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Rural institutional innovation

Can village courts in Bangladesh
accelerate access to justice and
improve socio-economic outcomes?

April 2020

Impact
Evaluation
Report 116

Public administration



International
Initiative for
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3ie accepted the final version of the report, *Rural institutional innovation: can village courts in Bangladesh accelerate access to justice and improve socio-economic outcomes?* as partial fulfilment of requirements under grant DPW1.1100 awarded through Development Priorities Window 1. The report is technically sound and 3ie is making it available to the public in this final report version as it was received. No further work has been done.

The 3ie technical quality assurance team for this report comprises Francis Rathinam, Neeta Goel, Kanika Jha Kingra, Deeksha Ahuja, an anonymous external impact evaluation design expert reviewer and an anonymous external sector expert reviewer, with overall technical supervision by Marie Gaarder. The 3ie editorial production team for this report comprises Anushruti Ganguly and Akarsh Gupta.

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Funding for this impact evaluation was provided by UK aid through the Department for International Development. A complete listing of all of 3ie's donors is available on the [3ie website](#).

Suggested citation: Mattsson, M and Mobarak, AM, 2020. *Rural institutional innovation: can village courts in Bangladesh accelerate access to justice and improve socio-economic outcomes?* 3ie Impact Evaluation Report 116. New Delhi: International Initiative for Impact Evaluation (3ie). Available at: <https://doi.org/10.23846/DPW11E116>

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Acknowledgements

We thank our partners in the Government of Bangladesh and the UNDP Bangladesh as well as the IPA Bangladesh field team for excellent data collection and research assistance. We also thank Mohammad Ashraful Haque, John Hideto Mori, Proma Saha, Shambhavi Tiwari and Mohammad Riad Uddin for their help in preparing this report.

Executive summary

Lack of access to justice is a substantial problem in Bangladesh. Formal courts are slow to reach decisions and are costly to use. Informal dispute resolution mechanisms (DRM) are common, but they often lack the power to enforce decisions, and are considered to be making decisions biased by the local power structures.

As a response to these problems it was legislated that the Union Parishads, the lowest tier of local government, should conduct regular Village Courts (VCs). These VCs are designed to resolve smaller disputes at minimal cost and with fewer administrative complications, while still preserving the power of enforcement of the state and even reducing the bias associated with DRMs. However, the VC system was not very well implemented, and in most Union Parishads the VCs were dormant and not utilized. To address this problem, the Activating Village Courts in Bangladesh (AVCB) program was created, as a collaboration between the Government of Bangladesh and the UNDP. The AVCB program makes VCs functional by providing material support, human capital support, training for the UP officials, and awareness campaigns for the citizens living in the Ups served by the AVCB program. Finally, the report was also supported by qualitative data collected directly from two extended fieldwork periods, one in an AVCB program UP and one in a UP without the AVCB program.

This report evaluates the causal impact of the AVCB program using randomized assignment of the AVCB program to 267 UPs in the Dhaka and Chittagong divisions of Bangladesh. We conduct our evaluation approximately 2 years after the start of the AVCB program. For this evaluation we conducted both household-level surveys and surveys of UP officials, in addition to the collection of digitized administrative data from VCs in 174 UPs. We also collected administrative data from the seven district courts covering the 267 UPs in our experiment, as well as VC monitoring data for all the UPs receiving the AVCB program.

We summarize our findings in this report as follows:

- The AVCB program was successful in activating the VCs:
 - In areas with the AVCB program, UP officials were more knowledgeable about the VCs and they spent more time on resolving disputes through the VC system,
 - More records were also kept regarding disputes resolved in the VC system and the records kept were of a higher quality.
- The AVCB program cause households use VCs to a greater degree:
 - In areas with the AVCB program, more respondents state that they would use the VC to resolve hypothetical disputes,
 - The AVCB program also leads to more households actually resolving disputes in the VC.
- Although the AVCB program increases usage of VCs, the program does not radically change how disputes are resolved:
 - There is an increase in the fraction of cases resolved by VCs but the most common dispute resolution mechanism is still by far an informal DRM known as *shalish*,

- The AVCB program does not decrease the number of cases brought to District Courts.
- Given that the AVCB program only marginally changes the way disputes are resolved, it does not affect the majority of subjective measures of wellbeing:
 - Subjective measures of the extent of the problems of unresolved disputes and crime in general were not affected by the program,
 - Similarly, subjective measures of trust did not increase with the program,
 - We find a positive effect on communal harmony between neighbors,
 - We also find a weak positive effect on the overall satisfaction with the justice system but this is concentrated among those who had disputes in the baseline period and is not statistically significant for the population overall.
- Finally, we find no effects on economic activity. This is not surprising given the AVCB program had little effect on dispute resolution overall.

These results come with two important caveats. First, we conducted this evaluation after only 2 years – the AVCB program monitoring data suggests that that the number of cases resolved by the VCs in the project area may still be rising. It is therefore possible that the AVCB program will have larger effects over a longer time period. Second, this evaluation sets a high bar for the AVCB program by measuring the outcome variables for the whole population or for the population with disputes at baseline. It is possible that the AVCB program had a large impact on the population that used the VCs; but this cannot be measured using our methodology. Even if there may be a large impact of AVCB on the VC-utilizing population, there would still be a small overall effect for the general population due to the small proportion of the population utilizing VCs. In fact, even in the areas that received the AVCB program, only 4% of disputes were resolved in the VCs.

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Acronyms and definitions

AVCB	Activating Village Courts Bangladesh
DRM	Dispute Resolution Mechanism
LGD	Local Government Division
SP	Shalish Parishad (semi-formal DRM conducted by the UP)
UP	Union Parishad (lowest tier of government administration in Bangladesh)
VC	Village Court
VCA	Village Court Assistant
DF	District Facilitator
PNGO	Partner Non-Governmental Organization
GO-NGO	Government and Non-Government Organizations
IHS	Inverse Hyperbolic Sine ¹
Upazila	The second lowest tier of government administration in Bangladesh
Shalish	An informal adjudication/mediation conducted by village leaders

¹ Approximation for natural logarithmic function which allows for zero-valued observations to be included in the analysis.

1. Introduction

The rule of law is generally regarded as a necessary condition for economic development. The judiciary, or the system of courts that interprets and implements the law, is the main institution ensuring that the rule of law is respected and that justice is accessible to all citizens.

Lack of access to justice is a substantial problem in Bangladesh. Formal courts take a long time to resolve disputes and are complex and expensive to use.² The average time period for dispute resolution in a District Court, the lowest tier of formal courts, is approximately three years (in addition, the decisions take approximately a year to be enforced).³ The average cost to a household for resolving a case in a district court is BDT 350 thousand (approximately USD 4,200) or 128% of the average annual household expenditure, making it inaccessible for most of the rural population. As a result of these lengthy wait times and high monetary costs, informal Dispute Resolution Mechanisms (DRMs) are common. However, these mechanisms often lack the ability to enforce decisions and are conventionally perceived to be biased due to the local power structures.

In 2006, the Government of Bangladesh replaced the Village Court Ordinance 1976 with the Village Courts Act to create a functional semi-formal system of Village Courts (VCs) at the lowest tier of the local government, the Union Parishad (UP). VCs are designed to resolve small disputes at affordable costs and with fewer administrative complications, increasing access to justice for those who cannot afford resorting to the formal court system for resolving small disputes. Village Courts are secular and can adjudicate cases for religious as well as ethnic minorities.

In practice however, the implementation of the VC system was poor and most UPs lacked active, functioning VCs. To address this problem, the Government of Bangladesh—with technical assistance from UNDP and funding from the EU—launched the Activating Village Courts in Bangladesh (AVCB) program. The AVCB program makes VCs active and functional by providing material support, human capital support, training for the UP officials, and awareness campaigns for the citizens living in the UP. In its first phase, the AVCB program was implemented in 351 UPs. Recently, the program has expanded to an additional 1,080 UPs.

During the second roll-out phase we conducted a randomized controlled trial in Dhaka and Chittagong divisions, the two largest of Bangladesh's eight divisions. In these two divisions 267 UPs were randomly assigned to treatment – receiving the AVCB program (178 treatment UPs) or control – not receiving the AVCB program (89 control UPs). The random assignment allows us to evaluate the causal impact of the AVCB program on a range of outcomes with accordance to our theory of change.

² The Justice Audit Bangladesh found that there were 1.7 million pending cases in the beginning of 2017 and forecasted that this figure would rise to 6.8 million in 2022.

<https://bangladesh.justiceaudit.org/>

³ These are averages for all resolved disputes in our household survey. These estimates can be considered lower bounds since we do not include unresolved dispute which have not yet been resolved.

We find that the AVCB program was successful in activating the VCs – VCs were better functioning and used more. In the UPs that were assigned the program, UP officials were more knowledgeable about VC rules and regulations and spent more time resolving disputes in the VCs. UPs in the treatment group also kept more numerous and better detailed records of the cases they had resolved through the VC. Furthermore, individuals living in UPs participating in the AVCB program stated that they would use the VCs to resolve more hypothetical disputes, and when facing an actual dispute, they indeed resolved more of those in the VC.

While the AVCB program did in fact activate the VCs, the VCs remained a relatively minor institution when it came to overall dispute resolution. Even in the UPs where the AVCB program had been implemented, only 4% of the resolved disputes were resolved in the VC two years after AVCB implementation. In comparison, 62% were still resolved in the Shalish and 26% by the District Courts.

Figure 1: Dispute Resolution by Mechanisms: Control Group

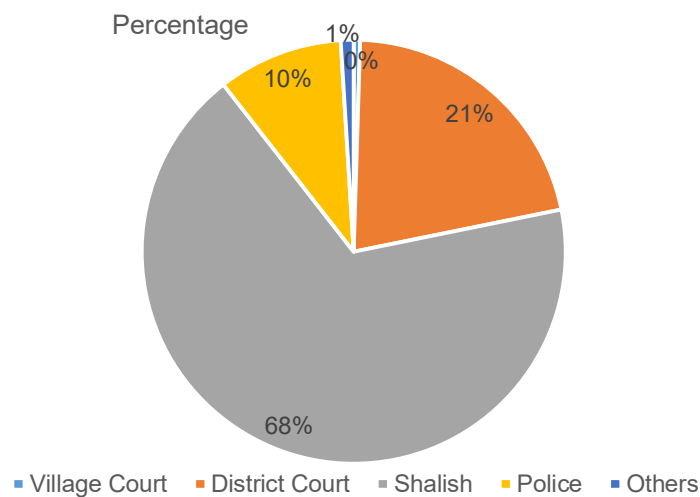
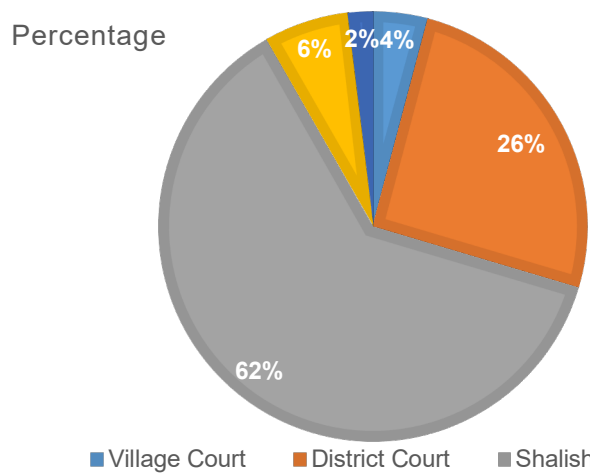


Figure 2: Dispute Resolution by Mechanism: Treatment Group



The figures above show the fraction of resolved disputes in the follow-up survey by the DRM they were resolved in. The first figure shows represents the disputes in the UPs without the AVCB program (control) and the second figure represents the disputes in the UPs with the AVCB program (treatment).

In accordance with our finding that the AVCB program had little effect on the proportion of VCs in overall dispute resolution, we find that the AVCB does not affect the overall cost or quality of dispute resolution as well. It is important to note that this impact evaluation sets a very high bar for the AVCB program since we conduct our evaluation on all disputes, and not just those using the VCs. While we believe that this is the most relevant measure of the effectiveness of the AVCB program, we also recognize that it is possible that the AVCB program had large effects for those who used the VCs while not having any measurable effect on all disputes since so few of the total number of disputes were resolved in VCs.

