Making Women's Rights Visible—And Contested: Salience, Custom, and Backlash in Tenure Reform

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1 Introduction

Over the past two decades, many African governments have embarked on ambitious efforts to formalize rural land rights while recognizing customary tenure. Reforms of this type have combined local land governance institutions with legally recognized documentation and have been implemented in Burkina Faso, Benin, Côte d'Ivoire, Ghana, Mozambique, Rwanda, Ethiopia, Tanzania, and Malawi, among others (Tseng et al., 2020; Lawry et al., 2017). They reflect a global policy consensus that secure and transferable land rights are essential for improving agricultural productivity, reducing conflict, expanding land and credit markets (Andre and Platteau, 1998; Besley, 1995; Feder, 1985; Field and Torero, 2006; Deininger and Chamorro, 2004; Goldstein and Udry, 2008; Holden et al., 2009) and ultimately promoting welfare and long-run economic development (de Soto, 2001; Acemoglu et al., 2001; Besley and Ghatak, 2010).

A large gender literature extends these arguments to women, suggesting that such property-rights interventions can have transformative gender effects. Stronger land rights for women are expected to enhance intra-household bargaining power, increase investment incentives, and generate positive spillovers for children and communities through more pro-poor and child-focused allocation of resources (Quisumbing and De La Briere, 2000; Fafchamps and Quisumbing, 2002; Datta, 2006; Kumar and Quisumbing, 2015; Duflo, 2012). Empirically, several high-profile land interventions have indeed reported positive gendered impacts. In Ethiopia and Rwanda, for example, joint or individual land certification has been linked to increases in women's reported tenure security, awareness of their rights, and participation in land-related decision making, as well as changes in investment behavior on titled plots (Goldstein and Udry, 2008; Holden et al., 2009; Kumar and Quisumbing, 2015). These findings underpin an influential narrative that land formalization, if properly designed, can be a powerful lever for women's empowerment and development efficiency (Agarwal, 1994; Meinzen-Dick et al., 2012).

Yet these positive effects are far from universal. Several studies have documented null or even negative gender impacts of large-scale land reforms, partic-

ularly where customary norms remain strong. Recent quasi-experimental evaluations of land interventions from Mozambique, Uganda, and Benin find limited improvements in women's tenure or agricultural outcomes. In Mozambique, for example, a land tenure intervention found little improvement in women's tenure or agricultural outcomes, and qualitative evidence pointed to continued male control over titled plots. Research from Benin and Ghana similarly highlights how formalization processes can marginalize women by excluding them from newly formalized rights, which can in turn reshape the socially embedded informal rights that women may have enjoyed previously (Donald et al., 2024; Lawry et al., 2023; Zamchiya and Musa, 2023) These mixed results underscore that efforts to strengthen land governance can simultaneously reinforce existing hierarchies.

Indeed, recent theoretical and empirical work points to several interacting mechanisms that can lead to negative gender outcomes in the context of interventions designed to strengthen land tenure and property rights. First, documentation and institutional reform reify or crystallize rights, converting flexible customary arrangements into more rigid systems that privilege primary holders and reduce women's claims (Lawry et al., 2023; Peters, 2010; Boone, 2019). Second, when reforms are perceived to expand women's entitlements or threaten gender hierarchies, they may provoke gendered backlash (Benstead et al., 2023). This could manifest as defensive reactions by men or community leaders seeking to preserve existing authority. Third, public debates around land rights can alter perceptions of social norms (Broockman and Skovron, 2018; Bernhardt et al., 2018). Additional mechanisms include (i) inadvertently promoting elite capture through the empowerment or entrenchment of male-dominated local institutions and (ii) introducing awareness campaigns that clarify what the law recognizes as a legitimate right, which promotes belief updating in ways that can further disadvantage women.

This paper examines the gendered effects of land reform through an evaluation of the Rural Land Governance program in Burkina Faso, with a focus on assessing the potential for unintended negative effects. RLG was designed to implement the country's land reform through (i) the establishment of commune-level land offices (Services Fonciers Ruraux, SFRs), (ii) strengthening village-level land and dispute-resolution institutions (Commissions Foncières Villagéoises, CFVs, and Commissions de Conciliation Foncière Villageoises, CCFVs), and (iii) issuing *Attestations de Possession Foncière Rurale* (APFRs) that would document and formalize customary holdings. Like similar reforms elsewhere, RLG was based on the idea that clarifying and documenting land rights would provide greater tenure security while maintaining social legitimacy through local institutions (Fenske, 2011; Goldstein et al., 2015).

Using household, wives', and village leader surveys from 50 treatment and matched comparison communes, we assess how the program shaped perceptions of women's land rights and broader attitudes to women. To provide a deeper view of intra-household dynamics, we draw on a dedicated spouse survey and a survey experiment embedded in the instruments that allows direct comparison between husbands' and wives' responses. These quantitative data are comple-

mented by qualitative focus group discussions that illuminate how community members interpreted the reform and negotiated women's claims.

We find that the RLG program statistically significantly substantively reduced women's perceived rights to land in treated communes. Respondents in treated communes - both women and men - are less likely to report that women can access land, make land-related decisions, or inherit land, and substantially less likely to say that wives can be added to APFRs. At the same time, among those who believe it is legally possible to include wives on documents, stated individual willingness to do so remains high and is not significantly affected by treatment. Based on qualitative data, we interpret this pattern as consistent with reification and backfire mechanisms. By formalizing rights and empowering male-dominated local land institutions, the program reified men's primary claims and triggered broad contestation over women's inclusion. The paper contributes to a growing literature on the unintended gendered consequences of land formalization and highlights how even formally gender-neutral reforms can make women's rights more visible - and more contested.

2 Theoretical Framework

A large gender literature argues that stronger land rights are particularly consequential for women. Land represents one of the most important assets in the developing world, yet assets are unequally distributed between men and women within and across households (Doss et al., 2015; Deere et al., 2012; Doss et al., 2011). Women typically have fewer assets, and the assets they do own tend to be of lower quality and value. Several studies suggest that rural women's lack of secure access to land is a major source of gender gaps in agricultural productivity and economic performance (Bezabih and Holden, 2012). Seminal studies (e.g. Agarwal (1994)) have argued that the single most important economic factor shaping rural women's situations is the gender gap in ownership and control over arable land. Because women's land rights are often derived from male kin and embedded in sociocultural norms (Bezabih and Holden, 2012), their ability to exercise control over land, make production decisions, and transfer or inherit land remains constrained (Lastarria-Cornhiel, 1997; Kevane and Gray, 1999; Quisumbing and Pandolfelli, 2010).

Against this backdrop, a broad body of work links women's land rights to empowerment and development efficiency. Reducing gender gaps in access to productive assets is seen as central to women's bargaining power and economic empowerment (Kumar and Quisumbing, 2015; Meinzen-Dick et al., 2012). Women's control over resources has been associated with higher household consumption, better health care, increased contraceptive use, improved child nutrition and schooling, and reduced child mortality (Datta, 2006; Fafchamps and Quisumbing, 2002; Quisumbing and De La Briere, 2000; Donald et al., 2024). This has prompted aid agencies and governments to explicitly integrate gender objectives into land policy and administration projects (World Bank, 2013; Deininger et al., 2012), and women's secure rights to land feature as a key target

of the Sustainable Development Goals. Empirically, several land certification and titling programs in settings such as Ethiopia and Rwanda report increases in women's tenure security, awareness of rights, and participation in land-related decisions when women's names are included on documents (e.g. Goldstein and Udry, 2008; Holden et al., 2009; Kumar and Quisumbing, 2015).

