Women's Land Rights and Village Institutions in Tanzania

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ABSTRACT

Strengthening women's ownership of and control over land is an important development goal. This paper studies the extent of women's land rights in rural Tanzania and how patrilineal norms affect them. We show that married women in rural Tanzania still own little land without their husbands and have limited rights over the jointly owned land. In Tanzania, an inherent tension lies in the recognition of customary laws that explicitly discriminate against women, and statutory laws that establish equal rights for men and women. Customary patrilineal practices persist. In particular, we find that firstborn sons are expected to inherit more land than firstborn daughters, and widows' inheritance rights are affected by the gender of their children. We also find that women's tenure security in case of divorce or inheritance is fragile. In Tanzania, village institutions play a key role in the management of land rights and the mediation of land disputes. We find that members of village institutions have more pro-women views on land rights than the average household respondent. However, using randomized vignettes to measure gender bias, we show they do not always make gender-neutral recommendations in case of land disputes.

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1   Introduction

Land is often considered the most important asset in rural areas because it is the foundation for agricultural production. A number of studies provide evidence that strengthening property rights for women provides benefits, not just in terms of equity, but also in potential efficiency gains (e.g., Dillon and Voena 2018; Goldstein et al. 2018; Ali, Deininger, and Goldstein 2014). However, despite being heavily involved in agricultural production, women in most of Sub-Saharan Africa own little land (Doss et al. 2015; Gaddis, Lahoti, and Li 2018) and are concerned about tenure security (Prindex 2019).

Under customary law, women's access to land in most of Tanzania was tied to their relationship with a male partner or relative. By contrast, in recent decades, Tanzania has adopted progressive laws that generally uphold women's equal rights to land. This paper studies how this inherent tension between customary and statutory law affects the *de facto* property rights of women in rural Tanzania. We assess the extent of property rights that married women have over land, and focus on the security of these rights: the expectations that women keep the land in case of widowhood, divorce, and disputes. We show that customary patrilineal practices still play an important role and that village institutions—which have a key role in the interplay between customary and statutory laws—are not gender neutral.

To fulfill this agenda, this paper uses a unique dataset (*Village Institutions and Land Rights in Tanzania, VILART*) to study women's land property rights and village institutions in three regions of rural Tanzania. This survey provides us with plot-level information, from both husbands and wives, about ownership, land rights, and expectation in the event of divorce or widowhood. Recent research stresses the importance of collecting data on land rights, not just ownership (Doss et al. 2015; Kang, Schwab, and Yu 2020), and of interviewing each owner separately (Doss, Kieran, and Kilic 2020; Deininger et al. 2021; Kilic, Moylan, and Koolwal 2020). Beyond ownership and rights, tenure security is of primary importance and is an

understudied topic (Doss and Meinzen-Dick 2020). In our dataset, married men and women are surveyed on women's expected tenure security in the face of divorce or widowhood, two key sources of insecurity for women. In addition, the survey captured the opinions of the members of the village institutions in a number of hypothetical situations via the use of vignettes.

Our data first show that married women own very few acres of land without their husbands (4% of total household acreage) and that their lack of inheritance rights as daughters limits their capacity to bring land to the marriage. Women's ownership is mostly through joint plots purchased after marriage. Even for plots jointly owned with their husband, women do not always have a say regarding its sale, whom to give it to as inheritance, and whose names would be listed on a hypothetical land title. These findings are consistent with previous research in Sub-Saharan Africa showing that various land rights do not always overlap (Slavchevska et al. 2021). Women's overall low ownership also puts them at risk in case of divorce or widowhood.

This paper also shows customary patrilineal practices still play a large role in the matter of inheritance in rural Tanzania. Among firstborn children, a sample among which the gender of the child is reasonably exogenous, girls are expected to receive less land than boys if their father dies. Interestingly, daughters inheriting less than sons tend to translate into widows inheriting more with a female firstborn than with a male firstborn. This finding suggests a potential trade-off between daughters' and mothers' rights, in line with other research documenting possible counterintuitive effects of improved mother outcomes on daughters (Jayachandran 2017; Kang, Schwab, and Yu 2020). These results contribute to the literature on the persistence of norms (e.g., Nunn 2009; Lambrecht 2016; La Ferrara and Milazzo 2017; Dillon and Voena 2018; Milazzo and van de Walle 2021).