The AVCB program did not have a substantial overall impact on households' perceptions of their situations. However, it was found to have some impact on individual perceptions. Specifically, it improved perceptions of the harmony between neighbors, and for the households who had a dispute at baseline, it improved the overall satisfaction with the overall justice system available to households. The program did not substantially change other subjective measures of wellbeing, such as the extent to which unresolved disputes are a problem, the extent to which crime is a problem or overall trust in other people. Furthermore, the AVCB program did not increase economic activity – although improved contract enforcement could reasonably be expected to increase economic activity in areas where contractual enforcement is important. This enforcement would be especially important in investments and economic agreements outside of traditional contract enforcement structures such as the family or the village; but we do not find any evidence for AVCB having an effect in this sector.

Given our findings, it is hard to draw specific policy conclusions regarding the value of a scale-up of the AVCB program. On the one hand, the program is successful in activating the VCs and enabling UPs to follow the Village Courts Act. On the other hand, the downstream effects are limited, which is not surprising given that even after activation, VCs only resolved a minority of disputes. An important limitation of our study is that we measure the effects of the AVCB program after only 2 years – it is possible that over time VCs will resolve a larger fraction of cases and will therefore have more substantial downstream effects.

This report describes the design, implementation and results of our impact evaluation. Sections 4, 5 and 6 provide background, context and project implementation details about the AVCB program. Section 7 explains the evaluation methodology. Section 8 describes the results and Sections 9 and 10 discuss the results and draw policy implications from this study.

2. Context

Inadequate access to justice is a challenge in Bangladesh. Low-income rural households often find it especially difficult to navigate the formal justice system, starting at the district level with the district courts.

Disputes are common in rural Bangladesh. Our baseline survey revealed that 16% households have an unresolved dispute and 13% households resolved at least one dispute in the past 2 years. 43% of all unresolved disputes and 40% of all resolved disputes were relatively less serious in nature and could be resolved locally, therefore

being within the VC jurisdiction. Thus, the purpose of the VCs is to facilitate the local resolution of such disputes at affordable costs and with fewer administrative complications.

2.1 VC rules and regulations

The VC are incorporated into the UP, an elected body that handles the administrative responsibilities of a union. Unions are the lowest administrative tier within the local government structure of the country. Districts, where the lowest tier court in the formal justice system are situated, are two tiers above the UPs in the administrative and there are only 64 districts in Bangladesh compared to approximately 4,550 UPs. The district courts are therefore often far away for much of the rural population.

The Village Courts Act of 2006 requires that a VC include a UP chair (who acts as the Chair of the VC) and four jury members nominated by the plaintiff and the defendant. The plaintiff and the defendant each nominate two jury members, of which two have to be from the twelve-person UP council. These five-person courts take on both criminal and civil cases and have the authority to adjudicate disputes up to BDT 75,000 (approximately USD 1,000). Overall, 49% of all disputes in our baseline sample population involved a monetary value below or equal to BDT 75,000.

The VCs do not have the ability to adjudicate more serious criminal cases, such as abduction, rape, or murder. VCs can only impose financial punishments and cannot send defendants to prison. In disputes involving women or children, at least one woman has to be appointed to the court. The VCs are secular and can adjudicate cases for both Muslims and religious or ethnic minorities.

In order for a case to be adjudicated by a VC the crime or dispute should have happened or arisen in the UP. However, in practice, almost all of the cases in the VCs are between individuals who live within the UP, it is very rare for the VCs to resolve cases involving an individual living outside the UP.

An important difference between VCs and informal DRMs is that the VCs have the enforcement power of the government, in addition to the informal social enforcement mechanisms that are used by both the VCs and the informal DRMs. The VC can use the Village Police who are employed at the local level, armed only with sticks and rarely using force to enforce an order. Village Police are often used to bring defendants to the VC or to serve notices to witness to appear in court. If a VC cannot enforce a decision locally, it can bring the case to the District Court, who can direct the ordinary police to confiscate assets from people owing money as a result of the VCs decisions. In practice, it is very rare for the VC to bring in the District Court to help them with enforcement, but the threat of this enforcement may still improve adherence to VC decisions than the decisions of informal DRMs.

2.2 Inactive VCs

Despite having a legal basis for existence since the 1970s, the VCs were not functional prior to the AVCB program. This was due to the limited capacity of the UP officials to implement the procedures as prescribed by the law. Another reason for the lack of utilization of VCs could be due to lack of information. The baseline data reveals that only

9% of households were aware of VCs and their right to utilize a VC to resolve disputes. Furthermore, in our control group no actual disputes were reported as being resolved in a VC although some households reported that they would resolve some hypothetical disputes in VC if they occurred.

2.3 Existing DRMs and their usage

The most common DRM is an informal mechanism known as a *shalish*. Since the *Shalish* does not follow any particular rules or regulations, it varies considerably across cases and locations. However, a *shalish* is typically conducted by village leaders who often are powerful men from the same village or villages nearby to the individuals involved in the dispute. The *shalish* does not have a formal enforcement mechanism, but its decisions are typically enforced by social pressure from the local community.

In our control group, 68% of the resolved disputes were resolved in a *shalish*. 21% of resolved cases were resolved in district courts, which is the second most common DRM, and no cases were resolved in VCs. The *Shalish* and VCs are the more affordable dispute resolution mechanisms, with average total costs approximately equal to BDT 14,000 and BDT 6,800, respectively. The average monthly expenditure among households in our household survey is BDT 22,700, making the average cost of a dispute resolved in the *shalish* 62% of average monthly expenditure while making dispute resolution in a VC 30% of average monthly expenditure. These costs do not only reflect monetary costs – in fact, only 40% of this cost is calculated to be a monetary amount. The remaining amount reflects the income lost due to travel time and the time spent in dispute resolution. For the poor, costs that do not involve direct monetary sums are often less cumbersome, making the *Shalish* and VCs relatively affordable and accessible for the poor. On the other hand, disputes resolved in a district court had an average total cost of BDT 350 thousand, or more than 15 months of average household expenditure. It is evident that dispute resolution through a district court is unaffordable for the majority of the households in our sample.

While both the *shalish* and VCs are accessible and affordable, the *shalish* is widely perceived to be biased towards rich and powerful people. According to one UP resident,

“I prefer to go to a village court than a *shalish*. People do not get justice at a *shalish*, because powerful people could influence the verdict of a *shalish*. They also could not go to the district court as they need to spend a higher amount of money to continue a case. People from the village do not also see going to district court positively.”

However, despite the risk of receiving an unfair verdict in a *shalish*, most rural residents still prefer *shalish* over the formal court system to resolve disputes, partly because it is less costly, but also because the idea of going to a “court” to resolve disputes is conventionally viewed unfavorably. According to another UP resident,

“Going to courts is seen negatively among the villagers. Moreover, it requires money, thus, it is expensive to go to a district court. Many times people, face many difficulties and inconveniences while going to a district court. Therefore, people who have sufficient money they prefer to go to district court.[...] *shalish* is not impartial these days. People sometimes do not get justice from *shalish*, because of monetary transaction to influence the verdict of a *shalish*.”

3. The AVCB Program: Design, methods and implementation

3.1 Background

The AVCB program was initiated by the Government of Bangladesh, with technical assistance from the UNDP and funding from the EU. The purpose of the program was to make the VC system functional, since the VC system had not been implemented by most UPs even three years after the passing of the Village Courts Act.

The AVCB program trains the relevant UP officials, provides physical infrastructure in the form of court room furnishings and stationary, and provides human capital support in the form of a VC assistant who helps with daily administrative tasks. The AVCB program also publicizes the VC system through television commercials, flyers, and open-air theatres, creating awareness amongst local citizens of their right to seek justice through the VC system.

The first phase of the AVCB program was started in 2009 and was implemented in 351 UPs. The Government of Bangladesh and the UNDP then decided to expand the AVCB to 1,080 additional UPs, covering all 8 divisions of the country and reaching a total population of approximately 33 million. This second phase roll out started in mid-2017. The program is expected to be active in these 1,080 UPs until at least the end of 2020.

3.2 Key program elements and programmatic activities

3.2.1 Proper training of potential judges of VCs on the Village Court law and the procedures

The AVCB program improves the UPs' capabilities to run effective courts. A functional VC requires that the elected officials of the UP are able to understand and implement VC laws and regulations. In the VC system, each disputant party can nominate one non-UP person as a judge. Therefore, the people most likely to be elected judges are required to have training on the relevant laws and procedures.

Although most UP representatives are engaged in dispute resolution, they mostly interact with the Shalish system. Therefore, they are limited in their understanding of dispute resolution through the VC mechanism. When we tested UP officials on their knowledge of the VC system, we found that few had comprehensive understanding of the VC rules and regulations.

The AVCB capacity building activities entail training of the UP officials on the VC processes. The training specifically targeted female UP members and general members with greater urgency. The training on VC for UP representatives and UP officials started on May, 2017 and ended on June, 2018.

The capacity building and training components were implemented union-wise by partner NGOs hired by the UNDP. Partner NGOs were trained by the UNDP and the Local Government Division.

3.2.2 Outreach activities to increase knowledge and awareness about the VCs

Another major component of the AVCB program is to create awareness of the VC mechanism through campaign and advocacy.

The program undertook community mobilization activities such as common area meetings that brought together immediate neighbors, community-wide meetings that brought together residents of a neighborhood, rallies, and multimedia drama shows in each program UPs. These activities began on July 2017; some of them are repeated periodically to date. These outreach activities targeting were implemented union-wise by the partner NGOs.

To ensure continued functionality of the VCs, it is also important to encourage monitoring by the district administration. The program facilitated workshops for government officials, district court judges, and journalists. These workshops were conducted between October 2017 and November 2018. These activities were conducted by the UNDP.

3.2.3 Provision of resources for proper execution of village court activities

The AVCB program supplied the required forms and furniture to make the VCs functional, and hired a Village Court Assistant (VCA) for each UP. The forms and furniture were supplied between April 2017 and November 2017. Hiring of VCAs was complete by June 2017.

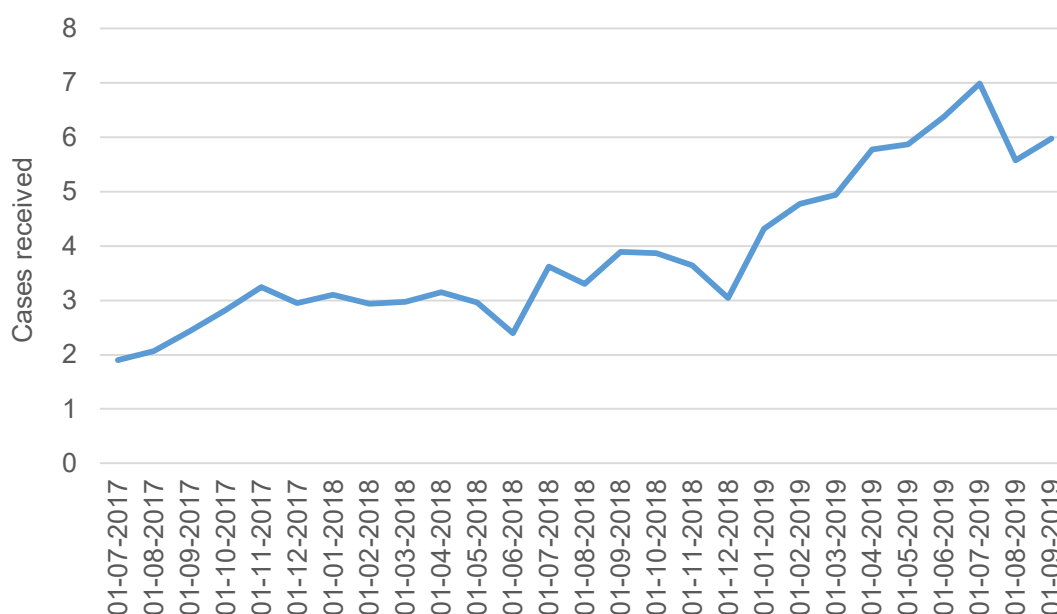
3.3 Program implementation timeline

Table 1: Program implementation timeline

Activity	Start date	End date	Jan 17	Feb 17	Mar 17	Apr 17	May 17	Jun 17	Jul 17	Aug 17	Sep 17	Oct 17	Nov 17	Dec 17	Jan 18	Feb 18	Mar 18	Apr 18	May 18	Jun 18	Jul 18	Aug 18	Sep 18	Oct 18	Nov 18	Dec 18	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19		
DF Engagement	Jan 17	Continue	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	
Court Yard Meeting	Mar 17	Continue			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	
VCA recruitment	Mar 17	Jun 17			█	█	█	█																											
Community Sharing Meeting	Apr 17	Nov 18			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█									
Ejlash and furniture delivery	Apr 17	Nov 17			█	█	█	█	█	█	█	█	█																						
Training on VC for UP representatives and UP Officials	May 17	Mar 18				█	█	█	█	█	█	█	█	█	█	█	█	█	█																
Multimedia Drama Show	Jul 17	Nov 18						█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█									
Rally	Oct 17	Dec 17										█	█	█																					
Upazila GO-NGO Outreach Workshop	Oct 17	Nov 17										█	█																						
Youth Workshop	Nov 17	Dec 17											█	█	█																				
PNGO engagement	Dec 17	Continue											█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Distribution of Signboards	Mar 18	Jun 18														█	█	█	█																
District GO-NGO Outreach Workshop	May 18	Jun 18														█	█																		
District level meeting with Journalists	May 18	Jun 18														█	█																		
Upazila GO-NGO VC Orientation	Oct 18	Nov 18																					█	█											
District Court outreach	Jan 19	Jul 19																								█	█	█	█	█	█	█	█	█	█
Refreshers Training on VC for UP representatives and UP Officials	May 19	Continue																														█	█	█	

