean (s.e.)	Treated group Mean (s.e.)	pvalue	Observations
Bacteria contaminated household	0.59 (0.03)	0.52 (0.03)	0.06	3448
Arsenic contaminated household	21.89 (7.01)	25.41 (7.27)	0.33	3466
Poverty score - 2 USD	0.76 (0.03)	0.76 (0.02)	0.74	3445
Indegree centrality	1.12 (0.14)	1.13 (0.16)	0.98	3671
Outdegree centrality	2.67 (0.18)	2.81 (0.17)	0.14	3467
Leader household	0.10 (0.01)	0.09 (0.01)	0.51	3671
Share of not educated people in the household	0.40 (0.03)	0.43 (0.02)	0.28	3469
Literacy rate in the household	0.48 (0.03)	0.48 (0.02)	0.88	3460
Household size	3.71 (0.14)	3.71 (0.15)	0.94	3469
Muslim household	0.99 (0.02)	0.97 (0.02)	0.66	3469
Decision on a new public safe water source - unanimity	0.75 (0.06)	0.69 (0.05)	0.02	3469
Decision on a new public safe water source - majority	0.28 (0.04)	0.31 (0.04)	0.27	3469
Decision on a new public safe water source - government	0.06 (0.02)	0.07 (0.02)	0.60	3469
Decision on a new public safe water source - village leaders	0.23 (0.07)	0.30 (0.06)	0.12	3469
Decision on a new public save water source - NGO	0.28 (0.09)	0.34 (0.09)	0.17	3469
WTP (cash) for new public safe WS in most preferred location	249.15 (58.33)	261.18 (49.71)	0.70	3469
WTP (cash) for new public safe WS in socially optimal location	82.20 (13.63)	86.46 (12.40)	0.70	3469
WTP (time) for new public safe WS in most preferred location	9.24 (1.65)	8.94 (1.84)	0.73	3469

Notes: Analysis pre-specified and conducted on the final sample of players participating in the experimental session. Standard errors clustered at the community level. Pvalues from pairwise tests of the difference between the means in the treated and the control group, from a regression of the outcome variable on the treatment status, controlling for Union FE. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Variable definition: "Poverty score" = Progress out of Poverty Index, which uses household characteristics and asset ownership in order to compute the likelihood that the household is living below the $2 (PPP) poverty line; "Indegree centrality" = number of interviewed households that listed household h as part of their network; "Outdegree centrality" = number of households that household h reported as part of its network.

Table 3: Correlations with previous experience with experimental tasks

	WTP	WTP≥0	Always participate	Instrumental value	Expected outcome participation	Expected outcome non participation	Intrinsic value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Outcome in previous round	0.08**	0.01***	0.00	0.16***	0.20***	0.04	-0.08*
	(0.03)	(0.00)	(0.00)	(0.04)	(0.05)	(0.03)	(0.05)
Inequality in previous round	0.67	0.00	0.07	1.25**	2.08***	0.83	-0.59
	(0.59)	(0.07)	(0.06)	(0.51)	(0.73)	(0.61)	(0.72)
Bargaining time (mins)	-0.03	-0.00	-0.00	0.13**	0.19***	0.06*	-0.16**
	(0.04)	(0.00)	(0.00)	(0.05)	(0.05)	(0.04)	(0.06)
Tense bargaining	0.02	-0.01	0.00	0.06	0.70***	0.64***	-0.04
	(0.19)	(0.02)	(0.03)	(0.16)	(0.20)	(0.17)	(0.24)
Pre-specified							
N	2302	2302	2302	2302	2302	2302	2302

Notes: Standard errors clustered at the community level. Union FE and enumerator FE are included in all regressions. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Variable definition: "Outcome in previous round" = Number of experimental tokens obtained by the player; "Inequality in previous round" = Ratio of min and max outcome within the same group; "Tense bargaining" = enumerator reported the bargaining to be tense or very tense.

Table 4: Correlations with demographic characteristics

	WTP	WTP≥0	Always participate	Instrumental value	Expected outcome participation	Expected outcome non participation	Intrinsic value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Secondary education	0.08	0.03	-0.01	0.38	0.22	-0.16	-0.30
	(0.23)	(0.02)	(0.03)	(0.23)	(0.23)	(0.21)	(0.31)
Age	-0.03***	-0.00**	-0.00**	0.00	0.00	-0.00	-0.03***
	(0.01)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)
Poverty score	0.61	0.04	0.12**	0.35	0.29	-0.05	0.27
	(0.56)	(0.07)	(0.06)	(0.47)	(0.43)	(0.42)	(0.66)
Female	-0.18	0.01	-0.05**	-0.19	0.25	0.44***	0.01
	(0.19)	(0.02)	(0.02)	(0.18)	(0.19)	(0.15)	(0.27)
Leader household	0.56*	0.06*	0.03	0.17	0.92***	0.75***	0.39
	(0.30)	(0.03)	(0.03)	(0.27)	(0.27)	(0.22)	(0.39)
Indegree centrality	0.03	0.00	0.01	0.04	0.01	-0.04	-0.01
	(0.10)	(0.01)	(0.01)	(0.08)	(0.10)	(0.07)	(0.12)
Outdegree centrality	-0.03	0.00	0.00	0.07	0.01	-0.06	-0.09
	(0.12)	(0.02)	(0.01)	(0.11)	(0.12)	(0.11)	(0.15)
Pre-specified							
N	2090	2090	2090	2090	2090	2090	2090

Notes: Standard errors clustered at the community level. Union FE and enumerator FE are included in all regressions. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Variable definition: "Poverty score" = Progress out of Poverty Index, which uses household characteristics and asset ownership in order to compute the likelihood that the household is living below the $2 (PPP) poverty line; "Indegree centrality" = number of interviewed households that listed household h as part of their network; "Outdegree centrality" = number of households that household h reported as part of its network.

Table 5: Main treatment effect

	WTP		WTP relative to endowment	WTP<0	WTP>0	Always participate
	(1)	(2)	(3)	(4)	(5)	(6)
CDD program	0.54**	1.05**	0.07**	-0.04	0.06*	0.09***
	(0.25)	(0.48)	(0.03)	(0.03)	(0.03)	(0.03)
Mean (control)	-0.02	-0.02	-0.01	0.32	0.44	0.20
Pre-specified	✓					
ML for censored data		✓				
N	2304	2304	2304	2304	2304	2304

Notes: Standard errors clustered at the community level. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Variable definition: "WTP relative to endowment" = WTP relative to the initial number of experimental tokens randomly assigned to players for the future group negotiation task; "Always participate" = dummy for players that choose participatory decision-making under any price condition offered in the WTP elicitation.

Table 6: Treatment effect on the instrumental and intrinsic value of participatory decision-making

	WTP	Instrumental value	Intrinsic value
	(1)	(2)	(3)
CDD program	0.54**	-0.56***	1.09***
	(0.25)	(0.21)	(0.29)
Mean (control)	-0.02	1.02	-1.04
Pre-specified	✓	✓	✓
N	2304	2304	2304

Notes: Standard errors clustered at the community level. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Variable definition: "Instrumental value" = difference between the expected monetary outcome from participatory decision-making and the expected monetary outcome from the assigned-distribution alternative; "Intrinsic value" = difference between the WTP measure and the instrumental value measure.

Table 7: Treatment effect on the dynamics and outcomes of participatory decision-making

	Realized inequality	Total contributions	Bargaining time	Tense bargaining
	(1)	(2)	(3)	(4)
CDD program	0.01	-0.87	-0.19	-0.05*
	(0.01)	(0.62)	(7.14)	(0.02)
Mean (control)	0.12	24.23	104.94	0.35
Contribution task only		✓		
Pre-specified	✓	✓	✓	✓
N	2302	1152	2304	2304

Notes: Standard errors clustered at the community level. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Variable definition: "Realized inequality" = Ratio of min and max outcome within the same group; "Total contributions" = sum of tokens contributed for the creation of a common pool of resources in the Contribution task; "Tense bargaining" = enumerator reported the bargaining to be tense or very tense.