We also find women's land rights are limited and fragile in case of land disputes. Using vignettes, we ask respondents what would happen to widow's inheritance

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rights against claims from male members of the deceased husband's clan.[1] We find *partial* property rights— such as the right to keep the land only until remarriage, or the right to cultivate it while alive but not to sell it—prevail, as opposed to expecting women to fully own the land. In the event of divorce, the expectations of the distribution of joint land also fall short of an equal share. About a third of the household respondents expect the wife to get less than 50% of the joint land in case of a mutually agreed divorce. These expectations are very similar to what household members think would have happened under their traditional clan laws. These findings add to the growing evidence that unmarried women, divorcees, and widows are particularly vulnerable regarding land rights (Fafchamps and Quisumbing 2002; van de Walle 2013; Lambert and Rossi 2016; Milazzo and van de Walle 2017; Lambert, van de Walle, and Villar 2017).

Finally, Tanzania's village institutions (VIs) play a key role in securing women's property rights, but very little is known about them. A series of legal reforms in the 1990s gave tremendous power to VIs to influence women's *de facto* land rights, because they were made responsible for adjudicating, registering, and titling all local holdings. Our survey confirms a majority of household members report they would seek the advice of VI leaders in case of land dispute or disagreement over land ownership in a divorce. The question is whether their views on land property rights are gender neutral. In our survey, members of the VIs report more progressive views on women's land rights than household members. However, using vignettes about women's inheritance rights in which we randomized the gender of the child, we show that the recommendations from VI members, of both genders, still fall short of the gender egalitarian standards promoted by the statutory law.

Though the interplay between formal and informal institutions is an overarching theme of many studies in economics, relatively little is known about the interaction between customary legal institutions and formal law. An emerging literature highlights the importance of customary institutions in Africa (Platteau 2000; Chirayath,

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[1]A clan is an extended lineage within a tribe.

Sage, and Woolcock 2005; Baldwin 2016; Cecchi and Melesse 2016; Honig 2017; Winters and Conroy-Krutz 2021; van der Windt et al. 2019) and proves changes in formal law can foster changes in customary outcomes, even when nobody actual uses the formal law (Aldashev et al. 2012a,b; Cecchi and Melesse 2016). By documenting the role of VI leaders, their views, and potential bias on women's land rights, our findings contribute to this literature.

In summary, women's property rights over land appear limited, fragile, and with little legal protection, despite a gender-neutral statutory law context, due to the persistence of customary laws. This finding is to be interpreted within the context of a growing literature demonstrating the positive effects of improved property rights for women. Land ownership is associated with higher decision-making and bargaining power (Agarwal 1997; Fafchamps and Quisumbing 2002; Allendorf 2007; Wiig 2013; Menon, van der Meulen Rodgers, and Nguyen 2014; Meinzen-Dick et al. 2017; Muchomba 2017), and better nutrition among widows (Milazzo and van de Walle 2021). Research has also shown that strengthening women's property rights can not only improve mothers' and children's education and health outcomes (Deininger, Goyal, and Nagarajan 2013; Harari 2019; Calvi 2020),[2] but also lead to efficiency gains by reducing land-guarding practices and increasing land investment and soil-conservation measures (Dillon and Voena 2018; Ali, Deininger, and Goldstein 2014; Goldstein et al. 2018).

The remainder of the paper is structured as follows. In section 2, we present a background section on Tanzania's land practices. Section 3 introduces the study context. In section 4, we present the results on women's land ownership and rights using plot-level data, and section 5 analyzes women's tenure security using expectations in case of inheritance and divorce. Section 6 summarizes the views of members of the village institutions on women's land rights. Finally, section 7 concludes.

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[2]In India, it may also have strengthened son preference (Bhalotra, Brulé, and Roy 2018) and led to higher suicide rates through increased intra-household conflict (Anderson and Genicot 2015).

2 Background

Tanzania is a highly diverse country inhabited by more than 120 ethnic groups and tribes. Historically, land rights were based on customary laws that differed from tribe to tribe, but most ethnic groups in Tanzania are of Bantu origin. Ownership of land was communal—owned by family, clan, or tribe.

Following the Tanzanian Bantu tribes' customs, widows generally did not have direct inheritance rights (Knight 2010). Within these patrilineal societies, property is inherited through the male line, and the primogeniture distribution rule gives preference in inheritance to the eldest son. As a result, women's access to land is traditionally tied to their relationships to a male member of their household, and holding on to land in the event of the spouse's death or separation can be difficult (Deininger and Castagnini 2006; Lambert, van de Walle, and Villar 2017). In addition, the prevalence of patrilocality—married couples residing near the husband's family—and polygyny—men marrying more than one wife—can further fragilize women's access to land. Tanzania's Local Customary Law (Declaration) Order in 1963 (Government Notices 279 and 436) codified many of these features. For instance, a widow "has no share of the inheritance if the deceased left relatives of his clan; her share is to be cared for by her children, just as she cared for them" (Government Notice 436).

