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Organizing for Entitlement: A Randomized Evaluation of a Homestead Land Rights Initiative in Bihar, India

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Abstract

Bihar state law guarantees each rural household the right to hold title over a plot of homestead land, yet many poor households lack title. This article studies a social accountability program that established, trained, and mobilized village-level community-based organizations to assist Scheduled Caste households in obtaining homestead title. The study employs a mixed methods design in which a survey-based field experiment estimates the impact of the program on outcomes of interest while analysis of data from qualitative fieldwork documents ground-level processes. We find that the program had strong effects on perceived land security and access to government entitlements and moderate effects on asset ownership and homestead satisfaction. However, we do not find evidence for impacts on investment or food security. The qualitative analysis suggests that a key mechanism by which the program improved entitlement access was enabling target households to circumvent profit-seeking intermediaries. Results contribute to development studies research on social accountability, government service delivery, and land rights.

Keywords: Impact evaluation; land rights; social protection; governance; India; mixed methods

1 Introduction

Many governments guarantee their citizens rights and resources aimed at helping to ensure minimum living standards. These guarantees of social protection—referred to here as entitlements—figure centrally in efforts to reduce poverty and increase prosperity through the provision of food, shelter, and other basic necessities. Yet, often, those most in need of entitlements reside in settings where state capacity to deliver services is weak. Resource scarcity, corruption, and elite capture, among other governance ills, routinely disrupt the flow of entitlements and render even apparently well-designed programs and policies ineffective. In attempting to improve entitlement delivery, development practitioners have increasingly turned to strategies that include *social accountability*, “the ongoing engagement of collective actors in civil society to hold the state to account for failures [in the delivery of entitlements]” (Joshi & Houtzager, 2012, p. 150). Social accountability strategies now figure prominently in the portfolios of bilateral donors, philanthropic foundations, and grassroots movements alike. But existing intervention models have shown mixed results when put into practice thus far, and it is far from clear whether and when investments in such programs are likely to pay off. How and under what circumstances can social accountability strategies improve entitlement delivery?

The present study contributes to policy debates surrounding this question through a mixed methods randomized evaluation of a social accountability intervention in Bihar known as “Homestead Land Rights in Villages of Gaya District” (referred to henceforth as “the Homestead Program”). Bihar state law guarantees poor, rural, and otherwise landless households a potentially critical entitlement: the right to hold title to a small plot of homestead land. The term *homestead*, as used in Indian land-related policy discourse, refers to the land on which a household’s dwelling is located. In most cases, state law provides for the issuance of title to the land on which the household already lives. Where households live on land that is not eligible for homestead title, legislation commits the state to providing a new homestead plot. Yet, despite these legal provisions, many poor households in rural Bihar

remain without title.

The Homestead Program promotes land titling among target communities through a strategy that centers on the formation, training, and mobilization of village-level community-based organizations (CBOs) consisting of about 20 members each. These CBOs provide village households with information about homestead land rights and assist them in applying for title. CBO members also maintain contact with local government officials and mobilize community pressure toward holding officials accountable for delivering title. The program's emphasis on institutionalizing higher expectations about service delivery, and knowledge of civic and political tools with which to insist that local government officials meet these expectations, sets it apart from the majority of social accountability programs that have been rigorously evaluated to date.

This paper addresses two main research questions. First, what is the impact of the Homestead Program on perceived land security, investment in dwellings and homestead-based income-generating activities, access to government entitlements, and livelihood and well-being? Second, what are the processes by which the program exerts impact, or is blocked from doing so? To address these questions, We rely on a mixed methods research design structured around a randomized controlled trial (RCT). Survey data obtained from a sample of 1,693 households across 144 villages is used to estimate the causal effects of the program. A qualitative process evaluation draws on semi-structured interviews and focus group discussions with members of target SC households and CBOs, government officials, elite village residents, program field staff, and other stakeholders to document ground-level processes surrounding the treatment. The qualitative analysis was used to sharpen the quantitative instruments and hypotheses in advance of endline data collection, to contextualize the study within the local political economy, and especially to provide insights in interpreting the results.

We find that the program exerted strong effects on perceived land security and access to government entitlements, along with small to moderate effects on asset ownership and

homestead satisfaction. However, we do not find evidence for impacts on investment or food security. The qualitative analysis suggests that investments in dwellings and homestead-based livelihood were constrained by lack of cash and lack of space, respectively. The qualitative analysis also helped to highlight an initially unanticipated mechanism of impact in which CBOs provided households with the technical and social resources they needed to circumvent profit-seeking intermediaries when accessing entitlements. This contrasts with the more commonly cited mechanism by which potential program beneficiaries place pressure on government officials.

The study constitutes the first randomized evaluation of a civic-led rural homestead rights program. Random assignment circumvents many of the thorny causal identification challenges that have constrained the literature thus far. Furthermore, the detailed evidence on ground-level processes and local context obtained from the qualitative analysis provides leverage for understanding the causal chain leading from program to impact. This will in turn facilitate the development of empirically-grounded hypotheses about the circumstances under which the model is likely to work more or less effectively, as well as potential improvements to the model. Findings contribute to literature on social accountability by testing a community organization-based model that could hold promise for a wide range of entitlement areas, and by exploring the potential effectiveness of social accountability in a sector where it has not previously been experimentally tested. And it contributes to literature on land rights by testing the extent to which community mobilization surrounding titling—a key ingredient in at least several of the most successful cases of land reform in the past—can be engendered by a short-term development program operating on a conventional, donor-based funding cycle. Furthermore, this study is among the first rigorous impact evaluations of a rural land rights initiative focusing on residential rather than agricultural land. This is an important gap to fill since the poorest social classes in Bihar and many other parts of the world are rural laborers who do not own any agricultural land to invest in.

In the following section, we situate this evaluation within the broader literatures on

entitlements, social accountability, and land rights. We then explain the program and its logic in the third section, before outlining the study’s research design in the fourth. The fifth section presents the qualitative analysis, the sixth presents the quantitative impact analysis, and the seventh concludes.

2 Social Accountability, Entitlements, and Land Rights

This study builds on two main bodies of literature: first, research exploring whether, how, and under what circumstances social accountability programs can improve the provision of entitlements and, second, debates surrounding land security for vulnerable populations. The present section reviews each literature in turn.

Governments seeking to reduce poverty and promote equitable growth often enact legislation that promises citizens entitlements aimed at improving living standards, for example to provide subsidized food, basic health services, and assistance with housing. Yet, the development field has increasingly come to grapple with pervasive barriers to effective implementation, in large part because governments’ capacities to effectively deliver services tend to be weakest where entitlements are most needed. If resource constraints represented the only significant barrier to entitlement delivery, then these problems could perhaps be solved with well-targeted money transfers and technical assistance. But development scholars broadly agree that political economy complexes like corruption, clientelism, and elite capture also matter critically (Gans-Morse et al., 2018; Olken & Pande, 2012; Bardhan & Mookherjee, 2000).

Development practitioners seeking to overcome capability traps in entitlement provision have become increasingly interested in bottom-up initiatives that attempt to mobilize potential beneficiaries to demand better service delivery. Potential beneficiaries have a strong stake in seeing entitlements effectively delivered. If provided with the right information,

coordination assistance, and other tools, potential beneficiaries could pressure government officials and others involved in the entitlement delivery process to more effectively fulfill state promises (Yanez-Pagans & Machicado-Salas, 2014). Programs stemming from this general logic have emerged under a handful of overlapping rubrics, including “citizen engagement” (Khemani et al., 2015), “transparency and accountability initiatives” (Gaventa & Barrett, 2012; Joshi, 2013), and “participatory development” (Heller & Rao, 2015; Mansuri & Rao, 2012).

Issues explored in the present study are closely linked to those debated under the above rubrics. However, much of this work is concerned with the policy enactment process, whereas the present study focuses on the policy implementation process and thus fits especially with the “social accountability” construct (Fox, 2015; Grandvoinnet, Aslam, & Raha, 2015). While some studies define the term social accountability broadly in a way that makes it roughly synonymous with citizen engagement, we use the term here in its narrower sense to refer to the mobilization of citizen action toward “ensuring the implementation of existing state obligations” (Joshi & Houtzager, 2012, p. 151). Focusing on the implementation of existing schemes may, in many contexts, prove more feasible than enacting new ones and then still having to implement those.

The Indian government faces significant challenges in implementing the entitlements that it has already legislated. A case in point is the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), a monumental public employment program that guarantees all rural citizens the right to 100 days of labor at the statutory minimum wage. While Bihar could stand to benefit from MGNREGS perhaps more than any other state, implementation failures have dramatically constrained utilization and impact (A. Banerjee, Duflo, Imbert, Mathew, & Pande, 2016). Dutta, Murgai, Ravallion, and Van de Walle (2014) estimate that MGNREGS in Bihar, if fully implemented, could reduce poverty by as much as 14 percentage points. But, because of implementation breakdowns, the program has reduced poverty within the state by only a single percentage point (p. 16).

