

**Asset Transfers and Intrahousehold Dynamics:
Evidence from BRAC's 'Targeting the Ultra Poor' program in Bangladesh**

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Shalini Roy, Jinnat Ara, Narayan Das, and Agnes R. Quisumbing¹

Affiliation and contact details:

Quisumbing (a.quisumbing@cgiar.org) and Roy (s.roy@cgiar.org): International Food Policy Research Institute, 2033 K Street NW, Washington DC 20006, USA.

Ara (jinnat.a@brac.net) and Das (narayan.cd@brac.net): BRAC, 75 Mohakhali, Dhaka 1212, Bangladesh.

Corresponding author: Shalini Roy, Email: s.roy@cgiar.org, Telephone: 1-202-862-4640, Fax: 1-202-467-4439

¹ This paper focuses on the quantitative aspects of a larger study using mixed quantitative and qualitative methods (Das et al. 2013). Authors are those who worked on the quantitative component of the study.

Abstract

Interventions that target assets to specific individuals can shift intrahousehold dynamics, yet little evidence exists from rigorous evaluations. Previous research on BRAC's CFPR-TUP program in Bangladesh, which transfers livestock and provides training to rural women in "ultra poor" households, has shown large positive household-level program impacts. We exploit the randomized program allocation to assess intrahousehold impacts. Our analysis confirms the program increased household asset ownership, but shows complex effects on targeted women. Women appear to retain control over transferred livestock, but new investments from mobilized resources are largely controlled by men. The program also reduces women's mobility outside the home and control over income, consistent with transferred livestock requiring maintenance at home. However, beneficiary women also report "intangible" benefits such as increased social capital and preferring work inside the home given norms of female seclusion, even with limited mobility. The analysis highlights the complexity of assessing impacts on empowerment.

Keywords: gender, asset transfer, intrahousehold dynamics, empowerment, randomized control trial, impact evaluation, Bangladesh

1. Introduction

Many development interventions transfer resources directly to households to reduce poverty. However, the growing evidence that individuals within households may not share identical preferences or pool their resources (e.g., Strauss and Thomas 1995; Haddad et al. 1997; Behrman 1997; Schultz 2001) suggests that attention needs to be given to the intrahousehold dynamics associated with resource transfers. Recent literature shows that control over resources by women, in particular, may have important implications – including greater intrahousehold bargaining power for women themselves and improvements in education, health and nutrition outcomes for children (e.g., Quisumbing 2003; Yoong et al. 2012). These findings have led to recognition that who in the household controls resources may matter and has stimulated interest in targeting resource transfer to women.²

In this paper, we study the impacts on intrahousehold dynamics of BRAC’s “Challenging the Frontiers of Poverty Reduction – Targeting the Ultra Poor” (CFPR-TUP) program, which targets asset transfer (primarily livestock) and training to women in very poor households in rural Bangladesh. Krishna et al (2012) and Bandiera et al (2013) find that CFPR-TUP has been very successful in increasing outcomes such as households’ overall food expenditure, rates of self-employment and labor force participation, as well as household-level ownership of productive assets. However, there has been little exploration of how this program – or, to our knowledge, any other targeted asset transfer program – has affected intrahousehold dynamics within beneficiary households.

Although CFPR-TUP transfers resources to women, the program’s explicit intention is not to promote women’s asset ownership. Instead, its aim is to build the asset base of poor households as an aggregate unit, by providing rural women – for whom sociocultural norms favoring female seclusion prescribe staying within the homestead – with assets that can be maintained at home. However, given the targeting, there is clear potential for the asset transfer to affect intrahousehold dynamics. In particular, theoretical models of non-cooperative decisionmaking predict that each party’s bargaining power is determined by the party’s outside option if the negotiation dissolves, implying that resources controlled by each individual in a household may determine intrahousehold decision making power. Empirical work shows strong support for this dynamic among household members (Doss 1996; Thomas, Contreras and Frankenberg 1997; Quisumbing and Maluccio 2003; Fafchamps, Kebede, and Quisumbing 2009).

² For example, many conditional cash transfer programs worldwide (e.g., Oportunidades in Mexico, Bolsa Familia in Brazil) make transfers preferentially to women.

Within this framework, there are several ways in which CFPR-TUP could plausibly shift dynamics within the household through asset transfer. First, if the transferred asset remains in the control of the targeted woman, her ownership and control of assets in the household may increase. All else equal, her greater control of resources in the household could increase her relative bargaining position. However, women's retention of the transferred asset is not a guarantee. Early evidence in the agricultural commercialization literature (Jones 1983; von Braun and Webb 1989) suggests that, when new crops were introduced to women in Cameroon and Gambia, men took control of those crops once they became profitable. Recent evidence from conditional cash transfer programs in Mexico and Brazil (Handa et al 2009, de Brauw et al 2013) suggests that cash transfers given to women may not be fully controlled by women, particularly in rural areas. Studies of the impact of microfinance in Bangladesh have also found that loans targeted to women, although taken out by women NGO members and increasing resources available to them, are often controlled by their husbands (Goetz and Gupta 1996; Hashemi, Schuler, and Riley 1996). Moreover, most of the assets transferred to women by CFPR-TUP were cattle, which socioculturally are considered "men's assets" in rural Bangladesh. In this context, control by women of transferred cattle would be a transformation of traditional gender roles.

Second, if the program leads to another household member (for example, the targeted woman's husband) gaining control of resources relative to the woman, the targeted woman's relative bargaining position could in fact decrease. One such scenario is if the woman's husband takes over control of the transferred asset, as described above. Another is if income generated from the transferred asset is used to buy additional assets, which are considered to be owned and controlled primarily by another household member rather than the woman. These assets could include agricultural productive assets, non-agricultural productive assets, consumer durables, and land, many of which are also typically considered "men's assets" in rural Bangladesh.

Finally, there could be other factors associated with the asset transfer that shift the nature of women's work and have implications for intrahousehold dynamics. For example, because the assets require maintenance at home, they have potential to change the location of women's work and their time allocation. Less movement outside the home may imply less ability to physically control resources – for example, to visit markets and purchase goods using income earned from the assets. Again, if another member of the household (such as the woman's husband) takes over this dimension of control over resources, there may be a shift in intrahousehold dynamics.

In this paper, we examine who within the household has ownership and control over various assets, both transferred and acquired through other means, and how these rights translate to

decisionmaking power and other measures of wellbeing for different members of the household. Our analysis draws on survey data from a randomized controlled trial, with information collected on sex-disaggregated asset ownership and control, decisionmaking, and measures of women's autonomy. We complement our analysis by drawing on qualitative work (Das et al, 2013), based on focus group discussions and key informant interviews in treatment and control communities that explored the sociocultural context and beneficiaries' own perceptions of impacts from the asset transfer program.

While our analysis confirms previous findings that the program significantly increases household-level asset ownership, it reveals new findings of ambiguous effects for the targeted individual in terms of ownership and control over various assets and decision making. Results do indicate that the transferred asset tends to remain under the targeted woman's ownership and control. In particular, for livestock – the primary assets transferred – the program slightly increases ownership by men but causes much larger increases in ownership (sole or joint) by women. These increases in women's livestock ownership are accompanied by increases in women's control over the livestock, including such dimensions as the right to buy or sell cattle – particularly notable for transforming gender roles, since high-value livestock such as cattle are typically perceived as “men's assets” in the local context. However, we also find increases in household ownership of many other assets (not directly transferred by the program), which tend to be solely owned by men. For example, the program causes increases in men's sole ownership of many types of agricultural productive assets, non-agricultural productive assets, consumer durables, and land. For these assets, women tend not to experience increases in sole or joint ownership or most dimensions of control, although they do experience small increases in the right to use some of the assets. These results suggest that when households make investments in new assets (rather than those transferred) due to the program, these assets are typically owned solely by men. Additionally, we find that the program does not change the proportion of women who work but does shift work from outside to inside the home, since the transferred asset (livestock) needs to be maintained within the homestead, potentially reducing mobility. Moreover, the program significantly decreases women's voice in a range of decisions – including control over their own income, purchases for themselves, and decisionmaking for household budgeting. These reductions are consistent with theoretical models in economics that link individuals' relative control over resources to their intrahousehold bargaining position.

To complement the quantitative findings, we highlight insights from the qualitative work that was part of the overall study (Das et al, 2013). Qualitative findings are closely aligned with quantitative findings in terms of program impacts on ownership and control of assets, as well as on mobility. Female

beneficiaries report retaining control and management of the transferred assets, with little evidence of program assets being taken over by husbands or other male household members. Qualitative findings also confirm that women's mobility outside the home has been reduced by the program, due in part to the need for maintaining the transferred asset at home and associated increased workloads. However, in the perceptions of targeted women themselves, the program's impact appears to be largely *positive*. In particular, the qualitative work suggests there were many "intangible" benefits to women that could not be easily explored quantitatively. For example, the training and support provided by the program, in addition to the improvement in economic circumstances, allowed women to gain confidence and increase social capital. Qualitative findings also highlight that work opportunities outside the home for poor women are often so poorly paid and stigmatising given local norms of female seclusion that most beneficiary women *preferred* forgoing these in favor of generating income at home, even with the tradeoff of reduced mobility and increased workload. Finally, while the quantitative work found that the program reduced women's voice in household decisions, the qualitative work suggests that women themselves tended not to frame their own empowerment in terms of individual rights or material gains. Rather, when asked about impacts of the program, they tended to describe more intangible outcomes – for example, feeling improved social status in the community and household simply by contributing to improving the economic condition of the household, taking satisfaction in being able to send children to school, etc.

Overall, our findings suggest that the asset transfer program has considerably shifted intrahousehold dynamics, with mixed implications for the targeted women, and with sociocultural context playing an important role in how women themselves perceive its impacts. More generally, the findings highlight that an intervention may have complex and somewhat ambiguous intrahousehold impacts, even if it quite unambiguously increases welfare of the household in aggregate.³

The paper proceeds as follows. Section 2 describes the program and its context in more detail. Section 3 describes the data collected in order to evaluate the program, including information on gender

³We note that these findings relate to evidence elsewhere on targeted programs having mixed or limited effects on the targeted individual due to reallocation within the household. For example, in the context of feeding programs (see Bheaton and Gassemi 1982 for an early review), evidence shows that parents may compensate for food or supplements targeted toward specific members of the household by reducing at-home food consumption for those members, or by sharing take-home rations among other (non-targeted) household members. In the evaluation of the first phase of Mexico's PROGRESA, a forerunner of many conditional cash transfer programs, one of the most serious operational problems found in the health component (Adato, Coady, and Ruel 2000) was that the targeted infants and young children received only a fraction of the nutrients that the program intended to provide, mostly because the supplement was shared within the household.

dynamics and assets. Section 4 describes our evaluation approach, which takes advantage of the program's randomized design. Section 5 presents estimates of program impacts on intrahousehold dynamics related to gendered asset ownership and decisionmaking, with additional insights from the qualitative work. Section 6 summarizes the findings and concludes.