Table 8: Treatment effect on beliefs and expectations

	Expected outcome from participating	Expected outcome from not participating	Expect to be influential	Negotiation skills
	(1)	(2)	(3)	(4)
CDD program	-0.70**	-0.15	-0.02	-0.06**
	(0.30)	(0.22)	(0.02)	(0.02)
Mean (control)	22.20	21.18	0.12	0.85
Pre-specified				✓
N	2304	2304	2304	1074

Notes: Standard errors clustered at the community level. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Union FE included in all regressions. Variable definition: "Expect to be influential" = player expect to be very much influential if the group negotiation task in the last stage of the experiment is completed via the participatory decision-making process; "Negotiation skills" = agree to be very good at negotiating with other people.

Table 9: Treatment effect on correct beliefs about participation outcomes

	Underestimate participation outcome	Correct beliefs	Overestimate participation outcome
	(1)	(2)	(3)
CDD program	-0.01	0.10**	-0.09*
	(0.03)	(0.05)	(0.05)
Mean (control)	0.10	0.49	0.41
Pre-specified			
N	653	653	653

Notes: Standard errors clustered at the community level. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Union FE included in all regressions. Regressions estimated on the endogenous sample of players that completed the negotiation task in the last stage of the experimental session.

Table 10: Treatment effect by baseline water quality

Dependent variable: WTP	(1)	(2)	(3)	(4)	(5)
CDD program	0.54**	0.60	0.54*	0.55**	0.53**
	(0.25)	(0.47)	(0.29)	(0.26)	(0.25)
CDD program * Bacteria contaminated HH		-0.22			
		(0.57)			
CDD program * Arsenic contaminated HH (BD)			-0.04		
			(0.57)		
CDD program * % Bacteria contaminated WSs				-0.59	
				(2.11)	
CDD program * % Arsenic contaminated WSs (BD)					-0.02
					(1.38)
Pre-specified	✓				
N	2304	2132	2148	2304	2304

Notes: Standard errors clustered at the community level. Union FE are included in all regressions. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Variable definition: "Bacteria contaminated HH" = dummy for households whose drinking water is tested to be bacteria contaminated; "Arsenic contaminated HH (BD)" = dummy for households whose drinking water is tested to be arsenic contaminated according to Bangladeshi standard (arsenic concentration ≥ 50 ppb); "% Bacteria contaminated WSs" = share of bacteria contaminated water sources in the community (demeaned); "% Arsenic contaminated WSs (BD)" = share of arsenic contaminated water sources according to Bangladeshi standard (arsenic concentration ≥ 50 ppb) in the community (demeaned).

Table 11: Treatment effect by community decisions and household benefits from the program

Dependent variable: WTP	(1)	(2)	(3)	(4)
Any accepted site on private land	0.208			
	(0.499)			
Distance accepted sites-optimal locations		0.002***		
		(0.001)		
Distance HH-closest accepted site			0.000	0.001
			(0.001)	(0.001)
Distance HH-closest accepted site * Arsenic contaminated HH				-0.001
				(0.002)
Treated only	✓	✓	✓	✓
Pre-specified	✓*	✓*	✓*	✓*
N	1324	1324	1314	1314

Notes: Standard errors clustered at the community level. Union FE are included in all regressions. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Variable definition: "Any accepted site on private land" = dummy on whether the community decided to install at least one project tubewell on the land owned by a private household; "Distance accepted sites-optimal location" = average distance between sites agreed upon by the community and socially-optimal sites, as defined based on population density and baseline arsenic and bacteria contamination.

Table 12: Treatment effect by dynamics of community decision-making

Dependent variable: WTP	(1)	(2)	(3)	(4)
HH attendance	-4.65**			-4.69***
	(1.89)			(1.69)
Female attendance	2.15			2.19
	(1.66)			(1.63)
Active participation in meeting	9.24**			8.71*
	(4.43)			(4.36)
Meeting duration		0.00		0.00
		(0.01)		(0.01)
Discussed/offered TWs			0.43	0.27
			(0.27)	(0.24)
Treated only	✓	✓	✓	✓
Pre-specified	✓*	✓*	✓*	✓*
N	1464	1464	1464	1464

Notes: Standard errors clustered at the community level. Union FE are included in all regressions. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Variable definition: "HH attendance" = share of households that attended the community meeting; "Female attendance" = share of households with at least one female attendee at the community meeting; "Active participation in meeting" = share of households that actively participated in the debate during the community meeting.

Table 13: Treatment effect on real-world participation behavior

	Estimates	Observations
Involvement in community decision-making	0.02 (0.03)	2314
Attendance at village meetings	-0.01 (0.02)	2259
Participation in activities to influence policy	-0.02 (0.02)	2314
Meeting politicians	-0.02 (0.02)	2314
Participation in local collective actions	0.02 (0.02)	2192

Notes: Standard errors clustered at the community level. Union FE are included in all regressions. Regressions with the follow-up random sample in communities involved in the lab-in-the-field experiment. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Analysis not pre-specified.