At the same time, many women continue to face disproportionate barriers to accessing secure land rights (Agarwal, 1994; Doss et al., 2015; Goldstein and Udry, 2008; Joireman, 2008; Fafchamps and Quisumbing, 2002; Lastarria-Cornhiel, 1997; Kevane and Gray, 1999), and the evidence on gendered impacts of land interventions is far from uniformly positive. Systematic reviews emphasize that rigorous impact evaluations with gender-disaggregated analysis remain relatively scarce, and that most focus on household-level outcomes rather than individual women's rights (Meinzen-Dick et al., 2019). Where gender is examined, the emphasis has often been on female-headed households, even though most women in patriarchal societies live in male-headed households and hold derivative rights within those households (Meinzen-Dick et al., 2019). Recent land evaluations have begun to add wives' modules precisely to address this gap, but comprehensive evidence remains limited (Huntington and Lisher, 2025).

A growing set of studies documents mixed or even negative gendered outcomes from land formalization. In Mozambique and Benin, land interventions have expanded documentation without generating commensurate improvements in women's tenure security or agricultural performance, with qualitative work pointing to continued male control over titled plots and to women's claims that remain contingent on marriage or kinship (e.g. Bezabih and Holden, 2012; Lawry et al., 2023). In Benin, the MCA land project explicitly encouraged joint titling and targeted villages in part based on pre-existing acceptance of women's land inheritance rights (Lab, 2019). Nonetheless, female spouses were less likely to be registered and, in some cases, experienced weakened tenure security relative to men (Lawry et al., 2023). Lawry et al. (2023) argue that by strengthening traditional authorities and simplifying overlapping rights, the reform effectively prioritized primary (male) claims while leaving women "reluctant to ask to be included as rights holders due to the potential for social friction," alongside resistance from men who feared losing control of land. The net effects of these reforms on women's land rights, however, remain ambiguous.

Scholars have theorized a set of mechanisms through which land formalization can generate negative gendered outcomes.

One central mechanism is *reification* (or crystallization) of rights. Under customary tenure systems, land rights and access arrangements are flexible, and socially negotiated by individuals in community (within and beyond the household) (Lawry et al., 2017; Lambrecht, 2016). Legally documented rights, by contrast, generally rely upon rigid legal categories, including that of 'owner' (Peters and Kambewa, 2007). The process of documentation, therefore, often shores up the privileges of primary rights holders (generally men), and erodes women's secondary claims (Zuka, 2019; Widman, 2014; Joireman, 2008). Reification, or the making of abstract rights to land concrete, can thereby narrow the space for women to informally access land and negotiate their own use rights.

The qualitative literature often finds that documenting land rights reshapes what it means to hold land rights and who in the community is recognized as a rightsholder. In particular, documentation often is associated with the erosion of women's land rights, previously socially embedded in their familial and marital relationships (Mburu, 2023; Lawry et al., 2017). Even efforts that encourage women's or joint registration of land often see the exclusion of women from the formal process (Zamchiya and Musa, 2023; Widman, 2015, 2014). If certification succeeds in including women's names, as in Ethiopia, it can strengthen women's awareness of their land rights (even for those women in the community who did not themselves get a land certificate, suggesting there is a broad social renegotiation of gendered land rights during documentation interventions) (Holden and Bezu, 2014).

Even if documenting and crystallizing land rights excludes women, the mere raising of the potential for documenting women's claims to land can provoke backlash. There is a rich literature documenting how social changes that are perceived as threatening established power structures can backfire (Benstead et al., 2023). Individual women who violate (perceived) gender norms can face potentially violent backlash, whether as a way for men to reimpose control over their wives (Alesina et al., 2021) or to preserve gender stereotypes (Rudman and Fairchild, 2004). This can make biased attitudes against women difficult to change in the short run (Beaman et al., 2009), even if it takes a nonviolent form such as entrenching resistance to including women's names on land documents. Indeed, interventions designed explicitly to change entrenched gender attitudes can backfire, actually increasing support for social hierarchies when proposed reforms are seen to go 'too far' (Benstead et al., 2023). Muriaas et al. (2019) argues that this backfire can occur because "recipients spend more time considering and counter-arguing the information, arriving at more strongly held views than they had before." This is likely particularly important in our context, where all land rights are being renegotiated and reconceptualized with the documentation efforts of RLG, forcing community members to reconsider what it means to hold land rights (Honig et al., 2024).

This backlash effect may additionally be amplified by misperceptions of social norms, particularly around gender. Broadly, there is evidence that misperceptions about social attitudes are widespread (Bursztyn and Yang, 2021) and often systematically polarized by bias in who individuals hear from on an issue (Broockman and Skovron, 2018). In the context of the RLG program, even if individuals themselves only shift slightly in understandings of women's land rights, public discussions around what it means to own land are likely to platform those with the most extreme views. Therefore, perceptions of what is generally socially acceptable in a treated community might shift more than actual (dis)approval.

Finally, the institutional structures of land reform often create or empower local land bodies, such as village land commissions or conflict resolution committees, that are dominated by male elites. Elite capture of these institutions can shape how new rules are interpreted and applied, which claims to land are recorded, and whose rights are recognized. Where statutory frameworks

de jure or implementation practice *de facto* defines land ownership implicitly or explicitly in terms of primary rights holders, individuals may update their beliefs about who has legitimate rights to land, The legal backing of the reform increases the saliency of these newly hardened and exclusive definitions.

These mechanisms are not mutually exclusive and may operate simultaneously; reification, elite capture, and belief updating can set the stage for backlash and norm misperceptions, cumulatively undermining women's land rights.

3 Context and Data

3.1 Context

In 2009, the Government of Burkina Faso (GoBF) entered into a 5-year compact with the Millenium Challenge Corporation (MCC) encompassing four projects: agriculture, roads, girls' education, and the Rural Land Governance (RLG) project. The RLG project aimed to improve land tenure security and governance, decrease land conflict, and promote investment in rural areas. Prior to the MCC compact, land policy in Burkina Faso was governed by a 1984 law that vested ownership of the land in the state, prevented sales, and denied customary rights to land. Farmers often interpreted this as giving use rights to whoever cultivated the land, regardless of customary rules, which was associated with an increasing number of conflicts (USAID, 2017).

To achieve the stated aims, the project first facilitated national-level land reforms. This included supporting the drafting and implementation of a new Rural Land Law (Loi No. 034/2009 Portant Régime Foncier Rural). Additionally, the RLG project strengthened public entities providing land-related services at national, regional, provincial, and local levels to implement these laws and policies. The RLG project also supported specific land tenure interventions in 47 of the 302 rural communes in Burkina Faso, as part of a two-phase pilot (17 phase 1 communes and 30 phase 2 communes). In each of these communes, the RLG program built or renovated a commune administration building which would serve as the office of a newly decentralized "rural land department" (SFR). The SFR office, which sits under the mayor within the commune, would be responsible for preparing local land-use plans (chartes foncières locales), preparing land documents called APFRs, registering the transfer of APFRs, and registering conflict mediation results. At the village level, land commissions (CFVs) were created to support SFR operations, as were conflict resolution commissions (CCFVs). Although these institutions were legally available to all of Burkina Faso, communes struggled to implement SFRs and village-level institutions without additional funding from donors. After the initial pilot phase of the RLG project, other donors funded SFR offices in communes beyond the initial 47, including some of our comparison communes; we therefore consider an intent-to-treat (ITT) specification in our empirical strategy.[1]

[1]We do also explore outcomes in those communes which received an SFR through other donor programs; results are similar there to those treated through the RLG project. Results

Initially, the RLG project did not plan to directly issue APFRs, as it was hoped this would be a demand-driven process resulting from the newly established institutions. However, this demand was slow to materialize, so a target was added for 6,000 parcels to have APFRs issued. Demand was particularly low among women, so several initiatives attempted to encourage their application: fees were waived for women applicants, and women were aided in obtaining identity cards that would give them the legal status needed to apply for an APFR.