Starting from July 2017, the UNDP has monitored the VC system using each UP's records of the number as well as the types of cases they have resolved in each month. The reporting happens on a quarterly level. In the figure below we can see the development of the number of new cases reaching the VC system in each month in Dhaka and Chittagong divisions. As evident in the figure, an average UP receives approximately 6 cases per month.

Figure 3: Cases received by VC, per UP by month



Number of cases received per UP for VCs in Dhaka and Chittagong divisions. Data is self-reported by UP officials to the UNDP monitoring system.

The figure also shows that the VC system is receiving an increasing number of cases over time and there is no clear evidence that the number of cases have stopped increasing even by July 2019. This is important for our evaluation since it suggests that the VC system may become more significant in dispute resolution and have larger effects in Bangladesh as it takes on more cases in the future.

One caveat in interpreting this data is that since it is self-reported by the UP officials, it is possible that UP officials are purposefully inflating the numbers to “look good”. There are no formal reasons or regulations incentivizing UPs to inflate the numbers, and we do not have any direct evidence that this is happening. However, in our qualitative work some UP officials reported that they were expected to resolve 5 cases per month and that this misperception may have caused some UPs to inflate their numbers.

3.4 Cost of implementation

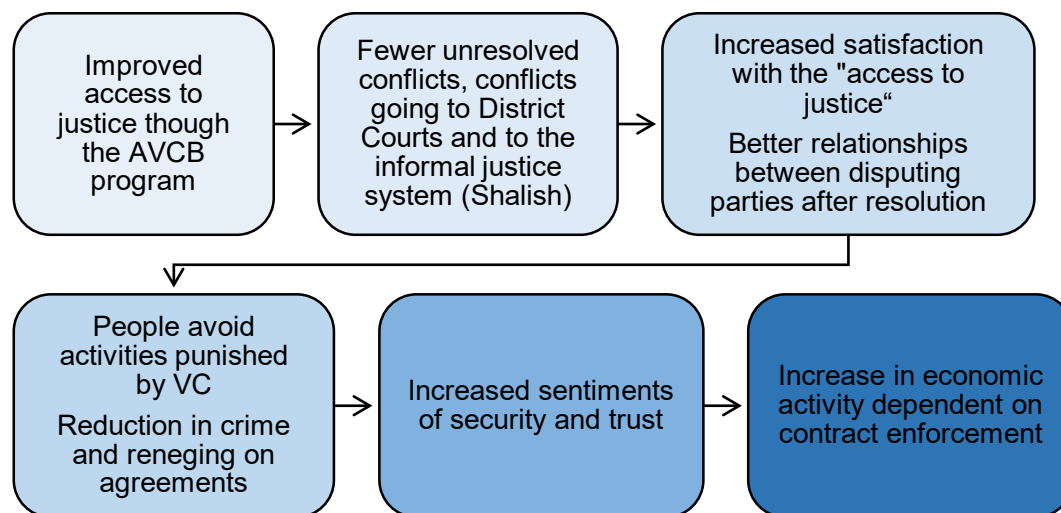
The 32 million USD cost of the second phase of the AVCB intervention is shared between the EU (27,645,755 USD), the UNDP (100,000 USD), and the Government of Bangladesh (4,826,684 USD). The total project cost is categorized according to the UNDP’s budget cost classification. For further details on the breakdown of project costs please refer to Appendix G.

4. Theory of change and research hypotheses

4.1 Theory of Change, hypotheses and potential mechanisms

We lay out a multi-step theory of change addressing the potential effects of the AVCB program on the lives and well-being of UP residents. This theory of change demonstrates that the AVCB program may have both positive and unintended negative effects, and that empirical research is needed to understand the actual effects. For each step in the theory of change we also highlight the outcome variables we will use to test our hypothesis in this step. Figure 4 provides a visual outline of our theory of change.

Figure 4: Theory of change



4.1.1 VC functionality

Large scale projects, especially in low- and middle-income countries, often suffer from problems in implementation. As is clearly seen from the lack of adherence to the Village Court Act before the AVCB program, creating the VCs and making them functional is a complex task and there are numerous ways in which this could potentially fail. The first aspect of functionality is that UP representatives and officials have sufficient training and knowledge to conduct the VC, are committing time to doing so, and are documenting the process as per the regulations. A second aspect of functionality is that the population knows about the VC and that they are inclined to use it for cases that the VC is designed to solve.

Outcome variables: UP officials and citizens' degree of knowledge about VC rules and regulations; time spent by UP officials on resolving cases in VCs; adherence to VC documentation protocols by the UP; knowledge among population of VC existence and inclination of people to use the VC to resolve hypothetical cases.

4.1.2 Demand for VC dispute resolution

Even if the program has a successful implementation and the VCs are therefore functional, it is not certain that the VC services will be demanded by the citizens. It is possible that the even if the VCs follow the rules and regulations, the existing DRM will be more attractive to resolve disputes. Therefore, understanding how the AVCB program changes the demand for VC services is an important component of our study.

Outcome variables: Fraction of pre-existing disputes that are resolved by each DRM; fraction of pre-existing disputes that are still unresolved; fraction of new disputes that are resolved by each DRM; fraction of new disputes that are still unresolved; number of cases reaching District Courts.

4.1.3 Access to justice and quality of dispute resolution

It is possible that the VCs are quicker and cheaper than the DRMs that would have been used if the VC had not been activated. Furthermore, resolutions that are better enforced through the VCs reduce the risk of the disputes extending post-judgment. However, it is also possible that adding rules and regulation as well as documentation requirements to the informal justice resolution system slows down the process and makes it more complicated and harder to understand.

Outcome variables: “Access to justice,” measured by a money metric of the cost in terms of time, money, and travel it takes to resolve a dispute; “quality of justice,” measured by the disputing parties’ subjective satisfaction with the dispute resolution process and decision, as well as the relationship between the parties after a resolution has been decided on.

4.1.4 Frequency of dispute and crime

A better dispute resolution may lead to fewer disputes because ongoing disputes are resolved quicker and people are discouraged from committing unlawful actions since they are aware of greater accountability due to the VCs. However, the VC system may also raise the number of active disputes.

Outcome variables: Frequency of dispute and crime.

4.1.5 Perceptions of disputes, justice and trust

With a change in how disputes are resolved it is possible that important measures subjective wellbeing also change. For example, with a better functioning dispute resolution system we would expect more people to be satisfied with the justice systems they are able to access. However, the VCs could also have adverse effects on people’s perceptions. For example, if more disputes are brought up and resolved, that may increase the perception of how large of a problem crimes and disputes are. Trust may also decrease as a result of more disputes being resolved openly.

Outcome variables: Subjective description of how large of a problem crime and unresolved disputes are. Trust and communal harmony.

4.1.6 Economic activity

With better law enforcement and fewer instances of unlawful behavior, people may increase participation in economic activities that require trust or contract-based engagement. Fewer unresolved disputes may also increase investments in previously disputed property and land.

Outcome variables: Amounts invested, fraction of investments made jointly, fraction of economic agreements with individuals outside of traditional contact enforcement mechanisms such as the family and village.

4.2 Other research hypotheses: Stress

An additional research hypothesis concerns the stress levels in the population that could potentially be affected by the AVCB program. The direction of this effect is ambiguous ex-ante. Stress levels could be reduced by fewer unresolved disputes, but could also be increased due to a greater number of total disputes brought to the courts, therefore increasing the stress levels of plaintiffs.

Outcome variables: Perceived Stress Scale.

5. Evaluation: Design, methods and implementation

5.1 Evaluation strategy

The impact evaluation is designed to answer a series of questions stemming from our theory of change, of the following form: “What is the effect of the AVCB program on outcome X?” where the outcome variable is a quantitatively measurable characteristic of a household, a UP or a dispute.

Our main identification strategy uses the random assignment of the AVCB program to two third of the 267 UPs in our study (178 treatment UPs and 89 control UPs). The 267 UPs were all the UPs eligible for the AVCB program in Dhaka and Chittagong divisions. The randomization was stratified by geographical area (Upazila) ensuring that the treatment was evenly spread geographically.

The randomized assignment of the AVCB program in our study area allows us to identify the causal effect of the program, since in expectation there are no differences in the distribution of potential outcomes between the treatment and control group due to randomization.

5.2 Determination of project area and study area

The decision of the study sample size of 267 UPs in Dhaka and Chittagong divisions was determined in collaboration with the UNDP and the Government. There are two eligibility criteria for participating UPs, and both are discussed in detail below.

The first criteria involves the selection of the 1,080 UPs that were eligible to participate in the AVCB program from Bangladesh’s approximately 4,550 UPs. This choice was made by the Government of Bangladesh in consultation with the UNDP. According to the first criteria, the selected UP could not have already received the AVCB program in the first phase of the program when it was piloted in 351 UPs.

The second selection criteria was based on an index created for all of Bangladesh’s 64 districts. Only 27 districts were selected based on the following criteria:

- Geographic remoteness,
- If they were coastal areas,
- If they were areas suffering from river erosion,
- If they were areas with “enclaves” (previously Indian territory),
- If they were so called “char” areas (river islands),
- The concentration of ethnic minorities,

- The % of female UP chairs in the district,
- If the UP had a “complex” at the district level⁴,
- If the UNDAF identified them as vulnerable areas.⁵

These 27 districts consisted of 2,185 UPs and therefore another selection process selected 1,080 UPs based on:

- Geographic remoteness,
- If they were coastal areas,
- If they were areas suffering from river erosion,
- If they were areas with “enclaves”,
- The % of female UP chairs in the Upazila,
- If the UP had a “complex” at the Upazila level.

Finally, the UPs that would be included in the RCT study were selected. Here the research team selected only the UPs in Dhaka and Chittagong divisions since a geographically concentrated study area would greatly reduce the survey costs of the study. Therefore, there are 267 UPs in Dhaka division and Chittagong division that are in the project.

5.3 Determination of UPs for survey

Due to budgetary restrictions we could not survey all 267 UPs in both the baseline and follow-up surveys. Instead we surveyed 107 UPs in our baseline survey and then surveyed those UPs again in the follow-up, as well as adding 67 new UPs for a total of 174 UPs in our follow-up survey. In each UP we surveyed 30 households and 4 UP officials as well as the VC assistant if there was one.