2. Description of Program and Program Context

In 2002, BRAC initiated the first phase of a large-scale grant-based program in rural Bangladesh called "Challenging the Frontiers of Poverty Reduction – Targeting the Ultra Poor" (CFPR-TUP or CFPR). BRAC designed CFPR based on several observations regarding the rural poor in Bangladesh: (i) poor households often lack both physical capital and skills, (ii) although men in rural Bangladesh typically work outside the home, women are perceived to typically stay on the homestead due to sociocultural norms, and (iii) while there have been many programs in rural Bangladesh directed towards women through women's groups, the ultra-poor are marginalized.⁴ CFPR thus provided a transfer of productive assets and training to women in ultra-poor households, selecting assets that could be used for income generating activities on the homestead, with the aim of sustainably increasing the households' economic and social capabilities. The first phase of CFPR ran from 2002-2006 and included 100,000 households from the poorest three districts in Bangladesh (Rangpur, Nilphamari, and Kurigram). Because selection into CFPR Phase I was targeted to particular types of households, evaluation of the program required a non-experimental methodology, with beneficiaries compared to a similar but non-random group of non-beneficiaries. Evaluations using these non-experimental methods (Das and Misha, 2010; Krishna et al., 2012) suggested that program participation caused significant improvements in the livelihoods of ultra-poor households. Based on these promising findings, a second phase (2007-2011) was launched, with expanded coverage and a design that would provide a strong basis for impact evaluation.

This paper focuses on the second phase of the CFPR program, which ran from 2007-2011 and followed a randomized control trial (RCT) evaluation design. CFPR Phase II offered two different support packages to the ultra poor, based on household characteristics: a grant-based package for households characterized as the "Specially Targeted Ultra Poor" (STUP) and a "credit-plus grant" package for

⁴ For example, although microcredit programs are widespread in rural Bangladesh, extremely poor households often cannot participate due to lack of collateral.

households characterized as “Other Targeted Ultra Poor” (OTUP). In this paper, we focus on the STUP program.

STUP was allocated according to a cluster randomized control design. Within the 13 districts where the program was rolled out in the year 2007, one or two *upazilas* (subdistricts) from each district were randomly selected. Within each of the *upazilas*, two BRAC branch offices were randomly selected (see Figure 1).⁵ One of these branch offices was randomly assigned to treatment and the other branch office to control. Thus, receipt of STUP was pairwise-randomly assigned at the level of branch offices, stratified by *upazila*. The randomization led to 20 treatment branch offices and 20 control branch offices. In treatment branch offices, coverage by STUP of eligible households extended to the coverage of the office location.

In both treatment and control branch offices, eligible households were identified through a wealth ranking exercise called Participatory Rural Appraisal (PRA), followed by a visit to the household by program staff to verify information. PRA (Chambers, 1994) allowed the community to identify households it considered to be in the bottom wealth ranks, referred to as the “community defined extreme poor.” Households falling in the category of “community defined extreme poor” were then visited to check requisite inclusion and exclusion criteria. To be eligible, STUP members must have met at least three out of the five following inclusion criteria: (a) the household is dependent upon female domestic work or begging; (b) the household owns less than 10 decimals of land;⁶ (c) there are no active male adult members in the household; (d) there are no productive assets in the household; (e) children of school-going age have to engage in paid work. They must have also met all of the following three exclusion criteria: (a) no adult woman in the household is able to work; (b) the household does not participate in microfinance; and (c) the household is not a beneficiary of a government/NGO development project. A final round of verification was carried out by high-level BRAC staff to generate the final list of households eligible for CFPR STUP support.

Only in STUP treatment branch offices, women in households deemed eligible received the following: productive asset transfers for income generating activities on the homestead (such as chickens or ducks for poultry rearing, cows or goats for livestock rearing, etc); training on use of the productive assets for income generating activities (IGAs); a subsistence allowance of approximately 175 taka (about

⁵ Each subdistrict typically includes more than two BRAC branch offices. These branch offices cover an area of about 6-7km in radius.

⁶ 100 decimals=1 acre

US \$2.50) per week; close supervision from program staff; health support (such as free medical treatment, regular visits by the health volunteers (*Shasthyo Shebika*) for preventive disease); and social development initiatives (community support, awareness raising training). The program provided various combinations of productive assets (such as cow and goats, goats and poultry, etc.), with almost 90% of households receiving at least one cow. The type of asset transferred to each participant household from the pre-specified assets depended on the capability and willingness of the participants to engage in the associated income generating activities, and suitability of the geographical locations for livestock-raising. The purpose of providing a subsistence allowance was to compensate beneficiaries' opportunity cost of time spent nurturing the IGAs until maturity and help smooth households' consumption, as well as to deter beneficiaries from selling off the transferred assets to meet immediate consumption needs. This allowance was provided to beneficiaries for 8 to 12 months depending on the type of IGA received.

While the asset transfer and other program assistance were targeted to women in the household, and while BRAC program staff encouraged women to use the assets for IGAs rather than selling them off, there was no explicit instruction regarding who in the household should have control and ownership rights over the assets and how income generated from the assets should be allocated within the household. In fact, program documents state that the objective of the program was to build up asset ownership of the household in aggregate, not specifically to increase assets owned exclusively by women. In particular, while women were designated responsible for maintaining the asset, the program did not require that women participate in such decisions as whether to sell or rent the asset, how to use income generated from the asset, etc. Rather, intrahousehold dynamics determined these factors. Our focus in this paper, therefore, is exploring these intrahousehold dynamics.

3. Evaluation design and data

3.1 Main impact evaluation survey

From 2007-2011, the BRAC Research and Evaluation Division (RED) collected panel data on households across both treatment and control branch offices in order to evaluate impacts of the STUP package.⁷ This data collection included three rounds: 2007 (baseline), 2009 and 2011. It focused primarily on household-level information, covering quantitative socioeconomic and health data. The sample included all households determined to be eligible per the PRA and verification, in each of the 20 treatment branch

offices and in each of the 20 control branch offices. The overall sample across all 40 branch offices spanned 1409 communities (villages or parts of villages). At the time of the baseline survey in 2007, the sample included 7953 eligible households over treatment and control groups.⁸ By the 2011 round, 6919 households were successfully followed up, representing 13% attrition from baseline. Details regarding the sampling design and baseline balancing in characteristics of treatment and control households for the main impact evaluation are found in Bandiera et al. (2013).

3.2 Gender and assets follow-up

Qualitative study

While the socioeconomic and health data included information on asset ownership at the household level, it did not include details on which individuals in the households owned and controlled these assets. In preparation for fielding a quantitative follow-up focusing on gender and assets, in February-June 2011, a small qualitative study was conducted in order to guide and complement the upcoming quantitative data collection. This qualitative study aimed to inform the development of the quantitative instruments for the 2012 survey, as well as provide insights into the prevailing local patterns of intrahousehold asset ownership and on respondents' perceptions of gendered impacts of the project. Details of the qualitative study are described in Das et al (2013). Fifteen focus-group discussions were conducted by BRAC RED in three districts (a subset of those included in the quantitative survey) and included groups of only female participants in beneficiary households, groups of only male spouses in beneficiary households, groups of only females from non-beneficiary households, and groups of only males from non-beneficiary households. In addition, in each treatment branch office in each of the three districts, two key-informant interviews were conducted: one with the CFPR-TUP Program Organiser and one with the local Gram Daridro Bimochon Committee (GDBC) member who had long-term experience with the program. Fieldwork was conducted in Bangla, and analysis of the qualitative data was conducted using QSR nVivo 9 based on English translation of the transcripts.

Quantitative gender and assets follow-up

The follow-up quantitative survey was fielded in January-April, 2012, focusing on gender and assets, including detailed questions on sex-disaggregated ownership and control over a large range of assets, dynamics of intrahousehold decision making, and women's autonomy. The present authors contributed to the design and implementation of this follow-up. The design of the gender and assets survey instrument drew extensively on preliminary findings from the qualitative work. For example, the

⁸ The survey also included 19,012 non-eligible households in the sample, to assess spillover effects on other wealth classes. This paper focuses on analyzing direct impacts on only the eligible households.

list of assets included several that may not be commonly thought of as major assets but that were named as being often “owned” by and important to women (such as jewelry, sarees, and cooking implements). Based on the qualitative work, a distinction was also made in the quantitative instrument between having “ownership” and specific “control rights” over assets. In particular, because it appeared that the notion of ownership did not translate to a fixed set of control rights and in some cases differed by asset, the two categories were considered separately. In the follow-up quantitative survey, respondents were allowed to use whatever their own notion was of ownership to characterize who owned each asset, while they were additionally asked about specific control rights over the asset (e.g., the right to use, the right to buy, the right to sell, the right to rent, etc.). Based on qualitative insights, the quantitative survey also allowed for not only “sole” ownership of assets by single individuals but for joint ownership across several individuals. Questions were asked such that two different indicators could be analyzed for women’s role in ownership and control: whether women had “sole” ownership or control, as well as whether they had “any” ownership or control (sole, joint with spouse, joint with other household members, or joint with household as a whole).

In all sampled households for the gender and assets data, the primary respondent was the “main female” member of the household (either the female head or the female spouse of male head). Attempts were made to re-interview all households included in the 2011 round. Of these, 6066 households were successfully followed up – 3467 treatment households and 2599 control households – representing 23% attrition from baseline.

3.3 Sample attrition

As we note above, there was considerable attrition in the quantitative data between the baseline round in 2007 and the follow-up round in 2012. Our analysis indicates that attrition is slightly but significantly correlated with baseline characteristics of households and individuals that may also be correlated with our outcomes of interest.⁹ The following characteristics are linked to higher probability of a household attriting from the sample between baseline and follow-up: being a treatment household; living in a “dilapidated” home at baseline; owning land; not owning its home; owning more saris; owning fewer goats/sheep; owning agricultural assets such as a pump; and living in certain branch offices. These correlates are generally in line with reports from the field that the high rate of non-response in the January-April 2012 round was because these months coincided with the “boro” planting and harvesting

⁹ Estimates of the probability of staying in the non-attrited sample are shown in Appendix Table A.1.

season in Bangladesh, when rural households become particularly busy. It is roughly consistent with this story that, all else equal, households with land and more agricultural assets were more likely to be busy, while somewhat better off households (those with better homes, for example) were slightly less busy, for example if they were able to hire labor rather than serving as day laborers themselves. In any case, given that attrition appears to be non-random, we account for it in order to minimize bias in impact estimates. We do so by constructing inverse probability weights for each set of outcomes we study (asset ownership and control by men and women, decisions on work and expenditures, impacts on livelihoods), following the methodology of Fitzgerald, Gottschalk, and Moffitt (1998).