Can social accountability initiatives contribute toward alleviating such administrative quagmires to spur more effective implementation? A recurring refrain within the empirical research is that “information is not enough” (Fox, 2015, p. 348). In other words, mobilization of civic effort beyond information campaigns may be necessary to make social accountability effective (Dutta, Murgai, Ravallion, & Van de Walle, 2012; Lieberman, Posner, & Tsai, 2014). But successful cases of civic effort often involve deeply rooted legacies of engagement arising from unique historical circumstances that cannot easily be replicated, as in Kerala in India and Porto Alegre in Brazil (Evans, 2004; Baiocchi, Heller, & Silva, 2008). Attempts by development agencies to “induce” participation through externally-driven projects often fail to generate a detectable impact (Mansuri & Rao, 2012; Rao, Ananthpur, & Malik, 2017). On the other hand, where such mobilization-oriented social accountability initiatives can succeed, their impacts may have transformative potential (Kabeer & Sulaiman, 2015). Perhaps the most widespread alternative to models based on information alone has been citizenship training programs. Three recent randomized evaluations, among a slew of other studies, show some evidence of promise for these approaches but mixed and inconclusive evidence overall (Sheely, 2015; Protik, Nichols-Barrer, Berman, & Sloan, 2018; Rao et al., 2017).

While sharing common features with both the information and citizenship training models of social accountability, the intervention model of the program evaluated in this paper differs in that both substantive knowledge about entitlements and procedural civic and political skills are imparted to a newly formed organization of 20 individuals in a single village. The model is explained in depth below, but it is worth noting here that the model leverages two dynamics hypothesized by two longstanding sociological theories to be effective in mobilization. First, organizational institutionalists have argued that imbuing a specific set of individuals with the responsibility to promote a praiseworthy cause is generally more effective than either scorecards or training (Kalev, Dobbin, & Kelly, 2006), which roughly map onto the information and citizenship training approaches to social accountability re-

spectively. And, second, social movement theorists contend that close social ties enabling tight coordination are among the few resources that marginalized social groups have access to, and so strengthening these ties through repeated small-group interaction can facilitate powerful pressure on elites (Piven & Cloward, 2012).

One sector in which social accountability has yet to be rigorously tested is that of land rights. This is surprising given that in most areas of the developing world, the nature of a household's access to and control over land heavily influences that household's life prospects. In India, extreme land inequalities have persisted over centuries, constraining development (A. Banerjee & Iyer, 2005). Following independence, Indian state governments enacted land reform legislation aimed at ameliorating these inequalities. But implementation of the reforms was partial and sporadic at best (Appu et al., 1997; Besley & Burgess, 2000; Deininger, Jin, & Nagarajan, 2007), underscoring the need for attention to policy implementation beyond enactment.

Donors and development organizations have increasingly emphasized property rights over plots of land too small to provide complete livelihood but potentially large enough to enable supplementary income-generating activities, sometimes known as "microplots" (Santos, Fletschner, Savath, & Peterman, 2014). This relatively mild variety of land reform is thought to be less likely to stir up the immense elite opposition that has contributed to blocking land reform. And, although it is not expected to dramatically restructure the agrarian economy, the provision of secure homestead rights could still substantially improve living standards at the margins (Hanstad, Brown, & Prosterman, 2002). Benefits from improved residential land rights have been documented in urban contexts (Field, 2007), but have yet to be thoroughly researched in rural areas. While studies on rural land certification have abounded, existing evaluations focus on agricultural rather than residential land.

Despite the potential benefits held by homestead and microplot strategies, they have rarely been subjected to rigorous evaluation. Santos et al. (2014) contribute a recent exception, a quasi-experimental study of a microplot initiative in West Bengal. The study

finds significant effects on intermediate outcomes expected to lead to greater food security, including subjective land security, investment, and women’s involvement in decision-making. However, only a relatively small minority of households granted title over a microplot actually ended up moving to the new microplots they had been provided. This raises two issues pertinent to the study at hand: first, the question of whether certification of land on which households already live (as in the Homestead Program) can be helpful; and, second, if stronger bottom-up channels of citizen feedback would improve results. Historical evidence from West Bengal suggests that land reform efforts during the late 1970s and 1980s succeeded in part by simultaneously involving top-down efforts from the state to organize an enabling environment for land registration, and bottom-up civic mobilization aimed at ensuring that the process was carried out equitably (Bandyopadhyay, 2003; A. V. Banerjee, Gertler, & Ghatak, 2002). The situation was similar in Kerala during the 1960s, which was perhaps the only other significant episode of land reform in India widely considered successful (Herring, 1983). But, as in the case of social mobility initiatives discussed above, research has yet to demonstrate the extent to which mobilization can be productively cultivated at all, much less through relatively brief development programs operating on donor-funded budget cycles.

3 The Homestead Program and its Context

3.1 Homestead Land Rights in Bihar

Under Bihar state law, all landless households are guaranteed provision of title protecting their right to remain on a plot of homestead land. For most untitled households, this means obtaining title for the land on which they already live. In the minority of cases in which households live on land that is not eligible for settlement (for example, when the household lives on common-use land that other households need to access), then law obligates the government to grant the household a new homestead plot with land purchased from the market or vested in the state through some other means.

Yet despite the legal assurance of homestead title for all, many poor households remain untitled. The problem is particularly acute among Bihar’s Scheduled Caste (SC) population, the poorest and most marginalized of the state’s major social groups. Untitled households typically live either on government land, or on private land owned by individuals to whom household members provide or have previously provided agricultural labor.

The Homestead Program was designed in 2006 by Deshkal Society, a Delhi-based development Civil Society Organization (CSO). It operates in Gaya, the district of Bihar with the state’s highest SC population share. The program spread across four blocks of Gaya over its first decade. The present study evaluates an expansion of the project to four new blocks that occurred beginning in the summer of 2016, with impact estimates based on a survey conducted during the summer of 2018.

3.2 Program Motivation

Lack of homestead land rights may constrain the wellbeing of households within the study population in several interrelated ways. Most directly, households are likely to suffer a devastating loss of assets in case of dispossession, i.e., the forcing of a household to leave its homestead land without compensation. Dispossession can occur because of a formal order from the government, or can arise from pressure exerted by local elites with an interest in the land. But even where the actual risk of dispossession is low, perceptions of insecurity can be highly salient. These perceptions can in turn lead to negative consequences independent of actual dispossession.

For instance, perceived homestead insecurity may disincentivize investment in the household’s physical dwelling structure, or in livelihood activities carried out on the homestead land. A household may be reluctant to invest in repairs or improvements if members make investment decisions against this backdrop. Relatedly, homestead insecurity may dissuade households from investing in a homestead-based garden, or in purchasing animals and investing in the resources necessary to sustain them. Additionally, lack of formal rights may

inhibit households' access to certain government entitlement schemes. In some cases, titles are required for eligibility. Even where titles are not required, homestead insecurity may give households a sense of precarity and exclusion that could discourage them from claiming entitlements and demanding adequate service provision. Incentivizing investments in the dwelling and homestead-based livelihood activities, as well as in claiming government entitlements, could increase overall livelihood and prosperity.

Given that all rural households are legally guaranteed a homestead title, and that homestead titling could potentially be beneficial for households in the ways discussed above, why do so many households remain untitled? Three likely barriers emerged as plausible from key informant interviews and a review of program documents and secondary literature conducted before the onset of the evaluation.

First, there may be a lack of information on homestead titling rights. Without targeted outreach efforts, SC households may have no way of knowing that they have the right to hold a homestead title. Second, even if households were aware of their right to title, they might lack the capability to apply for it. Title applications in Bihar require filling out long and complex forms, which may be daunting for target households given widespread illiteracy among SC communities in the region. The process also requires endorsement by officials at multiple level of government. Many of the relevant government officials travel frequently, and lack a fixed address or contact number. Moreover, the relevant government official for a given endorsement may not even exist, given widespread understaffing of Bihar's administrative services and delays in replacing officials who retire or resign from their posts.

Third, even when an application does reach the relevant government official, the official may lack incentives to fairly and efficiently process the application. S/he may be overworked, under tight time constraints, and may prioritize work to benefit more influential citizens. Risk-averse officials may pass applications off to different offices or simply hold onto them, which could result in lengthy delays. And officials may demand bribes that households cannot afford in return for processing the applications. By some accounts, local elites with

interests in the land in question have even been known to bribe government officials not to grant title. The Homestead Program was designed with each of these barriers in mind.

3.3 Program Model and Theory of Change

The primary aim of the Homestead Program is to help form and then train village CBOs. These in turn are expected to help residents obtain title, and to work to protect their land rights and other social entitlements broadly. The program was envisioned by its leadership as follows: “Field organizers”—typically local social workers hired and trained by Deshkal Society—visit program villages and request community meetings within these villages’ SC communities. During the meetings, the field organizers explain the nature and potential benefits of homestead land title. The field organizers then help to form CBOs in villages where at least 20 or so residents express interest in joining, and provide procedural recommendations for running them. Field organizers encourage balancing membership across gender and other relevant social segments within the village’s SC community.