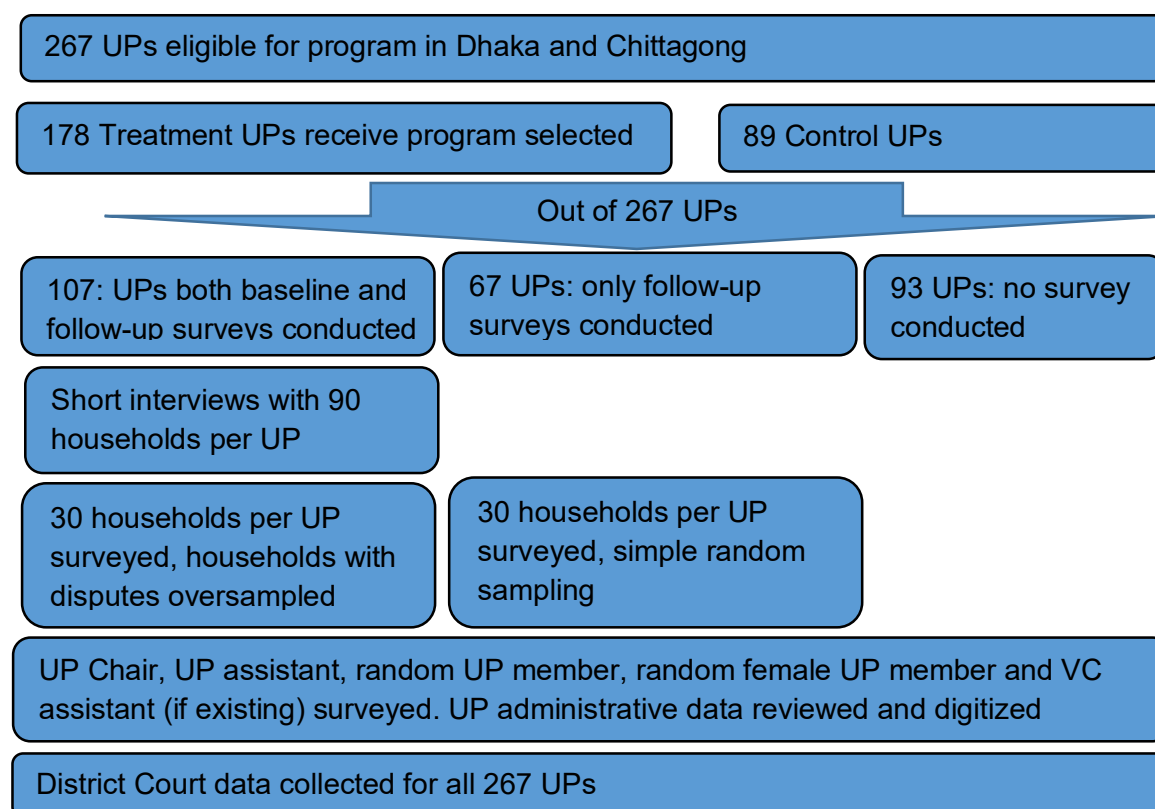
Initially we planned to survey the 107 UPs three times, i.e. have two follow-up surveys, but due to time constraints we decided to focus our resources on one larger follow-up survey approximately 2 years after the initial implementation of the AVCB program. In order to make up for the decrease in statistical power due to the limitation of the analysis to one wave of follow-up data we increased the sample size of the follow-up data collection to 174 UPs.

We conducted power calculations both before the baseline survey and then again after the baseline data was collected, having updated our assumptions. The results of these power calculations can be found in the Appendix E.

⁴ The UP complex is government funded UP office building. The features of the UP complex are: offices for the UP Chair, UP Secretary, an auditorium/meeting room, and space to accommodate the union-level government offices. This auditorium / meeting room is utilized to establish Ejlash (court bench) and can accommodate 50-60 people. The UP complex system has not been fully expanded to all unions in Bangladesh.

⁵ Two districts in the Chittagong hill areas were excluded as they will receive a different strategy for improving access to justice.

5.4 Visualization of randomization and UP sampling



5.5 Data collection

We collected quantitative data from 4 sources:

1. Households living in the study area;
2. UP officials working in the study area;
3. Administrative documents from the UPs;
4. Administrative data on cases filed with the district courts of the study area.

5.5.1 Household data, UP officials and UP administrative data: Baseline data collection

In our baseline data collection we collected data from households, UP officials and UP administrative documents from 107 UPs (out of our 267 study UPs). The baseline data collection was conducted from April to May, 2019. These UPs were randomly selected and the randomization was stratified on treatment status and geographic location. This was done to ensure that half of the baseline UPs would be treatment UPs and half of them would be control UPs, and that selected UPs were evenly spread geographically.

To increase the number of households in our survey that were directly affected by the VCs, we conducted a short survey with a larger number of respondents (90 per UP). Among these respondents we then oversampled respondents that had experienced a dispute in the past year by a factor of 4 (these were 4 times more likely to be included in our survey than a household with no dispute in the past year). Furthermore, we oversampled households with unresolved disputes within the jurisdiction of the Village Court by a factor of 8 (these were 8 times more likely to be included in our survey than a household with no dispute in the past year).

For each household, only one household member was interviewed. Enumerators attempted to interview the household head, and if the household head was not available the surveyor came back to the household at a time when the household head would be available. If the household head was still not available, the most knowledgeable household member, above the age of 18, was interviewed.

Household were paid BDT 100 (approximately USD 1.2) as compensation for their time.

5.5.2 Household data, UP officials and UP administrative data: Follow-up data collection

The follow-up data collection was conducted from July to September, 2019. The follow-up survey included all the UPs from the baseline survey as well as 67 new UPs. These new UPs were again randomly selected with the randomization stratified on treatment status and geographic location so that half of the baseline UPs would be treatment UPs and half of them would be control UPs, to ensure that the selected UPs were evenly spread geographically.

For the 107 UPs which were included in the baseline survey, some households had moved within the UP or were temporarily absent from their homes. These households were searched for by the field team with the help of neighbors and village leaders. If any contact information was available, the field team contacted them to find their availability. In some cases, absent households who were contacted households agreed to participate in the survey and we could interview them when they returned. If no contact could be made these households were excluded from the survey.

In the household level survey, for the 107 UPs which were included in the baseline survey, some households had separated. In these cases, first the field team was instructed to interview the same person as in the baseline survey, if he or she was not available then the current household head (or if not available the most knowledgeable person) in the household of the interviewed person was interviewed. If the interviewed person had separated from the household and had moved outside the UP, the part of the household that was within the UP was interviewed. If none of the parts of the separated household were within the UP, the household was excluded from the survey.

5.5.3 District court administrative data

To measure the effect of the AVCB program on the formal court system we collected administrative data on the number of cases filed in the 7 relevant district courts for all of the 267 UPs. This data was collected from January 2019 to July 2019 but it only covers cases filed with courts from September 2018 to January 2019 as well as cases filed in January 2017 (which is used as a baseline control).

More details about the data collection can be found in the Appendixes A and B.

5.5.4 Quality controls on data collection

The surveys used three main forms of quality controls. The first is random audio recordings from each survey. For each survey a team of back checkers listened to three of these random audio recordings. This provided real time quality controls of individual surveyors' approaches to asking questions and interpreting responses.

Second, high frequency checks of the data were used to identify any kind of issues in the data collection. These included measures of enumerators' performance, time taken per survey, enumerator productivity, survey result and outliers. If any unusual figure appeared, the enumerator was contacted immediately to find out the reason behind the unusual pattern. If any enumerator took longer time than usual, his audio recordings were checked, he was contacted for explanation and necessary steps were taken. If any unusual value was noticed in the collected data, the enumerator was contacted to double check, inform us and keep notes so that it can be cleaned further at the time of data cleaning.

The third form of quality control was traditional back checks in which a team of surveyors visited 10% of the households surveyed and asked selective questions from the original survey. The responses to these questions were then compared to the original responses.

5.5.5 Training and monitoring field team

The field supervisors and enumerators were prepared for conducting the survey through a week-long training session and a one-day field test. In the training, the field protocols for different surveys were discussed in detail and the roles and responsibilities of the field team were explained. The enumerators were provided with both the paper questionnaires and the tablets used during the surveys, to help them better understand how to conduct interviews and complete the questionnaires properly. The focal issues of the training included survey and data collection methodologies, basic knowledge about the VCs, discussion on disputes and the scope of VCs, section-specific review of the protocols and questionnaires, and mock sessions by enumerators using tablets. After the training session, the field team visited a site outside the study area for practice. Following the field test, the field documents were updated based on feedback and updates from the field test.

While the field teams were conducting the survey, data quality as well as the enumerator's performance were regularly checked by considering the time taken per survey, the delivery pattern of different questions (through the audio snippets collected), and the number of surveys completed per day. Critical issues such as more time taken by an enumerator, problems in question delivery, the behavior of enumerators towards respondents were observed very carefully, and immediate actions were taken by and Innovations for Poverty Action officials where necessary, to maintain the quality of the data collected.

5.5.6 Planning the analysis

Since increased access to justice could change many aspects of both communities and individuals' lives, we had to narrow the focus of our study. We firstly outlined a theory of change for the mechanisms through which improved access to justice might change overall socio-economic outcomes. This theory of change is described above. Secondly, we focused our analysis by writing a detailed pre-analysis plan and publishing this with the AEA RCT registry.⁶ The analysis in the following section closely follows the Pre-Analysis plan, located in Appendix D.

⁶ AEA RCT registry number AEARCTR-0001563.

5.5.7 Handling extreme outliers

Most of our outcome variables are not subject to the problem of extreme outliers since they are either measured in administrative data or take the forms of opinions on scales with a predetermined number of levels. However, some outcomes are continuous and to avoid that extreme outliers have too much of an effect we winsorized these continuous variables at the 99th percentile.

5.6 Empirical strategy

Most of our analysis will be done using regression analysis of the following form:

$$y_i = \alpha + \beta Treat_i + \gamma X_i + \epsilon_i$$

Where y_i is an outcome variable, $Treat_i$ is a dummy variable indicating treatment and X_i is a vector of control variables from before the start of the AVCB program. When the baseline value of the outcome variable is available this is added to the control variables. The control variables are added to improve the precision of our estimates of the treatment. If no control variables are available because the observation has no baseline data, the control variable is set to zero and a dummy variable for if the observation has baseline data is included in the vector of controls. The standard errors are clustered at the UP level since that is the level of the randomized treatment assignment.

In many of our analyses the natural logarithm transformation is approximated by the Inverse Hyperbolic Sine (IHS) transformation, which is similar to the natural logarithm but allows for zero-valued observations to be included.

All the analysis done on the whole sample of households is weighted to take into account the oversampling of households with disputes. This is to make the results representative of the population of the study area. The households are weighted by the inverse of their probability of being sampled, the weights are then adjusted so that the total weights in each UP are equal to the number of households sampled in that UP. The households in the UPs where we only did the follow-up survey were not sampled based on if they had a dispute or not, therefore they receive a weight of 1 in our analysis. The part of the analysis that only includes households that had a dispute at baseline is unweighted.

More details about each individual analysis is given in Section 9.

5.6.1 Attrition

Out of 3,206 households interviewed in the baseline survey, 188 could not be interviewed for the follow-up survey. In other words, the attrition rate was 5.9% for the household survey. The main reason for attrition was that the whole household had migrated, a less common reason for attrition was that despite several attempts the enumerators could not find any household member present at the address. In addition to these reasons we had 13 cases in which the household did not want to participate in the follow-up survey. 9 of these cases were from a UP where murder had taken place and therefore households in this UP were not comfortable speaking to our enumerators about disputes and conflicts. There were also 4 households that did not want to speak to us due to an ongoing case of large scale land dispute in that UP.

We analyze the attrition rate in the section discussing the results and find no evidence that the treatment affected the attrition.

5.6.2 Interpretation of opinion measures on 1 to 5 scales

Many of our opinion outcome variables from the household surveys are measured on a five-point scale. For example, questions asking people's satisfaction with the justice system, and the extent to which they consider crime and unresolved disputes as problems in their society, are measured using the same five-point scale. While this is a common way to measure subjective opinions, it does require some assumptions when collapsing the 5 potential answers into a single measure. When we collapse the measure into one dimension, we assume that the difference between each level of the 1 to 5 scale corresponds to an equal difference in individuals' levels of opinion. For example, we assume that the difference in opinion between people answering unsatisfied (2) and neither unsatisfied nor satisfied (3) is the same as the difference between people who answer satisfied (4) and very satisfied (5).