Individuals in treated communes, then, experienced several changes as a result of the RLG program. New land offices were created in their communes, with a physical presence as well as trained staff; each village also installed a land commission (CFV) and land conflict resolution commission (CCFV). Local land use maps were created in consultation with the community, which often entailed discussing and resolving any overlapping claims to land and outstanding land conflicts, and community members were sensitized about the registration process. This process likely prompted discussions about what it means to hold land rights in the community, and what it would mean going forward as rights were documented in a more formal way.

3.2 Data Sources

This paper draws primarily on four sources of endline data that were collected for the RLG evaluation: (1) household, individual, and parcel surveys; (2) a dedicated wives module administered within male-headed households; (3) village leader surveys; and (4) qualitative focus group discussions. These instruments allow us to examine gendered patterns in land rights, norms, and governance from both within-household and community perspectives. Because the wives modules - which are central to our gender analysis - were introduced only at endline, this paper relies on the cross-sectional endline sample rather than the full household panel used for the RLG evaluation[2].

Household, Individual, and Parcel Surveys: The RLG evaluation fielded a multi-module household survey that collected detailed information from household heads and field managers on tenure security, land conflicts, governance perceptions, and agricultural investment. Endline household and village data collection was conducted in 50 Phase 1 and Phase 2 treatment and control communes where security conditions permitted enumerator travel; 42 baseline

available upon request, but recategorizing communes which received an SFR through a non-RLG program as being treated increases the magnitude of our estimates. This suggests that our results are not driven by some unique feature of the RLG program but instead are a function of the land documentation process that occurred with the creation of SFRs, regardless of the implementing program.

[2]The full RLG evaluation employed a broader set of eight quantitative and qualitative data sources: household, individual, and parcel surveys; high-resolution satellite imagery; village surveys; commune surveys; the wives module; administrative records from land service offices; focus group discussions with village leaders and beneficiary households; and semi-structured interviews with project implementers and land-sector stakeholders.

communes were excluded due to escalating insecurity. Although the endline survey reinterviewed 2010 (Phase 1) and 2012 (Phase 1 and Phase 2) respondents to form a household-level panel, this paper uses only the cross-sectional endline interviews, which contain the complete set of gender-relevant modules. Core modules relevant to this study included:

- Demographic information.
- Knowledge and awareness of the Rural Land Law and APFR acquisition procedures.
- Demand for APFRs and perceived benefits of formal documentation.
- Barriers to obtaining APFRs.
- Confidence in customary and statutory land governance institutions.
- Gender norms (personal beliefs and perceived community norms).
- Household decision-making dynamics.
- Household assets and income.

Wives Module: At the household level, the team administered a short (30-minute) wives module for all male-headed panel households to facilitate a more nuanced gender analysis of outcomes for women who are not heads of a household. 2,535 wives respondents were interviewed. The wives module consisted of a 30-minute closed-ended survey that replicated the household survey questions for key indicators covered by the household module, including gender norms, land governance, and livelihoods. Because this module was fielded only at endline, analyses requiring wives' perspectives necessarily rely on cross-sectional variation.

Village Surveys: Village surveys were conducted in 453 villages with representatives of the CCFV and CFV, the village chief/representative, the land chief/representative,[3] and a female leader/respected member of the community in all areas where village baseline data collection occurred, except for high-risk security communes and villages. Village surveys collected data on general population and infrastructure indicators, the incidence of land conflicts, land use and ownership arrangements, perceptions of tenure security at the village level, land administration, APFR demand, and land governance.

[3]To correctly identify respondents for the village and land representative interviews, enumerators first consulted the village chief (or a CVD representative where no chief was present). If the chief played a major role in land matters, they completed the land representative questionnaire and identified the appropriate respondent for the village representative tool. If the chief played a minor role in land issues, the order was reversed.

Conjoint Experiment: In addition to the survey data, we also conducted a choice-based conjoint experiment designed to elicit respondents' preferences over attributes of land rightsholders to receive documentation. Conjoint experiments are designed to measure how respondents value different attributes in the context of a particular choice. In this experiment, we task respondents with choosing one of two hypothetical individuals using land for a specified purpose to receive an APFR. The attributes of these individuals and plots were randomly assigned across four dimensions: gender of the rights holder, migration status (immigrant or native to the village), land size (large or small), and crop use of the parcel: for own consumption or sale in markets. Each respondent successively evaluated three pairs of claimants to an APFR.

3.3 Variable Construction

Outcomes. We group outcomes into three main families: (i) attitudes and behavior around adding wives to APFRs, (ii) women's land rights (including access, decision making, and inheritance), and (iii) women's economic empowerment and general gender attitudes. All outcomes are constructed from endline responses and coded so that higher values correspond to stronger rights or more gender-equitable views.

First, we measure attitudes and intentions around adding wives to formal land documents using four binary indicators, constructed separately for our three subgroups of interest—wives, husbands, and all men (the latter including both husbands and unmarried male respondents). Each indicator equals one if the respondent reports that a husband is legally able to add his wife's name to an APFR (*Husband can add wife*) or that he would in fact add his wife's name (*Husband would add wife*); for wives, the corresponding indicators capture wives' perceptions of legal ability and willingness. All indicators are coded to equal one when the respondent affirms legal ability or willingness and zero otherwise.

Second, we construct parallel measures of women's land rights and decision-making for husbands and wives. For each respondent, we draw on six items capturing women's rights to access land, participate in household and land-use decisions, and inherit land from husbands and fathers. The access measure is a single binary indicator coded as 1 if the respondent reports that a woman has some or unrestricted access to land, and 0 if she has no access. The remaining Likert-style items on decision-making and inheritance are recoded so that higher values reflect more extensive rights (e.g., moving from "no rights" to "some" or "full" rights). We then construct domain-specific measures for: (i) access (binary), (ii) decision-making, and (iii) inheritance. For the multi-item domains—decision-making and inheritance - we create inverse-covariance–weighted standardized indices using the `swindex` command, normalized to the control group, for husbands (H), wives (W), and all men[4] (Schwab et al., 2020).

Third, we measure broader women's empowerment using two sets of outcomes for wives. The first focuses on gender attitudes. A three-item attitudes

[4]For robustness, we also analyze a standardized average of these items and find similar results.

index combines agreement with the statements that boys should be prioritized for schooling when resources are scarce, that women should be allowed to work outside the home, and that a woman must tolerate violence to keep the family together. Items are rescaled so that higher values represent more gender-egalitarian attitudes. We construct an inverse-covariance–weighted index using the `swindex` command (normalized to the control group)[5].

The second set of measures captures women's economic empowerment. We employ (i) a binary indicator for *personal* ownership or use of any agricultural field and (ii) an inverse-covariance–weighted wealth index for wives constructed using the `swindex` command (normalized to the control group). The wealth index combines two domains of wives' reported assets - (1) livestock holdings and (2) non-land durable goods.[6] As a robustness check, we also construct a principal-components–based wealth index; results are consistent across specifications.