In particular, field organizers train CBO members on internal organizational operating procedures, the homestead titling process, and strategies for holding government officials accountable for entitlements more broadly. Each CBO elects a President and a Secretary with divided responsibilities and checks on one another’s authority. Members are trained on consensus-building, democratic decision-making, and transparent record-keeping. Once up and running, CBOs identify untitled SC households within their communities and help to complete the applications of those interested in seeking title. When a set of applications has been prepared, the CBO delivers the forms to the appropriate local government office. The CBO then follows up as needed until the applications have been fully processed and, if necessary, mobilizes community members in pressuring government officials to process the applications efficiently and fairly. For example, they may organize group trips to local government offices because of the expectation that a large group of organized petitioners will exert more pressure than a single individual. Additionally, field managers coach CBO

members on what to say when visiting a government office, and how to enter a Right to Information filing. Although homestead titling constitutes the program’s central focus, the civic and political skills included in the training are intended to be applicable to other social protection entitlements as well, and field managers are encouraged to inform CBO members about any entitlement they believe would be useful.

The program theory stipulates the following causal chain. CBO formation and training spur an increase in applications for title, and mobilize the community around homestead land rights and other entitlement-related issues. The increase in title applications, in conjunction with community mobilization on behalf of fair and timely processing of those applications, leads to an increase in homestead titling among SC residents. Holding title—along with the CBO-led mobilization—is then expected to yield increases in homestead security, investments in the physical dwelling and homestead-based livelihood activities, access to government entitlements, and overall well-being. Figure 1 depicts this theory of change. Additional details on mechanisms and assumptions underlying each step of the theory are included in the qualitative data analysis section below.

4 Research Questions and Design

This study asks, what is the impact of the Homestead Program on perceived land security, investment, access to government entitlements and livelihood? And what are the processes by which the program exerts impact, or is blocked from doing so? Addressing these questions requires employing a mix of quantitative and qualitative methods. We test program impacts through an RCT, and complement this RCT with an analysis of data drawn from qualitative fieldwork to address issues of process (Patton, 2014; Rossi, Lipsey, & Freeman, 2003). In the remainder of this section, we first outline the study’s RCT structure and then provide an overview of the qualitative research components.

4.1 Experimental Design

The timeline for the program and study are presented in Figure 2. Deshkal Society had planned to implement the Homestead Program in around 72 villages, and there are hundreds of villages within the program blocks. To facilitate randomization, Deshkal Society selected 144 villages that it would have been roughly equally likely to expand into had there been no evaluation, twice the villages for which sufficient funding was available for implementation. This then allowed for randomization into a treatment group and a control group, each consisting of 72 villages.

12 households in each of the 144 study villages were selected for inclusion in the RCT from a sampling frame made up of rosters of untitled SC households within each village, yielding a sample size of 1,728 households. A baseline survey was administered to all households beginning in spring 2016, after which villages were randomized by the researcher into treatment and control groups. Deshkal Society introduced the program within each of the treatment villages in the weeks following the randomization.

Assignment to treatment was randomized at the village rather than at the household level despite the accompanying sacrifice in statistical power because the program logic works at the village level. CBOs are formed to represent SC communities within villages. And a key reason that the program is expected to run efficiently is that CBOs can draw on village networks to maximize their impact. Randomization at the village level also reduces potential spillover effects that could bias the estimates.

Randomization was stratified across two dimensions (as depicted in Figure 3). First, villages were stratified according to their block of residence. Each block has an administrative office with its own staff of officials. Because homestead applications must be reviewed by officials working in block offices, stratifying by block should allow for more precise impact estimates. The full village sample was drawn evenly from across four blocks, with 36 villages drawn from each block.

Within blocks, treatment was also stratified across SC status of the *mukhiya* representing

the village, i.e., whether the *mukhiya* belonged to an SC community. Villages in rural India agglomerate into administrative units called gram panchayats (GPs). Each GP consists of a set of several adjacent villages that elects a common council of representatives. The *mukhiya* is the head of this council. Because demographic and sociopolitical patterns make it difficult for SC individuals to successfully contest open *mukhiya* elections, the Indian government reserves some *mukhiya* seats for SC contestants on a rotating basis. The *mukhiya* plays an important role in processing certain types of homestead title applications, and may influence local socioeconomic and political conditions more broadly. Stratification by the SC status of the *mukhiya* was thus, like block stratification, expected to increase precision in the impact estimates.

4.2 Qualitative Design

While the RCT component of the research design estimates the Homestead Program’s causal effects, the qualitative components seek to provide evidence for interpreting the quantitative results and explaining the mechanisms underlying them, in addition to yielding insights of their own. A growing consensus within the field of evaluation methodology holds that “theory-based evaluations” capable of providing actionable policy insights often necessitate the use of qualitative as well as quantitative methods (White, 2009, 2013). Even strong proponents of RCTs have come to acknowledge that some minimum level of qualitative research engagement is essential for full-scale impact evaluations (Glennerster & Takavarasha, 2013). If a field experiment comes up with null findings in the absence of qualitative fieldwork, there may be no way of knowing the extent to which these null results stem from a failure of program implementation, versus arising from flaws in the program’s theory of change (Bamberger, Rao, & Woolcock, 2010; White, 2013). Furthermore, qualitative methods can provide important leverage for understanding why impact did or did not arise, even assuming full implementation of the program in question. Understanding the mechanisms by which a program leads to impact or fails to do so constitutes a vital step in delineating

empirically-grounded policy insights about the contexts in which the program is or is not likely to work (Woolcock, 2013), or about the probable effects of adjusting particular aspects of the program.

Collecting qualitative data of sufficient detail to address this study’s research questions would not have been feasible to carry out in more than a handful of villages. We thus selected six qualitative focus villages for in-depth qualitative data collection. Choosing six villages allowed for analysis across key dimensions of variation, but six remained a small enough sample to make sufficiently detailed analysis feasible. Villages were selected to vary across the two strata-defining dimensions, i.e., block and *mukhiya*’s SC status for two interrelated reasons. First, this case selection strategy maximizes diversity along potentially influential variables, and so if findings hold across these dimensions then they are likely to hold in a broad range of cases within the program’s target area (Seawright & Gerring, 2008). Second, the selection along these dimensions allows for comparisons across the different variable categories to explore whether and how they shape the course of impact (Bennett & Elman, 2006).

5 Context, Process, and Mechanisms of Impact

The Homestead Program’s theory of change includes four interrelated sets of outcomes through which the program may benefit target households. However, the mechanisms leading to these outcomes each rest on a set of assumptions that must hold in order for them to remain plausible. This section draws on qualitative data and quantitative descriptive statistics from the study’s baseline survey to test whether and how these assumptions hold.

5.1 Qualitative Data Collection

The qualitative data collection took place primarily during September - October 2016 and April - July 2017. It consisted of semi-structured interviews and focus group discussions

(FGDs) in each of the six qualitative focus villages (which were audio-recorded, transcribed, and translated). 32 semi-structured interviews were conducted for the study’s village-based fieldwork component, six in each focus village: two with CBO members, two with representatives of untitled SC households (i.e., the program’s target population), one with a representative of a relatively wealthy and/or high-status non-SC household (we refer to these as *elite* households), and one with the *mukhiya* responsible for the qualitative focus village in question. In each of the two control group qualitative focus villages, four interviews were conducted—the same setup as for treatment villages but without the two CBO respondents, since control villages are not expected to have a CBO.

Including respondents from each of these categories allows for an analysis of the program and its context from a variety of perspectives, increasing the chances that the resulting data will capture relevant nuances in the ground-level situation that might otherwise be missed. CBO members are likely to have detailed information about the workings of the program and the land situation within the village as a whole. But they might also be expected to exhibit a higher level of concern with land-related issues than non-members which, left unchecked, could bias the results. Conversely, untitled SC households who are not CBO members represent the program’s target population, making their knowledge and perceptions critical to the study. But they may lack detailed knowledge of the homestead situation faced by others or the work of the CBO throughout the village. We chose additionally to include an elite interview within each village to capture the perspective of respondents who would not necessarily stand to gain, and might even stand to lose, from homestead titling for SC households within their village. It was also important to capture the perspective of the *mukhiya* responsible for the village, since *mukhiyas* are centrally involved in many development activities at the village level in Bihar.

The inclusion of multiple distinct perspectives served two main functions. First, it brought a much more diverse range of material into the analysis than could have been gleaned from interviewing respondents of only one or two types. Second, including multiple

categories allowed me to triangulate responses when interpreting the data. Accounts backed up by respondents from across different categories are likely to be relatively reliable, whereas cases around which opinions diverge invite closer examination and follow-up.