Once attrition weights are incorporated, we find that household characteristics of our endline sample appear to no longer be systematically correlated with treatment status at baseline. Table 1 presents baseline means for characteristics of treatment and control households that remain in the sample for the 2012 follow-up round, as well as statistical significance of the differences between groups. Results indicate that these samples are balanced at baseline once attrition weights are applied.

4. Evaluation approach

Our approach to evaluating impacts of the STUP intervention on gender and asset outcomes takes advantage of the RCT design of the intervention. We wish to estimate the average difference between the outcomes of beneficiaries assigned to receive the program and the counterfactual outcomes of those same beneficiaries had they not been assigned to the program. While it is not possible to directly observe counterfactual outcomes, outcomes of the randomized control group in this study can serve as a reasonable proxy. The randomized assignment of a large sample of eligible households to treatment and control groups helps to ensure that observable and unobservable characteristics of the households were likely balanced across the two groups at baseline.

In the absence of nonrandom attrition, any differences between the treatment and control households at follow-up could then be interpreted as causal impacts of the program. As we show in Section 3, there was in fact considerable attrition in our sample by the 2012 follow-up; however, the use of inverse probability attrition weights balances a large set of observable baseline household characteristics across treatment and control groups in our non-attrited sample. With these attrition weights incorporated, any significant differences in outcomes between the non-attrited treatment and control groups in 2012 can reasonably be interpreted as attributable to the program.

We note that ideally we would have preferred to have baseline information on all our key outcomes, such that we could empirically confirm balancing in these indicators as well and use double-difference or ANCOVA estimates to account for any small differences in baseline values to improve precision of estimates. Because the baseline survey from the main impact evaluation did not contain information on our outcomes of interest related to intrahousehold dynamics, use of baseline information to explore impacts on these outcomes was not possible. However, given that the treatment was randomly assigned and that we find balancing in a large set of observable characteristics available at baseline with sample attrition weights incorporated, concern over baseline differences is minimized.

We also note that our estimates of impact are average “intent to treat” impacts of the STUP intervention, relying on the randomized assignment to avoid any bias due to self-selection in take-up. However, because the take-up rate of the program was quite high, close to 90 percent, these intent to treat estimates are likely close approximations to average treatment effects on the treated.

The basic specification for single-difference estimation is as follows, for a household i in branch office b , with each outcome measure denoted as Y_{ib} , the branch office’s treatment indicator denoted as $Treatment_b$, and the error term denoted as ε_{ib} : $Y_{ib} = \beta_0 + \beta_1 * Treatment_b + \varepsilon_{ib}$. We estimate this specification accounting for inverse-probability attrition weights on each observation of household i in branch office b .

5. Results

5.1 Norms of gendered asset ownership

Understanding local gender norms regarding livestock ownership is useful in interpreting our impact estimates. The qualitative work in this study (Das et al, 2013) indicated strong gender norms in rural Bangladesh regarding ownership of livestock, the main type of asset transferred by BRAC. Focus group discussions indicated that small livestock such as poultry were typically seen as belonging to women – because poultry were kept near the homestead and usually fed and managed by women, because poultry keeping was a low-value and low-status economic activity, and because poultry were more likely than high-value livestock to be bought or sold informally without the need to be taken to markets (daily “bazaars” or weekly “haats”) that were seen as “men’s places.” Meanwhile, larger livestock such as cattle were typically perceived as belonging to men. While they were also kept near homesteads and mostly tended and managed by women, they were both higher in value and more often traded in

markets, such that their sale usually required an adult male’s consent and help. Respondents tended to perceive nonlivestock assets as belonging to men or women depending on whose activities they were more closely associated with. Assets associated with male income generation, particularly away from the home – such as cultivation equipment – were perceived as nearly exclusively controlled and “owned” by men. Assets associated with women’s work – food preparation and cooking – were perceived as managed by women and sometimes lent, bought, or sold without a husband’s permission. These patterns suggest that, among the assets transferred to women, the most valuable livestock assets – cattle – were typically considered assets owned by men in the study setting. Lower-value transferred assets of poultry were more typically considered assets owned by women. Moreover, most assets other than livestock that could be used away from the home and were not transferred by the program – such as equipment used for agricultural production – were typically perceived as owned by men.

To provide further context for the program impacts we estimate below, we also present descriptive statistics in Appendix Tables A.2-A.12 for all our key outcomes, as measured in the control group in the follow-up round. The mean values shown for the control group, accounting for attrition weights, represent what the mean counterfactual situation would have been for the treatment group in the absence of the program, in terms of men’s and women’s asset ownership, women’s work, and decisionmaking about women’s income and household expenditures.

5.2 Program impacts

Since we are primarily interested in how the program affects dynamics in households headed by a male and female partnership, we restrict our analysis to this sample. Our estimation sample includes households either with a male household head and female spouse, or with a female household head and male spouse.

As described above, in all of our impact estimates, we estimate single-difference estimates, taking into account attrition weights. We moreover adjust standard errors to account for the intervention design and survey design. In particular, our estimates account for the stratification of randomization at the *upazila* level and the cluster-level randomization at the branch office level.

Our discussion of the impact estimates proceeds from immediate impacts of BRAC’s asset transfer on intrahousehold asset ownership and control, to “downstream” impacts on work and decisionmaking that may arise because of the asset transfer.

5.2.1 Intrahousehold ownership and control of livestock assets

Because the program transfers livestock assets to ultra-poor households, we expect that the immediate impact of the program will be on the ownership and control of the transferred assets themselves, namely livestock.¹⁰ For each type of livestock asset listed, the survey asks how many total are owned in the household, then how many are perceived to be owned solely by the woman, solely by her husband, jointly between her and her spouse, jointly by her and other household members, and jointly by the household as a whole. We construct unconditional measures for the number of each type of livestock owned total in the household; owned solely by the female; owned in any part by the female (meaning, solely, jointly with her spouse, jointly with other household members, or jointly by the household); owned solely by her husband; or owned jointly by her and her husband. Table 2 shows that according to the main female's reports, at the household level, the program significantly increased ownership of livestock such as cows/buffalo, goat/sheep, and chickens/ducks. This increase is consistent with the program's direct transfer of livestock and indicates that households retained ownership of the assets rather than selling them off. A closer look at the intrahousehold distribution of livestock ownership indicates that the program increases livestock owned solely by men, as well as jointly by men and women, but causes the largest increases in livestock owned solely by women or in any part by women. This pattern includes cows, which as mentioned above, is notable since sociocultural norms in Bangladesh tend to categorize high-value livestock such as cattle as men's assets.

We also analyze how these impacts on ownership translate to impacts on rights over the assets. For each livestock asset, the survey asks whether the woman has the right to rent out, sell, decide how to spend income generated from, and decide who inherits the asset. We construct unconditional indicators for each. For example, if a household has no cow, we code the woman as not having the right to rent out a cow, since in concrete terms, she is unable to do so. In other words, we characterize a woman's right to rent a cow identically for a woman who lives in a household with no cow and a woman who lives in a household with a cow over which she has no rental rights.¹¹ Table 3 shows that impacts on

¹¹ We did not restrict the analysis sample to only those households that possessed livestock at follow-up. Doing so would have complicated the comparison. For example, we might have compared treatment households (that had livestock at follow-up because of the program but would not have in the absence of the program) with initially better-off control households (that had livestock at follow-up even without receiving the program). A valid comparison of livestock owning households in treatment and control groups would have required correction for the selection bias in owning livestock. An alternate construction might have been to consider, for households that did not own a particular type of livestock animal, whether the woman "could have" rented out the animal if the household owned it; but these hypothetical questions were not asked in the survey.

women's rights over livestock very closely track the impacts on their perceived ownership. The program causes significant increases in control over each of the livestock categories, with the increases in control over cattle being again particularly notable. We note that, in all cases there are significant increases in the proportion of women who report that they are able to decide how to spend income generated from the livestock – which in light of results on decisionmaking regarding income to be shown in Section 5.2.7, are likely to reflect joint decisions rather than sole decisions.

5.2.2 Intrahousehold decision making related to livestock

Table 4 shows that the program increases women's voice in all dimensions of decisionmaking relevant to livestock that we analyzed. For decisions related to the livestock itself (e.g., buying a cow, selling a cow, etc.), we see that the program significantly increases women's sole decisionmaking in addition to joint decisionmaking. Given that social norms in Bangladesh typically categorize buying and selling of high-value assets like cattle as in the realm of men, this finding is notable. In terms of milk, the program does not increase women's sole decision making, but does increase joint decision making.

5.2.3 Ownership and control of agricultural assets

While the program directly transferred livestock and cash grants, it is possible that ownership of other types of assets was affected as well. The questions asked in the survey and our indicators are constructed analogously to those for livestock. Table 5 shows that according to the main female's reports, at the household level, the program significantly increased ownership of several agricultural productive assets, over and above those transferred by the program. This increase could be due to complementarity in some cases with receiving a livestock transfer (e.g., a cow shed for cattle) or due to new investments using income generated from the transferred assets. Unlike the case of livestock, in the realm of agricultural assets, increases in household ownership tend to translate to increased sole ownership by males. The small increases in some categories of joint ownership and female sole ownership are most notable for cow sheds, which are used for livestock-raising. These patterns accord with norms in Bangladesh of agricultural work being associated with men, and livestock-raising with women. If increased income in households translated to new investment in agricultural assets, it follows that those assets would be perceived as owned by men.

Table 6 shows how these impacts on ownership translate to impacts on rights. We see that the program does tend to increase women's rights in some dimensions over certain agricultural assets, even though the increases in ownership are perceived as largely men's sole ownership. For example, it does appear that the program makes it more likely that women are able to use many of the agricultural assets, even if they are owned by the male. The exception is the mowing machine, over which it appears that the program reduces women's ability to make decisions.