Controls. All regressions include a set of individual, household, and community covariates. For wives' outcomes, we control for wife characteristics (age, birthplace in the village, literacy, polygamous marriage status), husband characteristics (age, schooling, birthplace), household socio-economic status (asset index, food insecurity in the past year, urban residence, Mossi ethnicity indicator), a "formalization index" that compares reliance on formal versus customary authorities for land governance (generated from wives' data), and phase fixed effects. Models estimated on men and husbands include analogous male characteristics (age, schooling, birthplace, polygamy), household wealth and food-security measures, urban residence, a husband formalization index, and phase fixed effects. Standard errors are clustered at the village level in all specifications.[7]

3.4 Sample Characteristics

3.4.1 Household Sample Characteristics

We have 4,143 total respondents in the endline cross-sectional sample. Out of these, the sample is divided between 2,545 treatment respondents and 1,598 control respondents. The majority of the household sample is rural (80% (3154)). Out of the female respondents, 6.2% (212) are the head of household.

Key household characteristics are similar across treatment and control respondents. Across both control and treatment respondents, approximately 82%

[5]For robustness, we also analyze a standardized average of these items and find similar results.

[6]Accurately measuring women's assets as distinct from household assets poses both conceptual and practical problems. Nevertheless, we choose to focus on women's reported own assets to hopefully capture the assets that women consider themselves to own, which therefore are more likely to improve women's bargaining position as well as emic understandings of economic empowerment.

[7]For robustness, we have also estimated results with no controls, as well as sequentially adding different sets of controls; results are remarkably stable to the exact specification so we present results with all controls in the main text.

of respondents are the head of household. Similarly, average household size across both groups is 11. Average respondent treatment age is 52.3 compared to 51.8 for average control age. 50% of the sample is monagamously married and 41.76% is polygamously married. There is no difference in marital status between treatment groups.

The top three ethnic/language groups in the sample are Mossi (60.97%), Gourounshi (12.6%), and Fullfulde/Peul (5.89%). Ethnic identification is generally similar across treatment and control groups, although statistically significant as there are some discrepancies between categories.

Overall, females represent 20% of parcel managers. There are some differences between treatment and control groups in terms of the means of field acquisition. 72% of control respondents versus 65% of treatment respondents report that they inherited the field. 30% of control respondents report that they have always had their field, versus 26% of treatment respondents. For those who report that they haven't always had their field, control respondents report an average of 22.48 years versus 24.23 years for treatment respondents.

3.4.2 Wives Sample Characteristics

There are a total of 2,536 wives in the sample, including 948 (37.4%) control wives and 1,588 (62.6%) treatment wives. 8.5% (68) of control wives and 10.4%(139) of treatment wives have attended formal school (not statistically significant). Native versus 'non-native wives' are split almost evenly 50/50 across the wives sample. There is a discrepancy between control and treatment wives' status - 57.6% of control wives were born in the village of residence; 46.5% of treatment wives were born in the village of residence. Descriptive statistics by treatment status for the wives' sample are presented in table A1.

81.85% (2,075) of wives report that they do not personally own or manage any fields; 15.5% (394) of wives report that they personally own or manage 1 field. Given the small number of wives that own or manage a field, the sample size is very small for analyzing field indicators, especially in a regression framework.

3.4.3 Village Leader Sample Characteristics

Among the surveyed village leaders, 15% (292) were representatives from the local CCFV, while another 15% (289) were representatives from the local CFV. Village chiefs (447), land chiefs(446), and female village leaders (448) each comprised approximately 23 percent of the sample population. 37% (718) of these individuals live in control communes, while 63% (1204) reside in treatment communes. Approximately half of the surveyed respondents (54%, 1037) were between 30 and 60 years old, while 38% (730) were older than 61 years old. The remaining 8% of respondents (153) were younger than 30 years old. Nearly all of the village leaders who were not the designated female leaders were male. There were just 5 females among the CCFV representatives, 8 among the CFV representatives, one female land chief, and no female village chiefs. The majority of

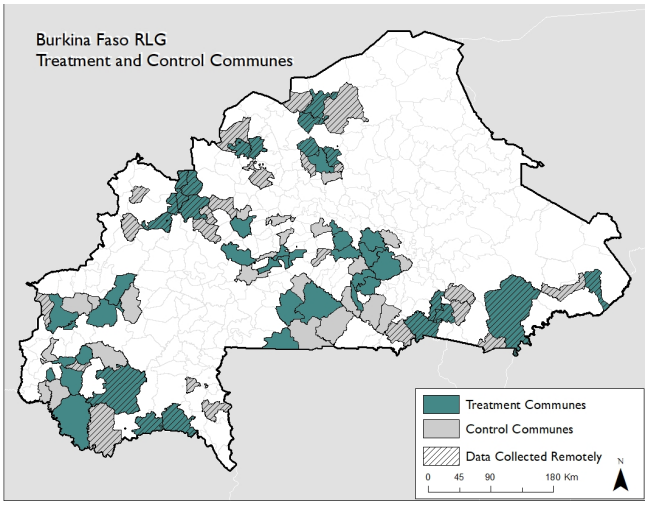

Figure 1: RLG Treatment and Control Communes

the individuals we spoke to lacked education (64%, 1238) while approximately 17% (370) had primary level education and 12 percent (237) had completed some level of education past primary school. 40 percent of these individuals reported being in their role for 0-5 years, 34 percent indicated being in their role for 6-10 years, just 9 percent stated that they had been working in the same position from 11-15 years, and 15 percent of individuals said that they had been in their roles for longer than 15 years.

4 Empirical Strategy

The RLG evaluation was originally implemented in 94 communes—47 treatment and 47 matched comparison communes—selected during the Phase 1 and Phase 2 evaluation design, highlighted in Figure 1 (Cloudburst, 2023). The matching procedure identified comparison communes that resembled treated communes on pre-intervention characteristics and land-governance profiles.[8] However, severe and rising conflict in Burkina Faso substantially constrained endline data collection. In-person household and village surveys could be conducted in only 50 communes (across treatment and comparison), resulting in the exclusion of 42 baseline communes that could not be safely accessed by enumerators at endline. Thus, all inference for the overall RLG evaluation and this specific study pertain to the subset of communes where endline surveying was possible. Appendix tables provide balance assessments for this reachable sample.

[8] See the main evaluation report (Cloudburst, 2023) for full documentation of the matching strategy and sampling frame.

Although the broader RLG impact evaluation employed a quasi-experimental matched Difference-in-Differences (DiD) design, the gender-relevant modules analyzed in this paper - particularly the wives' survey and most measures of women's empowerment - were introduced only at endline. Consequently, we are unable to construct baseline measures for our key outcomes and instead rely on cross-sectional comparisons between treated and matched comparison communes within the accessible endline sample.

We estimate the following specification:

$$Y_i = \alpha + \beta T_i + \delta X_i + \varepsilon_i, \tag{1}$$

where Y_i denotes the outcome for respondent i; T_i is an indicator equal to one for respondents residing in a treated commune; and X_i is the vector of covariates described in the Variable Construction section above. These include respondent demographics (age, literacy, birthplace), marital structure (polygamy), spouse characteristics (age, education, birthplace), household socio-economic status (asset index, food insecurity), ethnicity, urban residence, and formalization indices capturing reliance on formal versus customary authorities. The coefficient β represents the intent-to-treat (ITT) effect: the average difference in outcomes between individuals residing in treated and comparison communes, regardless of direct participation in the program or receipt of an APFR. Standard errors are clustered at the village level to account for spatial correlation in unobserved determinants of gender norms and land-rights perceptions.