In addition to the semi-structured interviews, the research team conducted a total of 22 FGDs. Specifically, three FGDs were conducted within each of the qualitative sample’s four treatment villages—one consisting entirely of CBO members, one including only non-member SC respondents, and one mixed-caste CBO consisting of a combination of non-member SC respondents and non-SC village residents representing a range of the village’s other castes and classes. CBO members were not included in this latter category to avoid the potential bias created by other FGD participants trying not to offend the CBO members. Two FGDs were conducted in each of the qualitative sample’s two control villages, one SC FGD and one mixed-caste FGD. Next, the team conducted SC FGDs in four villages that are part of the broader quantitative sample but not the qualitative focus sample, as a broad check for generalizability. And, finally, we conducted FGDs with CBO members from two villages in which the Homestead Program had been implemented in 2013, during a previous round of the program. These last FGDs were aimed at gleaning insight into how CBOs might evolve over time. Ten individuals were invited to participate in each FGD.

5.2 Analytical Approach

In the present section, qualitative data along with descriptive statistics from the baseline household survey is analyzed to test key assumptions associated with each of the four hypothesized sets of outcomes highlighted in the program’s theory of change. We review potential mechanisms leading to each set of outcomes and the conditions that its occurrence would imply, and then search each source of data—the baseline quantitative survey, along with transcripts from the interviews and FGDs—for relevant evidence. Finally, we consider the extent to which different sources agree or disagree and what this is likely to mean for the workings of the program. While more extensive qualitative analysis is presented in a

separate paper, this section summarizes the themes most relevant to interpreting the impact analysis.

5.3 Exploring Potential Impacts and Underlying Assumptions

5.3.1 Tenure Security

The central goal of the Homestead Program was to increase homestead land tenure security for SC households. The term “tenure security” here refers both to objective security as defined by the actual probability of dispossession and perceived security, the beliefs and emotions that household members hold surrounding dispossession. The hypotheses that the program will improve these two forms of land security depend respectively on the assumptions that actual dispossession is more or less widespread, and that the threat of dispossession is salient in the minds of households. Qualitative and baseline quantitative data provide little support for the former assumption, but substantial support for the latter. Data suggest that actual cases of households being forced to leave their land within the study area are rare, so it is unlikely that the intervention will create a significant impact by reducing cases of dispossession. However, threats of dispossession remain salient, and the qualitative data reveal that those evictions that do occur are often associated with factors that may increase in the coming years, like the building of roads and factories, and rising land values. Furthermore, a subtler form of dispossession—encroachment—is far more widespread.

First, the study did not turn up evidence of full-scale dispossession as a widespread phenomenon within the study area. No sample households were forced to leave their land during the course of the study. 6.4 percent of households reported having been directly told to leave their land in the quantitative survey, although a much greater share of households within the qualitative sample recounted stories of having faced such demands in the form of occasional taunts from other communities within the village, typically coupled with threats and insults.

Participants from sample households as well as key informants—including government

officials—made it clear however that instances of dispossession had been rampant and widespread until recent years. According to their accounts, landowners had exerted coercive power over surrounding villages, and would often dispossess SC households if members of the households demanded higher wages or if the households’ services were no longer needed. However, although caste and class tensions remained present within many of the study villages, recent structural shifts have led to a weakening in the power of large landowners. The following quote captures a recurring theme within respondents’ explanations of their land rights situation, a tendency to highlight the fact that feudalism is on the decline even while suggesting a sense of lingering vulnerability:

“Farmers used to threaten us with eviction. But nowadays no one accepts the dominance of anyone. Elder generations were afraid. They did not disobey the sayings of farmers. But now young people do not accept their sayings. Now we are not dependent on them. We are alive due to our labor. But farmers know this fact that we do not possess the legal paper of our homestead land. So they put undue pressure on us for their work and...”¹

While actual evictions associated with the semi-feudal system are no longer rampant in the study area, mentalities and threats associated with this system have not gone away. Another theme within household interviews and FGDs referenced in the above quote was that, when households were threatened, it was typically after members had refused to provide agricultural labor. This occurred most often during the monsoon season, the part of the agricultural calendar when labor demand is highest in southern Bihar. In the recent past, according to respondent reports, there would have been no question of refusing such demands given both the power of local landlords and the lack of alternative livelihood opportunities. However, given recent booms in construction, brickmaking, and other forms of wage labor, as well as ongoing efforts by elected state governments since the 1990s to undercut the power of the traditional socioeconomic elite, SC households have a wider set of options. This

¹CBO president, female, 40 years old

weakening has prompted elites to threaten SC residents in an effort to get them to work, even as they are gradually losing the power to maintain a monopsony over local SC labor and to credibly threaten eviction.

Furthermore, the same secular growth trends that are undercutting landlord domination may also be precipitating a different form of dispossession, i.e., claims of eminent domain to clear the way for infrastructure, industry, and commercial development. Most recent evictions (as distinct from threats) that participants reported were associated with such developmental processes and were implemented by government rather than village elites. For instance, almost all respondents that were interviewed in a particular study village brought up a recent incident in which around 20 untitled SC households living on the side of a nearby road had been presented with government eviction notices so that the road could be expanded. Even this relatively localized event caused a huge stir among hundreds of SC households in the surrounding villages, many of whom are settled near roads or on other lands that are potentially vulnerable to government claims for eminent domain.

The threat of dispossession associated with these economic changes is perhaps most acute in villages closest to commercial centers. The most worried respondents lived in the qualitative focus village closest to the town of Bodhgaya. A hostel catering to Indian tourists had recently opened on the outskirts of the village, and some respondents expressed concern that they would be displaced if more were built. The village's *mukhiya* reported the presence of a growing "land mafia" seeking to profit from rising land values. And several residents of a different qualitative focus village were distraught by rumors that they would be displaced by an incoming factory:

"...we have not title for this land, so risk of eviction always remains with us. Few months ago we heard that over there a steel factory is going to be set up. It left us in dismay. If anything really happens, then where will we go? In this community, 52-54 people have settled [built dwellings on untitled land]. If we lose this land then we will be destroyed... Let us see, what happens. We have done our work but time is not in

our control. Time is mighty, all people are helpless before time. . . ”²

While most households are unlikely to be forced from their land, a subtler form of dis-possession is more pervasive: *atikraman*, or encroachment. In the present context, the word is used to refer to instances in which one household claims de facto control of a portion of another household’s homestead plot. In many instances, respondents would mention *atikra-man* casually when explaining their landholdings, as though it were an inevitable, if onerous, fact of life:

“In total, we had settled two bighas [roughly 0.5 acres] of land. Out of this, a Yadav strongman had occupied 10 kathas [roughly 0.125 acres] of land. We cannot do anything against him. Rest of the land has been divided among [the respondent and his three brothers].”³

In addition to the de facto transfer of land control, village elites may use *atikraman* as a form of coercion to discipline SC households that they consider to be overstepping their bounds. This was demonstrated by an incident that occurred during the study period. One SC FGD participant from a qualitative control village who was already known as an ambitious entrepreneur had been attempting to negotiate a sharecropping arrangement with a local landowner. He had previously been warned against this move. The following day, a large procession of upper-caste households marched from the center of the village to the participant’s homestead land, where they planted a saffron flag proclaiming a site for temple construction in the middle of his yard. If constructed, the temple would block the household’s cattle pen and disrupt their daily activities. The participant repeatedly complained to local government officials, who expressed sympathy but insisted there was nothing they could do. A homestead title may have provided the individual with leverage for protection. While even in this case the household was not forced off its land, it is likely that such acts of coercion have far-reaching effects on the mentalities of untitled households in surrounding

²SC respondent, male, 35 years old

³SC respondent, male, 37 years old

communities who hear about them.

5.3.2 Dwelling and Homestead-Based Livelihood Investments

Tenure security represents an important outcome in and of itself in that prolonged worry about potentially catastrophic events like dispossession often induces stress and otherwise harms mental health. But most research and policy discourse on tenure security draws its motivation primarily from the changes to incentives and economic outcomes that security is hypothesized to engender. Of these, one prominent proposition that has been widely examined is that stronger tenure security increases investment. In the present context, if households perceive a salient risk of homestead dispossession and then perceive a decrease in that risk, they may be more likely to increase investment in their dwelling structure, or in homestead-based livelihood activities.

If perceived tenure security strengthens among households but investment does not rise, this would suggest one of at least two possible alternatives: that households do not consider investments in these areas to be a priority, or that they would like to invest but face other constraints instead of or in addition to tenure insecurity. This study's qualitative data suggest that households do find upgrading their dwellings to be an urgent priority; that households reference land insecurity in explaining decisions not to upgrade; but that income constraints constitute the primary binding constraint on dwelling investment. Insufficient space and marginal land typically make homestead gardening feasible, regardless of tenure security. Many study households do keep animals, but space typically constrains animal husbandry as well, although intensification at the margins seems feasible for some households. The remainder of this section lays out the qualitative evidence first on dwellings and then livelihood activities.

In rural Bihar, dwellings are generally categorized into two broad types: *kutcha* and *pukka*. *Kutcha* houses or huts are made from cheap materials like mud, straw, and scraps of low-quality wood. The *kutcha* dwellings within the study area are generally flimsy, in need

of frequent repair, and fail to protect their residents from rain and cold. *Pukka* dwellings are made from stronger and more expensive materials like bricks, concrete, and higher-quality wood. Owning a *pukka* house does not necessarily imply wealth—even poor households are sometimes able to build or acquire these through savings and/or government programs. And the quality of *pukka* houses varies widely. On the other hand, living in a *kutcha* house in contemporary Gaya is likely to mean severe poverty. *Kutcha* dwellings in study villages are overwhelmingly concentrated in villages’ SC settlements. Dwellings can also be *milajula*, meaning constructed from a mix of *kutcha* and *pukka* materials.