To make the effects on these outcome variables more interpretable we recast them as standard deviations by subtracting the mean of the control group and dividing them by the standard deviation of the control group. However, this still requires the assumption mentioned above.

5.6.3 Ethical considerations and IRB approval

The research project has received IRB approval from both Yale University's and Innovations for Poverty Action's Institutional Review Boards. All staff with access to the data have taken the required human subject protection training courses.

The AVCB program was planned to be implemented in only 1,080 UPs. This is important, since if the program had been planned to be implemented in all of Bangladesh's UPs, a randomized assignment would by definition withhold the program from certain UPs that otherwise would have received the program. However, both the limited implementation of the AVCB program and the randomized assignment in Dhaka and Chittagong divisions meant that we did not withhold the AVCB program from UPs that would have otherwise received the program.

6. Impact analysis and results of the key evaluation questions

6.1 Effect of the AVCB program on VC functionality

The first important measure of the effects of the AVCB program is its effect on the functionality of the VCs. In other words, in this section we will be testing if the AVCB program did indeed activate the VCs as hypothesized in Step 1 of our theory of change. We will test this using four different sets of outcome variables as proxies for VC functionality:

1. UP officials knowledge of VC rules and regulations
2. Time spent by UP officials on resolving cases using the VC system
3. The amount and quality of case documentation
4. The number of households stating that they would resolve a hypothetical dispute in a VC

6.1.1 Effects on UP officials

In order to find the impact of the AVCB program on the knowledge of the UP officials, we conducted a quiz about VC rules and regulations, administered on the officials that we

surveyed. Two different quizzes were constructed in collaboration with the UNDP. The respondents randomly received one of the two quizzes in the baseline, and then the other in the follow-up to avoid learning of the correct answers after taking the first quiz.

To create our outcome variable, we take each score and recast it as a standard deviation by subtracting the mean of the control group and dividing it by the standard deviation of the control group. We are excluding Village Court Assistants from this analysis since they were only hired in the treatment areas and would therefore create a change in our sample of officials that could affect the results.

In the analysis below we use the regression model discussed in the Empirical Strategy part of Section 7, having the standard deviation of the test score away from the control mean as the outcome variable. In the below estimation, the value of the control variables is replaced by zero if the respondent was not interviewed before the treatment, and a dummy variable indicating if the UP was surveyed at baseline is also included.

Here, the β for the treatment is positive, indicating that the program increased the knowledge of the UP officials about the village court. The magnitude of the treatment effect is 0.889 standard deviations, which is significant at the 1% level. This shows that the AVCB program did indeed increase the knowledge about the VCs in accordance with our theory of change.

Table 2: Effect on knowledge about VC rules and regulations

VARIABLES	(1) Test Score (standard deviations)
Treatment Union	0.889*** (0.0767)
Standard test score in baseline survey	0.0646 (0.0493)
Baseline Union	-0.424 (0.337)
Respondent type: UP Chair	0.334 (0.273)
Respondent type: UP Member	0.0311 (0.241)
Respondent type: Female UP Member	-0.361 (0.249)
Respondent type: UP Secretary	0.188 (0.299)
Age at baseline survey	-0.00140 (0.00444)
Respondent's year of education at baseline survey	0.0391** (0.0151)
Hours per week spent on dispute resolution at baseline in VC	0.0128 (0.0102)
Observations	678
R-squared	0.345
Clusters	174
Control mean	-0.0168

*** p<0.01, ** p<0.05, * p<0.1 Standard errors clustered at the UP level in parenthesis. Observations are individual UP official.

We also investigated the effect of the AVCB program on the time that the UP officials spend in resolving disputes through the VCs. We asked the UP officials about the number of hours they spend for VC dispute resolution in a typical week.

In the estimation below, the IHS of the hours spent is used as the outcome variable. Column (1) reports estimates on the full sample and Column (2) reports the estimate on the female-only sample. It appears that AVCB program increased effort by all members as well as by the female members. UP officials of the treatment UPs on average spent 150% (approximately 92 log points) more time in resolving cases using the village courts compared to UP officials in the control UPs. Female UP officials from the treatment UPs spent 162% (approximately 96 log points) more time on average than their counterpart in the control UPs.

Table 3: Number of hours UP officials spend in a typical week on resolving cases through VCs

VARIABLES	(1) IHS(Hours)	(2) IHS(Hours)
Treatment Union	0.920*** (0.0810)	0.962*** (0.126)
IHS(Hours spent at baseline)	0.0435 (0.0520)	0.0984 (0.0966)
Baseline Union	-0.333 (0.285)	-1.000** (0.438)
Respondent type: UP Chair	0.959*** (0.166)	
Respondent type: UP Member	0.321** (0.133)	0.0104 (0.309)
Respondent type: Female UP Member	0.214 (0.131)	0.537*** (0.149)
Respondent type: UP Secretary	-0.585*** (0.162)	-0.459 (0.344)
Age at baseline survey	0.000768 (0.00394)	0.00366 (0.00778)
Education at baseline survey	-0.00260 (0.0126)	0.0233 (0.0193)
Observations	678	187
R-squared	0.346	0.272
Clusters	174	173
Control mean	0.899	0.692

Standard errors clustered at the UP level. *** p<0.01, ** p<0.05, * p<0.1. Observations are individual UP official.

It is evident that the AVCB program increased the stated effort among UP officials in resolving cases using the VC.

6.1.2 Effects on case documentation

One important difference between the VC system and *shalish* is that the VC system documents cases in a systematic way, therefore individuals who have had disputes resolved in a VC have documentation to prove the outcome of that resolution. It is important to test how the AVCB program changed the ways in which cases were documented.

To test the effect of the treatment on the number of cases documented by the VC, we digitized all the cases in the UPs administrative records for the time period from August 2018 to July 2019. This data collection was done in conjunction with the survey of UP

officials and representatives. We then use the IHS of the number of documented cases as the outcome variable in our standard regression framework.

The regression shows us that the number of documented cases from August 2018 to July 2019 is more than three times higher (approximately 128 log points) in the UPs that received treatment. This results again shows that the AVCB program was successful in activating the VCs and that the results are consistent with the first step of our theory of change.

Table 4: Effect on the number of documented cases⁷

VARIABLES	(1) IHS(Documented cases)
Treatment	1.280*** (0.224)
Observations	174
R-squared	0.160
Average number of documented cases by UP (Control mean)	38.47

*** p<0.01, ** p<0.05, * p<0.1 Observations are individual unions. Robust standard errors in parenthesis.

In addition to showing that more cases were documented as a result of the AVCB program it is also interesting to know if the cases that were recorded have more comprehensive documentation. We test this by estimating the effect of the AVCB program on the fraction of the required forms that were both filled and filed for all cases.

There are seven forms that are required for all cases in the VC system. There are also many additional forms that are required depending in the nature of the case and resolution. Since it is possible that the AVCB program changes the nature of cases and resolution types, we focus only on the required forms to measure the extent to which UPs are following the rules of the VC system when documenting a case. We cannot control whether the forms were filled out correctly, instead we focus simply the existence of require forms for the cases that were documented.

Our analysis here is done at the reported case level, so there are more observations in the AVCB program UPs than in the control UPs, and there is a selection issue where different types of cases are part of the analysis for the treatment and control groups. Keeping that caveat aside, for each case our outcome variable is the fraction of required forms that existed when our enumerators digitized the administrative data for the past year. Therefore, the highest attainable fraction is one, if all seven required forms were filled out and filed while the lowest attainable score is zero if none of the required forms were filled out and filed.

The estimated treatment effect is both positive and highly significant which shows that the AVCB program improved the quality of record keeping for the cases that were recorded. The magnitude of the effect is 33 percentage points which is a 106% increase

⁷ This analysis was not part of the pre-analysis plan but was added since both the extensive margin (number of documented cases) and intensive margin (quality of documentation) are important outcomes when measuring the AVCB programs effect on documentation.

from the control mean of 31 percentage points. In other words, the AVCB program not only increases the number of cases documented in the VC system, it also substantially increases the quality of the documentation.

Table 5: Effect on fraction of required VC documentation protocols filled out and filed

VARIABLES	(1) % of forms filled out and filed
Treatment	0.327*** (0.0343)
Observations	7,499
R-squared	0.328
Clusters	172
Control mean	0.311

Standard errors clustered at UP level in parenthesis. *** p<0.01, ** p<0.05, * p<0.1 Observations are individual cases.

6.1.3 Effects on households stated propensity to use VCs

The final component of measuring VC functionality is estimating the effects that the AVCB program had on households' stated propensity to use the VCs. In this section we will analyze the effect on the stated propensity to use the VCs while in the sections below we will discuss the effects on actual usage.

The first step in a household using a VC is that the household believes that the VC is active in the UP. We measure this by estimating the effect on the fraction of households responding that a VC is indeed active in their UP. We have coded the answer to this question as a dummy variable where 1 represents a positive answer, and use this variable as the outcome variable in our standard regression framework. The results are shown in Columns (1) and (2) below. Including the full household sample in Column (1) gives us a 15 percentage point estimate of the effect of the AVCB program on this outcome, the effect is statistically significant at the 1% level. This increase is a 110% increase above the control group mean of 13 percentage points. Column (2) restricts the sample to the households who had disputes at baseline and who are the most likely to use dispute resolution mechanisms. This does not qualitatively change the results showing us that the results are not driven by individuals who are more likely to have disputes.

Columns (1) and (2) shows that the AVCB program was not only effective in activating VC but also at increasing the awareness of the active VCs. Although the program raised awareness it did not reach complete awareness and even in the treatment group more than two thirds of the households did not know that there was an active VC in their UP.

It is important to note that statements of households that the VC in their UP is not active or that they don't know if the VC is active does not mean that there is no VC active in that UP. In other words, the estimate that 28% of households in treatment areas responded positively to this question does not mean that VC were active in only 28% of the UPs. However, it does mean that even in the UPs that received the AVCB program, only 28% were aware of there being an active VC in the UP. This lack of awareness limits the potential effect of the VCs since more than two thirds of households would not

even consider using the VC since they don't know that it is active in their UP. The issue of the limited effects of the VCs due to the limited usage of them will be discussed in more detail in the following sections.

Table 6: Knowledge about VC and inclination to use VC for hypothetical disputes

VARIABLES	(1) VC Active	(2) VC Active	(3) Hypothetical Disputes	(4) Hypothetical Disputes
Treatment	0.146*** (0.0245)	0.105** (0.0418)	0.121*** (0.0290)	0.127** (0.0606)
Observations	5,064	1,174	5,064	1,174
R-squared	0.044	0.040	0.015	0.020
Sample	Full	Households w. disputes at baseline	Full	Households w. disputes at baseline
Controls	Yes	Yes	Yes	Yes
Clusters	174	107	174	107
Control mean	0.133	0.187	0.132	0.169

Standard errors clustered at UP level. *** p<0.01, ** p<0.05, * p<0.1. Observations are individual households. Columns 1 and 3 includes the full sample and use sampling weights. Columns 2 and 4 are restricted to households with disputes at the baseline and are unweighted.

We also measure the household's propensity to use VCs by asking households where they would resolve 4 hypothetical disputes within the jurisdiction of the VC. We ask households about one credit dispute, one case of assault, one case of illegal land occupation, and one case of damage to harvest or property. Our measure is the number of these hypothetical cases that a household would resolve in a VC, a measure between 0 and 4.

Column (3) and (4) in the table above shows the estimated effect of the AVCB program on the number of hypothetical disputes that the households would resolve in VC. Column (3) uses the full household sample and shows an estimated effect of 0.12 disputes, statistically significant at the 1% level. This is a 92% increase from the control mean of 0.13 cases. While the AVCB program was clearly effective in raising the stated propensity to resolve disputes in VC, the magnitude of the increase was not particularly large. All four of the hypothetical cases were within the jurisdiction of the VC and had the program been successful in making the VC the most popular DRM, the estimated effect would have been much higher. However, in the summary statistics Appendix F it is shown that *shalish* is still the most popular way to resolve disputes even after the implementation of the AVCB program. Column (4) restricts the sample to the households who had disputes at baseline and who are the most likely to use dispute resolution mechanisms. This does not qualitatively change the results showing us that the results are not driven by individuals who are more likely to have disputes.