We present results separately for three groups: (i) wives interviewed in the wives' module, (ii) all male respondents (including both married and unmarried men), and (iii) husbands whose spouses appear in the matched wife–husband sample. The quantitative results are interpreted alongside qualitative data from leader surveys and focus group discussions.

Finally, because insecurity restricted endline data collection to a non-random subset of communes, our estimates should be interpreted as internally valid for the surveyed 50-commune sample. Evidence from Cloudburst (2023) suggests that the sample that was reachable at endline is well-balanced on pre-intervention characteristics to communes that were unreachable due to security concerns, however.

5 Results

For most outcomes, we first present a table of results from the survey of wives, followed by a table that includes results from all men surveyed as well as the sample restricted to only those men whose wives were interviewed in the wife module.

5.1 Women's Land Rights: Access, Decision-Making, and Inheritance

Column (1) of table 1 and columns (1) and (2) of table 2 examine the basic question of whether women can acquire and own land in the respondent's community. In control communities, this is rare: 18% of women and 3% of men (6% of husbands) report that women can access land. This proportion is statistically significantly further reduced in treatment villages: wives in treatment areas are 11.7 percentage points less likely to report that women have some or unrestricted access to acquire or own land, in table 1. The effect is smaller in magnitude, although still statistically significant, for men and husbands in table 2.

This negative treatment effect on women's access to land is also borne out in their ability to make decisions and inherit land. The outcome in column (2) of table 1 is an index of women's decision making (in community decisions, household decisions, decisions about land, and land use decisions), as is the outcome in columns (3) and (4) of table 2 (asked of men about women). Women in treated communes report less ability to make decisions across these domains at endline, although men's responses are statistically indistinguishable between treatment and control. Women's ability to inherit land, from either their husbands or fathers, is combined into a single index for column (3) of table 1. The RLG program statistically significantly reduces women's reporting of a woman's ability to inherit from her husband or father by .21 standard deviations. Husbands in particular, but men more generally, demonstrate a similar reduction in perceptions of women's ability to inherit, although magnitudes are somewhat smaller, in columns (5) and (6) of table 2.

These results, taken together, suggest that the RLG program significantly reduced women's land rights broadly defined: access to land, decisionmaking, and inheritance rights of women are consistently lower in communes treated by the RLG program. This is consistent with qualitative findings from focus group discussions. In control communes, although women's land rights are far from equal or universally recognized, there are informal, social, negotiated customary arrangements that provide land rights and access to women. In areas the RLG program has documented rights, however, women are more thoroughly excluded:

> It is rare, if not impossible for a husband to put a woman's name to an APFR. Here, the wife should not be involved in land issues. It is usually the name of the children that we put on the land documents. According to our customs, the woman should not put her mouth in land matters. We think that the woman comes from somewhere else and if she has the right to the land, she will dominate you. It is unimaginable that I put my wife's name on my land documents. The custom even forbids it (Community Leader, Binde).

Table 1: Impacts of Treatment on Wives' Women's Empowerment Outcomes (Land Rights)

	(1) Access to land	(2) Decision making	(3) Inheritance
Treatment group	-0.117^{***}	-0.186^{**}	-0.211^{***}
	(0.040)	(0.076)	(0.080)
Control mean	0.177	0.089	0.087
Observations	1,894	1,913	1,900
Villages (clusters)	394	394	394
R-squared	0.062	0.098	0.077

Notes: Standard errors clustered at the village level; robust SEs in parentheses. All regressions include the pre-specified household and respondent covariates; coefficients for controls omitted for brevity. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Table 2: Impacts of Treatment on Men's and Husbands' Women's Empowerment Outcomes

	(1) Access to land *All men*	(2) Access to land *Husbands*	(3) Decision making *All men*	(4) Decision making *Husbands*	(5) Inheritance *All men*	(6) Inheritance *Husbands*
Treatment group	-0.053^{*}	-0.084^{**}	0.028	-0.005	-0.072	-0.138^{**}
	(0.028)	(0.033)	(0.054)	(0.060)	(0.058)	(0.069)
Control mean	0.030	0.064	0.022	0.101	0.030	0.129
Observations	3,228	2,313	3,259	2,336	3,251	2,333
Villages (clusters)	431	412	431	413	431	413
R-squared	0.042	0.038	0.049	0.058	0.051	0.052

Notes: Standard errors clustered at the village level; robust SEs in parentheses. All regressions include the pre-specified household and respondent covariates; coefficients for controls omitted for brevity. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

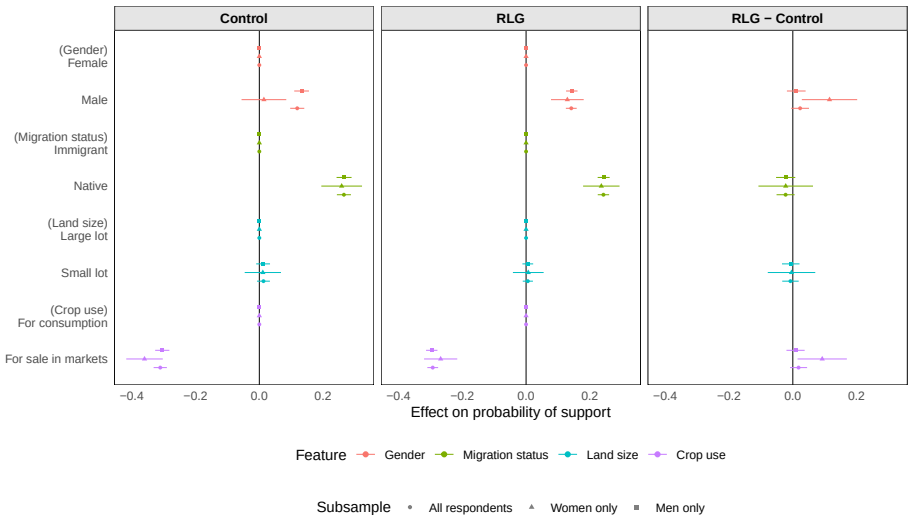

Figure 2: Results from conjoint experiment, for all survey respondents, women and men, for the control group, the treatment group and difference between the two.

5.2 Women's Access to APFRs

Our finding that perceptions of women's land rights change as a result of the RLG program is bolstered by a second measurement strategy - the use of a conjoint experiment. As described in section 3.2, a conjoint experiment allows us to estimate the importance of different dimensions in a choice a respondent makes between two hypothetical individuals on who would be more likely to obtain an APFR. In the experiment, respondents are asked to choose which of two individual profiles would be likely to obtain written documentation for their land. Figure 2 reports the average effect of each attribute of a profile on whether the respondent reports that that profile is more likely to obtain an APFR. In the absence of treatment, male respondents, but not women, report that men are more likely to obtain an APFR for their land holding other aspects of the individual and property in question constant. However, in treated villages, women also report that men are more likely than women to obtain documents, providing additional evidence that the RLG program updates women's beliefs about their lower probability of obtaining stronger property rights.

In line with these dispiriting results, we also find that women in treated communities are less likely to report that they can added to their husband's land documents. In table 3, 62% of women in control villages report it is possible or permitted for a husband to add his wife's name to an APFR; this share is a statistically significant and stark 13.5 percentage points lower in treatment villages. The share of men or husbands agreeing it it possible is lower, around 52%, and the RLG treatment lowers this share by 9 to 12 percentage points in

table 4.

Those who answer that it is possible for a wife to be added to her husband's APFR are then asked if their husband would add them to his APFR (if he hypothetically had one), or if they personally would add their wife's name (depending on gender). Among this group, individual willingness is relatively high: in control areas, approximately 86 percent of women, 80 percent of husbands, and 79 percent of all men express willingness in tables 3 and 4. Importantly, there is no statistically distinguishable impact of treatment on this share.