At baseline, most households within this study’s quantitative sample lived in *kutcha* (55 percent) and *milajula* (31 percent) dwellings, with only 14 percent living in *pukka* houses. Complaints about problems arising from poor dwelling quality abounded. For instance, many respondents complained of leaky roofs and frequent flooding:

“There are five rooms in my house, but only one of them is useable. Roofs of the other four rooms leak. . . Roof of kitchen has been demolished. Ground of these rooms has deepened. Road water enters in these rooms. They are of no use. These constructed rooms were allotted to us by government three decades ago when my father-in-law was alive. We have tried to maintain the roofs but leakages do not stop. . . In all, we have only one room in which we all, sons, daughters, daughter in law, husband, wife, sleep together.”⁴

“Roof of the rooms are unable to protect rain water. It seems that we are living under the open sky, not in a room. Roof always leaks. Commodities kept in the room become wet. We cannot sleep in rooms. During rain we do not sleep the whole night and continuously rearrange our goods to protect them from rain water.”⁵

Given that households want to upgrade their dwellings, why do they not invest more? According to several SC respondents, there is a widespread perception among elites that if a

⁴CBO president, female, 42 years old

⁵CBO president, female, 57 years old

poor household builds a *pukka* house, it will never move. While the discussion in the preceding section showed that full-scale dispossession is rare, it is more common for elites to work towards acquiring desired land through gradual intimidation tactics. Several reports arose in the qualitative data of elites directly pressuring the households not to upgrade to *pukka* dwellings, or to keep upgraded dwellings within a confined space. For example:

“I am facing a problem. We are three brothers. We have divided this land among ourselves. The house in front is my brother’s. Earlier his was a clay [*kutch*a] house. When he started to rebuild his house as *pukka* then farmer of the land behind said spare two feet land and then build your house. My brother did not want to spare land. But due to fear of farmer he built his house as per desire of farmer. Farmer was so angry and he was asking us in ill manner as if we have grabbed his land. In reality, we are settled on government land and farmer has also grabbed a major portion of government land.”⁶

In another instance, the husband of the *mukhiya* responsible for one qualitative focus village reported an incident that had taken place several years previously in which a cluster of around a dozen *kutch*a dwellings inhabited by SC households burned down. Local government officials used IAY funds to purchase materials for the households to rebuild their dwellings, this time in *pukka* form. However, the respondent reported: “...one farmer is not allowing the construction of their *pukka* house. [Household members] are living on that land in a haphazard manner. If these *dalits* [SC individuals] were in possession of title for the land, then today they would be living in *pukka* houses.”⁷ These comments are particularly weighty in that they come from a non-SC *mukhiya* who should have no incentive to exaggerate the plight of SC households within his community.

While such instances were widespread enough to suggest a potential role for homestead insecurity in constraining dwelling investment, by far the most common reason given for not investing more in dwelling structures was a simple lack of money. Even the least costly

⁶SC respondent, female, 57 years old

⁷*Mukhiya* (non-SC), male, 52 years old

improvements were often out of reach: “We have no income, so how can we arrange for shutters?”⁸

We next turn to homestead-based livelihood activities. The Homestead Program’s designers anticipated that stronger perceptions of homestead security might in some circumstances encourage households to garden as a way of supplementing their food supply and/or income. However, baseline survey data indicate that a negligible share of the sample (1.3 percent) engaged in gardening, and qualitative data suggest that gardening is likely to remain constrained for reasons that have little to do with land rights. The overwhelming majority of participants reported living on plots that have sandy soil, are vulnerable to flooding, or are filled-in ponds. In other cases, there is simply insufficient space.

On the other hand, nearly half of the households in the quantitative sample keep animals. This estimate is likely to be an understatement since visiting homestead plots during qualitative fieldwork showed that pigs are among the most commonly kept animals in sample communities, and these had not been included in the baseline questionnaire. Animals that did show up on the survey were cows/buffalo (37 percent), goats/sheep (35.48 percent), and chickens (40.31 percent). Respondents typically cited lack of space as a primary reason for not keeping animals, or, for those who kept some, their reason for not keeping more. One respondent reported living on less than a tenth of an acre with a three-generation family of 13 members and a few buffalo.⁹ Respondents mentioned regularly that keeping more animals than space allowed resulted in sick children (from living in close proximity with the animals) and angry neighbors (because of animals grazing on neighbors’ land). Of course, not all target households have reached capacity, and the qualitative evidence do not rule out the potential that the increased sense of stability associated with title could encourage increased investments in animal husbandry at the margins.

⁸SC respondent, female, 48 years old

⁹SC respondent, female, 55 years old

5.3.3 Access to Government Entitlements

The Homestead Program’s theory holds that the program can improve access to government entitlements in two ways: through the formation of CBOs, who may help residents to access entitlements beyond homestead title, and through receipt of homestead title, which may be required to access certain government services. Qualitative evidence suggests the potential of the former, but not the latter. This section considers each set of evidence in turn.

While policy details and administrative protocols have changed over the years, title has often been at least officially required to obtain access to *Indira Awaas Yojana* (IAY), an entitlement scheme offering house construction materials, and certain other programs. However, this does not mean that title substantially affects a household’s access to these entitlements. The baseline data show that 49 percent of the quantitative sample respondents report having used IAY, although 98.9 percent of households reported not holding title. How were these households accessing IAY?

While citizens in rural India are ostensibly expected to access services directly from government officials, this study’s qualitative data suggest that things often work differently in practice. Instead, intermediaries that maintain networks with local politicians and bureaucrats offer to deliver certain entitlements to households for a fee. These intermediaries are sometimes referred to in Hindi as *bichauliya* (middle-man) or, even more commonly, *dalal* (broker). There is often an assumption that a portion of the *dalal’s* fee goes toward bribing government officials, but the intended recipients are typically excluded from these transactions and deal only with the *dalal*.

The *dalals* that members of the sample interact with typically come from nearby villages and sometimes even share familial networks with their prospective clients. This can build bonds of trust and, in many cases, *dalals* faithfully deliver promised resources to their clients. However, many households experienced incidents of *dalals* taking money and then never returning with the promised goods. Even when *dalals* do deliver the entitlements promised,

recipient households lose out a great deal in the fee that they have to pay to the *dalals*. Asked whether the household made use of government services, respondents would list off various entitlements received and their approximate rupee value. During these exchanges, respondents would casually mention fees that had gone to *dalals* (and, in some cases to *mukhiyas*, some of whom respondents accused of working as *dalals*. For instance: “I was allotted Rs. 50,000 under Indira Aawas Yojana. But out of this amount I had to pay Rs. 10,000 to the *mukhiya* and Rs. 2,000 to the person who has done paperwork. Besides, few thousand was grabbed by the broker.”¹⁰ When asked more directly about the role that *dalals* played in their lives, respondents’ resigned annoyance sometimes turned to anger, e.g., “There are a lot of cheaters. Brokers and dishonest people cheat SC people in several ways.”¹¹ Most respondents at baseline felt that, without some sort of an advocate, the choice was to pay *dalals* for their services or to not receive the services at all. For example: “I have not got any help from IAY. Brokers are active in IAY. We keep a distance from brokers, and so I could not get the benefit of IAY. Brokers give preference to the work of those people from whom possibility of extracting commission is more.”¹²

Confidence in the near-ubiquity of this system is increased by the fact that SC and elite respondents alike described it similarly. For example, according to one elite respondent: “[IAY] is meant to provide houses for [SC households]. But they cannot get the full amount... Middlemen prevail everywhere... They obstruct the implementation of government schemes at the ground level.”¹³ These findings highlight the potential importance of civic organizations like the Homestead Program’s CBOs in helping households bypass *dalals* and associated expenses when accessing entitlements.

¹⁰SC respondent, male, 52 years old

¹¹SC respondent, female, 54 years old

¹²SC respondent, male, 33 years old

¹³Elite resident, male, 46 years old

5.3.4 Livelihood and Well-Being

The end goal of the Homestead Program is to improve the livelihood and well-being of SC households within program villages, e.g., through growth in income and assets, more robust food security, and greater life satisfaction. Each of the potential impact areas discussed in this section can help to increase overall well-being in a variety of direct or indirect ways. Reduced stress from tenure insecurity, as well as improvements in the physical dwelling structure (e.g., better protecting against moisture and cold) could improve health and productivity. Increased investments in homestead-based livelihood activities and improved access to government services could help to increase income, consumption, and assets. Synergies between mechanisms could exert additional effects. While no separate qualitative analysis was conducted for this impact area, the broad rationale is stated here since it is tested in the quantitative impact analysis, to which we turn next.