Appendices

A Additional Figures and Tables

Figure A.1: Project timeline

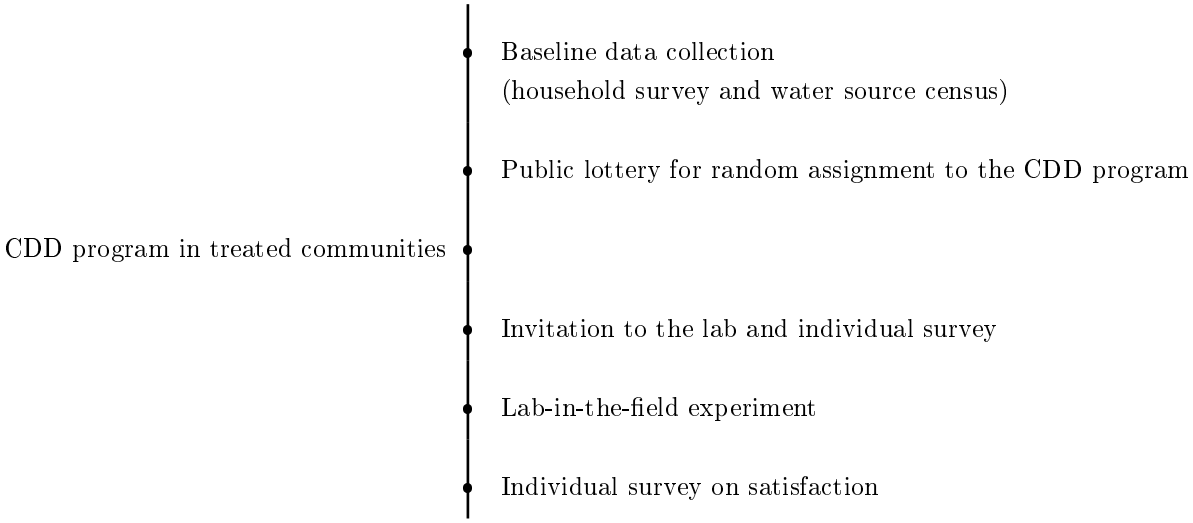


Figure A.2: Errors in beliefs about the monetary outcome from participation

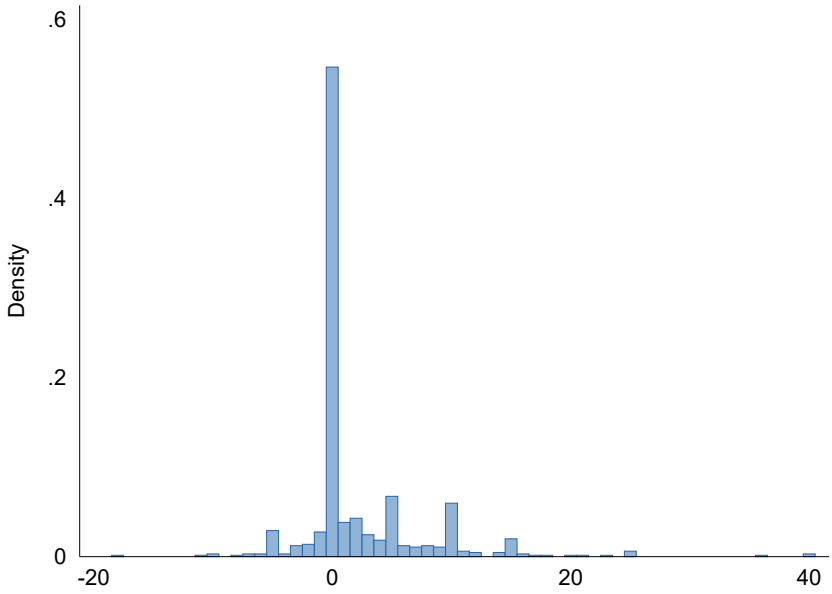


Figure A.3: Errors in beliefs about the monetary outcome from participation

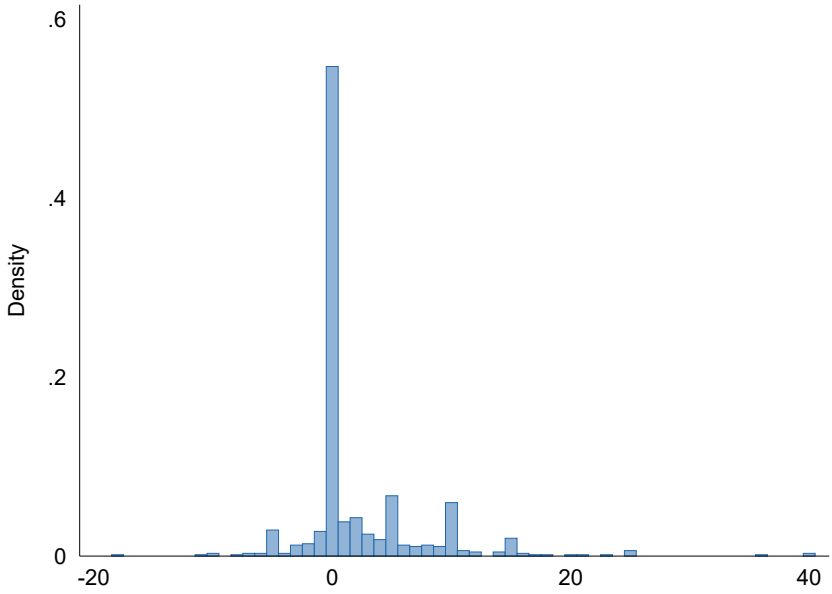


Figure A.4: Errors in beliefs about the monetary outcome from non-participation

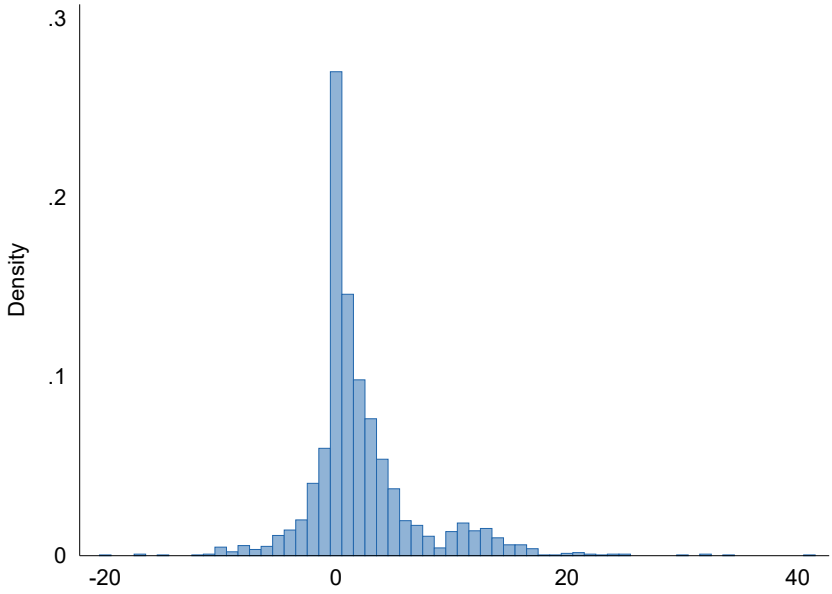


Table A.1: Sample stratification for players in the WTP elicitations

	Women	Men	Total
Total participants	576	576	1152
Participants from a leader household (planned)	145(192)	180(192)	325(384)

Table A.2: Time and errors of WTP elicitation

	Stage 1	Stage 2	Overall
Instructions on WTP elicitation			
Time supervisor (mins)	1.7	0.9	1.3
Time enumerators (mins)	1.6	1.0	1.3
WTP elicitation			
Time (mins)	1.9	0.9	1.4
Initial inconsistencies	0.18	0.15	0.17
Beliefs elicitation			
Time (mins)	1.4	0.8	1.1
Correlations			
WTP elicitation and instruction time	$+^{***}$	$+^{***}$	$+^{***}$
Inconsistencies and instruction time	$+^{**}$	$+$	$+^{**}$

Table A.3: Sample balance among final and prospective participants

Dependent variable: CDD program	(1)	(2)
Bacteria contaminated household	-0.06*	-0.06
Arsenic contaminated household	0.00	0.00
Poverty score - 2 USD	-0.02	-0.02
Indegree centrality	-0.01	-0.01
Outdegree centrality	0.02	0.03
Leader household	-0.04	-0.03
Share of not educated people in the household	0.12*	0.11
Literacy rate in the household	0.11*	0.10*
Household size	-0.00	-0.00
Muslim household	-0.06	-0.07
Decision on a new public safe water source - unanimity	-0.06	-0.04
Decision on a new public safe water source - majority	0.02	0.03
Decision on a new public safe water source - government	-0.01	-0.02
Decision on a new public safe water source - village leaders	0.03	0.02
Decision on a new public save water source - NGO	0.05	0.06
WTP (cash) for new public safe WS in most preferred location	0.00	0.00
WTP (cash) for new public safe WS in socially optimal location	0.00	0.00
WTP (time) for new public safe WS in most preferred location	-0.00	-0.00
F-test (pvalue)	0.181	0.131
Player sample	Final	Accepted
Pre-specified	✓	✓
N	3152	3358

Notes: Standard errors clustered at the community level. Union FE included in all regressions. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Variable definition: "Poverty score" = Progress out of Poverty Index, which uses household characteristics and asset ownership in order to compute the likelihood that the household is living below the $2 (PPP) poverty line; "Indegree centrality" = number of interviewed households that listed household h as part of their network; "Outdegree centrality" = number of households that household h reported as part of its network.

Table A.4: Attrition from the lab-in-the-field experiment

Dependent variable: Drop out	(1)	(2)	(3)	(4)
Treated	0.01	-0.01	0.01	-0.01
	(0.01)	(0.02)	(0.01)	(0.02)
Attrition rate	0.05	0.06	0.05	0.06
Controls			✓	✓
In WTP elicitation		✓		✓
Pre-specified	✓		✓	
N	3374	1127	3323	1105

Notes: "Drop out" identifies players who accepted to participate in the experimental session, but ultimately did not. "Attrition rate" is the equivalent share.

Table A.5: Correlations with values and attitudes

	WTP	WTP≥0	Always participate	Instrumental value	Expected outcome participation	Expected outcome non participation	Intrinsic value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Have a say	0.19	0.01	0.01	-0.30	-0.25	0.05	0.48
	(0.33)	(0.03)	(0.04)	(0.29)	(0.32)	(0.20)	(0.42)
Participation in meeting	0.29	0.01	0.02	0.11	0.28	0.18	0.19
	(0.32)	(0.03)	(0.03)	(0.31)	(0.34)	(0.29)	(0.45)
Perceived negotiation skills	-0.40	-0.01	-0.06*	0.37*	0.65***	0.28	-0.78**
	(0.30)	(0.04)	(0.03)	(0.21)	(0.25)	(0.20)	(0.33)
Trust	-0.37	-0.03	-0.02	0.26	-0.15	-0.42	-0.63*
	(0.30)	(0.03)	(0.03)	(0.32)	(0.40)	(0.27)	(0.37)
Risk aversion	0.34	0.03	0.01	-0.11	-0.09	0.03	0.45
	(0.29)	(0.03)	(0.04)	(0.29)	(0.29)	(0.23)	(0.41)
Fair contributions	-0.35	-0.02	-0.02	-0.16	0.01	0.16	-0.20
	(0.30)	(0.04)	(0.03)	(0.26)	(0.28)	(0.26)	(0.40)
Generosity	0.00	0.00	0.00	0.01	-0.00	-0.01*	-0.01
	(0.01)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)
Pre-specified							
N	2144	2144	2144	2144	2144	2144	2144

Notes: Standard errors clustered at the community level. Union FE and enumerator FE included in all regressions. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Variable definition: "Always participate" = player chooses participatory decision-making at any offered price condition; "Instrumental value" = difference between the expected monetary outcome from participatory decision-making and the one from the assigned-distribution alternative; "Intrinsic value" = difference between the WTP measure and the Instrumental value measure; "Have a say" = strongly agree that people should have a say about community decisions; "Participation in meeting" = strongly willing to participate in village meetings; "Trust" = strongly agree that most people can be trusted; "Risk aversion" = strongly agree to carefully try to avoid risks; "Negotiation skills" = agree to be a very good negotiator; "Fair contributions" = strongly agree that the richest people in the community should pay more for local public goods; "Generosity" = amount donated in dictator game (incentivized).