What explains the disparity between community resistance to women's land rights, and this suggestive evidence about individual willingness to add women to APFRs? Individual progressiveness in combination with broader conservative gender attitudes has been documented before, often attributed to misperceptions (Bursztyn and Yang, 2021).[9] Bursztyn et al. (2020) find in Saudi Arabia that men privately support women working outside the home, but underestimate the extent of social support, for example. However, the substantial negative treatment effect of the RLG program on community perceptions is less easily understood, as it is difficult to reconcile with traditional understandings of pluralistic ignorance. It could be that the RLG intervention does create community resistance to women's inclusion on land documents, although we would expect that if this is the case, willingness to include one's own wife would show a similar pattern.

It may be, therefore, that the RLG program actually exacerbates misperceptions around women's land rights. In the absence of any intervention, women's land rights are largely not discussed in the broader community, and are largely derivative and therefore individually negotiated within the household. But when CFVs and CCFVs are created and begin the process of formalizing land rights, the question of whose rights are documented becomes more salient. Public discussions around land rights, including women's land rights, are likely to occur, with some in the community expressing strong resistance. Survey respondents, therefore, may feel that women's land rights are less accepted in their community when the RLG program has been active.[10] Importantly, this negative treatment effect in our quantitative surveys may not result so much from a change in attitudes caused by the program, but rather from respondents' increased awareness of resistance by others in the community.

[9] Although social desirability bias or survey demand effects may explain a divergence that stems from misreporting of individual beliefs or preferences, both Bursztyn and Yang (2021) and Bursztyn et al. (2020) argue that this is unlikely to be driving their results.

[10] This is consistent with the stereotyping mechanism laid out in Bursztyn and Yang (2021), where beliefs about others' attitudes are shifted towards extreme tail attitudes; in this case, those tail attitudes become more salient as a result of treatment. However, it is in tension with Bursztyn et al. (2020)'s finding that misperceptions are smaller among those who more frequently discuss gender norms.

Table 3: Impacts of Treatment on Wives' APFR Outcomes

	(1) Husband *can* add wife	(2) Husband *would* add wife
Treatment group	-0.135^{***}	0.061
	(0.043)	(0.037)
Control mean	0.616	0.856
Observations	1,491	668
Villages (clusters)	357	257
R-squared	0.084	0.092

Notes: Standard errors clustered at the village level; robust SEs in parentheses. All regressions include the pre-specified household and respondent covariates; coefficients for controls omitted for brevity. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Table 4: Impacts of Treatment on Men's and Husbands' APFR Outcomes

	(1) Can add wife *All men*	(2) Can add wife *Husbands*	(3) Would add wife *All men*	(4) Would add wife *Husbands*
Treatment group	-0.096^{***}	-0.116^{***}	0.013	-0.017
	(0.033)	(0.039)	(0.033)	(0.038)
Control mean	0.516	0.534	0.786	0.803
Observations	3,302	2,361	1,496	1,082
Villages (clusters)	442	426	381	342
R-squared	0.009	0.013	0.000	0.000

Notes: Standard errors clustered at the village level; robust SEs in parentheses. All regressions include the pre-specified household and respondent covariates; coefficients for controls omitted for brevity. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

5.3 Broader Women's Rights and Economic Empowerment

This potential mechanism, that women's land rights are being discussed more in treatment communities and thus respondents are more aware of resistance (even if they do not themselves become more opposed to women's inclusion on land documents), may also spill over into other domains of women's empowerment. In table 5, we explore both measures of economic empowerment and social attitudes about women's rights. Column (1) looks at the likelihood that a woman reports owning or using any fields; although this is very uncommon in control communities, there is a small statistically significant increase in treated communes that represents roughly a doubling in the likelihood. Column (2) looks at an index of a broader set of economic assets held by women, and again finds a statistically significant increase due to the RLG project. This suggests the project was not all bad news for women; their purely economic outcomes look better as a result of treatment.

However, in column (3), the outcome variable is an index of gender attitudes. Specifically, it is comprised of women's disagreement with the statement "if there's not enough money to enroll all the children in school, it's better to prioritize boys," agreement with the statement "women should be able to work outside the home," and disagreement with the statement "a woman must tolerate violence if it allows the family to stay together." More positive values of the index can therefore be understood as less bias against women in social attitudes. Unfortunately, here we see a negative treatment effect of the RLG program. This evidence of a broader backlash against women as a result of documenting land rights is consistent with the model of Shwachman Kaminaga and Sheldon (2022), who argue that if titles only list the husband's name, it can increase his bargaining power within the household, leading women to accept more intimate partner violence and bias against women (although the empirical support for this model is more mixed). It suggests the unintended consequences can spill over into other domains, as land rights are embedded in social relations.

Table 5: Impacts of Treatment on Wives' Economic Outcomes and Attitudes

	(1) Owns/uses any fields	(2) Asset + livestock index	(3) Attitudes
Treatment group	0.040^{***}	0.113^{***}	-0.187^{***}
	(0.014)	(0.043)	(0.065)
Control mean	0.036	−0.104	−0.018
Observations	1,937	1,939	1,911
Villages (clusters)	396	396	394
R-squared	0.024	0.031	0.023

Notes: Standard errors clustered at the village level; robust SEs in parentheses. All regressions include the pre-specified household and respondent covariates; coefficients for controls omitted for brevity. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

6 Conclusion

This study provides evidence on the unintended gendered consequences of land formalization in customary tenure systems. Burkina Faso's Rural Land Governance program was designed to decentralize and strengthen land governance, reduce conflict, and strengthen tenure security for productivity and livelihood improvements. Utilizing a rich set of household, wives', and leader surveys, coupled with an embedded conjoint experiment and qualitative focus group discussions, we present evidence that women's reported rights to access land, make land-related decisions, inherit land, or be added to APFRs declined in treatment communes. These findings are reinforced by a conjoint experiment, descriptive findings, and focus group discussions.

The evidence points to the crystallization of men's primary claims and narrowing of the informal, socially negotiated pathways through which women previously accessed land rights. We put forward several mechanisms linking the program to gender backlash. Mapping and clarification of claims and public awareness raising of rights increased the salience of women's legal claims on land. This visibility appears to have triggered contestation rather than recognition. Qualitative evidence describes heightened community resistance to women's inclusion on documents and a perception that women's involvement in land matters is culturally inappropriate or destabilizing. The creation of new village-level land bodies largely controlled by men further entrenched gender hierarchies and created a further barrier for women to access land. Beyond land rights, the study also identifies a negative shift in broader gender attitudes about women's bargaining power, mobility, and social status; this highlights the potential for broader implications on gender hierarchies from land formalization. By raising the potential for legally-recognized rights to land for women, the RLG program may have unintentionally excluded women from the informal rights they had enjoyed previously.

At the same time, the study finds evidence of some important foundations on which transformative and equitable reform can be built, including positive findings for women's economic empowerment and no evidence of a decline in *individual* willingness to include wives on APFRs. In particular, the program produced modest improvements in women's economic outcomes, including field use or ownership and asset accumulation. Moreover, stated willingness to include women in APFRs is high among wives, husbands, and men who believe inclusion is legally possible. This pattern is consistent with norm misperception dynamics, in which individuals privately support women's rights but overestimate community resistance. In particular, public discussions prompted by the RLG program may have provide a platform for male elites who are most threatened by changes to the social hierarchy, and therefore are most likely to enact gender backlash. This suggests that some elements of backlash are not rooted in lack of support for women's inclusion per se, but in misperceived norms about what others believe. Correcting these misperceptions represents a viable lever for reform.