6 Quantitative Impact Analysis

6.1 Empirical Strategy and Measurement

To estimate impacts of the Homestead Program, we rely on ordinary least squares regressions of the form:

$$Y_{hvt} = \alpha + \beta * TREAT_v + STRATA_{hv} + \phi * X_h + \epsilon_{hvt} \quad (1)$$

where Y_{hvt} is the outcome of interest for household h in village v at time t (i.e., roughly two years after the intervention onset for the main impact estimates); β estimates the Homestead Program's impact with $TREAT_v$ signifying a village-level treatment dummy variable; $STRATA_{hv}$ is a vector of strata fixed effects; X_h is a vector of household control variables, including demographic variables and measures of main outcomes at baseline; and $\epsilon_{[hvt]}$ is the error term for household h in village v at time t . All standard errors are robust and

clustered at the village level to account for intra-cluster correlation (Duflo et al., 2008) since villages constitute the unit of randomization for the experiment.

The study tests a broad range of outcomes and is thus susceptible to identifying false positives (Anderson, 2008). We deal with this problem in two ways. First, we construct a series of nine indices to represent the main outcomes of interest, one each for perceived homestead land security; investment in the dwelling; investment in homestead-based livelihood activities; knowledge of government services; use of government services; free access to services (without having to rely on rent-seeking intermediaries); assets; food security; and homestead satisfaction. These indices are used in the study’s main impact estimates. The survey questions associated with each component are listed in Table 4. Indices are calculated following Kling, Liebman, and Katz (2007)’s procedure of recoding each component variable such that higher values correspond with higher scores in the direction of intended impact. Impact estimates are then standardized and averaged across the index’s components, after which the resulting scores are themselves standardized (Mueller, Billings, Mogues, Peterman, & Wineman, 2017; A. Banerjee et al., 2015). These nine indices fit within the four outcome categories explained above, but are kept separate because they represent conceptually distinct entities that may differ from one another.

Additionally, we use adjusted q-values obtained using the Benjamin-Hochberg procedure (Anderson, 2008) rather than conventional p-values for the causal inference tests. For the main index outcomes, q-values are computed based on the vector of p-values obtained for the eight indexes. We also present impact estimates for the individual outcomes that make up the indices, in order to check for suggestive evidence on the mechanism underlying the impacts. For these regressions, we calculated q-values based on the p-values for treatment effects on all 48 individual outcome variables. Alternative specifications run first with only strata fixed effects and demographic variables and second with only strata fixed effects yield nearly identical results, with no changes in significance among main index outcomes and only a handful of changes in significance for individual outcomes.

Of the original 1,728 sample households, 35 were dropped from the analytical sample as a result of full attrition or missing data on key questions. Results are robust to several specifications based on differing outcome assumptions for attrited households.

6.2 Pre-Intervention Balance Test

Before presenting impact results, we review baseline balance tests to establish the level of pre-intervention equivalence on a wide range of variables. These include demographic and background variables, as well as nine indices constructed following the same procedures as used for the endline outcome indexes. Table 1 presents treatment and control group means for individual variables, and uses regressions with strata fixed effects to test for differences. Baseline balance tests on demographic variables employ only strata fixed effects, while baseline balance tests on pre-intervention outcome indices also include demographic controls. Of the 21 individual variables tested, three—Hindi as the first language, parents having owned land, and number of rooms in the dwelling—register as statistically significant at $p < 0.05$. Meanwhile, Table 2 shows balance tests for the nine index outcomes at baseline. Here, the government knowledge and food security indices show differences respectively at $p < 0.10$ and $p < 0.05$ in favor of the control group.

Despite the handful of statistically significant differences, these comparisons indicate an acceptable level of baseline equivalence without evidence of meaningful differences between the experimental groups. Treatment coefficients are small to the point of being substantively insignificant, and exhibit no identifiable patterns that would indicate systematic underlying differences. The variables are furthermore included as controls in the main impact regressions.

6.3 Results

Roughly two years after its onset, the Homestead Program seems to have achieved nearly complete success in producing the intended proximate outcomes. While only 18 of the 848

control households knew of a land rights organization within their village, 817 of the 845 treatment households reported the presence of such an organization. And 826 treatment households reported holding title, in contrast to only 27 control households. The vast majority of respondents with title reported having applied in late 2017 and received title between January and April of 2018, more than a year and a half after program onset. Implementers had expected the processing to take only a few months.

Table 3 presents the paper’s main impact estimates, the impact of the Homestead Program on the nine outcome indices controlling for demographic and baseline outcome variables, in addition to strata (i.e., block x *mukhiya* SC status) fixed effects. Table 4 shows these same estimates tabulated with identical specifications estimated on each component variable. The tables indicate that the program exerted a strong impact with an effect size of just under two standard deviations on the perceived homestead security index. Columns 2 and 3 of Table 3 reveal however that these stark increases in perceived tenure security did not translate into increased investment in the household’s dwelling or homestead-based livelihood activities. None of the seven variables that compose these two indices is significantly affected by the treatment, although all coefficients are positive with the exception of *pukka* or *milajula* dwelling, which is perhaps the least likely to change in the short-term because it may involve reconstructing sections of the dwelling’s foundation. Quantitative results thus provide no evidence that the Homestead Program led to increased homestead investments, or even to increased plans for investing.

We examine impacts on three indices relating to local government services: knowledge of social protection entitlements, use of these entitlements, and direct access to these services (all self-reported). Although each of these indices relates to the program’s goal of increasing engagement with government and access to services, they are kept separate since they are conceptually distinct and may be differentiated by the program. For instance, the program could be successful in raising treatment household’s knowledge of the programs, but use may remain unaffected if the programs are not relevant to the households, or if the programs are

simply not being delivered. The knowledge index asks respondents which of a list of nine government programs he or she is familiar with, while the use index asks which of the nine programs one or more members of a respondent's household has used. The questions that make up the direct access index ask whether the household would need to hire a *dalal* to access each of the programs, as well as the likelihood that the household will need to hire a *dalal* for any reason in the coming year. Responses are recoded such that higher scores indicate a lower proportion of households who reported that they would need a *dalal*.

The Homestead Program had significant positive impacts on all three of these government indices, with the knowledge of services coefficient the highest at just over 0.7 standard deviations and the Gov – Free Access index exceeding 0.9 standard deviations. It is encouraging that the treatment coefficient on use of government services is substantially smaller than the others since each program is relevant to only a subset of participants. Had the index for government program use been comparable in magnitude to the other two, this would likely have been a sign of social desirability bias.

Column 7 shows that the Homestead Program had a more modest but still substantial effect of just under a quarter of a standard deviation on asset ownership. The strongest impact was an increase of 16.5 percentage points in the likelihood of stove ownership. While the data are not equipped to prove this assertion, the fact that stoves are also the least mobile of the assets measured may be a reflection of the increase in perceived homestead security at the heart of the intervention. The program increased the likelihood of owning a chair or having savings at the time of the interview by just under 10 percentage points, while the program showed no effect of ownership on a pressure cooker or television.

The program registers no impact on food security variables, with none of the three component variables showing significance and coefficients going in both directions. This lack of evident impact could result from the relatively coarse measures, which were used as a result of the infeasibility of systematic nutritional accounting in the survey instrument. However, in light of the lack of increased investment in livelihood activities and qualitative evidence

to the contrary, it is perhaps most likely that the effect is simply not there. In contrast, the program did show a sizable impact of 0.19 standard deviations on both dwelling and plot satisfaction.

7 Discussion and Conclusions

In the above analysis, we employed a mixed methods evaluation design structured around a cluster RCT to address the question of whether and how a social accountability program following a CBO model can improve land security, investment, and access to government entitlements, as well as overall livelihood and well-being. The qualitative analysis demonstrated that, while full-scale land dispossession is uncommon, risks relating to tenure insecurity weigh heavily on the minds of many untitled village residents. Impact estimates show that the program exerted strong positive effects on perceived tenure security. The study's experimental design does not allow for quantitatively untangling the independent effects of the CBO's operations from the receipt of title in shaping this outcome. However, qualitative evidence points toward an essential role played by CBOs in this process.

Before the program, target households had limited access to information on and low confidence in government documents like title. In this context, it seems unlikely that participants would have experienced a perceived security boost of the same degree had someone simply handed them a title. Interviews and FGDs highlighted the central importance of the information on rights and grievance redressal tools provided by the CBOs, in addition to respondents' awareness of the regular meetings the CBOs were holding in the village on rights protection. Participants were accustomed to receiving documents and certifications of various types, including certificates respectively showing SC and below poverty line status, and the "job cards" used to track MGNREGA work days. Sometimes the certificates came directly from government officials, and sometimes respondents would obtain them for a fee through *dalals* on the promise that the documents would make them eligible for ma-

terial assistance. Participants regaled the interviewers with stories of the arbitrariness of these documents' utility. Sometimes promised entitlement benefits would materialize, and sometimes they would not. Given relatively frequent changes in the administrative policy of Bihar's social welfare system, this arbitrariness seems to have arisen from a combination of changing policies on one hand, and government officials and/or *dalals* intentionally generating confusion from which to profit on the other. However, receipt of title is likely also to have played an important role because it was seen as an acknowledgement and legitimation of households' rights by the state, a physical manifestation of the social contract. Furthermore CBO members and village residents would likely have at some point lost interest in the organization if no concrete benefits like title were to materialize.