Table A.6: Distributional change in the instrumental value of participation

	Instrumental value	Instrumental value < 0	Instrumental value > 0	High instrumental value
	(1)	(2)	(3)	(4)
CDD program	-0.56***	0.02	-0.05***	-0.03**
	(0.21)	(0.02)	(0.02)	(0.02)
Mean (control)	1.02	0.10	0.21	0.14
Pre-specified				
N	2304	2304	2304	2304

Notes: Standard errors clustered at the community level. Union FE included in all regressions. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Variable definition: "Instrumental value" = difference between the expected monetary outcome from participatory decision-making and the expected monetary outcome from the assigned-distribution alternative; "High instrumental value" = dummy for participants that reported an instrumental value equal to or higher than 5 experimental tokens.

Table A.7: Distributional change in the intrinsic value of participation

	Intrinsic value	Intrinsic value < 0	Intrinsic value > 0	High intrinsic value
	(1)	(2)	(3)	(4)
CDD program	1.09***	-0.09***	0.08***	0.08***
	(0.29)	(0.03)	(0.03)	(0.03)
Mean (control)	-1.04	0.43	0.40	0.20
Pre-specified				
N	2304	2304	2304	2304

Notes: Standard errors clustered at the community level. Union FE included in all regressions. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Variable definition: "Intrinsic value" = difference between the WTP measure and the instrumental value measure; "High intrinsic value" = dummy for participants with an intrinsic value equal to or higher than 5 experimental tokens.

Table A.8: Heterogeneous treatment effects

	WTP				Always participate			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CDD program	0.42	0.38	0.37	0.64	0.10***	0.09**	0.09**	0.04
	(0.30)	(0.29)	(0.33)	(0.94)	(0.03)	(0.03)	(0.04)	(0.09)
CDD program * Female	0.23				-0.02			
	(0.40)				(0.04)			
CDD program * Leader HH		0.53				0.01		
		(0.47)				(0.06)		
CDD program * Indegree centrality			0.13				0.00	
			(0.17)				(0.02)	
CDD program * Poverty score				-0.20				0.06
				(1.22)				(0.12)
Pre-specified	✓	✓	✓	✓				
N	2304	2304	2304	2130	2304	2304	2304	2130

Notes: Standard errors clustered at the community level. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Variable definition: "Always participate" = dummy for players that choose participatory decision-making under any price condition offered in the WTP elicitation; "Indegree centrality" = number of interviewed households that listed household h as part of their network; "Poverty score" = Progress out of Poverty Index, which uses household characteristics and asset ownership in order to compute the likelihood that the household is living below the $2 (PPP) poverty line.

Table A.9: Tense bargaining

	Tense bargaining
	(1)
Bargaining time	0.00***
	(0.00)
Realized inequality	0.22***
	(0.06)
Inequality treatment	0.10***
	(0.02)
Redistribution task	-0.04*
	(0.02)
First task	0.00
	(0.02)
Pre-specified	
N	2302

Notes: Standard errors clustered at the community level. Union FE and enumerator FE included. Variable definition: "Tense bargaining" = enumerator reported the bargaining to be tense or very tense; "Realized inequality" = Ratio of min and max outcome within the same group.

Table A.10: Treatment effect on correct beliefs about non-participation outcomes

	Underestimate non-participation outcome	Correct beliefs	Overestimate non-participation outcome
	(1)	(2)	(3)
CDD program	-0.03	0.03	0.00
	(0.02)	(0.02)	(0.02)
Mean (control)	0.19	0.26	0.56
Pre-specified			
N	2302	2302	2302

Notes: Standard errors clustered at the community level. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Union FE included in all regressions.

Table A.11: Treatment effect by CDD program treatments

Dependent variable: WTP	(1)	(2)	(3)	(4)
CDD program	0.54**			
	(0.25)			
Cash TU		0.41		
		(0.34)		
Labour TU		0.85**		
		(0.39)		
Waiver TU		0.36		
		(0.36)		
No SMS reminder			0.50	
			(0.31)	
SMS reminder, TU info			0.80**	
			(0.40)	
SMS reminder, HH info			0.36	
			(0.45)	
Anchoring TU				0.64**
				(0.30)
Non-anchoring TU				0.42
				(0.35)
Pre-specified	✓	✓*	✓*	✓*
N	2304	2304	2304	2304

Notes: Standard errors clustered at the community level. Union FE included in all regressions. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection.

Table A.12: Treatment effect by community size

Dependent variable: WTP	(1)	(2)	(3)	(4)
CDD program	0.54**	0.47*	0.51**	0.44
	(0.25)	(0.25)	(0.26)	(0.28)
Treated * TU size		-0.00		-0.02
		(0.00)		(0.01)
Treated * Predicted TU size			-0.01*	
			(0.01)	
Model	OLS	OLS	RF	IV
AU size controls		✓	✓	✓
Pre-specified	✓	✓*	✓*	✓*
N	2304	2304	2304	2304

Notes: Standard errors clustered at the community level. Union FE included in all regressions. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. "TU size" and "Predicted TU size" are demeaned.

Table A.13: Treatment effect on values and attitudes

	Have a say	Participation in meeting	Trust	Risk aversion	Fair contributions	Generosity	Inequality preferences
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
CDD program	0.00	0.02	0.02	0.02	-0.06	0.97	-0.00
	(0.03)	(0.04)	(0.03)	(0.02)	(0.03)	(0.91)	(0.01)
Mean (control)	0.16	0.35	0.31	0.11	0.34	18.59	0.18
Pre-specified	✓	✓	✓	✓	✓	✓	
N	1080	1081	1081	1080	1081	1081	3408

Notes: Standard errors clustered at the community level. Union FE included in all regressions. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Variable definition: "Have a say" = strongly agree that people should have a say about decisions regarding their community; "Participation in meeting" = strong willingness to participate in village meetings held to decide about an issue in my community; "Trust" = strongly agree that most people can be trusted; "Risk aversion" = strongly agree to be very careful in trying to avoid risks; "Fair contributions" = strongly agree that the richest people in the community should pay more for local public goods; "Generosity" = amount donated in dictator game (incentivized); "Inequality preferences" = inequality determined by distributive choices of external spectators (incentivized).

Table A.14: The socio-economic impact of the CDD program

	Estimates	Observations
Poverty score	0.01 (0.01)	4010
Share of adults in the labor force	0.00 (0.01)	4029
Savings	-2176.42 (1744.24)	3981
Rooms	-0.09 (0.07)	4029
Good commuity relations	-0.01 (0.02)	2314
Trust towards other villagers	-0.01 (0.03)	2314
Trust towards local leaders	-0.02 (0.02)	2314
Outdegree centrality	-.71** (0.30)	2280
Experienced crisis	0.01 (0.02)	4029
Cope crisis: relatives and friends	-0.05 (0.04)	1273

Notes: Standard errors clustered at the community level. Union FE included in all regressions. Regressions with the follow-up random sample in communities involved in the lab-in-the-field experiment. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Variable definition: "Savings" = savings in BDT in the previous year; "Good community relations" = dummy if the household reported that residents of the community get along with each other and cooperate very well; "Trust towards other villagers" = high trust towards village residents to solve problems which the village may face; "Trust towards local leaders" = high trust towards local leaders to solve problems which the village may face; "Outdegree centrality" = number of households that household h reported as part of its network; "Experienced crisis" = dummy if the household experienced any crisis in the previous year; "Cope crisis: relatives and friends" = dummy if the household relied on relatives or friends to cope with any experienced crisis.