In recent decades, Tanzania has transitioned to a legal framework that integrates aspects of customary tenure but also recognizes private property rights (Bourguignon 2018; Rwegasira 2012). This new approach was embodied in the National Land Policy of 1995, and later codified in the Land Act and the Village Land Act of 1999 (VLA). The administration of land was substantially decentralized to the village level. The VLA devolved substantial authority to the Village Council (VC), which has the responsibility and authority to manage village land as a trustee managing property on behalf of the beneficiaries, namely, the villagers. The Land Acts also provided the legal framework for land rights while recognizing customary tenure. It

set up the institutional infrastructure for the issuance of land titles called Certificates of Customary Rights of Occupancy (CCROs).[3] VCs are responsible for adjudicating, registering, and issuing CCROs within their area. The VLA also mandated the establishment of other land-related village institutions such as a dispute-settlement body (Village Land Council) and a land adjudication committee (see Appendix D for a more detailed description).[4]

Importantly, the new Tanzanian statutory law made provisions to support equal property rights for women. The Constitution, ratified in 1977, already recognized equal rights and contains non-discrimination provisions (Giovarelli, Richardson, and Scalise 2016). The VLA upholds customary rules for land but requires them to be consistent with the non-discrimination clause in the Constitution (Hallward-Driemeier and Hasan 2012)[5]:

> *[Any] rule of customary law or any such decision in respect of land held under customary tenure shall be void and inoperative and shall not be given effect to by any village council or village assembly or any person or body of persons exercising any authority over village land or in respect of any court or other body, to the extent to which it denies women, children or persons with disability lawful access to ownership, occupation or use of any such land* (Village Land Act, at §20(2)).

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[3]CCROs are permanent and are governed by local/village customary law. Despite being rights of "occupancy," customary rights of occupancy are like ownership in that they include the full bundle of rights of freehold title: citizens may freely sell, gift, bequeath, rent, and mortgage their right of occupancy to others (Knight 2010).

[4]The system of chiefdom was abolished at independence in 1961, and plays little role in Tanzania, contrary to a number of other of African countries. Quoting Logan (2013) "In four (Benin, Madagascar, South Africa, and Tanzania) traditional leaders are relatively marginal; local governments play the dominant role in resolving local conflicts in these countries."

[5]The legal recognition of customary land rights along with some overriding clauses is common in Africa. Quoting Woodman (2011) "Where state laws do not contain overriding provisions which can be used to remove perceived deficiencies in customary-law justice, there has sometimes been legislation aimed at the same result in specific instances. Thus customary-law reformers have aimed legislative prohibitions against discrimination against women, forms of personal servitude akin to slavery, and ceremonial and other formal practices which injure or demean classes of individuals."

The VLA also introduced female quotas in the village institutions with the potential to reduce discriminatory land-allocation practices.

Despite the legal efforts toward a gender-neutral rule of law, important tensions remain between the recognition of customary law and the promotion of equal rights (see Chirayath, Sage, and Woolcock 2005). These tensions are particularly acute regarding protecting the property rights of widows and divorcees. The Constitution of Tanzania states that all are equal before the law. However, it also states clearly that in matters concerning family situations and marriages, the court must consider the customs of the parties involved. The VLA, for instance, never explicitly addressed the question of inheritance. This legal vacuum leaves enormous room for interpretation to local judges and village institutions.

3 Data: The VILART Survey

This paper uses data from the Village Institutions and Land Rights in Tanzania (VILART) survey, a diagnostic survey that we conducted in 45 villages distributed evenly across three regions in Tanzania (Katavi, Kigoma, and Mwanza).[6] We selected these three regions based on their low levels of distribution of land titles. Specifically, we chose the regions based on records from the National Land Use Planning Commission (NLUPC) on the distribution of CCROs by March 2017. But the distribution of land titles remains quite low across the whole country (Hasanbasri et al. 2021). Appendix B provides some information on how comparable these regions are to the rest of the country. In each region, we randomly selected 15 villages from the 2012 Tanzanian census list of villages. The random selection of villages spans 13 districts evenly distributed across the three regions and 90 enumeration areas (two enumeration areas per village). Figures A1a and A1b plot the location of the surveyed regions and districts. The primary units of analysis are members of

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[6]For more information see `http://faculty.georgetown.edu/gg58/VILART.html`.

households and members of the VIs. The interviews were conducted during July and August in 2018. Prior to the data collection, we conducted two piloting exercises in March and June of 2018. The design of the vignettes—see description in Appendix C—was heavily informed by focus-group discussions with household villagers and members of village institutions.