In contrast to land security, the program showed no effects on investment, either in the dwelling structure or in homestead-based livelihood activities. Qualitative evidence indicates this lack of impact may have arisen from cash constraints preventing dwelling improvements, and space constraints preventing homestead gardening or keeping more than a few animals. While interviews and FGDs do provide ample indications that issues of homestead security weighed on household decision-making, this study is not equipped to demonstrate whether land insecurity would have bound investment in the absence of cash constraints. A productive future course of research would be to cross-randomize cash grants and CBO formation (or another land security intervention) in a factorial experiment to better understand households' priorities through marginal expenditure patterns and to see whether increased land security alters these patterns in favor of homestead-based investments.

Not surprisingly given the lack of impact on investment in livelihood activities, no improvements in food security were detected. However the increase in asset ownership—as picked up by significant effects on owning a chair or bench, having savings, and especially owning a stove—could reflect an increased willingness to store wealth within the physical dwelling space. This of course remains a hypothesis for future research rather than a definitive conclusion. Finally, the moderate positive impact on plot and dwelling satisfaction, while

they should not be overinterpreted, lend weight to the notion that households perceived some gain as a result of changes arising from the intervention.

Among the study's most noteworthy and unexpected findings was the role played by the CBOs in helping community residents to bypass *dalals*. While the quantitative analysis was limited by feasibility constraints that precluded a detailed accounting of entitlement resource receipt and leakage to intermediaries, the magnitude of the impacts suggests a substantial change in mentality about the need for intermediaries in the social welfare delivery process. Furthermore, while effects were consistent across several important government programs, a few showed no effects and magnitudes for the others varied, which may indicate that respondents were able to distinguish between the distinct systems associated with the different entitlement programs and consider levels of access separately for each.

In contrast to *dalals*, who draw their legitimacy from particularistic clientele networks, field organizers drew their legitimacy in the eyes of CBO members by clearly and consistently explaining the nature of residents' rights to entitlements, and by regularly returning to the village without asking for payment or even accepting unsolicited gifts. Most CBO members reported beginning to trust the field organizers and to take an interest in their program only after the organizers continued to show up for bimonthly meetings for several months. And other village residents typically trusted CBO members since they were members of the same community facing similar issues. It is these relationships of trust that lie at the heart of the Homestead Program's model. A better understanding of the means through and circumstances under which interventions can help to cultivate these ties of trust and the capacity for collective action that they unlock may prove to be a powerful tool in ongoing struggles to improve entitlement delivery