B Robustness checks

Table B.1: Robustness checks: sample weights and endogenous/exogenous failures

	Full sample weighted	Full sample unweighted	Drop endogenous failures	Drop Deuli Union
Dependent variable: WTP	(1)	(2)	(3)	(4)
CDD program	0.54**	0.50*	0.61**	0.49*
	(0.25)	(0.26)	(0.26)	(0.27)
Full sample	✓	✓		
Weighted	✓			
Pre-specified	✓	✓	✓	✓
N	2304	2304	2208	1992

Notes: Standard errors clustered at the community level. "Endogenous failures" are four communities where the CDD program failed due to tensions and disagreement within the community or lack of interest in the CDD program. Deuli Union is the only Union affected by "exogenous failures", where the CDD program failed in six communities (further excluded from the lab-in-the-field experiment) because of hydro-geological reasons that impeded the installations of new safe water sources.

Table B.2: Robustness checks: correcting inference

	Full sample unweighted		Drop endogenous failures	
Dependent variable: WTP	(1)	(2)	(3)	(4)
CDD program	0.5**	0.5***	0.61**	0.61***
	(0.26)	(0.15)	(0.26)	(0.16)
Bootstrapped S.E		✓		✓
Pre-specified	✓	✓	✓	✓
N	2304	2304	2208	2208

Notes: Standard errors clustered at the community level. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection. Bootstrapped standard errors are obtained from $B = 350$ "optimal samples". Each "optimal sample" is obtained from $K = 1000$ samples bootstrapped by Union and treatment status.

Table B.3: Robustness checks: controls

Dependent variable: WTP	(1)	(2)	(3)	(4)	(5)	(6)
CDD program	0.54**	0.54**	0.56**	0.54**	0.56**	0.55**
	(0.25)	(0.25)	(0.25)	(0.25)	(0.25)	(0.26)
Controls		✓	✓	✓	✓	✓
Controls (favorite set)				✓	✓	
Enumerator FE			✓		✓	In Lasso
Lasso						✓
Pre-specified	✓	✓				✓
N	2304	2304	2304	2304	2304	2144

Notes: Standard errors clustered at the community level. Regressions weighted by the probability of each community being selected by the optimization procedure for sample selection.

C Selection of control and treated villages

The communities enrolled in the CDD program were 171, 42 in the control and 129 in the treated group. Treated villages are further randomly assigned to different contribution requirements in terms of co-funding the project (Table C.1): (i) cash contribution; (ii) labor contribution; (iii) waiver.

The selection of communities for the lab-in-the-field experiment project is primarily based on an optimization procedure that maximizes the balance between the treatment and the control group. The optimization procedure was performed on December 2, 2016. I optimally selected 92 communities for the lab-in-the-field experiment: 35 from the control group and 57 from the treated group, evenly distributed across treatment arms (Table C.2).[79]

Table C.1: Sample size for the CDD program

Union name	Control	Cash	Labor	Waiver	Total
Deuli	8	8	7	8	31
Saidpur	9	9	10	10	38
Balua	4	5	5	4	18
Mokamtala	9	9	9	9	36
Shibgonj	2	2	2	2	8
Maidanhata	4	4	3	4	15
Roynagar	1	1	1		3
Kichak	1	1	2	2	5
Kochasahar	3	3	3	2	11
Shibpur	1	1	1	2	5
Total	42	43	43	43	171

[79] By project protocol, the lab-in-the-field experiment was always conducted after the implementation of the CDD program. The lab-in-the-field experiment was run between December 2016 and May 2017. Because the baseline data collection implemented in Kochasahar and Shibpur took place in 2017, I excluded these two Unions from the lab-in-the-field experiment project.

Table C.2: Sample size for lab-in-the-field experiment

Union name	Control	Cash	Labor	Waiver	Total
Deuli	5	2	2	2	11
Saidpur	9	5	5	6	25
Balua	4	2	2	2	10
Mokamtala	9	5	5	5	24
Shibgonj	2	1	1	1	5
Maidanhata	4	2	2	2	10
Roynagar	1	1	1		3
Kichak	1	1	1	1	4
Kochasahar	0	0	0	0	0
Shibpur	0	0	0	0	0
Total	35	19	19	19	92

On December 2, 2016, I considered ten communities to be ineligible for the lab-in-the-field experiment project: (i) four communities where the project failed "endogenously" (i.e. one community where the community was not interested in holding the meeting; two communities where the community did not reach an agreement during the community meetings; one community where installation failed for one tubewell and cash contributions failed for the other tubewell); (ii) six communities in Deuli Union where the installations failed because of hydro-geological reasons ("exogenous failures").

Two reasons motivated this choice. First, in agreement with the project staff, on December 2, 2016, I thought it was unfeasible to conduct the lab-in-the-field experiment in communities where the project failed "endogenously" due to tensions and disagreements within the community or lack of interest in the CDD program. Second, the implementation of the CDD program was complicated by exogenous hydro-geological conditions, which in some communities impeded the installation of deep tubewells. In December 2016, the implementing partner NGOF was exploring the possibility of adopting an improved technology to successfully install the tubewell(s) in the whole target area, and therefore to make a second attempt in communities where the first installation failed. Because I did not want to contaminate the CDD program with the lab-in-the-field experiment before the intervention was complete, I decided to not run the lab-in-the-field experiment in communities where the tubewell installation failed due to hydro-geological constraints.

On December 2, 2016, I perform the optimization procedure for sample selection only among eligible communities. I select those in which to conduct the lab-in-the-field experiment

in order to maximize the balance between the treatment and the control group on a set of pre-intervention observables. I reiterate 1,000 times a random sampling procedure stratified by Union and treatment status, and I implement the one with the highest pvalue from the F-test on the balance of pre-intervention observables between treated and control villages. As performed on December 2, 2016, the best random sample has an F-test with a pvalue equal to 0.96. I test the balance between the treatment and the control group on the following set of pre-intervention observables, aggregated at the community level:

- community size;
- number of clusters;
- number of offered project tubewells if treated;
- share of arsenic contaminated water sources;
- share of bacteria contaminated water sources;
- average household size;
- average poverty score (2$ poverty line);[80]
- average willingness to participate in a collective action for the construction of a new public water source;
- share of households reporting that the decision on the construction of a new public water source in their village should be taken by unanimity;
- share of households reporting that the decision on the construction of a new public water source in their village should be taken by the majority;
- share of households reporting that the decision on the construction of a new public water source in their village should be taken by the government;
- share of households reporting that the decision on the construction of a new public water source in their village should be taken by the village leaders;
- average self-reported willingness to pay (cash) for a new public water source in the own favorite location;

[80]The poverty score is the Progress out of Poverty Index (PPI), which uses answers to simple questions about a household characteristics and asset ownership in order to compute the likelihood that the household is living below the 2$ poverty line. I refer to the construction of the PPI for Bangladesh. Further references can be found here: `http://www.progressoutofpoverty.org/`.

- average self-reported willingness to pay (cash) for a new public water source in the best location for the community;
- average self-reported willingness to pay (time) for a new public water source in the best location for the community;
- average outdegree centrality;[81]
- share of leader households;
- distance to the closest pharmacy;
- distance to the closest health clinic;
- share of villagers with no education;
- literacy rate.

After the start of the lab-in-the-field experiment, I was able to re-evaluate the decision to exclude the four communities where the CDD program "failed endogenously". With experience, project staff learned how to introduce the project to communities and, in some cases, overcome their initial resistances and doubts. In early February 2017, after two months from the start of the project, I added the four communities where the CDD program "failed endogenously" to the sample of 92 communities selected via the optimization algorithm. Therefore, the final sample consists of 96 communities. In Table C.3, I test for balance in the final sample of 96 communities, reporting the pvalues from pairwise t-tests between the control and treated groups for the set of pre-intervention observables used to identify the optimal random sample.

[81] Outdegree centrality is defined as the number of households that household h reported as part of its network.