6.2 Effects on pre-existing disputes

The reason for focusing on pre-existing disputes, i.e. disputes that we identified during the baseline survey, is that these disputes do not suffer from a potential selection bias since they were selected before the start of the treatment. If the treatment affected what

types of disputes that occurred, it is possible that an analysis taking into account all of the disputes are analyzing samples that are different in the treatment and control groups. With the pre-existing disputes no such selection bias can occur.

However, there are also drawbacks of focusing on pre-existing disputes. First, it severely reduces the sample size and therefore the power that we have to find the effect of the AVCB program. Second, when focusing only on resolved pre-existing disputes we are restricting the sample in a way that excludes many long-standing disputes, since these are less likely to have been resolved by the follow-up survey. Therefore, the average cost and time to resolution are likely smaller for this sample of disputes than for all dispute.

6.2.1 Effects on how pre-existing disputes were resolved

The first step in the VCs improving the access to justice and quality of dispute resolution is for them to be used. We test how the AVCB program increased usage of VCs among the pre-existing disputes by creating variables indicating the fraction of pre-existing disputes that were resolved in each UP and then using this as the outcome variable in our standard regression framework.

Column (1) in the Table below shows that the AVCB only increased VC usage by 0.4 percentage points and the result is not statistically significant. In the control group, none of the pre-existing disputes were resolved by VC. This result could be because the pre-existing disputes from the baseline that were resolved at all were resolved relatively soon after the baseline survey while the AVCB program was just starting and had not yet fully activated the VCs.

Columns (2)-(5) do not find any substantial effect of the AVCB program on the usage of any other dispute resolution mechanism, although the effect on the increase in District Court usage is significant at the 10% level. Column (6) shows that the fraction of unresolved disputes decrease, but that the effect is only significant at the 10% level.

Table 7: Effects on institutions used for dispute resolution

	(1)	(2)	(3)	(4)	(5)	(6)
	Village Court	District Court	Shalish	Police	Other	Unresolved
Treatment	0.00376 (0.00268)	0.0576* (0.0323)	0.0463 (0.0478)	-0.0226 (0.0211)	-0.00133 (0.00497)	-0.0963* (0.0555)
Observations	104	104	104	104	104	104
R-squared	0.020	0.031	0.009	0.011	0.001	0.028
Control mean	0	0.0980	0.248	0.0421	0.00600	0.572

Robust standard errors. *** p<0.01, ** p<0.05, * p<0.1. Observations are unions.

It is possible that the reason we do not see any effect on VC usage among pre-existing disputes is that these disputes were already engaged with one DRM and that the AVCB program did not move disputes from other DRM to VCs. In the Section 9.3 we therefore analyze effects on new disputes that were not identified in the baseline survey.

6.2.2 Effects on cost and quality of dispute resolution

After having analyzed how the AVCB program affected how pre-existing disputes were resolved we will now estimate the effects on the cost and quality of dispute resolution. Given the very minor uptick in VC usage we do not expect substantial effect on any of

these outcomes among pre-existing disputes but we include these results for completeness. We will be focusing on pre-existing disputes that were resolved at the time of the follow-up survey. We exclude disputes that were not resolved since we do not have the data for the outcome variables for these disputes.

We measure the cost of a dispute resolution as the total cost including direct costs such as the fees paid to those resolving the dispute and any lawyers or advisors. We also include indirect costs such as the cost of travel to and from the hearings as well as the value of the time spent attending the hearings in terms of lost wages. After adding up the total cost we take the IHS of the cost and use it as the outcome variable in our standard regression framework. The point estimate is 0.06 but not statistically significant and has a very wide confidence interval. The standard errors are large in this analysis both because of the restricted sample as well as the noisy outcome variable.

In terms of the quality of the dispute resolution we measure this using three outcome variables: the relationship between the parties after the resolution of the dispute, the subjective satisfaction with the dispute resolution process as well as the speed of the dispute resolution measured. All three of these measures are normalized as the standard deviation away from the mean in the control group and they are defined so that a higher value is a better outcome, i.e. a better relationship, a higher level of satisfaction and fewer days to resolve the dispute.

The estimated effect on these three measures are all close to zero and not significant. Overall these results are not surprising given that the AVCB program did not substantially change how pre-existing disputes were resolved.

Table 8: Effect on the access to justice and quality of dispute resolution⁸

VARIABLES	(1) IHS(Cost)	(2) Relationship	(3) Satisfaction	(4) Speed
Treatment	0.0562 (0.520)	-0.0888 (0.103)	-0.177 (0.121)	0.0923 (0.127)
Observations	402	450	380	381
R-squared	0.000	0.002	0.007	0.002
Clusters	92	94	90	91
Control mean	71457	-3.97e-09	6.02e-10	2.45e-10

Standard errors clustered at UP level. *** p<0.01, ** p<0.05, * p<0.1. Observations are resolved disputes from the baseline.

6.3 Overall effects on disputes

6.3.1 Effect on the frequency of dispute

One important step in our theory of change is that VCs reduces both the incidence of unlawful activity leading to fewer disputes as well as the number of unresolved disputes among the disputes that do occur. To test if these hypotheses, we use our standard regression framework at the household level with the number of new disputes, the number of new resolved disputes and the number of new unresolved disputes as

⁸ In the pre-analysis plan Relationship, satisfaction and speed were planned to be aggregated into an index but because of the null effect we separated the variables to show that the null effect is not due to opposing effects on the different variables.

outcome variables. New disputes are disputes that did not exist at the time of the baseline survey, or for the households that were not part of the household survey occurred within 2 years before the follow-up survey.

In the table below we show the results of these three regressions. The table shows that the AVCB program did not have a statistically significant effect on neither the number of disputes, the number of resolved disputes or the number of unresolved disputes. The point estimates for the effect on all three measures are marginally positive.

Table 9: Effect on dispute frequencies

VARIABLES	(1) All	(2) Unresolved	(3) Resolved
Treatment	0.0298 (0.0227)	0.0110 (0.0158)	0.0184 (0.0118)
Observations	5,064	5,064	5,064
R-squared	0.001	0.000	0.001
Clusters	174	174	174
Control mean	0.207	0.121	0.0845

Standard errors clustered at UP level. *** p<0.01, ** p<0.05, * p<0.1. Observations are at the household level.

These results are important in showing where in our theory of change the full hypothesized effect of the AVCB program breaks down. We have shown that the AVCB program was successful in activating the VC, but here we show that this was not sufficient to reduce the number of disputes or the number of unresolved disputes.

6.3.2 Effects on usage of dispute resolution mechanisms

In addition to showing results on how the AVCB program affected the number of disputes, we also analyze the effect on how dispute resolution overall changed as a result of the program. In this analysis one has to keep in mind that the AVCB program may have affected what type of disputes that occur in the first place so the direct mechanism of how the program changed the way disputes are resolved is not clear. It could either be by changing the type of disputes that occur or by changing how disputes that would have occurred anyway are resolved or a combination of these two mechanisms.

We will show the effect of the AVCB program on the fraction of disputes resolved in each of the main dispute resolution mechanisms available in rural Bangladesh. The table below shows the results of six regressions where the unit of observation is the UP. Each of the regressions in Columns (1)-(5) estimates the effect of the AVCB program on the fraction of cases resolved in that dispute resolution institution. The final column estimated the effect of the AVCB program on the fraction of disputes that remain unresolved.

The only result that is statistically significant at the 5% level is that the AVCB program increased the fraction of cases resolved in the VCs by 1.7 percentage points or by 349% from a control mean of 0.5 percentage points. While this result shows that the AVCB program did indeed increase the use of VCs it also highlights that the magnitude of the effect is limited with only about 1.7 percentage points more of the disputes being resolved in VCs.

Table 10: Effect on fraction of cases resolved using various DRM⁹

VARIABLES	(1) Village Court	(2) District Court	(3) Shalish	(4) Police	(5) Other	(6) Unresolved
Treatment	0.0172** (0.00694)	0.0308* (0.0166)	0.00968 (0.0288)	-0.0114 (0.00882)	0.00284 (0.00297)	-0.0519* (0.0309)
Observations	173	173	173	173	173	173
R-squared	0.035	0.020	0.001	0.010	0.005	0.016
Control mean	0.00493	0.0677	0.272	0.0379	0.00332	0.574

Robust standard errors. *** p<0.01, ** p<0.05, * p<0.1. Observations are UP.

Given that the fraction of disputes that were resolved in VCs increased, the natural follow-up question is which DRM saw a decrease in the fraction of disputes resolved these dispute resolution. Unfortunately, our study is underpowered to give a precise answer to this question. Columns (4) and (6) suggests that the disputes might have been disputes that otherwise would have been resolved by the police or would have gone unresolved but only the effect on unresolved disputes is even marginally significant at the 10% level. It is surprising that Column (3) does not indicate any decline in the use of *shalish* even though this is the dispute resolution mechanisms most similar to VC and the dispute resolution that is reduced the most by the treatment among the hypothetical disputes (see descriptive statistics Appendix F). It is also interesting that the number of cases being resolved in District Courts does not decrease with the AVCB program, if anything it may have increased slightly. This result is confirmed by our analysis of the District Court's administrative records below.

6.4 District court analysis

Another important goal of the VC system is to reduce the burden on the formal court system. To test the AVCB programs effect on the case burden of District Courts, the lowest level formal courts, we used the LHS of the number of cases from each UP as the outcome variable in our standard regression framework. The number of cases is the total number of cases received by the District Court from a particular UP from September, 2018 to January, 2019. Since the data from the District Courts include all 267 UPs in the study, this analysis uses the full sample of UPs and not just those that were surveyed.

If the VC system has a positive impact on reducing the burden on the existing formal court system, then the number of cases brought into district courts for treatment UP's should be lower than those for control UP's, so β should be negative.

In the table below, Column (1) shows the results from a regression as specified without including control variables while columns (2), (3), (4), and (5) includes controls for District Court fixed effects and the LHS of the number of cases from the UP in the pre-treatment period January, 2017. Column (1) and (2) uses all cases received by the District Court. Column (3) restricts the sample to cases which involve an amount below 75000 taka – the maximum amount for which VC's can be used to resolve settlements. Column (4)

⁹ In the pre-analysis plan we had planned to measure these outcomes by comparing the effects on the absolute numbers. We changed the specification to the fractions since the total number of disputes was slightly higher in the treatment group and we wanted the analysis to highlight the DRM usage and not changes in the total number of disputes.

restricts samples to case types within the VC jurisdiction¹⁰. Column (5) restricts the sample to both the criteria in columns (3) and (4).

In none of the specifications estimate a significant effect of the AVCB program on the case burden of District Courts. It does not seem to be the case that treatment causes lower levels of cases filed for a particular UP. Although the point estimate of the coefficient β becomes less positive as we restrict the sample size according to when the VC system is relevant, and even becomes negative when we impose both the VC eligibility conditions on the data, the negative estimate is very small and statistically insignificant. These results are consistent with the results in the household data indicating that the AVCB program did not reduce the number of disputes that are resolved in District Courts.

Table 11: The effect of the AVCB program on the case burden of District Courts

Variables	IHS(Number of cases brought to district court)				
	(1)	(2) ¹¹	(3)	(4)	(5)
Treatment	0.130	0.0466	0.0861	0.0232	-0.00191
	(0.150)	(0.0902)	(0.124)	(0.109)	(0.119)
Number of observations	267	267	267	267	267
R-squared	0.003	0.643	0.336	0.374	0.266
Average cases per union	33.26	33.26	6.42	9.37	5.23
District controls	No	Yes	Yes	Yes	Yes
Baseline control	No	Yes	Yes	Yes	Yes
Restriction on the type of cases	None	None	Below max value	Within VC crime type jurisdiction	Both restrictions from Column (3) and (4)

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Observations are individual UPs.