5.2.4 Intrahousehold ownership and control of non-agricultural assets

We then turn to impacts on ownership and control over non-agricultural assets. Table 7 shows that according to the main female's reports, the program also significantly increased household-level ownership of several non-agricultural productive assets, including bicycles, mobile phones, trees, cash, fishing nets, rickshaws/vans, and cottage materials. Similar to the pattern for agricultural assets, across most non-agricultural assets, increases in household ownership tend to translate to increased sole ownership by males, particularly for assets related to increased mobility or work outside the home (bicycles, rickshaws). Male ownership increased even for assets that could theoretically be owned by either males or females (mobile phones or sewing machines). The most notable exception is cash, for which the significant increases in female sole ownership are quite substantially larger than the increases in male sole ownership or joint ownership. The increase in cash likely comes from the small grant given by the program as well as earnings which are often deposited to BRAC's interest-bearing savings account. This finding suggests that while most new investments made by the household in non-agricultural productive assets due to the program are perceived to be owned by the male, the program's direct grant of cash is perceived to be owned either solely by the woman or jointly by the woman and her spouse.

Table 8 shows that again in some cases women's right to use an asset is increased even though the increased ownership of that asset is primarily from their husband's sole ownership. The significant increase reported in women's right to use cash is noteworthy. While consistent with women reporting greater "ownership" of cash, it somewhat contradicts the results presented below on women's ability to control money or make decisions related to expenses.

5.2.5 Intrahousehold ownership and control of consumer durables

While consumer durables are often thought of as distinct from assets, they can also be stores of value (for example, jewelry), as well as be important factors in acquiring other forms of capital (for example, having suitable clothes or a space in the home that can be considered a “living room” may be important in developing social capital). Table 9 shows that according to the main female’s reports, the program significantly increased household-level ownership of many categories of consumer durables, including furniture, appliances, cooking instruments, clothing, and housing infrastructure. These increases are likely to be new investments using income generated from the transferred assets. Similar to agricultural and non-agricultural assets, increases in household ownership tend to translate to increased sole ownership by males – notably even for gold jewelry, which the qualitative work suggests is commonly viewed as a women’s asset in Bangladesh.

Table 10 shows that, interestingly, while in most cases women’s right to use an asset is increased by an increase in her husband’s sole ownership, in many cases her right to rent, sell, lend, or decide who can or can’t use the asset is significantly reduced. These results indicate that, while the program does increase women’s access to a range of consumer durables, it tends not to increase women’s rights over them in other dimensions.

5.2.6 Intrahousehold ownership and control of land

Although no land was transferred by the program, according to the main female’s reports, the program significantly increased household-level land ownership across several categories, including homestead land, cultivated land, and ponds (Table 11). This finding suggests that program participants may mobilize additional resources to make new investments in land. Table 11 also shows that – as with agricultural assets, non-agricultural assets, and consumer durables – increases in household ownership of land tend to translate to increased sole ownership of land by males. The exception is a weakly significant increase in women’s sole ownership of ponds. Notably, there is very little change in joint ownership of land.

Table 12 shows that the program does increase women’s control in some dimensions over land, despite the fact that increases in household ownership are primarily due to increases in sole male ownership. The main exceptions are in homestead land, which the program increases women’s right to use but decreases other dimensions of women’s control over, and land on which fishponds are located. These patterns are consistent with anecdotal evidence that aquaculture in seasonal or permanent ponds can be undertaken by women, particularly if these ponds are located close to the homestead.

5.2.7 Ultra-poor women's decisions to work and use their earnings

We next turn to program impacts on women's work. Our survey asks whether women are "doing any work or business that brings in cash, additional food, or allows you to accumulate assets for your household," then asks whether this work is inside the home, outside the home, or both. We construct indicators for whether the woman works at all, for whether the woman works inside the home (potentially in addition to outside the home), and for whether the woman works outside the home (potentially in addition to inside the home). Table 13 Panel A shows that while the program does not affect the proportion of women who work, it does change where women work.¹² The program causes about a 17 percentage point increase in women working inside the home, relative to the control group, and about an 8 percentage point decrease in women working outside the home. Since the types of assets provided to women by the program require maintenance at home, the implications for time allocation may explain this pattern. We also think that this finding may imply a reduction in women's mobility as a whole, since the qualitative work indicates that women tend to have limited ability to leave the homestead unless their work directly requires it.

We then analyze impacts on what women do with the income they earn. Our survey asks whether women give all the money they earn to their husbands / other family members, give some to their husbands / other family members, or keep it all. We construct the following indicators from these responses: whether the woman works and keeps all of the money; whether the woman works and keeps any of the money; whether the woman works and keeps none of the money. These indicators are defined unconditionally such that, for the first for example, a woman who does not work is coded with 0, a woman who does work and does not keep all of the money she earns is coded as 0, and a woman who does work and does keep all of the money she earns is coded with 1. Table 13 Panel B shows that the program significantly decreases the proportion of women who work and keep all or any of the money they earn (by about 8 percentage points or 4 percentage points respectively), while the proportion that keeps none of the money earned increases by about 5 percentage points.

Finally, we analyze who decides how to use the money earned by women who work. Our survey asks "Who usually decides how to spend the money you earn?", with response options of "yourself;

¹² Notably, these impacts and the descriptives shown from the control group in Section 3 challenge the common perception that rural Bangladeshi women do not work outside the home and therefore have limited opportunity costs in maintaining an asset inside the homestead. That said, the rates of working outside the home may be lower among women in rural Bangladesh at large than for the ultrapoor women in our sample, who likely resort to wage labor to augment family incomes.

your husband; self and husband; self and other HH member; and someone else.” We construct four indicators from these responses: whether the woman works and solely decides how to spend the money she earns; whether the woman works and has any voice in deciding how to spend the money she earns; whether the woman works and her husband solely decides how to spend the money she earns; and whether the woman works and she and her husband jointly decide how to spend the money she earns. Again, these are unconditional indicators. Table 13 Panel C shows that the program significantly reduces the proportion of households where a woman works and solely decides how to use the money she earns (by about 9 ppt), while it significantly increases the proportion of households where the decision is made jointly between the woman and her husband (by about 10 percentage points).

Taken together, these findings raise the possibility that the shift in location of women’s work due to the program may also shift control and decision-making over the income earned by women. In particular, given social norms of female seclusion, women who do not work outside the home may not have reason to leave the home at all. A shift to working exclusively inside the home may translate to no longer having the mobility to make use of income independently (e.g., going to the market), but rather giving the money earned to another household member who will leave the home and deciding jointly what to do with it.

5.2.8 Intrahousehold decisionmaking related to expenditures

We then turn to impacts on decisionmaking on issues more broadly affecting the household. Table 14, Panel A, shows how the program affects who has a voice in decisions relevant to credit and savings. We see that the program significantly increases women’s role in decisionmaking relevant to loans – both in whether to take one and how to spend it – in terms of sole and joint decisionmaking. Husbands’ sole decision making is not substantially affected in terms of loans. This pattern is consistent with the program facilitating loans to women. Program participant women are eligible to take BRAC microfinance loans after two years of grant supports, and earlier evidence showed that about 68% of TUP program participants took loans from BRAC during the three year period after they completed the TUP program support-cycle (Das and Shams, 2010). However, in terms of saving, the program significantly decreases women’s sole decision making and significantly increases joint decisionmaking.

Table 14, Panel B, shows impacts on who decides about specific categories of expenses. Patterns of impacts across food, housing, and health care are very similar. The program significantly reduces the proportions of households in which women solely decide or have any voice in deciding how

to spend on these categories, while it significantly increases the proportion of households in which husbands solely decide or in which decisions are made jointly.

Table 15 shows that the program significantly reduces the proportion of women controlling the money needed to buy food or items for themselves. There is approximately a 15 percentage point reduction in women controlling the money needed to buy food from the market, a 12 percentage point reduction for clothes for themselves, a 15 percentage point reduction for medicine for themselves, and a 7 percentage point reduction for cosmetics for themselves.

These impacts are consistent with the previous results showing that the program causes women to shift work inside the home and have less control over their earnings. Here we find that, even beyond reducing women's control over their own earnings, the program causes them to have less control and decision making power over household expenses as a whole.

5.3. Additional insights from qualitative findings

To add nuance to the quantitative findings on program impacts for targeted women, we summarize some insights from the qualitative study regarding beneficiaries' own perceptions (Das et al, 2013). In terms of sex-disaggregated asset ownership and control, results from the qualitative study are remarkably consistent with results from the quantitative analysis. Both men's and women's focus groups drawn from beneficiary households stated that the transferred livestock assets either belonged to women or were jointly owned. Even when the asset was seen as jointly owned, women were seen to have authority and veto power over such decisions as whether to sell the asset or to give it to a relative. These findings closely match the quantitative impact estimates on women's ownership and control over livestock. Focus group participants indicated that their stance was encouraged by the mode of operation of the TUP program which, without explicitly stating that the asset was being transferred to women, directed support and on-going training in managing the asset towards women. There was little direct exploration in the qualitative work on how resources were mobilized to purchase new assets and who owned and controlled these new assets. However, as noted in Section 5.2, the prevailing patterns of asset ownership described in Section 5.1 are consistent with nearly all non-livestock assets being perceived as owned by men.

Qualitative findings also support the quantitative finding that the program caused beneficiary women to more likely stay within the homestead and less likely be employed outside the home. Focus

groups reported that transferred livestock required maintenance at home and raised women's workloads between about one to three hours per day.

However, the qualitative work highlighted many *intangible* benefits perceived by targeted women, which were not easily explored through the quantitative work. One striking finding was that, while many beneficiary women described reduced mobility and heavy workloads due to the program, there was consensus that their situation was nonetheless *preferable* to working outside the home given low pay and high stigma associated with the options commonly available to extremely poor rural women (e.g., work as domestic servants, agricultural day labour, employment by others in small businesses such as weaving with handlooms). Respondents described the stigma as a particularly important factor. Work outside the home was considered not respectable because it forced women to transgress religious and social norms of segregation, which could lead to reputational damage. Reputation was considered especially important to maintain for extremely poor women, as they felt they could become physically vulnerable, socially excluded, or harassed if socially stigmatised or considered of ill repute.