Table C.3: Balance tests of covariates between treatment and control group

	Control group - Mean (s.e.)	Treated group - Mean (s.e.)	pvalue	Observations
Community size	114.00 (12.75)	121.71 (13.74)	0.516	96
Number of clusters	1.04 (0.16)	1.24 (0.13)	0.300	96
Number of offered project tubewells	1.08 (0.10)	1.14 (0.10)	0.581	96
Arsenic contaminated water sources	0.68 (0.06)	0.72 (0.05)	0.396	96
Bacteria contaminated water sources	0.56 (0.03)	0.55 (0.04)	0.487	96
Household size	3.95 (0.07)	3.91 (0.07)	0.525	96
Poverty score - 2 USD	0.81 (0.02)	0.81 (0.02)	0.707	96
Participation in a collective action to provide a new public safe water source	0.98 (0.01)	0.98 (0.01)	0.991	96
Decision on a new public safe water source - unanimity	0.77 (0.06)	0.73 (0.05)	0.164	96
Decision on a new public safe water source - majority	0.41 (0.04)	0.43 (0.03)	0.599	96
Decision on a new public safe water source - government	0.09 (0.03)	0.09 (0.02)	0.972	96
Decision on a new public safe water source - village leaders	0.23 (0.06)	0.28 (0.05)	0.258	96
Decision on a new public safe water source - NGO	0.18 (0.08)	0.24 (0.07)	0.211	96
WTP (cash) for new public safe WS in most preferred location	249.38 (31.43)	256.87 (33.57)	0.759	96
WTP (cash) for new public safe WS in location serving best the community	100.92 (12.31)	107.50 (11.46)	0.527	96
WTP (time) for new public safe WS in location serving best the community	9.49 (2.20)	8.41 (1.71)	0.688	96
Outdegree centrality	2.75 (0.13)	2.85 (0.12)	0.277	96
Leader household	0.08 (0.01)	0.08 (0.01)	0.488	96
Distance to the closest pharmacy (min)	18.68 (1.64)	18.65 (1.77)	0.982	96
Distance to the closest health clinic (min)	27.06 (3.93)	26.94 (3.47)	0.951	96
Share of not educated people	0.33 (0.03)	0.35 (0.03)	0.314	96
Literacy rate	0.57 (0.03)	0.56 (0.03)	0.682	96

Note: Robust standard errors are shown in parentheses. All variables are aggregated at the community level. Column 4 reports the pvalues from pairwise tests of the mean difference between treatment and control group, from a regression of the outcome variable on indicators for the two groups (with Union FE and no constant).

D Scripts

D. 1 Introduction of the project to the community

We are working for an NGO called NGO Forum for Public Health, and collaborating with researchers from Stockholm University, Sweden.

NGO Forum is conducting an arsenic mitigation program in the region. As part of that project, some months ago we tested all sources of drinking water in this village for bacteria and arsenic contamination. Moreover, we conducted an interview with some households in this village. Remind the community people about the project and the treatment status of the village, and the progress of the project.

We have now selected your village for another related project, which is called "Community Decision Making Project". The aim of this new project is to study how communities take decisions in rural Bangladesh.

What we learn from this study will help us and other organizations improve the design of programs, like the arsenic mitigation program we are conducting in this region. This may help other communities like your own.

We randomly selected 18 households for this project, and we will invite one man and one woman per household to participate in an experimental session. Their tasks will take approximately 4-5 hours and we will compensate participants for their time.

D. 2 Invitation of participants

We are working for an NGO called NGO Forum for Public Health, and collaborating with researchers from Stockholm University.

NGO Forum is conducting an arsenic mitigation program in the region. As part of that project, some months ago we tested all sources of drinking water in this village for bacteria and arsenic contamination. Moreover, we conducted an interview with some households in this village. We have now selected your village for another related project.
We conducted a public lottery in order to decide which villages were going to receive the intervention and the possibility to construct a new public source of safe water.

Control villages: Your village was assigned to the control group, however, we are working in other nearby villages in your Union in order to provide access to safe water.

Treated villages: Your village was assigned to the treatment group. We already conducted the community meeting in your village, where your community decided on where to build the new source of safe drinking water.

D. 3 Informed consent

You have been asked to participate in a research study conducted by Serena Cocciolo and Selene Ghisolfi from the Institute for International Economic Studies, Stockholm University, in cooperation with NGO Forum. The purpose of the study is to learn about how groups of people who live in communities like yours make decisions.

The study is composed of an interview today and participation in an experimental session tomorrow. We expect that the interview today will take about 15 minutes, and the experimental session tomorrow will last 4 to 5 hours. During the experimental session tomorrow, you will be asked to take part in three decision-making exercises with other people from your village. Tomorrow we will explain in detail the rules of the tasks you will take part in.

You were randomly selected as a possible participant in this study given that your household has previously been interviewed for a related project conducted in your village on arsenic mitigation in rural Bangladesh. Please consider the following information before deciding if you consent to participate in this study:

- Participation in this study is voluntary. You have the right not to answer any question, and to stop the interview at any time or for any reason, or to leave the experimental session at any point in time.
- You will be compensated for the participation in this study. At the end of the experimental session tomorrow you will receive a payment which depends on your decisions during group exercises, and we will explain the details tomorrow. You can expect to receive between 200 and 400 BDT. The risks associated with this study are minimal.
- The information we will collect during interviews and during the experimental session will be confidential. We will take very good care of your information and no one who is not connected to the project will have access to your personal information, such as

your name. We will only use your personal information, like your name, in carrying out this project, and if we use information from the survey in the future, we will remove your name and change your location so that no one can recognize you.

- We would like to record the experimental session. We will not record the session if you do not grant permission for doing so. You have the right to revoke the recording permission at any time.

This project will be completed by April 2017. All interview recordings will be stored in a secure work space until 1 year after that date. The tapes will then be destroyed.

Do you understand the procedures described above? Did I answer your questions to your satisfaction?
Do you consent to participate in this study?
Do you give permission for the experimental session to be recorded?

D. 4 Individual survey

Script for questionnaire introduction:
"In the next questions we will ask you some questions about your preferences and opinion. There will be no correct answer! We are only interested in what are your personal preferences and opinions. So you can feel free to give us your true answers."

- Think about situations when your household has to take a decision about an important purchase (e.g. furniture). Are you usually involved in these kinds of major decisions for the household?
  Options: I decide alone; I am involved in the decision; I am not involved in the decision; Don't know; Refused to answer.

- Please tell me how much you agree with the following statement: "Generally speaking, most people can be trusted."
  Options: Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree; Don't know; Refused to answer.

- Please tell me how much you agree with the following statement: "In life, people are rewarded for their efforts."
  Options: Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree; Don't know; Refused to answer.

- Now I will briefly describe some people. Please indicate for each description whether that person is very much like you, somewhat like you, not like you, or not at all like you: "This person is very careful in trying to avoid risks. For instance, when taking farming decisions (men), when cooking (women), when deciding about health, when in traffic, etc."
  Options: Very much like me; Like me; Not like me; Not at all like me; Don't know; Refused to answer.

- Now I will briefly describe some people. Please indicate for each description whether that person is very much like you, somewhat like you, not like you, or not at all like you: "It is important for this person to help the people nearby, to care for their well-being."
  Options: Very much like me; Like me; Not like me; Not at all like me; Don't know; Refused to answer.

- Now I will briefly describe some people. Please indicate for each description whether that person is very much like you, somewhat like you, not like you, or not at all like you: "This person is very good at negotiating with other people: he/she is not afraid of expressing his/her opinion, even when in disagreement with other people, and he/she is able to express his/her own opinion in a convincing way, and he/she is often able to make other people reconsider their position."
  Options: Very much like me; Like me; Not like me; Not at all like me; Don't know; Refused to answer.

- Please state whether you agree or disagree with the following statements about a hypothetical construction of a public infrastructure, for instance a mosque/temple: "The richest people in the village should pay more of the cost of the construction."
  Options: Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree; Don't know; Refused to answer.

- Please indicate whether you agree or not with the following statement: "If there was a village meeting in order to decide about an issue in my community (e.g. building a new road, school, temple/mosque, tubewell, etc), I would participate in the village meeting."
  Options: Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree; Don't know; Refused to answer.

- Please indicate whether you agree or not with the following statement: "I think people should have a say about decisions regarding their community."

Options: Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree; Don't know; Refused to answer.

- Please indicate whether you agree or not with the following statement: "If someone does me a favour, I am prepared to return it."
  Options: Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree; Don't know; Refused to answer.