6.5 The effect of VCs on subjective measures of wellbeing

The next step of our theory of change is that the AVCB program would improve subjective measures of wellbeing such as satisfaction with the justice system overall, the extent to which unresolved disputes are a problem, the extent to which crime is a problem, harmony in communities, and trust in other people. We are also interested in the effect on stress although we had no prespecified hypothesis of the direction of the effect on stress.

Overall, measuring downstream effects of the AVCB intervention in terms of subjective perceptions resulted in insignificant results for the most part, although the intervention lead to higher perceptions of harmony among neighbors. To better understand if the small effects were a result of the general population not having many disputes and therefore not interacting much with the VC system, we also analyzed the effects within the subsample of households that had a dispute at baseline. In this sample most of the

¹⁰ These are cases involving land/occupancy disputes; credit/business disputes; violent crime; domestic violence; and theft.

¹¹ Pre-analysis plan specification.

effects were similar to those in the full population with the exception of the measure of satisfaction with the overall justice system, on which the AVCB program has a positive and statistically significant effect for this group.

The individual significant results should be interpreted as suggestive since the p-values suffer from multiple hypothesis testing, when we create an inverse correlation weighted matrix (Anderson, 2008) for all seven outcomes we do not find an overall effect on subjective measures of wellbeing. However, we still find it informative to discuss the results for the individual measures and in the subsections below we describe each outcome variable and the associated results in detail.

Satisfaction with overall justice system

We measure households' overall satisfaction with the justice system by asking them how satisfied they are with the justice system they have access to, on a five-step scale. We then normalize the score by transforming it into standard deviations away from the control group mean. Using this measure of satisfaction with the justice system as the outcome variable we run our standard regression and report the results in Column (1) of the Tables below. We find a positive but not significant effect of 0.08 standard deviation on the sample of households as a whole. The positive effect is 0.21 and statistically significant for the group of households that had disputes at the time of the baseline data collection. This suggests that for those households most likely to use the VCs, the satisfaction with the overall justice system was positively affected by the AVCB program.

The extent of the problems of unresolved disputes and crime

Households were asked the question, "Please rate how big of a problem unresolved disputes are in your village?" We then normalized the 5-step scale into standard deviations away from the control mean and used that as our outcome variable. Column (2) in the table below shows a positive point estimate of 0.07 meaning that individuals in the treatment group thought that unresolved disputes were a larger problem than those in the control group although the effect is insignificant at 95% confidence. The point estimate is smaller and still statistically insignificant for the households with disputes at baseline. Similarly, in Column (3) we find no effect on the perceived problem of crime and this result also holds true among the households with a dispute at baseline.

These results, together with the results on unresolved dispute frequency and dispute frequency overall above, shows that our hypothesis that the AVCB program reduced the problem of unresolved disputes and disputes overall is not supported by the results.

Harmony

Households are asked the question, "How much harmony or conflict exists between you and your 5 closest neighbors?" The responses are then normalized and analyzed in our standard regression framework. Column (4) shows a positive and statistically significant effect of 0.13 standard deviations. The point estimate is larger and has a higher level of statistical significance among the households that had disputes at baseline. This means that the AVCB program increased the perception of communal harmony which may be because it allowed for better resolution of disputes leading to less fighting between neighbors.

Trust

A more downstream potential effect of the VCs is that they could affect the trust people have in other people. We asked respondent the standard question of “Generally speaking would you say that most people can be trusted or that you must be very careful in dealing with people?” The outcome is binary where a one indicates that the respondent thinks people can be trusted. Column (5) shows that the point estimate of the AVCB program’s effect on trust is negative but it is not statistically significant. The point estimate is closer to zero and still statistically insignificant for the households with disputes at baseline.

Column (6) estimates the results for a similar question, which explicitly names people who can or cannot be trusted – relatives, neighbors and acquaintances. We then create a trust index using the responses to these three questions. When naming people explicitly the estimated effect is still close to zero but positive instead of negative.

Stress

Finally, in order to test the effect of VC activation on stress, we used the Perceived Stress Scale (Cohen et al., 1983) which as a package of questions designed to measure stress. The score on the stress scale was then normalized to standard deviations away from the control mean and used as an outcome variable in our standard regression. Column (7) shows that the estimated effect of the AVCB program on stress is close to zero and this result is the same for households who had a dispute at baseline.

Table 12: Effect of VCs on subjective wellbeing outcomes for all households¹²

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Satisfaction	Unresolved	Crime	Harmony	Trust	Trustable	Stress
Treatment	0.0788 (0.0483)	0.0772 (0.0582)	0.0253 (0.0513)	0.132** (0.0593)	-0.0199 (0.0122)	0.0511 (0.0939)	-0.0336 (0.0457)
Observations	4,957	5,064	4,962	5,064	5,064	5,048	5,064
R-squared	0.018	0.014	0.005	0.018	0.003	0.009	0.004
Sample	Full	Full	Full	Full	Full	Full	Full
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Clusters	174	174	174	174	174	174	174

Standard errors clustered at UP level. *** p<0.01, ** p<0.05, * p<0.1. Observations are individual households. Each column contains standard household controls.

¹² It the pre-analysis plan this analysis was planned to include a measure for frequency of dispute but since results on this outcome is presented in Section 9.3 we decided to remove this analysis from this table and instead include results on the overall satisfaction with the justice system as well as stress.

Effect of VCs on subjective wellbeing outcomes households with disputes at baseline

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Satisfaction	Unresolved	Crime	Harmony	Trust	Trustable	Stress
Treatment	0.206** (0.0873)	0.0212 (0.0929)	-0.0227 (0.0783)	0.316*** (0.0951)	-0.00915 (0.0166)	-0.0815 (0.171)	-0.00505 (0.0748)
Observations	1,161	1,174	1,153	1,174	1,174	1,171	1,172
R-squared	0.018	0.020	0.015	0.034	0.003	0.011	0.002
Sample	Dispute	Dispute	Dispute	Dispute	Dispute	Dispute	Dispute
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Clusters	107	107	107	107	107	107	107
Control mean	8.08e-09	6.11e-09	1.70e-08	2.09e-08	0.100	0.000677	2.06e-09

Standard errors clustered at UP level. *** p<0.01, ** p<0.05, * p<0.1. Observations are individual households. Each column contains standard household controls.

6.6 Effects on economic activity

Given the results described above we do not expect measurable effects on economic activity since the results stopped supporting our theory of chance at an earlier stage in the causal chain. However, we present the effects on economic activity for completeness.

The first economic activity we consider is investment. In Column (1) of the Table below we use the IHS of investment as the outcome variable in our standard regression framework. As can be seen we do not find an effect on the overall value of investment. One plausible hypothesis is that better contact enforcement would increase the level of investment done jointly with others since it would now be easier to hold someone cheating another investment partner accountable. In Column (2) we measure the effect of the program on the fraction of investment done jointly with other, for those who reported some investment. Again, the estimate is close to zero and not statistically significant.

Our second hypothesis regarding economic activity is that more economic agreements would be made outside of traditional contract enforcing institutions, such as family or the village, and instead the VCs would be relied upon for contract enforcement. To test this, we asked households to list the counterparties of their most valuable economic agreements, regardless of what those agreements were. We then calculated the fraction of the value of these agreements that were with a counterpart outside the family and the fraction that were with a counterpart outside the village. The results of these analyses can be seen in Columns (3) and (4) in the table below. For both outcomes the estimated effect is close to zero and not statistically significant.

Table 13: Effect on economic activity

	(1)	(2)	(3)	(4)
	IHS investments	Fraction investment jointly	Fraction of agreements outside family	Fraction of agreements outside village
Treatment	-0.0514 (0.0654)	0.00428 (0.00476)	-0.0205 (0.0205)	0.0118 (0.0303)
Observations	1,994	1,994	3,268	3,265
R-squared	0.015	0.003	0.013	0.020
Controls	Yes	Yes	Yes	Yes
Clusters	174	174	174	174
Control mean	95,990	0.0115	0.761	0.563

Standard errors clustered at UP level. *** p<0.01, ** p<0.05, * p<0.1. Observations are individual households. Each column contains standard household controls.

7. Discussion of result validity and interpretation

7.1 Internal validity

Given the setup of the study as a randomized controlled trial with clearly defined and randomly assigned treatment and control areas the threats to internal validity are limited. However, one such threat is if respondents knew that they were in an experiment and therefore responded in a particular way (differentially between treatment and control) in order to affect the results of the study. Among households, this risk is very limited given that households were not aware that their UP was part of an experiment. It is also possible that the way UP officials answered were directly affected by if they had received the treatment or not, but the key results coming from UP officials on time spent are corroborated by both UP administrative data (more and better documented cases) and by the responses from households (reporting that they resolved more cases in VC). Furthermore, the result from the household data that the number of actual cases going to District Courts was not affected by the treatment is also corroborated by the District Court administrative data. In other words, for the outcomes where we have both survey data and administrative data the results are consistent, both for outcome that were affected by the AVCB program and for outcome that were not affected. If a bias among respondents in the treatment or control group had driven our results this would not have been the case.

7.1.1 Analysis of attrition

Another potential threat to internal validity is differential attrition between the treatment and control groups. We analyze the fraction of households that for different reasons did not participate in the follow-up survey in the table below. We find that there is no substantial difference in the attrition rate between treatment and control groups.

Table 14: Effect of treatment on attrition

VARIABLES	(1) Attrition	(2) Attrition
Treatment	-0.0118 (0.0113)	-0.0123 (0.0113)
Size of the HH		-0.00822*** (0.00179)
Owns agricultural land		-0.0180 (0.0110)
Total land owned		3.46e-05 (6.78e-05)
Education of 1 no. HH member		-0.000713 (0.000503)
Dispute at baseline		-0.00884 (0.00930)
Observations	3,206	3,206
R-squared	0.001	0.010
Clusters	107	107

Standard errors clustered at union level. *** p<0.01, ** p<0.05, * p<0.1. Observations are individual households.

7.1.2 Spillovers between UPs

Another potential threat to the internal validity of our results is if the AVCB program not only affected the UP where it was implemented, but also affected UPs in the control group. This would be a substantial concern if it was commonplace for VCs to resolve cases involving individuals living outside of the UPs, but this is not the case. In our qualitative work we have not found any such cases. Another potential reason for spillovers would be if officials were moved from one UP to another, but this is also very rare. Elected UP chairs and members must be on the electoral roll of the UP and typically reside in the Union. Theoretically, it is possible for a representative to move to a different union and then get elected there, but we know of no such cases. UP secretaries are employees of a UP but we do not know of any cases of UP secretaries who have moved from one UP to another. Therefore we find it highly unlikely that there are substantial direct spillovers between the treatment and control UPs.

A more likely indirect form of spillover is that citizens or UP officials of a control UP hear about the implementation of the VC system in the treatment UPs and are inspired to improve the VC system in their UP. Such a spillover would reduce the differences between treatment and control and we would have to interpret our estimates as lower bounds of the true effect of the AVCB program. However, in our qualitative work we have not seen any evidence of this type of spillover.

7.1.3 Analysis of differences between treatment and control at baseline

Another threat to internal validity is if there was some problem with the randomization, rendering the treatment and control group systematically different even at the baseline. In the appendix we analyze the differences at baseline between the treatment and control groups, and find no such systematic differences.

7.2 Short term vs. long term effect

While our follow-up survey was conducted more than 2 years after the start of the AVCB program, a relatively long time frame for a randomized impact evaluation, the long term effects of the program may not have been fully realized within this time frame. As indicated by Figure 5 below, the UNDP monitoring data suggests that the number of cases received by the VCs had not yet stagnated by the end of the study period. It is possible that the number of cases received by the VCs will continue to rise as individuals become more aware of the VCs and starts trusting them as a well-established institution. If this happens, we would expect that the results we found would be strengthened and perhaps outcomes where we currently don't find an effect will also be significantly affected.

7.3 External validity

7.3.1 Within Bangladesh

When discussing external validity we will focus on external validity within Bangladesh as it relates to the AVCB program being scaled up to all of rural Bangladesh. We focus on external validity to the scale-up scenario since it is the most policy relevant for the future of the AVCB program and the VCs.