Similarly, while quantitative impacts on decisionmaking suggested that the program significantly reduced women's voices in several tangible dimensions, the qualitative work indicated that female beneficiaries felt greater empowerment in many *intangible* dimensions. Many reported that they had gained confidence and social status, both in communities and in households, by helping to improve the economic conditions of their households. A specific way in which women described gaining confidence is in fact consistent with the quantitative finding that the program increased household ownership of consumer durables, which could be "used" by women even if owned by men – some women reported that having access to improved clothing made them more likely to be included in community activities and no longer uncomfortable to go places where they used to feel humiliated because of torn clothes. Beneficiary women also reported being less ashamed of their homes and now being able to use their own sanitary latrines rather than having to ask a neighbor. They also reported now having enough confidence to participate in local mediation hearings. In summary, while the quantitative analysis showed decreases in several tangible domains associated with empowerment (such as having a voice in decisionmaking), the qualitative showed increases in several intangible domains (such as feeling self-confident and gaining social capital).

In fact, very few of the program impacts that women themselves cited were focused on individual rights or explicitly on material gains.¹³ Rather, they framed perceptions of impact more in terms of intangibles: social capital, self-confidence, satisfaction in contributing to the household, etc. These observations highlight the importance of considering what outcomes are valued by beneficiaries themselves given their context, in addition to considering outcomes perceived as important more generally.

7. Summary and conclusions

7.1 Summary of findings

Overall the quantitative findings, complemented with the qualitative study, suggest two key points. First, consistent with the findings of Bandiera et al (2013), the program significantly increased household-level well being as measured by ownership of various assets; however, as measured by both quantitative and qualitative work, the program's impacts in terms of "tangible" outcomes on targeted women are quite ambiguous. While women's ownership and control over the transferred livestock are significantly increased (including over high-value assets such as cattle, typically thought to be a "men's asset"), there appears to be a greater increase in men's sole ownership over new investment in other assets (agricultural and non-agricultural productive assets, land, consumer durables). Moreover, the program tends to shift women's work inside the home (likely because the transferred livestock requires maintenance on the homestead), which combined with the increased workload, appears to reduce women's mobility outside the homestead. Consistent with reduced mobility, the program also

¹³ These findings are consistent with other work in Bangladesh (e.g. Becker 2012) suggesting the possibility that women in rural Bangladesh may in fact value contributing to the household more than having individual rights within the household. One possible dimension to this preference relates to women facing a potential tradeoff between asserting individual rights and maintaining family support. In sociocultural contexts where women's potential to function in society is limited without the support and protection of their husbands or other male household members, benefits of creating conflict within the household to assert individual rights may be outweighed by costs of losing family support. For example, Brule (2012) finds, in the context of rural India, that land inheritance laws do not increase women's inheritance because women forgo claiming their legal rights in favor of retaining their family safety net. In effect, due to the need for both daily-life and old-age support systems from family, women may not find it worthwhile to assert individual rights at the cost of household relations, finding instead that contributing to the household serves them better. A second dimension however is that, for sociocultural or other reasons, women's perception of benefits in rural South Asia may simply differ from prototypical Western norms.

significantly reduces women's voice in a range of decisions, both related to purchases for themselves and related to household savings and expenditure.

Second, nonetheless, when "intangibles" and context are taken into account based on qualitative analysis, the overall program impacts on targeted women appear far more favorable (if still mixed). Beneficiary women themselves frame project impacts more in terms of intangibles (such as social capital, self-confidence, satisfaction in contributing to the household, etc.) than in terms of individual rights or material gains. Their reports indicate that the program increased their social capital and self-confidence in ways that are in fact consistent with the quantitative findings – for example, having access to improved clothing (even if owned by men) that made them more likely to be included in community activities and less likely to feel less humiliated and uncomfortable going to certain places. They also report that their *contribution* to the economic improvement of their households (not necessarily their own individual rights over the economic gains) increased their confidence and social status within their households and communities. Additionally, the qualitative work indicates a consensus among beneficiary women that, given the numerous hardships associated with work outside the home for extremely poor rural women (most notably the social stigma given norms of female segregation), they *prefer* work inside the home even with the tradeoff of limited mobility. Thus, beneficiary women's perceptions indicate they value intangible outcomes in addition to tangible outcomes, and also frame certain tangible outcomes more favorably given the local context than might be perceived from an external viewpoint.

7.2 Conclusions

A number of compelling implications emerge from this study. First, we find strong evidence that asset transfers targeted to women *can* increase women's ownership and control over the transferred asset. This outcome may occur even in contexts where the transferred asset is not typically thought of as a "woman's asset," as was the case for high-value livestock in this study. This finding in itself represents a small transformation of gender norms.¹⁴

¹⁴ It is worth noting that it is not clear whether this finding would be sustained over the long term. Given that beneficiary focus groups cited the intensive support from BRAC as supporting women's ownership and control over the transferred livestock, it is possible that women's retention of the asset would fade somewhat as program support was eventually withdrawn.

Second, however, an increase in a woman's ownership and control over a transferred asset may *not* necessarily increase her overall control over resources or bargaining position in the household. In this study, only the assets directly transferred to the targeted woman appeared to remain in her control, while control over assets purchased from the generated income appeared to follow prevailing gender norms. Specifically, the program appeared to cause greater increases in men's sole ownership and control over new investments across several categories of non-livestock assets (agricultural and non-agricultural productive assets, consumer durables, and land) than in women's ownership and control. It also reduced women's mobility (potentially reducing ability to physically control resources) and their voice in a range of decisions concerning themselves and their households. Consistent with theoretical models in economics that relate control over resources to decision making power, it appears that women's overall control over resources decreased relative to men's, along with their relative intrahousehold decision making power.

Third, in the context of asset transfer, if the transferred asset requires maintenance at home, targeting the asset to women may shift women's work inside the home. The desirability of working inside the home may depend on the local context (as highlighted in this study), but if it reduces mobility outside the home, it may also reduce women's decisionmaking power over the use of resources.

Fourth, individuals may value both tangible and intangible outcomes. While tangible measures are more readily captured in quantitative analysis, it is important to also account for intangible factors (such as self-esteem and social capital) when studying benefits and costs of a program.

Finally, in a broad sense, nuance is required in assessing whether interventions improve "women's empowerment." The study highlights that even if a program's "household-level" impacts are quite unambiguously positive, effects on individuals within the household (such as the targeted women in this study) may be more ambiguous and complex. Additionally, some outcomes valued by individuals may be "intangible," and some that seem negative from an external viewpoint may be seen more favorably in the local context. Lastly, nonetheless, *if* increasing women's asset ownership and decision making power are explicit goals of a program, a focused intervention such as a targeted asset transfer may not be sufficient. In a context such as rural Bangladesh, interventions aimed at increasing women's decision-making power may need to engage not only women, but also other household members (including men) and communities, in an effort to fundamentally transform sociocultural norms.

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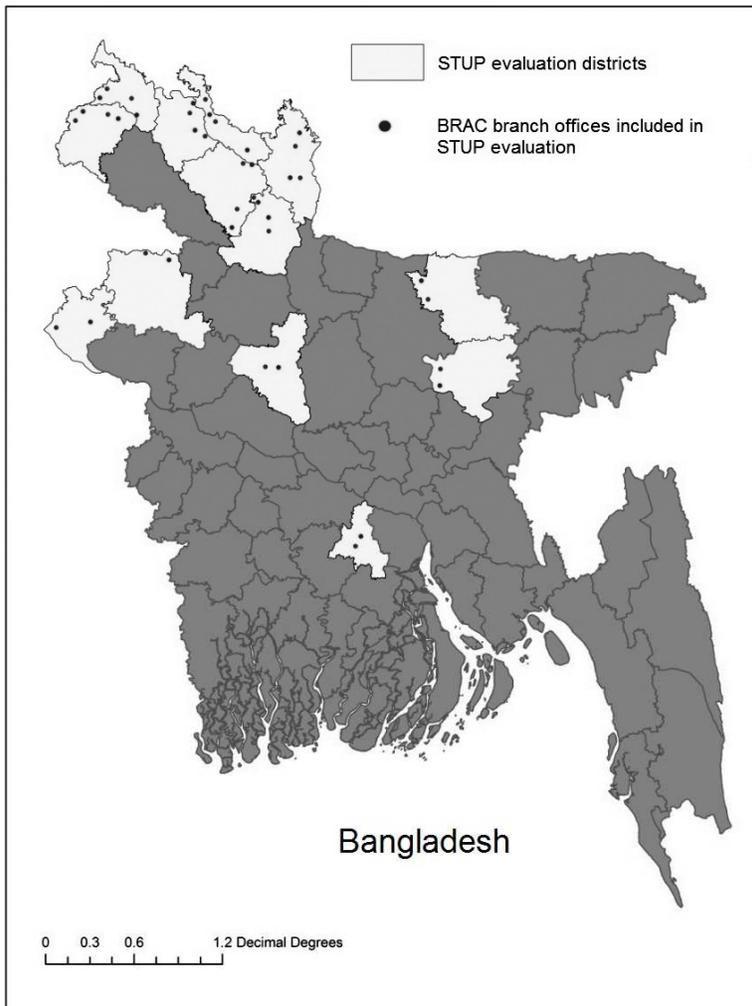
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Figures

Figure 1. Map showing STUP evaluation locations



Source: Adapted from Bandiera et al, 2012.

Tables

Table 1. Balancing of baseline mean characteristics between nonattrited treatment and control groups, accounting for attrition weights

Baseline characteristic	Control	Treatment	P-value of difference
Household's wealth rank (6 = lowest)	4.81	4.79	0.60
Whether household owns house (1 = yes, 0 = no)	0.83	0.84	0.47
Whether household owns land (1 = yes, 0 = no)	0.06	0.06	0.77
Area of household's owned land that is cultivated (decimals)	0.94	0.82	0.65
Value of household's owned land that is cultivated (taka)	2,239.22	1,824.64	0.52
Area of household's owned pond land (decimals)	0.02	0.03	0.39
Value of household's owned pond land (taka)	64.36	76.02	0.81
Area of household's owned land that is mortgaged out (decimals)	0.39	0.34	0.74
Value of household's owned land that is mortgaged out (taka)	1,529.78	737.46	0.17
Number of cows owned by household	0.07	0.08	0.49
Number of goats/sheep owned by household	1.78	1.79	0.95
Number of power pumps owned by household	< 0.01	< 0.01	-
Number of plows owned by household	< 0.01	< 0.01	-
Number of cowsheds owned by household	0.09	0.11	0.12
Number of fishnets owned by household	0.02	0.03	0.59
Number of rickshaws owned by household	0.01	0.02	0.22
Number of trees owned by household	0.95	0.64	0.21
Number of radios owned by household	0.03	0.01	0.16
Number of electric fans owned by household	0.01	0.01	0.25
Number of bicycles owned by household	0.03	0.02	0.23
Number of chairs owned by household	0.23	0.21	0.34
Number of tables owned by household	0.16	0.14	0.15
Number of <i>choukis</i> (cots) owned by household	0.85	0.86	0.77
Number of sofas owned by household	0.01	0.01	0.83
Number of jewelry items owned by household	< 0.01	< 0.01	-
Number of saris owned by household	0.31	0.33	0.36
Whether main female works as a homemaker only (1 = yes, 0 = no)	0.96	0.97	0.11
Main female's years of education	0.55	0.60	0.25
Main male's years of education	0.56	0.60	0.42

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Note: All differences are statistically insignificant at the 10 percent level. "Main female" refers to female head or female spouse of head. "Main male" refers to male head or male spouse of head.