- Please indicate whether you agree or not with the following statement: "If somebody puts me in a difficult position, I will do the same to him/her."
  Options: Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree; Don't know; Refused to answer.

- We have paired you with another person in your village. You do not know the identity of this person, and the other person does not know your identity. I am gifting you 50 BDT. The other person does not know about it. If you wish, you can send part of your 50 BDT to this person. In any case, the other person will never know your identity nor your choice. If you decide to gift any of the 50 BDT to this person, she will receive it tomorrow, together with the reward from the experimental session. Equally, you will receive the amount you decide to keep tomorrow, together with the reward from the experimental session. Please tell me now how many takas you wish to keep out of the 50 BDT.
  Answer: report integer.

D. 5 Scripts for the experimental session

D. 5. 1 General introduction to the lab

Welcome everybody and thank you for coming.

This experiment is conducted by researchers from Stockholm University in cooperation with NGO Forum. NGO Forum is conducting a related project in this region in order to provide safe drinking water to communities in this region that are highly affected by arsenic.

We conduct this experiment in order to study how communities take decisions in rural Bangladesh. The results from this study will help develop policies that can better serve rural villages.

This experimental session will last around 3 hours and you are going to complete 3 different tasks. At the end you will receive a reward, which will depend on the decisions taken by yourself and your group peers during all 3 exercises.

You will complete each task in groups. The groups will be different for each task. At the beginning of each exercise, we will exactly describe your task. Everything contained in these instructions and everything you hear in this session constitute an accurate representation of this experiment. Be sure to ask any questions that you may have during this instruction period, and ask for assistance, if needed, at any time.

You will complete the tasks using tokens. At the end of each round, we will record how many tokens you have gained. The more tokens you have earned, the higher will be your final reward.

Each token will be exchanged for 5 takas. We will also reward your participation with a constant show-up fee of 30 takas.

You will be involved in three group tasks.

For the first two exercises, you will first complete a TRIAL round to familiarize yourself with the rules, and then you will complete the REAL round. Only the REAL round will count to determine your final reward. You will complete the third task only once, without TRIAL.

At the end of the session, we will reward all participants according to the sum of tokens you obtained for each task. In order to maximize your winnings, remember to complete each task at your best throughout the whole session!

Throughout the experiment we will use lotteries in order to guarantee the fairness of the experiment for all participants. All relevant steps are clearly documented, and follow scientific and academic standards. None of these procedures is related to gambling.

You are required to keep a tidy and calm behavior. Any misbehavior will be punished with the exclusion from the project and you will not receive any reward. You are explicitly not allowed to:

- Make physical threats of any kind or verbally abuse other players;
- Steal or hide tokens from your group or from the other group members;
- Remove, exchange or lose your ID codes;
- Suggest how to play to people outside your group;
- Agree to share compensations after the experiment;
- Ask other participants how much they have earned when the experiment has ended.

D. 5. 2 Contribution task

In this exercise, you will start with a number of tokens of your property. You will extract a color, and your tokens will be of that color. The extracted color determines your number of initial tokens and you cannot change it. You will be assigned the same number of tokens in the TRIAL and in the REAL round. Each token has the exact same value, regardless of the color. We will also distribute 30 white tokens.

We will also distribute a timer per group.

Please do not touch the tokens nor the timer until we give you the start.

[Enumerators distribute individual and group tokens. Enumerators distribute the timers and explain how to operate them.]

Imagine now that the marked central area represents a common project you can undertake together with your group mates. Investing money in this common project results in doubling your investment. Your aim is to decide how much of your colored tokens you want to invest in this common project, and simultaneously how to divide the whole amount of the project among your group, which is double the sum of what each of you invested.

To give you a real-life example, imagine that your group has decided to build a new mosque/temple and that a donor has accepted to co-fund it. Then, your group has to decide who is contributing to the mosque/temple, and also where to place it. When you place the mosque/temple, the group members who are close to it will be happier than those who are far from it.

In practice, during this exercise, any of you can decide to contribute any number of your own colored tokens to the project by putting them in the central area. By doing this, you will be allowed to take the same number of white tokens and put them in the central area as well. This is our way of showing how the investment in the common project doubles.

In the same way, you can also remove tokens of your color from the central area. When you do this, you must also remove the same number of white tokens.

There must always be the same number of colored (no matter what color) tokens and white tokens in the central area.

You will also decide how to distribute all tokens in the central area (both the white ones and the colored ones). In order to distribute tokens, you must put the tokens in front of the person you want to give the common tokens to, but still keeping them in the central area.

Contributions to the common project are fully voluntary. However, you will have to agree with your group mates on how to divide the tokens in the central area among yourselves.

You cannot place the colored tokens of another person in the central area, if she does not want to. And you cannot remove the colored tokens of someone else from the central area, if she does not want to.

Similarly, noone can take your colored tokens and put them in the central area if you do not want to. And noone can take your colored tokens from the central area and place them

outside the central area if you do not want to.

You have a maximum of 20 minutes to reach a final agreement. In order to reach a valid agreement, all group members should agree with it. If at the end of the 20 minutes you have not reached an agreement, you will lose all white tokens and just keep the colored tokens you were initially given. After 20 minutes you will no longer be allowed to touch the tokens or negotiate anymore.

In case you reach an agreement before 20 minutes, raise your hand and signal that your group has reached a final decision on the distribution of the tokens. One enumerator will come to attend to your group.

When you have completed the task, or when the time is over, stop the timer by pressing the "START/STOP" button.

The enumerators will accept a distribution only if everyone agrees with it. Moreover, they will check that the number of white tokens is the same as the total number of colored tokens.

The enumerator will record the sum of the tokens, both inside and outside the central areas. This represents your result for the round.

The enumerator will reorganize all tokens as at the beginning. In the REAL round, you will receive the same number of tokens of the same color. You cannot keep any token from the TRIAL to the REAL round.

In order to clarify the rules, we will now give you some examples:

- Control question 1:
  If everyone in the group contributes all his/her tokens, at the end you will have 60 tokens to split across your group. Please raise your hand if this is right.

  [Verify EVERYONE has their hand raised. If someone did not understand, clarify.]

- Control question 2:
  If everyone in the group contributes no tokens, at the end you will have no tokens to split across your group. Please raise your hand if this is right.

  [Verify EVERYONE has their hand raised. If someone did not understand, clarify.]

- Control question 3:
  If everyone in the group contributes just 5 tokens, at the end you will have 30 tokens to split across your group. Please raise your hand if this is right. [Verify EVERYONE has their hand raised. If someone did not understand, clarify.]

You will complete this task two times. The first time is a TRIAL, for you to learn the rules. The second time is the REAL round, and the number of tokens will be used to calculate your final reward. We now start with the TRIAL round. You will complete the REAL round after this.

Remember to press the button "START/STOP" when you have completed the task or the time is over.

D. 5. 3 Redistribution task

In this exercise you will start with a number of tokens of your property. You will extract a color, and your tokens will be of that color. The extracted color determines your number of initial tokens and you cannot change it. You will be assigned the same number of tokens in the TRIAL and in the REAL round. Each token has the exact same value, regardless of the color. We will also distribute 30 white tokens in the central area.

We will also distribute a timer per group.

Please do not touch the tokens nor the timer until we tell you to start.

[Enumerators distribute individual and group tokens. Enumerators distribute the timers and explain how to operate them.]

Your task is to agree with your group mates on how to distribute the white tokens among yourselves.

You can take the white tokens from the center and distribute them in the marked central area, in front of the member of your group you want to assign them to. Anyone in your group can move the white tokens. You can always touch and distribute all the white tokens, and you must leave them in the marked central area. You cannot put your own colored tokens in the central area or give them to other players in the group.

To give you a real-life example, imagine that someone has decided to make a donation to your group to build a new mosque/temple. Then, your group has to decide where to place it. When you place the mosque/temple the group members who are close to it will be happier than those who are far from it.

You have 20 minutes to reach a final agreement on how to split the white tokens. After that, you will not be allowed to touch the tokens or negotiate anymore. If at the end of the 20 minutes you have not reached an agreement, the whole group will lose all the white tokens and everyone will just keep the initial colored tokens.

In case you reach an agreement before 20 minutes, raise you hand and signal that your group has reached a final decision on the distribution of the tokens. One enumerator will then come to attend to your group.