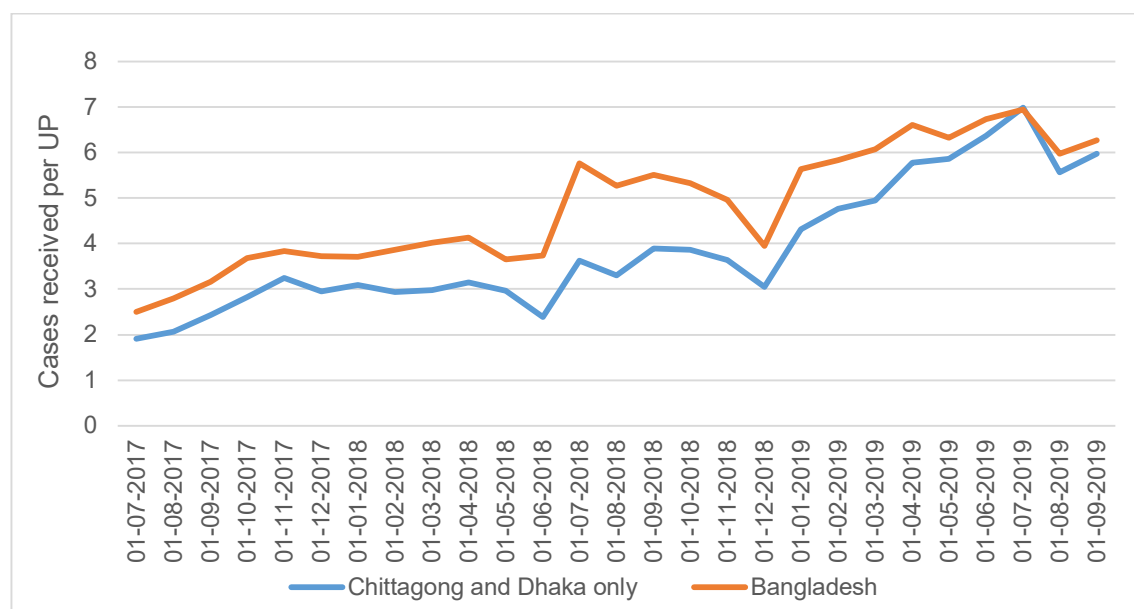
Overall, we have no a priori reason to believe that our results would be different if the VC system was scaled up to include all UPs in Bangladesh. However, this does not mean that there are no potential threats to external validity and we will outline these below. We will focus on three dimensions of external validity: organizational, geographic and temporal, and detail the threats to external validity for each of these dimensions along the best evidence we have on whether our results are externally valid or not.

Organizational external validity: the AVCB program was delivered in collaboration between the Local Government Division of the Government of Bangladesh, the UNDP, and five major national NGOs subcontracted by the UNDP. This type of organizational collaboration is also the most likely implementer to deliver a nationwide scale up. Hence the study should be considered having high external validity in terms of the implementing organizations. This is a major strength of the impact evaluation since the capacity of the implementing organization is a major success factor in this type of institution building process.

Geography: the external validity is somewhat less reliable. The two divisions, Dhaka and Chittagong (within which the RCT was conducted within Bangladesh) are the two most populous and economically most important divisions of Bangladesh containing approximately half of Bangladesh's population as well as a little less than half (48%) of Bangladesh's UPs. Hence the effects in these two divisions would be very important in terms of the total effect. However, it is possible that the effects of the program may have been different in other divisions due to differences in socio-economic or political conditions. In the figure below we consider the UNDP monitoring data on the number of cases received by the UPs in Dhaka and Chittagong compared to the numbers received by UPs in all of Bangladesh. The implementation seems to have been somewhat faster with more cases received in Bangladesh as a whole than just in Dhaka and Chittagong. But comparing the final 6 months of data, the two areas seems to have converged and

Bangladesh as a whole receive on average 6.5 cases per month and UP while Dhaka and Chittagong receive 6.1, a difference of only 6%. This suggests that the overall implementation of the program was similar in Dhaka and Chittagong compared to the rest of Bangladesh.

Figure 5: Cases received per month and UP



Another potential threat to geographical external validity within Bangladesh is that the 1,080 UPs that received the AVCB program were not randomly selected and are not representative of Bangladesh as a whole. These UPs were selected in a way designed to select more vulnerable and remote areas. This type of selection could challenge the external validity of the results in both directions. It is possible that these are the areas in greatest need of the AVCB program since they have least access to the formal justice system. However, since we don't observe households substituting away from the formal justice system and into the VCs this threat to external validity is less severe. On the other hand, the implementation of the VC system might be less challenging in less remote and less vulnerable areas. This could lead to a larger fraction of disputes actually being resolved in the VC system if it is implemented in all of rural Bangladesh as opposed to only the areas where the AVCB program was implemented in the second phase.

Temporal: Finally, it is possible for the changes that occur over time to modify the effects of the AVCB program. While there have been no major events or trends that makes us believe that the effects of the AVCB program would be substantially different were it implemented again 2-3 years from now, it is possible that such an event could occur. For example, VCs may become a more established institution that is trusted by more people and therefore has larger effects. Another possibility is that the legislation underpinning the VC system may change to increase the maximum value threshold of the cases that the VC can resolve. Conversely, if the threshold is not adjusted then the number of cases that can be resolved in VCs will be reduced since the threshold is not keeping pace with inflation. Inflation has been between 5%-6% since 2016 and hence in real term the threshold is reduced by between 5% and 6% every year, over a decade this would result in the threshold being 43% lower than at the start of the decade.

7.3.2 Outside Bangladesh

The external validity of the results outside of Bangladesh is significantly weaker than the external validity within Bangladesh. The success of a program similar to the AVCB program will be dependent on the local institutional environment. The VCs are dependent on the UP councils, and institutions seeking to replicate the VCs must find a similar local institution to which the VCs can be anchored to. The success of a VC system will fundamentally depend on the amount of respect and trust that this local level of government has, it is therefore difficult to say how well a VC system would function well in a different institutional setting.

8. Conclusion and policy implications

8.1 Summary of results and discussion of benefits and costs

Our study provides evidence on the impact of the AVCB program as well as the downstream effects of having functioning VCs in a UP. However, it is hard to draw direct policy conclusions from our findings regarding whether the AVCB program should be scaled up or not.

To summarize the finding:

- We find that the AVCB program was successful in activating the VCs:
 - In areas with the AVCB program, UP officials were more knowledgeable about the VCs, and they spent more time on resolving disputes through the VC system,
 - In areas with the AVCB program, more records were kept regarding disputes resolved in the VC system and the records that were kept were of a higher quality (all required forms were available).
- We find that when VCs are activated, households use the VCs to a greater degree:
 - In areas with the AVCB program, more respondents state that they would use the VC to resolve hypothetical disputes,
 - The AVCB program also leads to more households actually resolving disputes in the VC.
- Although the AVCB program increases usage of VCs, the program does not radically change how disputes are resolved:
 - There is an increase in the fraction of cases resolved by VCs but the most common DRM is still by far the *shalish*,
 - The AVCB program does not decrease the number of cases brought to District Courts.
- Given that the AVCB program only marginally changes the way disputes are resolved, it does not affect the majority of subjective measures of wellbeing:
 - Subjective measures of the extent of the problems of unresolved disputes and crime in general were not affected by the program,
 - Similarly, subjective measures of trust did not increase with the program,
 - We find a positive effect on communal harmony between neighbors,
 - We also find a weak positive effect on the overall satisfaction with the justice system but this is concentrated among those who had disputes in the baseline period and is not statistically significant for the population overall.
- Finally, we find no effects on economic activity. This is not surprising given the AVCB programs had little effect on dispute resolution overall

It is important to note that this evaluation sets a high bar for the AVCB program by measuring the outcome variables for the whole population or for the population with disputes at baseline. It is possible that the AVCB program had a large impact on the population that used the VCs; but this cannot be measured using our methodology. Even if there may be a large impact of AVCB on the VC-utilizing population, there would still be a small overall effect for the general population due to the small proportion of the population utilizing VCs. In fact, even in the areas that received the AVCB program, only 4% of disputes were resolved in the VCs.

Given these results it becomes clear that a traditional cost benefit analysis, where benefits translated into a monetary amount are compared to the costs of the program, is not feasible. The policy question of interest is whether we believe that the AVCB program justifies its costs. Valuing the adherence to the Village Court Act that the AVCB program brings about and the associated improvements in communal harmony and overall satisfaction with the justice system, is beyond the scope of this report.

8.2 Changes to maximum case value

While working with the VC system our research team noticed that among UP officials, the most common suggestion to change the VC system was increasing the maximum case value. The maximum case value is currently BDT 75,000. However, due to inflation this amount decreases over time, in terms of real value. This amount is typically most restrictive in land disputes, since even relatively small plots of land can be valued above BDT 75,000. Furthermore, it is often hard to assess the market value of a plot of land leading to disagreements about what the real value is.

We therefore think that when this maximum value is being updated it should change from a fixed monetary amount to a fixed area of land, when the case is a land dispute. We also think that the monetary value should be updated regularly to adjust for inflation, and that the maximum value updating schedule should be clearly defined when the next value limit is set. This recommendation does not stem from the experiment, and we have no way of assessing the exact effects of such change. However, given that the cost of making such changes should be low, we believe that the clarity and consistency it would bring to the VC regulation would be beneficial to the system as a whole.

Online appendixes

Online appendix A: Field notes and other information from formative work

<https://www.3ieimpact.org/sites/default/files/2020-04/DPW1.1100-Appendix-appendix-A-Field-notes-and-other-information-from-formative-work.pdf>

Online appendix B: Sample design: detailed description

<https://www.3ieimpact.org/sites/default/files/2020-04/DPW1.1100-Appendix-appendix-B-Sample-design.pdf>

Online appendix C: Survey instruments: Household questionnaire, Union representatives and officials questionnaire, Village Court administrative data collection instrument, District court administrative data collection instrument, beneficiary survey (created for UNDP purposes)

Online appendix C1: Administrative questionnaire

<https://www.3ieimpact.org/sites/default/files/2020-04/DPW1.1100-Appendix-appendix-C-Survey-instruments-AVCB-Admin-survey-questionnaire.pdf>

Online appendix C2: Beneficiary questionnaire

<https://www.3ieimpact.org/sites/default/files/2020-04/DPW1.1100-Appendix-appendix-C-Survey-instruments-AVCB-Beneficiary-survey-questionnaire.pdf>

Online appendix C3: District court questionnaire

<https://www.3ieimpact.org/sites/default/files/2020-04/DPW1.1100-Appendix-appendix-C-Survey-instruments-AVCB-District-court-survey-indicators.pdf>

Online appendix C4: Household questionnaire

<https://www.3ieimpact.org/sites/default/files/2020-04/DPW1.1100-Appendix-appendix-C-Survey-Instruments-AVCB-HH-survey-questionnaire.pdf>

Online appendix C5: UP representatives' questionnaire

<https://www.3ieimpact.org/sites/default/files/2020-04/DPW1.1100-Appendix-appendix-C-Survey-Instruments-AVCB-KAP-survey-questionnaire.pdf>

Online appendix D: Pre-analysis plan

<https://www.3ieimpact.org/sites/default/files/2020-04/DPW1.1100-Appendix-appendix-D-Pre-analysis-plan-Village-Courts-Bangladesh-July2019.pdf>

Online appendix E: Sample size and power calculations

<https://www.3ieimpact.org/sites/default/files/2020-04/DPW1.1100-Appendix-appendix-E-Sample-size-and-power-calculations.pdf>

Online appendix F: Descriptive statistics

<https://www.3ieimpact.org/sites/default/files/2020-04/DPW1.1100-Appendix-appendix-F-Descriptive-statistics.pdf>

Online appendix G: Detailed program cost data

<https://www.3ieimpact.org/sites/default/files/2020-04/DPW1.1100-Appendix-appendix-G-Cost-data.pdf>

Online appendix H: Do-files for analysis

Available on Dataverse

Online appendix I: Data and codebooks

Available on Dataverse

Online appendix J: Verification of randomization (Balance checks)

<https://www.3ieimpact.org/sites/default/files/2020-04/DPW1.1100-Appendix-appendix-J-Verification-of-randomization-%28Balance-checks%29.pdf>

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