Taken together, these findings highlight the potential for gender-unequal

outcomes when tenure reforms are implemented in settings where customary authority, inheritance norms, and household power relations remain solidly male-dominated. Strengthening local land institutions, raising awareness about land rights, and documenting claims may improve land administration and strengthen tenure for many beneficiaries, but without explicit strategies to safeguard women's claims, formalization can inadvertently weaken secondary rights and reinforce gender hierarchy.

For policy, the results underscore the need to integrate gender safeguards throughout every stage of land reform. This includes designing documentation procedures that explicitly enable joint or derivative rights; training commune- and village-level land bodies to recognize, record, and enforce women's claims; guaranteeing meaningful women's representation in land governance institutions; and pairing formalization efforts with norm-change interventions that correct misperceptions about community support for women's rights. These priorities already feature prominently in the stated strategies of major land-sector stakeholders and donors. More broadly, the Burkina Faso experience shows that efforts to "make rights visible" can also make them contestable. As governments across Africa expand documentation programs, this study provides a cautionary reminder that formalization is never gender-neutral— and that without deliberate design, interventions intended to secure rights may inadvertently weaken them.

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A Appendix

Table A1: Descriptive statistics — Wives' sample

	(1) Overall		(2) Control		(3) Treatment	
	mean	sd	mean	sd	mean	sd
Respondent age	40.551	(12.095)	39.325	(11.693)	41.207	(12.258)
Respondent born in village	0.524	(0.500)	0.597	(0.491)	0.485	(0.500)
Can read and write	0.081	(0.272)	0.072	(0.259)	0.085	(0.279)
Married polygamously	0.452	(0.498)	0.448	(0.498)	0.453	(0.498)
Owns/uses any fields	0.061	(0.240)	0.036	(0.186)	0.075	(0.263)
Non-ag income (binary)	0.442	(0.497)	0.526	(0.500)	0.397	(0.490)
Spouse born in village	0.757	(0.429)	0.823	(0.382)	0.722	(0.448)
Spouse age	52.495	(14.178)	51.304	(14.098)	53.132	(14.185)
Spouse attended school	0.180	(0.385)	0.174	(0.379)	0.184	(0.387)
Household asset index	0.286	(2.196)	0.360	(2.108)	0.246	(2.242)
Mossi	0.382	(0.486)	0.418	(0.494)	0.362	(0.481)
Food insecurity (past year)	0.280	(0.449)	0.324	(0.468)	0.257	(0.437)
Lives in urban area	0.213	(0.409)	0.132	(0.339)	0.256	(0.437)
Formalization index(wives)	-1.792	(2.334)	-1.832	(1.924)	-1.770	(2.526)
Study phase	1.431	(0.495)	1.445	(0.497)	1.423	(0.494)
Observations	1913		667		1246	

Table A2: Descriptive statistics — All men sample

	(1) Overall		(2) Control		(3) Treatment	
	mean	sd	mean	sd	mean	sd
Married polygamously	0.444	(0.497)	0.452	(0.498)	0.440	(0.496)
Spouse born in village	0.772	(0.420)	0.833	(0.373)	0.738	(0.440)
Spouse age	52.254	(14.353)	51.994	(14.301)	52.399	(14.383)
Spouse attended school	0.193	(0.395)	0.173	(0.379)	0.204	(0.403)
Food insecurity (past year)	0.255	(0.436)	0.247	(0.432)	0.259	(0.438)
Household asset index	0.146	(2.076)	0.124	(1.951)	0.158	(2.143)
Scores for component 1	0.085	(1.478)	0.163	(1.459)	0.041	(1.488)
Lives in urban area	0.200	(0.400)	0.113	(0.317)	0.248	(0.432)
Formalization index(husband)	-2.006	(2.478)	-2.137	(2.178)	-1.933	(2.628)
Study phase	1.515	(0.500)	1.541	(0.499)	1.500	(0.500)
Observations	3259		1165		2094	

Table A3: Descriptive statistics — Husbands' sample

	(1) Overall		(2) Control		(3) Treatment	
	mean	sd	mean	sd	mean	sd
Married polygamously	0.459	(0.498)	0.459	(0.499)	0.460	(0.499)
Spouse born in village	0.764	(0.425)	0.830	(0.376)	0.727	(0.446)
Respondent age	52.685	(14.202)	51.573	(14.115)	53.303	(14.218)
Spouse attended school	0.179	(0.384)	0.168	(0.374)	0.186	(0.389)
Food insecurity (past year)	0.257	(0.437)	0.282	(0.450)	0.243	(0.429)
Household asset index	0.223	(2.180)	0.239	(2.071)	0.215	(2.239)
Scores for component 1	0.122	(1.468)	0.180	(1.421)	0.090	(1.493)
Lives in urban area	0.200	(0.400)	0.119	(0.324)	0.244	(0.430)
Formalization index(husband)	-1.855	(2.564)	-1.981	(2.193)	-1.784	(2.748)
Study phase	1.441	(0.497)	1.482	(0.500)	1.418	(0.493)
Observations	2299		822		1477	

Table A4: Impacts of Treatment on Wives' APFR Outcomes (Full Specifications)

	(1) Husband can add wife	(2) Husband would add wife
Treatment group	-0.135***	0.061
	(0.043)	(0.037)
Respondent age	-0.005***	-0.001
	(0.001)	(0.001)
Respondent born in village	-0.000	0.016
	(0.030)	(0.028)
Can read and write	0.008	0.049
	(0.053)	(0.034)
Married polygamously	-0.026	-0.089***
	(0.028)	(0.030)
Owns/uses any fields	0.103*	0.026
	(0.057)	(0.054)
Non-ag income (binary)	0.100***	0.027
	(0.033)	(0.031)
Spouse born in village	-0.070**	-0.029
	(0.035)	(0.027)
Spouse age	0.000	-0.000
	(0.001)	(0.001)
Spouse attended school	0.017	0.038
	(0.038)	(0.029)
Household asset index	0.023***	-0.012*
	(0.008)	(0.006)
Mossi	0.029	0.054*
	(0.038)	(0.032)
Food insecurity (past year)	-0.024	0.113***
	(0.041)	(0.030)
Lives in urban area	-0.024	-0.019
	(0.049)	(0.039)
Formalization index (wives)	0.023***	0.009
	(0.007)	(0.007)
Phase preload	-0.014	-0.105***
	(0.043)	(0.039)
Constant	0.856***	1.033***
	(0.104)	(0.080)
Control mean	0.616	0.856
Observations	1491	668
Villages (clusters)	357	257
R-squared	0.084	0.092

Standard errors clustered at the village level in parentheses.