When you have completed the task, or when the time is over, stop the timer by pressing the "START/STOP" button.

The enumerators will accept a distribution only if everyone agrees with it. Moreover, they will check that colored tokens have not been distributed among players.

The enumerator will record the sum of the tokens, both inside and outside the central areas. This represents your result for the round.

The enumerator will reorganize all tokens as at the beginning. In the REAL round you will receive the same number of tokens of the same color. You cannot keep any token from the TRIAL to the REAL round.
In order to clarify the rules, we will now give you some examples:

- Control question 1:
  Your group can decide to split the tokens equally among you. Since the total number of tokens to share is 30, this means that everyone of you can have 10 tokens more than what you started with. If everyone in your group agrees with this distribution, this can be done. Please raise your hand if this is right.

  [Verify EVERYONE has their hand raised. If someone did not understand, clarify.]

- Control question 2:
  Your group can decide to split the tokens such that at the end of the task everyone has

the same number of tokens, either colored or white. This means that some people will have more white tokens, and some people less white tokens. If everyone in your group agrees with the distribution, this can be done. Please raise your hand if you think this is right.

[Verify EVERYONE has their hand raised. If someone did not understand, clarify.]

You will complete this task two times. The first time is a TRIAL, for you to learn the rules. The second time is the REAL round, and the number of tokens might be used to calculate your final reward. We start now with the TRIAL round. You will complete the REAL round after this.

Remember to press the button "START/STOP" when you complete the task or the time is over.

D. 5. 4 WTP Elicitation

As the instructions are identical for Task 1 and Task 2, for simplicity, in the next paragraphs we describe it referring to Task 1 only.

Scripts for the field supervisor

- With all participants:

  We are now starting the third part of Task 1. For this part we have formed new groups, different from the groups you just played with. Each group faces the same situation as in Task 1.

  We randomly selected one person per group to play this part of the task. This person is to decide how he/she wants her group to take decisions. We will explain the details to each participant later.

  During Task 3 of the experimental session, some of the groups might play Task 1 again. This will depend on the choices made by the group representative in this part of the task.

  According to the choice expressed by the group representative, some groups will play again, and some others will not. In all cases, all of you will receive some payment for

Task 3.

It is important for all of you to know that the persons selected for this first part of the task should feel free to choose whatever they prefer. At the end you should not ask them which choices they made. Also, you should know that it will not be possible for anyone to understand from the final results of the task which choices they made.

We will now tell you who should stay for this part of the task.

- With only participants selected for the task:

  Consider that each group faces the same situation as in Task 1. Remind the person of the rules for Task 1.

  This time, you have been selected in order to decide how this group decision will be taken.

  The first option is to play the bargaining stage again as in the previous round. This means that you will again sit with your group members and will bargain until you reach a common agreement. You will be paid for Task 3 according to the decision taken with your new group.

  The other option is not to participate in the decision. In this latter case, we will impose a decision. We will assign to your group the agreement taken by another group in the previous REAL round of Task 1 that we just played. We will do this assignment using a lottery. Each person in your group will receive the final number of tokens obtained by the person in the assigned group with the same color. In this way, we will define your payment for TASK 3. For example the person with the yellow tokens in your new group will receive the same number of tokens obtained by the person with the yellow tokens in the assigned group. This means that, in case you will not play with your group again, you can expect to receive the same number of tokens as a standard player with your same color in Task 1. This outcome will be definitive and it will not be possible to change it.

  Depending on your choices, your group might play Task 1 again. In case of playing again, you and your group will play during the third round.

Each of you will complete this part of the task with one enumerator.

For this part of the task there will NOT be a trial round. The decisions you will take are final.

Remember that we will keep all your answers secret. The other group members will never know your choices at this stage.

Remember that we already formed new groups, but you do not know the identity of your new group peers.

The rule under which you will play the last round will depend on your choices. Therefore, it is always better for you to carefully pick the option you truly prefer.

In order to clarify the rules, we will now give you some examples:

- Control question 1:
  Please raise your hand if you think that the following sentence is correct: "You will be asked to choose between, on the one side, performing Task 1 again and, on the other side, be assigned the outcome of another group."
  [Verify EVERYONE has their hand raised. If someone did not understand, clarify.]
- Control question 2:
  Please raise your hand if you think that the following sentence is correct: "In both cases, if you play Task 1 again, and if you do not, you will always receive some payment for TASK 3. The two payments might be different."
  [Verify EVERYONE has their hand raised. If someone did not understand, clarify.]

Scripts for the enumerators

I will now present different choices in which you have to choose between two alternatives.

The first alternative will always be to repeat Task 1 as you have just done with new group peers. If you take part in Task 1 again, you will be in a group with different team mates

than before.

The second alternative will be to NOT repeat Task 1 with new group peers.

What happens in Task 3 will depend on your answers. Before Task 3 we will extract one choice, and the choice you made in that case will be final.

Each choice can be selected. Therefore, it is always better for you to tell me your true answer. The lottery guarantees that no one will be able to understand your choices. And I will keep secret all your answers. Therefore you can feel free to express your true opinions.

When you choose whether you prefer to complete Task 1 again with new group peers or not you might think of different factors. For example:

- Do you remember how much you got in the real round you just completed? How much? [Remind the correct answer.]
- In the previous two rounds, did you enjoy completing Task 1 with your group?
- Consider playing Task 1 again with your newly assigned initial tokens. How much do you think you will be influential in the group in order to determine the final outcome?

Elicitation procedure of WTP and beliefs:

- Choice 1:
  The first alternative is to complete Task 1 again with new group peers.

  The second alternative is to not complete Task 1 with new group peers.

  Remember that in case we select this choice, your new group will complete Task 1 again or not according to your answer. Your decision will be final.

- Choice 2-6:
  The first alternative is to complete Task 1 again with new group peers AND lose 1-5 tokens.

  The second alternative is to not complete Task 1 with new group peers.

  In case you choose the first alternative, you will complete Task 1 with your initial tokens. We will deduct 1-5 tokens (5-25 BDT) from your final total compensation.

  Remember that in case we extract this choice, your new group will complete Task 1 again or not according to your answer. Your decision will be final.

- Choice 7-11:
  The first alternative is to complete Task 1 again with new group peers AND win 1-5 tokens.

  The second alternative is to not complete Task 1 with new group peers.

  In case you choose the first alternative, you will complete Task 1 with your initial tokens. We will add 1-5 tokens (5-25 BDT) to your final total compensation.

  Remember that in case we extract this choice, your new group will complete Task 1 again or not according to your answer. Your decision will be final.

- Guess under the participatory option:
  Consider your initial tokens. Imagine to complete again Task 1(2) with new group members. How many tokens IN TOTAL do you think you will get?

- Guess under the group-extraction option:
  Imagine you do not complete again Task 1(2), and instead receive the outcome of a player with your initial tokens from another group. How many tokens IN TOTAL do you think you will get? You will win 30 takas if you answer this question correctly!!

D. 6 Individual survey after the experimental session

Script for intro:
"Thank you for your participation in the study!
In conclusion, we would like to ask you a few questions on your perceptions of the tasks. All your responses will be kept confidential: we will not share your answers with anyone outside the research team.
You will receive your compensation from the tasks after this short survey. The answers in this short survey will not change your compensation."

- How much are you satisfied with your outcome in the 1st round?
  Options: Very satisfied; Satisfied; Neither satisfied or dissatisfied; Dissatisfied; Very dissatisfied; Don't know; Refused to answer.

- How much are you satisfied with your outcome in the 2nd round?
  Options: Very satisfied; Satisfied; Neither satisfied or dissatisfied; Dissatisfied; Very dissatisfied; Don't know; Refused to answer.

- How much are you satisfied with your outcome in the 3rd round?
  Options: Very satisfied; Satisfied; Neither satisfied or dissatisfied; Dissatisfied; Very dissatisfied; Don't know; Refused to answer.

- After which round were you most satisfied with your outcome?
  Options: Task 1; Task 2; Task 3.

- What is the maximum amount your entire group could have won in the contribution task?
  Answer: report integer.

- How could you reach this maximum amount? (do not probe)
  Options: We could have won the maximum if everyone had contributed everything; Other; Don't know; Refused to answer.