Table 2. Impacts on intrahousehold livestock ownership

Livestock	Treatment impact on number of livestock				
	Total owned in household	Owned solely by female	Owned in any part by female	Owned solely by male	Owned jointly by male and female
Cows/buffalo	1.036*** (0.031)	0.817*** (0.031)	0.958*** (0.032)	0.076*** (0.013)	0.129*** (0.014)
Goats/sheep	0.220*** (0.037)	0.159*** (0.033)	0.192*** (0.036)	0.026*** (0.010)	0.026** (0.011)
Chickens/ducks	0.883*** (0.123)	0.779*** (0.116)	0.803*** (0.121)	0.079*** (0.023)	0.027 (0.029)

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Single-difference estimates with attrition weights; robust standard errors adjusted for survey design and clustering in parentheses. Each cell represents a separate regression. *** p < 0.01, ** p < 0.05, * p < 0.1. N = 6,066.

Table 3. Impacts on women's rights regarding livestock

Livestock	Whether female has the right to (...) livestock owned in the household			
	Rent out	Sell	Decide how to spend money generated from	Decide who inherits
Cows/buffalo	0.401*** (0.017)	0.371*** (0.017)	0.385*** (0.018)	0.374*** (0.018)
Goats/sheep	0.083*** (0.011)	0.078*** (0.011)	0.070*** (0.012)	0.066*** (0.012)
Chickens/ducks	0.093*** (0.016)	0.074*** (0.015)	0.063*** (0.016)	0.059*** (0.016)

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Single-difference estimates with attrition weights; robust standard errors adjusted for survey design and clustering in parentheses. Each cell represents a separate regression. *** p < 0.01, ** p < 0.05, * p < 0.1. N = 6,066.

Table 4. Intrahousehold decisionmaking regarding livestock

	Treatment impact on women's decisionmaking			
	Woman solely decides	She has any voice in deciding	Her husband solely decides	She and her husband jointly decide
Whether to buy a cow	0.046*** (0.009)	0.182*** (0.024)	0.002 (0.003)	0.124*** (0.016)
Whether to sell a cow	0.082*** (0.008)	0.242*** (0.016)	0.011*** (0.003)	0.132*** (0.011)
Whether to lease a cow	0.069*** (0.008)	0.210*** (0.017)	0.004 (0.003)	0.121*** (0.011)
Dairy maintenance expenses (buying feed, medicine, etc)	0.145*** (0.009)	0.424*** (0.017)	0.024*** (0.005)	0.233*** (0.012)
Selling milk	0.131*** (0.008)	0.365*** (0.016)	0.009*** (0.003)	0.201*** (0.011)
Giving milk to children	-0.006 (0.006)	0.031*** (0.009)	0.000 (0.002)	0.034*** (0.007)
Giving milk to other members of the household	-0.017 (0.017)	0.117*** (0.013)	0.002 (0.005)	0.137*** (0.018)

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Single-difference estimates with attrition weights; robust standard errors adjusted for survey design and clustering in parentheses. Each cell represents a separate regression. *** p < 0.01, ** p < 0.05, * p < 0.1. N = 6,066.

Table 5. Impacts on intrahousehold ownership of agricultural assets

Asset	Treatment impact on number of agricultural assets				
	Total owned in household	Owned solely by female	Owned in any part by female	Owned solely by male	Owned jointly by male and female
Choppers	0.121*** (0.028)	-0.007 (0.022)	0.006 (0.027)	0.114*** (0.017)	0.018 (0.013)
Stored crops (kg)	4.905*** (1.246)	1.440* (0.832)	2.590** (1.069)	2.238*** (0.589)	0.018 (0.475)
Cowsheds	0.258*** (0.023)	0.075*** (0.015)	0.121*** (0.019)	0.138*** (0.012)	0.036*** (0.009)
Deep tube wells	0.006 (0.004)	0.001 (0.002)	0.005 (0.003)	0.001 (0.003)	0.003 (0.003)
Ladders	0.009 (0.007)	0.003 (0.004)	-0.001 (0.005)	0.009** (0.004)	-0.006*** (0.002)
Mowing machines	0.069 (0.057)	-0.017 (0.032)	0.025 (0.048)	0.038 (0.034)	0.023 (0.027)
Plows	0.020*** (0.007)	0.002 (0.002)	0.007** (0.003)	0.012** (0.006)	0.001 (0.001)
Axes	0.162*** (0.022)	0.039*** (0.011)	0.073*** (0.016)	0.088*** (0.017)	0.025** (0.010)
Pumps	0.010*** (0.002)	0.002* (0.001)	0.004*** (0.002)	0.005*** (0.002)	0.001 (0.001)

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Single-difference estimates with attrition weights; robust standard errors adjusted for survey design and clustering in parentheses. Each cell represents a separate regression. *** p < 0.01, ** p < 0.05, * p < 0.1. N = 6,066.

Table 6. Impacts on women's rights to agricultural assets

Asset	Whether female has the right to (...) an agricultural asset owned in the household						
	Use	Rent out	Sell	Lend	Decide who can/can't use	Decide how to spend money generated from	Decide who inherits
Choppers	0.106*** (0.022)	-0.049** (0.021)	-0.044** (0.019)	0.031 (0.022)	-0.064*** (0.022)	-0.057*** (0.021)	-0.073*** (0.021)
Stored crops (kg)	0.075*** (0.012)	0.031*** (0.008)	0.022*** (0.006)	0.060*** (0.010)	0.027*** (0.007)	0.029*** (0.007)	0.021*** (0.007)
Cowsheds	0.217*** (0.019)	0.077*** (0.016)	0.054*** (0.013)	0.091*** (0.017)	0.071*** (0.017)	0.079*** (0.017)	0.061*** (0.015)
Deep tube wells	0.003* (0.002)	0.001 (0.001)	0.001 (0.001)	0.002 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Ladders	0.005 (0.006)	0.004 (0.004)	0.001 (0.004)	0.002 (0.006)	-0.001 (0.005)	0.005 (0.004)	-0.001 (0.004)
Mowing machines	-0.030 (0.021)	-0.116*** (0.022)	-0.080*** (0.020)	-0.062*** (0.022)	-0.116*** (0.024)	-0.117*** (0.025)	-0.120*** (0.022)
Plows	0.010*** (0.003)	0.004* (0.002)	0.001 (0.001)	0.007** (0.003)	0.006** (0.003)	0.006** (0.003)	0.003 (0.002)
Axes	0.111*** (0.016)	0.012 (0.014)	0.010 (0.011)	0.070*** (0.016)	0.012 (0.015)	0.015 (0.015)	-0.002 (0.014)
Pumps	0.008*** (0.002)	0.006*** (0.002)	0.002* (0.001)	0.008*** (0.002)	0.004** (0.002)	0.004** (0.002)	0.003* (0.001)

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Single-difference estimates with attrition weights; robust standard errors adjusted for survey design and clustering in parentheses. Each cell represents a separate regression. *** p < 0.01, ** p < 0.05, * p < 0.1. N = 6,066.

Table 7. Intrahousehold ownership of nonagricultural assets

Asset	Treatment impact on number of nonagricultural assets				
	Total owned in household	Owned solely by female	Owned in any part by female	Owned solely by male	Owned jointly by male and female
Bicycles	0.026*** (0.009)	-0.002 (0.002)	0.008 (0.006)	0.020*** (0.007)	0.002 (0.001)
Mobile phones	0.076*** (0.014)	-0.005 (0.005)	0.018 (0.011)	0.053*** (0.008)	0.000 (0.003)
Sewing machines	0.003 (0.002)	0.000 (0.001)	0.001 (0.002)	0.002* (0.001)	0.001 (0.001)
Bamboo materials	-0.089 (0.059)	-0.111** (0.044)	-0.164*** (0.056)	0.073*** (0.022)	-0.055* (0.029)
Trees	1.768*** (0.563)	0.461* (0.274)	0.878*** (0.300)	0.887* (0.476)	0.364*** (0.085)
Cash (taka)	1,167.991*** (115.712)	1,048.181*** (59.224)	1,206.406*** (74.453)	25.292* (14.931)	140.542*** (42.552)
Rickshaws	0.018*** (0.006)	-0.001 (0.001)	0.001 (0.003)	0.016*** (0.005)	0.001 (0.001)
Fishnets	0.025* (0.013)	-0.017** (0.007)	-0.009 (0.009)	0.033*** (0.009)	0.003 (0.002)
Cottage materials	0.041** (0.017)	0.033*** (0.010)	0.031** (0.015)	0.009* (0.005)	-0.002 (0.008)

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Single-difference estimates with attrition weights; robust standard errors adjusted for survey design and clustering in parentheses. Each cell represents a separate regression. *** p < 0.01, ** p < 0.05, * p < 0.1. N = 6,066.

Table 8. Impacts on women's rights to nonagricultural assets

Asset	Whether female has the right to (...) a nonagricultural asset owned in the household						
	Use	Rent out	Sell	Lend	Decide who can/can't use	Decide how to spend money generated from	Decide who inherits
Bicycles	0.004 (0.009)	-0.003 (0.005)	0.051 (0.040)	-0.013** (0.007)	-0.015** (0.006)	-0.015*** (0.006)	-0.015*** (0.005)
Mobile phones	0.065*** (0.012)	-0.006 (0.009)	-0.016*** (0.005)	0.001 (0.010)	-0.004 (0.009)	-0.008 (0.010)	-0.017** (0.008)
Sewing machines	0.002 (0.002)	0.000 (0.001)	0.001 (0.001)	-0.001 (0.002)	0.000 (0.002)	0.001 (0.001)	0.000 (0.001)
Bamboo materials	-0.084*** (0.024)	-0.169*** (0.023)	-0.088* (0.047)	-0.113*** (0.024)	-0.140*** (0.024)	-0.143*** (0.024)	-0.160*** (0.023)
Trees	0.084*** (0.016)	-0.003 (0.014)	0.016 (0.101)	0.003 (0.015)	0.001 (0.015)	-0.001 (0.015)	-0.009 (0.013)
Cash	0.540*** (0.017)				0.412*** (0.020)		0.388*** (0.020)
Rickshaws	0.008 (0.005)	0.001 (0.003)	-0.002 (0.002)	0.005 (0.004)	0.000 (0.003)	-0.002 (0.004)	-0.004 (0.003)
Fishnets	0.023*** (0.007)	0.008* (0.004)	0.053 (0.039)	0.014*** (0.005)	0.010** (0.005)	0.006 (0.005)	0.000 (0.004)
Cottage materials	0.020*** (0.006)	0.017*** (0.005)	0.038 (0.028)	0.017*** (0.005)	0.017*** (0.005)	0.017*** (0.005)	0.015*** (0.005)

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Single-difference estimates with attrition weights; robust standard errors adjusted for survey design and clustering in parentheses. Each cell represents a separate regression. *** p < 0.01, ** p < 0.05, * p < 0.1. N = 6,066. Grey cells indicate rights that are not applicable for a particular asset.