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Figure 1: Theory of Change

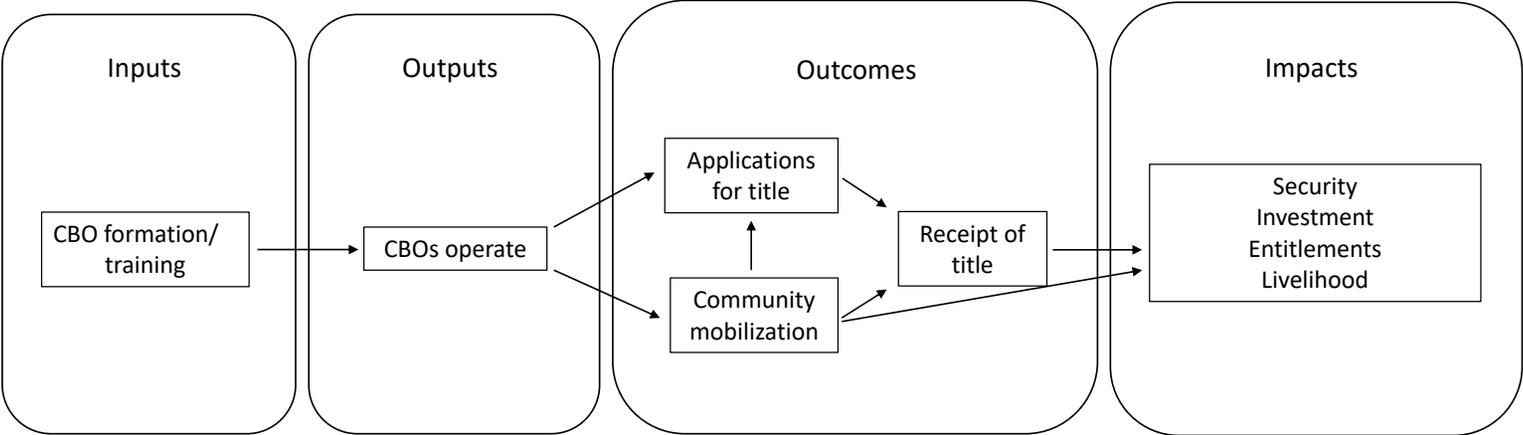


Figure 2: Timeline

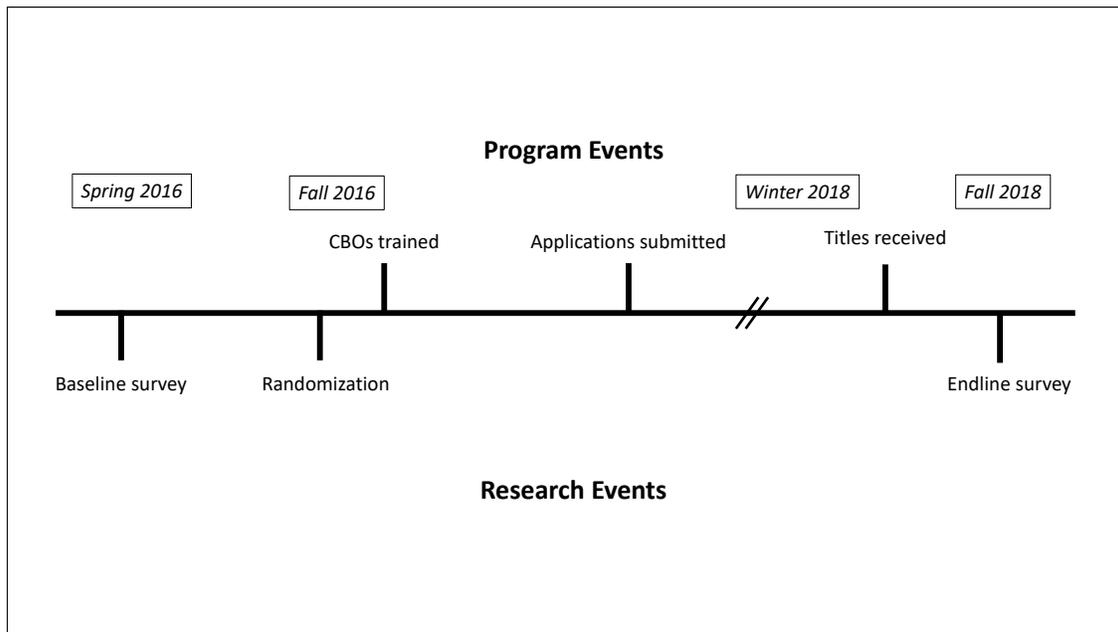


Figure 3: Stratification Procedure

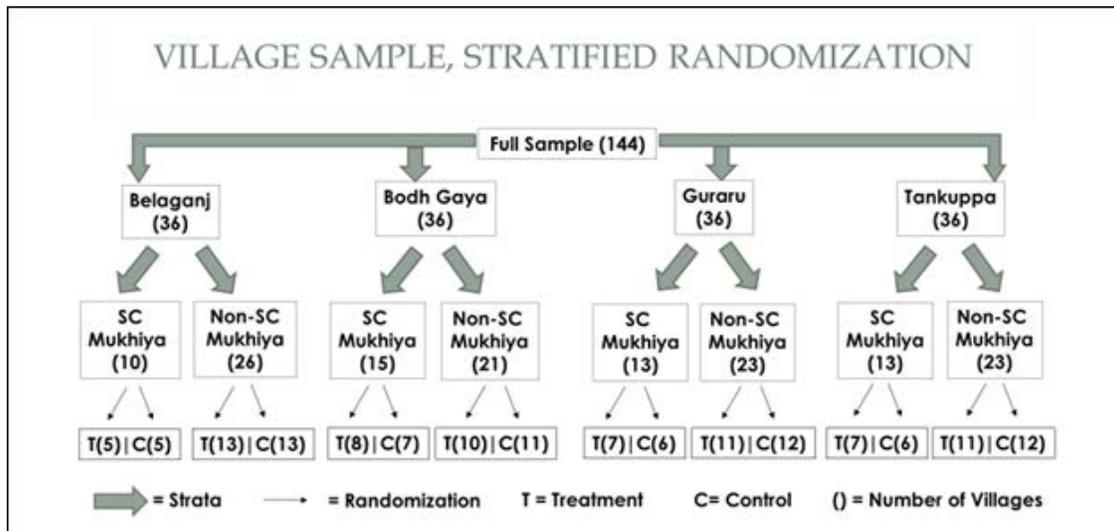


Table 1. Baseline Descriptive Statistics and Balance Tests

	Control Mean	Treatment Mean	Coefficient	Standard Error
Number of hh members - total	5.249	5.051	0.199	0.147
Number of hh members - female	2.518	2.467	0.055	0.087
Hindi is first language	0.118	0.059	0.057**	0.023
Identifies as Bhuiyan	0.705	0.749	-0.042	0.054
Parents owned land	0.118	0.180	-0.065**	0.031
Has applied for title	0.033	0.044	-0.010	0.015
Settled on private land	0.195	0.265	-0.066	0.052
Keeps garden	0.014	0.012	0.003	0.006
Keeps animals	0.657	0.647	0.008	0.029
Land org in village	0.001	0.006	-0.005	0.005
Pukka or mixed dwelling	0.446	0.448	-0.003	0.057
Number of rooms	2.807	2.594	0.212**	0.104
Electricity	0.417	0.393	0.030	0.052
Home improvement - past year	0.573	0.630	-0.054	0.038
Home improvement - plans	0.121	0.131	-0.009	0.022
Currently has money saved	0.511	0.555	-0.044	0.039
Currently owes money	0.344	0.381	-0.042	0.031
Owens television	0.037	0.035	0.001	0.011
Owens cellphone	0.625	0.654	-0.033	0.032
Owens chair	0.046	0.063	-0.016	0.012
Owens bicycle	0.206	0.212	-0.006	0.022
Households	848	845	1693	1693
Villages	72	72	144	144

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Coefficient column reports treatment coefficients at baseline from regressions for each outcome variable. All regressions include strata fixed effects. Standard errors are robust and clustered at the village level.

Table 2. Outcome Indices at Baseline

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Land Security	Dwelling Investment	Crops and Animals	Gov - Knowledge	Gov - Prog Use	Gov - Free Access	Assets	Food Security	Homestead Satisfaction
Treatment	0.055	0.028	0.032	-0.135*	-0.093	0.026	-0.060	-0.164*	-0.042
Standard error	(0.073)	(0.082)	(0.060)	(0.081)	(0.068)	(0.087)	(0.063)	(0.089)	(0.075)
P-Value	0.455	0.733	0.590	0.098	0.171	0.770	0.337	0.069	0.575
R^2	0.008	0.042	0.019	0.127	0.096	0.037	0.019	0.014	0.015
Households	1,693	1,693	1,693	1,693	1,693	1,693	1,693	1,693	1,693
Villages	144	144	144	144	144	144	144	144	144

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Treatment row contains coefficients from OLS regressions of each of the main index outcomes on treatment status with strata fixed effects. Standard errors are robust and clustered at the village level.

Table 3. Main Index Regressions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Land Security	Dwelling Investment	Crops and Animals	Gov - Knowledge	Gov - Prog Use	Gov - Free Access	Assets	Food Security	Homestead Satisfaction
Treatment	1.959***	0.105	0.039	0.717***	0.329***	0.805***	0.252**	-0.015	0.186**
Standard Error	(0.070)	(0.077)	(0.058)	(0.103)	(0.066)	(0.082)	(0.106)	(0.089)	(0.074)
Q-Value	[0.001]	[0.217]	[0.542]	[0.001]	[0.001]	[0.001]	[0.029]	[0.853]	[0.024]
R^2	0.650	0.083	0.167	0.172	0.308	0.257	0.135	0.025	0.039
Households	1,693	1,693	1,693	1,693	1,693	1,693	1,693	1,693	1,693
Villages	144	144	144	144	144	144	144	144	144

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Treatment row contains coefficients from OLS regressions of each of the main index outcomes on treatment status with strata fixed effects, as well as controls for demographic/background variables and outcome indices at baseline. Q-values are calculated using the Benjamini-Hochberg procedure applied to p-values for all nine index hypothesis tests. Standard errors are robust and clustered at the village level.

Table 4: Impact Estimates - All Outcome Variables

	Control Mean	Control SD	Treatment Coefficient	Standard Error	Q - Value
Index - Homestead Security	0.000	1.000	1.959***	(0.070)	0.001
Likelihood - encroachment	0.215	0.411	0.764***	(0.028)	0.001
Likelihood - forced leave	0.245	0.431	0.726***	(0.027)	0.001
Index - Dwelling Investment	0.000	1.000	0.105	(0.077)	0.217
Pukka or mixed dwelling	0.517	0.500	-0.027	(0.035)	0.557
Fence	0.096	0.294	0.015	(0.023)	0.582
Electricity	0.779	0.415	0.040	(0.035)	0.335
Home improvement - past year	0.123	0.328	0.040	(0.026)	0.222
Home improvement - plans	0.166	0.373	0.014	(0.024)	0.582
Index - Crops and Animals	0.000	1.000	0.039	(0.058)	0.542
Keeps garden	0.030	0.188	0.008	(0.026)	0.582
Keeps animals	0.522	0.500	0.007	(0.026)	0.782
Index - Gov Knowledge	0.000	1.000	0.717***	(0.103)	0.001
Familiar - IAY	0.995	0.069	0.002	(0.004)	0.691
Familiar - MG	0.934	0.248	0.063***	(0.013)	0.001
Familiar - ICDS	0.912	0.284	0.085***	(0.018)	0.001
Familiar - JSY	0.718	0.450	0.252***	(0.034)	0.001
Familiar - MMS	0.933	0.251	0.066***	(0.013)	0.001
Familiar - JDHY	0.473	0.500	0.459***	(0.039)	0.001
Familiar - JVKA	0.808	0.394	0.166***	(0.030)	0.001
Familiar - PDS	0.954	0.210	0.027**	(0.014)	0.088
Familiar - UJJ	0.596	0.491	0.336***	(0.041)	0.001
Index - Gov Use	0.000	1.000	0.329***	(0.066)	0.001
Has used - IAY	0.460	0.499	-0.046	(0.034)	0.283
Has used - MG	0.371	0.483	0.103**	(0.040)	0.030
Has used - ICDS	0.367	0.482	0.147***	(0.031)	0.001
Has used - JSY	0.212	0.409	0.070**	(0.029)	0.037
Has used - MMS	0.512	0.500	0.069**	(0.030)	0.056
Has used - JDHY	0.229	0.420	0.043	(0.034)	0.309
Has used - JVKA	0.413	0.493	0.064	(0.038)	0.162
Has used - PDS	0.732	0.443	-0.042	(0.033)	0.303
Has used - UJJ	0.233	0.423	0.202***	(0.044)	0.001
Index - Gov Free Access	0.000	1.000	0.805***	(0.082)	0.001
Free access - IAY	0.228	0.420	0.280***	(0.046)	0.001
Free access - MG	0.267	0.442	0.361***	(0.042)	0.001
Free access - ICDS	0.902	0.297	0.089***	(0.021)	0.001
Free access - JSY	0.772	0.420	0.049	(0.041)	0.333
Free access - MMS	0.932	0.253	0.054***	(0.019)	0.020
Free access - JDHY	0.833	0.374	0.037	(0.033)	0.363

Continued on next page

Table 4 Continued

	Control Mean	Control SD	Treatment Coefficient	Standard Error	Q - Value
Free access - JVKA	0.883	0.321	-0.002	(0.030)	0.919
Free access - PDS	0.910	0.286	0.064***	(0.021)	0.011
Free access - UJJ	0.684	0.465	0.154***	(0.038)	0.001
Expects to hire intermediary	0.331	0.471	0.625***	(0.043)	0.001
Index - Assets	0.000	1.000	0.252**	(0.106)	0.029
Stove	0.313	0.464	0.162***	(0.052)	0.006
Television	0.136	0.343	0.038	(0.031)	0.333
Pressure cooker	0.278	0.448	-0.041	(0.049)	0.490
Electric fan	0.376	0.485	0.052	(0.052)	0.420
Chair or bench	0.445	0.497	0.095**	(0.045)	0.071
Has savings	0.570	0.495	0.085**	(0.042)	0.080
Index - Food Security	0.000	1.000	-0.015	(0.089)	0.853
Not enough food	0.370	0.483	-0.002	(0.051)	0.969
No food	0.067	0.251	0.008	(0.023)	0.959
Borrow from family	0.106	0.308	-0.020	(0.028)	0.782
Index - Satisfaction	0.000	1.000	0.186***	(0.074)	0.024
Dwelling satisfaction	3.402	0.975	0.146**	(0.067)	0.059
Hmstd plot satisfaction	3.265	0.938	0.166**	(0.074)	0.056
Households	848	848	1693	1693	1693
Villages	72	72	144	144	144

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Treatment column contains coefficients from OLS regressions of each of all x outcomes on treatment status with strata fixed effects, as well as controls for demographic/background variables and outcome indices at baseline. Q-values are calculated using the Benjamini-Hochberg procedure applied to p-values for all nine index hypothesis tests. Standard errors are robust and clustered at the village level.

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