*$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

Table A5: Impacts of Treatment on Wives' Women's Empowerment Outcomes (Full Specifications)

	(1) Access to land	(2) Decision making	(3) Inheritance	(4) Attitudes
Treatment group	-0.123***	-0.214***	-0.219***	-0.209***
	(0.040)	(0.077)	(0.080)	(0.063)
Respondent age	-0.003**	-0.009***	-0.009***	-0.001
	(0.001)	(0.002)	(0.002)	(0.003)
Respondent born in village	0.008	0.060	0.108*	-0.116**
	(0.027)	(0.051)	(0.057)	(0.056)
Can read and write	-0.003	0.089	0.060	0.084
	(0.045)	(0.081)	(0.083)	(0.087)
Married polygamously	-0.001	0.015	-0.003	-0.103**
	(0.027)	(0.047)	(0.053)	(0.049)
Spouse born in village	-0.019	-0.253***	-0.120*	0.043
	(0.034)	(0.067)	(0.066)	(0.073)
Spouse age	-0.002**	-0.002	-0.001	-0.000
	(0.001)	(0.002)	(0.002)	(0.002)
Spouse attended school	-0.054*	-0.002	0.099	0.002
	(0.031)	(0.060)	(0.062)	(0.068)
Household asset index	0.026***	0.049***	0.044***	0.008
	(0.008)	(0.013)	(0.012)	(0.012)
Mossi	-0.017	0.029	-0.158**	0.003
	(0.036)	(0.063)	(0.066)	(0.061)
Food insecurity (past year)	-0.070**	-0.161***	0.131**	-0.015
	(0.033)	(0.052)	(0.065)	(0.069)
Lives in urban area	0.097**	-0.072	-0.068	0.129*
	(0.044)	(0.080)	(0.093)	(0.073)
Formalization index (wives)	0.006	0.022*	0.047***	0.002
	(0.007)	(0.012)	(0.012)	(0.014)
Phase preload	0.088**	-0.164**	-0.086	-0.110*
	(0.040)	(0.078)	(0.077)	(0.065)
Constant	0.694***	1.017***	0.733***	0.243
	(0.094)	(0.192)	(0.181)	(0.157)
Control mean	0.546	0.086	0.085	-0.013
Observations	1909	1928	1915	1925
Villages (clusters)	396	396	396	396
R-squared	0.058	0.083	0.074	0.020

Standard errors clustered at the village level in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A6: Impacts of Treatment on Wives' Economic Outcomes (Full Specifications)

	(1) Owns/uses any fields	(2) Asset + livestock index
Treatment group	0.040***	0.113***
	(0.014)	(0.043)
Respondent born in village	-0.013	-0.057*
	(0.012)	(0.032)
Can read and write	0.041	0.030
	(0.029)	(0.058)
Married polygamously	0.026**	0.037
	(0.012)	(0.027)
Spouse born in village	0.039**	-0.096**
	(0.016)	(0.047)
Respondent age	-0.000	0.000
	(0.000)	(0.001)
Spouse attended school	-0.022*	0.138***
	(0.012)	(0.052)
Mossi	-0.041***	0.069
	(0.015)	(0.049)
Food insecurity (past year)	0.005	-0.053
	(0.014)	(0.041)
Lives in urban area	-0.006	-0.067
	(0.023)	(0.066)
Formalization index (wives)	-0.005	0.015
	(0.003)	(0.011)
Phase preload	0.008	0.111**
	(0.019)	(0.056)
Constant	0.002	-0.194
	(0.037)	(0.121)
Control mean	0.036	-0.104
Observations	1937	1939
Villages (clusters)	396	396
R-squared	0.024	0.031

Standard errors clustered at the village level in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A7: Impacts of Treatment on Men's and Husbands' APFR Outcomes (Full Specifications)

	All men		Husbands	
	(1) Can add wife	(2) Would add wife	(3) Can add wife	(4) Would add wife
Treatment group	-0.094***	-0.008	-0.104***	-0.023
	(0.035)	(0.032)	(0.040)	(0.037)
Married polygamously	-0.018	-0.089***	-0.042*	-0.096***
	(0.020)	(0.025)	(0.024)	(0.027)
Spouse born in village	-0.058*	-0.034	-0.079**	-0.008
	(0.030)	(0.027)	(0.033)	(0.031)
Spouse age	-0.002**	-0.001	-0.002***	0.000
	(0.001)	(0.001)	(0.001)	(0.001)
Spouse attended school	0.055**	0.063**	0.034	0.044
	(0.025)	(0.027)	(0.032)	(0.033)
Food insecurity (past year)	-0.042	0.138***	-0.029	0.143***
	(0.026)	(0.025)	(0.031)	(0.028)
Household asset index	0.014**	0.001	0.020***	-0.001
	(0.006)	(0.007)	(0.008)	(0.008)
Scores for component 1	0.009	-0.002	0.016*	-0.002
	(0.008)	(0.009)	(0.009)	(0.010)
Lives in urban area	0.008	-0.003	-0.000	-0.003
	(0.039)	(0.034)	(0.043)	(0.043)
Formalization index (husband)	0.002	0.036***	0.004	0.042***
	(0.006)	(0.008)	(0.006)	(0.009)
Phase preload	0.011	-0.019	-0.009	-0.105***
	(0.032)	(0.033)	(0.038)	(0.039)
Constant	0.643***	0.943***	0.745***	1.031***
	(0.080)	(0.066)	(0.089)	(0.076)
Control mean	0.511	0.785	0.520	0.805
Observations	3031	1372	2187	993
Villages (clusters)	429	359	407	317
R-squared	0.022	0.101	0.036	0.151

Standard errors clustered at the village level in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A8: Impacts of Treatment on Men's and Husbands' Women's Empowerment Outcomes (Full Specifications)

	Men			Husbands		
	(1) Access to land	(2) Decision making	(3) Inheritance	(4) Access to land	(5) Decision making	(6) Inheritance
Treatment group	-0.053*	0.028	-0.072	-0.084**	-0.005	-0.138**
	(0.028)	(0.054)	(0.058)	(0.033)	(0.060)	(0.069)
Married polygamously	-0.059***	-0.074*	-0.110***	-0.051**	-0.076*	-0.107**
	(0.022)	(0.041)	(0.042)	(0.025)	(0.045)	(0.048)
Spouse born in village	-0.032	-0.221***	-0.213***	-0.025	-0.218***	-0.248***
	(0.028)	(0.051)	(0.057)	(0.030)	(0.058)	(0.061)
Spouse age	-0.002***	-0.006***	-0.006***	-0.003***	-0.007***	-0.006***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Spouse attended school	0.059**	0.028	0.054	0.054*	0.030	0.055
	(0.025)	(0.046)	(0.049)	(0.030)	(0.056)	(0.060)
Food insecurity (past year)	-0.092***	-0.159***	0.121**	-0.110***	-0.242***	0.118*
	(0.030)	(0.048)	(0.057)	(0.035)	(0.060)	(0.067)
Household asset index	0.025***	0.064***	0.073***	0.022***	0.062***	0.075***
	(0.006)	(0.012)	(0.011)	(0.007)	(0.014)	(0.013)
Scores for component 1	-0.010	-0.033**	-0.046***	-0.002	-0.024	-0.047**
	(0.008)	(0.015)	(0.016)	(0.009)	(0.017)	(0.019)
Lives in urban area	0.090**	0.056	0.069	0.080**	-0.016	-0.000
	(0.039)	(0.075)	(0.084)	(0.039)	(0.074)	(0.086)
Formalization index (husband)	0.004	0.020**	0.039***	-0.005	0.016	0.029***
	(0.005)	(0.009)	(0.010)	(0.006)	(0.011)	(0.011)
Phase preload	0.076***	-0.141**	0.074	0.057*	-0.183***	0.027
	(0.029)	(0.055)	(0.061)	(0.033)	(0.061)	(0.070)
Constant	0.564***	0.817***	0.499***	0.614***	1.010***	0.672***
	(0.064)	(0.130)	(0.139)	(0.071)	(0.141)	(0.155)
Control mean	0.490	0.022	0.030	0.513	0.101	0.129
Observations	3228	3259	3251	2313	2336	2333
Villages (clusters)	431	431	431	412	413	413
R-squared	0.043	0.049	0.051	0.043	0.058	0.052

Standard errors clustered at the village level in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.