Table 9. Intrahousehold ownership of consumer durables

Asset	Treatment impact on number of consumer durables				
	Total owned in household	Owned solely by female	Owned in any part by female	Owned solely by male	Owned jointly by male and female
Chairs	0.244*** (0.035)	0.051*** (0.018)	0.096*** (0.030)	0.149*** (0.024)	0.023 (0.019)
Beds	0.180*** (0.033)	-0.025 (0.023)	-0.009 (0.036)	0.204*** (0.029)	0.025 (0.026)
Almirahs	0.104*** (0.021)	0.011 (0.015)	0.024 (0.018)	0.076*** (0.012)	0.001 (0.008)
TVs	0.014*** (0.003)	0.001 (0.001)	0.010*** (0.002)	0.004* (0.002)	0.004*** (0.001)
Tube wells	0.136*** (0.017)	0.054*** (0.010)	0.061*** (0.013)	0.074*** (0.013)	0.004 (0.008)
Cooking instruments	0.278*** (0.103)	0.063 (0.098)	-0.079 (0.113)	0.357*** (0.058)	-0.115* (0.063)
Men's clothing items	1.461*** (0.196)	0.021 (0.022)	0.805*** (0.146)	0.636*** (0.091)	-0.028* (0.017)
Women's clothing items	0.734*** (0.239)	0.076 (0.126)	0.554** (0.252)	0.176*** (0.051)	-0.078*** (0.024)
Silver jewelry items	-1.379 (1.094)	-1.176 (0.950)	-1.365 (1.086)	-0.032 (0.034)	-0.208 (0.177)
Gold jewelry items	0.538* (0.324)	0.054 (0.216)	0.319 (0.296)	0.035*** (0.009)	-0.003 (0.004)

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Single-difference estimates with attrition weights; robust standard errors adjusted for survey design and clustering in parentheses. Each cell represents a separate regression. *** p < 0.01, ** p < 0.05, * p < 0.1. N = 6,066.

Table 10. Women's rights to consumer durables

Asset	Treatment impact on whether female has the right to (...) a consumer durable owned in the household				
	Use	Rent out	Sell	Lend	Decide who can/can't use
Chairs	0.092*** (0.015)	-0.004 (0.014)	0.003 (0.010)	0.033** (0.015)	0.007 (0.014)
Beds	0.041*** (0.012)	-0.109*** (0.020)	-0.081*** (0.016)	-0.118*** (0.019)	-0.114*** (0.021)
Almirahs	0.089*** (0.019)	-0.017 (0.015)	-0.004 (0.013)	0.008 (0.017)	0.003 (0.016)
TVs	0.014*** (0.003)	0.004** (0.002)	0.002 (0.001)	0.006*** (0.002)	0.005** (0.002)
Tube wells	0.140*** (0.017)	0.027** (0.014)	0.039*** (0.010)	0.056*** (0.016)	0.034** (0.015)
Cooking instruments	-0.001 (0.003)	-0.121*** (0.019)	-0.120*** (0.018)	-0.095*** (0.013)	-0.137*** (0.019)
Men's clothing items	-0.039* (0.024)	-0.115*** (0.018)	-0.092*** (0.012)	-0.168*** (0.020)	-0.152*** (0.020)
Women's clothing items	-0.003 (0.004)	-0.083*** (0.019)	-0.099*** (0.019)	-0.081*** (0.013)	-0.129*** (0.018)
Silver jewelry items	-0.018 (0.012)	-0.030*** (0.011)	-0.030*** (0.010)	-0.029*** (0.011)	-0.031*** (0.011)
Gold jewelry items	0.088*** (0.016)	0.045*** (0.016)	0.028* (0.015)	0.048*** (0.017)	0.026 (0.017)

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Single-difference estimates with attrition weights; robust standard errors adjusted for survey design and clustering in parentheses. Each cell represents a separate regression. *** p < 0.01, ** p < 0.05, * p < 0.1. N = 6,066.

Table 11. Intrahousehold ownership of land

Land	Treatment impact on area of land				
	Total owned in household	Owned solely by female	Owned in any part by female	Owned solely by male	Owned jointly by male and female
Homestead land	0.539*** (0.120)	0.060 (0.053)	0.108 (0.072)	0.420*** (0.092)	0.028* (0.016)
Cultivable land	0.542** (0.217)	0.134* (0.071)	0.072 (0.140)	0.519*** (0.149)	-0.001 (0.006)
Pond	0.084*** (0.021)	0.007* (0.004)	0.031*** (0.012)	0.053*** (0.015)	0.002 (0.002)

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Single-difference estimates with attrition weights; robust standard errors adjusted for survey design and clustering in parentheses. Each cell represents a separate regression. *** p < 0.01, ** p < 0.05, * p < 0.1. N = 6,066.

Table 12. Women's rights to land

Land	Treatment impact on whether female has the right to (...) land owned in the household								
	Use	Rent out	Sell	Lend	Decide who can/can't use	Decide how to spend money generated from	Decide who inherits	Decide solely about the crops cultivated	Decide in any part about the crops cultivated
Homestead land	0.087*** (0.017)	-0.045*** (0.016)	-0.023* (0.012)	-0.055*** (0.018)	-0.051*** (0.018)	-0.066*** (0.018)	-0.065*** (0.015)	-0.016 (0.018)	-0.024 (0.023)
Cultivable land	0.034*** (0.007)	0.002 (0.005)	0.006* (0.004)	0.013** (0.006)	0.009 (0.006)	0.004 (0.006)	0.000 (0.005)	0.003 (0.003)	0.019*** (0.006)
Pond	0.017*** (0.003)	0.002 (0.002)	0.002 (0.001)	0.008*** (0.003)	0.007*** (0.003)	0.007*** (0.003)	0.002 (0.002)	0.002 (0.001)	0.012*** (0.003)

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Single-difference estimates with attrition weights; robust standard errors adjusted for survey design and clustering in parentheses. Each cell represents a separate regression. *** p < 0.01, ** p < 0.05, * p < 0.1. N = 6,066.

Table 13. Decisions regarding women’s work, location of work, and control of earnings from women’s work

Decision	Impact estimate
<i>Panel A: Women’s work and location of work</i>	
TREATMENT IMPACT ON	
Whether the main female works	0.009 (0.015)
Whether the main female works inside the home	0.167*** (0.024)
Whether the main female works outside the home	-0.080*** (0.017)
	6,066
<i>Panel B: Control over earnings of women who work</i>	
TREATMENT IMPACT ON WHETHER THE MAIN FEMALE WORKS AND	
Keeps all of the income earned	-0.077*** (0.015)
Keeps any of the income earned	-0.044** (0.019)
Keeps none of the income earned	0.053*** (0.014)
<i>Panel C: Decisionmaking over earnings of women who work</i>	
TREATMENT IMPACT ON WHETHER MAIN FEMALE WORKS AND	
She solely decides how to spend the money she earns	-0.092*** (0.015)
She has any voice in deciding how to spend the money she earns	0.006 (0.015)
Her husband solely decides how to spend the money she earns	0.003 (0.006)
She and her husband jointly decide how to spend the money she earns	0.105*** (0.016)

Source: Authors’ computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Single-difference estimates with attrition weights; robust standard errors adjusted for survey design and clustering in parentheses. Each cell represents a separate regression. *** p < 0.01, ** p < 0.05, * p < 0.1. N = 6,066.

Table 14. Decisionmaking relevant to credit, savings, and specific categories of household expenditures

	Treatment impact on decisionmaking			
	Woman solely decides	She has any voice in deciding	Her husband solely decides	She and her husband jointly decide
<i>Panel A: Decisions on credit and savings</i>				
Whether to take a loan	0.079*** (0.008)	0.273*** (0.016)	0.007** (0.003)	0.176*** (0.014)
How to spend proceeds of a loan	0.078*** (0.008)	0.274*** (0.016)	0.006* (0.003)	0.179*** (0.013)
How much to save	-0.106*** (0.015)	0.000 (0.008)	0.002 (0.008)	0.123*** (0.016)
<i>Panel B: Decisions on specific household expenditure categories</i>				
Food	-0.130*** (0.015)	-0.030** (0.015)	0.030** (0.015)	0.098*** (0.016)
Housing	-0.126*** (0.014)	-0.050*** (0.015)	0.050*** (0.015)	0.078*** (0.016)
Healthcare	-0.124*** (0.014)	-0.051*** (0.015)	0.051*** (0.015)	0.079*** (0.016)

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Single-difference estimates with attrition weights; robust standard errors adjusted for survey design and clustering in parentheses. Each cell represents a separate regression. *** p < 0.01, ** p < 0.05, * p < 0.1. N = 6,066.

Table 15. Whether women control the money needed for purchases of food or items for themselves

	Treatment impact on whether the woman herself controls the money needed to buy ...
Food from the market	-0.151*** (0.017)
Clothes for herself	-0.120*** (0.018)
Medicine for herself	-0.153*** (0.017)
Cosmetics for herself	-0.068*** (0.019)

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Single-difference estimates with attrition weights; robust standard errors adjusted for survey design and clustering in parentheses. Each cell represents a separate regression. *** p < 0.01, ** p < 0.05, * p < 0.1. N = 6,066.

Appendix.

Table A.1 Probit estimation of probability of staying in sample between 2007 and 2012 rounds

Baseline characteristic	Coeff	Baseline characteristic	Coeff	Baseline characteristic	Coeff
Treatment indicator	-1.412** (0.656)	Male head's years of education	-0.021 (0.013)	Household's number of goats/sheep	0.017** (0.009)
Whether household's residence is dilapidated	-0.101* (0.054)	Whether male head has completed secondary school	0.690 (0.487)	Household's number of power pumps	-2.044* (1.133)
Household's wealth rank	-0.033 (0.051)	Whether main female works as homemaker	-0.143 (0.121)	Household's number of plows	-0.165 (0.489)
Whether household owns land	-0.766** (0.375)	Main female's years of education	-0.017 (0.013)	Household's number of cowsheds	0.066 (0.089)
Household's area of cultivated land	-0.009 (0.006)	Whether main female has completed secondary school	-0.257 (0.684)	Household's number of shop premises	0.085 (0.327)
Household's value of cultivated land	0.000 (0.000)	Household's number of radios / cassette players	-0.116 (0.089)	Household's number of boats	-0.055 (0.320)
Household's area of pond land	5.522 (245.559)	Household's number of electric fans	-0.080 (0.202)	Household's number of fishnets	0.070 (0.131)
Household's value of pond land	-0.001 (0.049)	Household's number of bicycles	0.062 (0.163)	Household's number of rickshaws/vans	0.102 (0.179)
Household's area of mortgaged land	0.010 (0.011)	Household's number of chairs	0.033 (0.050)	Household's number of trees	0.010 (0.012)
Household's value of mortgaged land	0.000 (0.000)	Household's number of tables	-0.003 (0.073)	<i>Observations</i>	<i>7,392</i>
Household's total savings	0.000 (0.000)	Household's number of <i>choukis</i>	0.017 (0.041)		
Household's total loans	-0.047 (0.059)	Household's number of sofas	0.123 (0.257)		
Whether household owns home	0.162*** (0.059)	Household's number of mosquito nets	0.060 (0.043)		
Whether household has a latrine	0.663* (0.349)	Household's number of jewelry items	0.478 (0.482)		
Whether household has a tube well	0.112 (0.342)	Household's number of saris	-0.088** (0.035)		
Whether household has a kitchen	0.139 (0.122)	Household's number of cows	0.128 (0.087)		
Household's food deficit	-0.030 (0.055)	Household's number of chickens and ducks	-0.006 (0.040)		

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Estimation also includes branch dummies, interviewer code dummies, and dummies for missing values of indicators, as well as characteristics of the main female's predictions for her sons' and daughters' futures. Standard errors are shown in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01.

Table A.2 Control group intrahousehold livestock ownership

Livestock	Number of livestock				
	Total owned in household	Owned solely by female	Owned in any part by female	Owned solely by male	Owned jointly by male and female
Cows/buffalo	0.23	0.13	0.18	0.04	0.04
Goats/sheep	0.34	0.26	0.30	0.04	0.03
Chickens/ducks	1.44	1.21	1.39	0.03	0.11

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Control group means, accounting for attrition weights. N = 2,599.

Table A.3 Control group women's rights regarding livestock

Livestock	Whether female has the right to (...) livestock owned in the household			
	Rent out	Sell	Decide how to spend money generated from	Decide who inherits
Cows/buffalo	0.11	0.09	0.13	0.12
Goats/sheep	0.10	0.09	0.11	0.11
Chickens/ducks	0.30	0.28	0.30	0.30

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Control group means, accounting for attrition weights. N = 2,599.

Table A.4 Control group intrahousehold ownership of agricultural assets

Asset	Number of agricultural assets				
	Total owned in household	Owned solely by female	Owned in any part by female	Owned solely by male	Owned jointly by male and female
Choppers	0.63	0.33	0.47	0.16	0.10
Stored crops (kg)	4.24	1.12	2.83	1.40	1.37
Cowsheds	0.29	0.16	0.22	0.07	0.04
Deep tube wells	0.01	0.00	0.00	0.00	0.00
Ladders	0.03	0.01	0.02	0.01	0.01
Mowing machines	1.32	0.58	0.87	0.44	0.20
Plows	0.01	0.00	0.00	0.01	0.00
Axes	0.38	0.09	0.18	0.19	0.05
Pumps	0.00	0.00	0.00	0.00	0.00

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Control group means, accounting for attrition weights. N = 2,599.

Table A.5 Control group women's rights to agricultural assets

Asset	Whether female has the right to (...) an agricultural asset owned in the household						
	Use	Rent out	Sell	Lend	Decide who can/can't use	Decide how to spend money generated from	Decide who inherits
Choppers	0.57	0.42	0.34	0.54	0.48	0.46	0.43
Stored crops (kg)	0.04	0.03	0.02	0.03	0.03	0.03	0.03
Cowsheds	0.26	0.19	0.15	0.23	0.22	0.22	0.19
Deep tube wells	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ladders	0.03	0.02	0.01	0.03	0.02	0.02	0.02
Mowing machines	0.77	0.57	0.47	0.75	0.65	0.64	0.58
Plows	0.01	0.00	0.00	0.01	0.01	0.01	0.00
Axes	0.31	0.19	0.12	0.29	0.23	0.22	0.19
Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Control group means, accounting for attrition weights. N = 2,599.

Table A.6 Control group intrahousehold ownership of nonagricultural assets

Asset	Number of nonagricultural assets				
	Total owned in household	Owned solely by female	Owned in any part by female	Owned solely by male	Owned jointly by male and female
Bicycles	0.09	0.01	0.03	0.05	0.00
Mobile phones	0.18	0.03	0.12	0.05	0.01
Sewing machines	0.00	0.00	0.00	0.00	0.00
Bamboo materials	1.19	0.77	1.05	0.14	0.22
Trees	1.68	0.53	0.93	0.76	0.17
Cash (taka)	447.43	264.33	337.93	30.21	51.47
Rickshaws	0.03	0.00	0.01	0.02	0.00
Fishnets	0.06	0.02	0.03	0.02	0.00
Cottage materials	0.02	0.01	0.02	0.00	0.01

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Control group means, accounting for attrition weights. N = 2,599.

Table A.7 Control group women's rights to nonagricultural assets

Asset	Whether female has the right to (...) a nonagricultural asset owned in the household						
	Use	Rent out	Sell	Lend	Decide who can/can't use	Decide how to spend money generated from	Decide who inherits
Bicycles	0.08	0.03	0.01	0.06	0.05	0.05	0.03
Mobile phones	0.17	0.08	0.05	0.10	0.09	0.10	0.07
Sewing machines	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bamboo materials	0.68	0.58	0.51	0.66	0.61	0.60	0.57
Trees	0.29	0.19	0.28	0.22	0.21	0.22	0.19
Cash	0.26				0.23		0.22
Rickshaws	0.03	0.01	0.00	0.02	0.01	0.02	0.01
Fishnets	0.03	0.02	0.01	0.02	0.02	0.02	0.02
Cottage materials	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Control group means, accounting for attrition weights. N = 2,599. Grey cells indicate rights that are not applicable for a particular asset.

Table A.8 Control group intrahousehold ownership of consumer durables

Asset	Number of consumer durables				
	Total owned in household	Owned solely by female	Owned in any part by female	Owned solely by male	Owned jointly by male and female
Chairs	0.61	0.17	0.40	0.21	0.14
Beds	1.27	0.46	0.85	0.35	0.25
Almirahs	0.33	0.17	0.26	0.07	0.06
TVs	0.01	0.00	0.00	0.00	0.00
Tube wells	0.32	0.09	0.18	0.14	0.06
Cooking instruments	3.78	2.67	3.52	0.25	0.60
Men's clothing items	5.46	0.12	3.40	2.04	0.06
Women's clothing items	6.81	3.64	6.71	0.08	0.10
Silver jewelry items	8.38	6.82	8.23	0.03	0.21
Gold jewelry items	1.75	1.29	1.73	0.01	0.01

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Control group means, accounting for attrition weights. N = 2,599.

Table A.9 Control group women's rights to consumer durables

Asset	Whether female has the right to (...) consumer durables owned in the household				
	Use	Rent out	Sell	Lend	Decide who can/can't use
Chairs	0.33	0.20	0.14	0.30	0.24
Beds	0.85	0.58	0.46	0.71	0.68
Almirahs	0.31	0.21	0.17	0.26	0.24
TVs	0.01	0.00	0.00	0.01	0.00
Tube wells	0.32	0.17	0.11	0.27	0.22
Cooking instruments	0.98	0.80	0.74	0.95	0.88
Men's clothing items	0.49	0.27	0.19	0.47	0.40
Women's clothing items	0.98	0.82	0.77	0.95	0.90
Silver jewelry items	0.11	0.09	0.09	0.10	0.10
Gold jewelry items	0.37	0.26	0.23	0.32	0.31

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Control group means, accounting for attrition weights. N = 2,599.

Table A.10 Control group intrahousehold ownership of land

Land	Area of land				
	Total owned in household	Owned solely by female	Owned in any part by female	Owned solely by male	Owned jointly by male and female
Homestead land	2.06	0.56	0.93	1.12	0.02
Cultivable land	1.01	0.19	0.51	0.45	0.01
Pond	0.02	0.00	0.01	0.01	0.00

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Control group means, accounting for attrition weights. N = 2,599.

Table A.11 Women's rights to land

Land	Whether female has the right to (...) land owned in the household								
	Use	Rent out	Sell	Lend	Decide who can/can't use	Decide how to spend money generated from	Decide who inherits	Decide solely about the crops cultivated	Decide in any part about the crops cultivated
Homestead land	0.50	0.27	0.19	0.32	0.32	0.35	0.27	0.18	0.28
Cultivable land	0.04	0.03	0.01	0.03	0.03	0.03	0.03	0.02	0.03
Pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Control group means, accounting for attrition weights. N = 2,599.

Table A.12 Control group decisions regarding women's work, location of work, and control of earnings from women's work

Decision	Control group mean
<i>Panel A: Women's work and location of work</i>	
Whether the main female works	0.82
Whether the main female works inside the home	0.50
Whether the main female works outside the home	0.71
<i>Panel B: Control over earnings of women who work</i>	
Proportion of households in which main female works and	
Keeps all of the income earned	0.38
Keeps any of the income earned	0.65
Keeps none of the income earned	0.17
<i>Panel C: Decisionmaking over earnings of women who work</i>	
Proportion of households in which main female works and	
She solely decides how to spend the money she earns	0.42
She has any voice in deciding how to spend the money she earns	0.80
Her husband solely decides how to spend the money she earns	0.03
She and her husband jointly decide how to spend the money she earns	0.31

Source: Authors' computations based on BRAC STUP evaluation data, 2007 and 2012.

Notes: Control group means, accounting for attrition weights. N = 2,599.