Household Interviews   In each village, we randomly selected around 10 households, resulting in a sample size of 912 respondents.[7] Qualifying household respondents had to be married,[8] either the man or the woman must have lived in the village for at least 10 years, must own and use land, be age 18 or higher, fluent in Swahili, and non-refugees.[9] Both the household head and the spouse were interviewed. In the case of polygamous households, only one of the wives was interviewed. The wife had to live in the same household as the head and, in the case of multiple options, the choice of which wife was interviewed was made by the respondents. Enumerators, in consultation with the participants, conducted the interview in a setting with privacy and with as little interference and as few interruptions as possible. Extra effort was always made to gain privacy from the participants' spouse or parent/guardian. Appendix Table A1 provides basic descriptive statistics on the households. Given the sampling design, exactly 50% of respondents are female. On average, the men were 48 years old and had completed six years of schooling. The women were 40 years old and had completed an average of five years of education. About 10% of the sample belonged to a polygamous household, and men and women had six and five children, on average. They had very limited access to electricity (10%), bank accounts (10%), or the internet (2%).

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[7] The intended sample was 150 households by region; the extra six interviews from Mwanza and Kigoma were conducted to replace cases in which households did not own land.

[8] Couples who had been living together as a married couple for at least two years also qualified.

[9] Twenty-seven of the men and 24 women interviewed were born in Burundi.

Members of the Village Institutions Interviews In each village, 10 members of the VIs were interviewed individually for a total of 450 interviews. The 10 respondents were randomly selected based on the full roster of individuals belonging to the village council and other VIs relevant for land-related practices (see Appendix D). The randomization procedure aimed for a representative sample in terms of both council membership and gender. The interviews included questions about their knowledge of the land law and their perceptions of and recommendations regarding women's land rights. Table A2 presents summary statistics on the VI members and compares them with the average household member. Both men and women of the VIs were more educated than the household members. The VI women were also older and more likely to have been born in the village than the average female villagers.

Village Institutions Community Survey A community survey through a group interview with VI members collected data on the socioeconomic and demographic characteristics of the village, VI composition and functioning, and village land rules. Table A3 provides basic descriptive statistics of the village characteristics. On average, the villages had 631 households and 4,000 residents. Agriculture is the main economic activity for the majority of the villages, representing the main source of income for almost 90% of households in our villages. Pastoralism is the second most important income-generating activity but it is considerably less important than agriculture. The villages are also far from economic markets. The average distance to the nearest market outside the village is almost six hours' walking. In 75% of the villages, the most common mode of transport to this market is either walking or biking, and only half of the villages have some sort of financial access located in the village.

Customary Practices. More than 30 ethnicities are present in the villages surveyed in the VILART survey. The Sukuma, Ha, and Hutu constitute about three quarters of our villages' population (see Table A4). During the community survey,

Table 1: Traditional Land Practices

Practice	Mean	Std. Dev.
Individuals to own land	0.98	0.14
Individuals to rent out land	1.00	0.02
Individuals to sell land to other members of the tribe	1.00	0.02
Individuals to sell land to non tribe members	1.00	0.06
Sons to inherit land	1.00	0.02
Women to own land	0.81	0.39
Daughters to inherit land	0.79	0.41
Women to inherit land from their husbands with full rights	0.51	0.50
Women to inherit land from husbands until remarriage	0.38	0.49

Notes: The summary statistics are based on the 157 ethnic-village observations collected during the VI community survey. Each observation is weighted by the population of that particular ethnic group in the village.

the VI members were asked to identify the five largest ethnic groups in their village (in population size) and to provide information about their population, main economic activity, historic presence in the village, and customary land practices. In total, data were collected for 157 ethnicity-village observations.

Table 1 presents summary statistics for all the ethnicity-village observations weighted by their population share in the village. It shows very little or null variation in male land rights and other non-gendered land practices. For example, only one ethnic group in one village would not customarily permit sons to inherit land. But we find much more variation regarding women's rights. For instance, only 51% of the VILART villages' population belong to ethnic groups whose clan law would permit widows to inherit land with full rights. The customary practices reported are consistent with the available information on ancestral cultural practices in Tanzania. In Table A4, we combine the list of ethnic groups in the VILART data with Murdock's 1967 Ethnographic Atlas.[10] Most of these ethnic groups traditionally had customary patrilineal and primogeniture land-inheritance practices, as well as patrilocal and polygamous marital practices.

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[10]J. Patrick Gray. 1999. A Corrected Ethnographic Atlas. World Cultures 10(1):24-85.

4 Women's Land Ownership and Land Rights

Women's land ownership is associated with a number of positive outcomes as discussed in the introduction, for example, poverty reduction, better nutrition, and human capital intergenerational effects. However, in the context of Tanzania and other sub-Saharan African countries, measuring ownership is not as straightforward as identifying whose name is on the land deed. Beyond the low distribution of land titles, women can have partial ownership rights (Doss et al. 2015) and own land jointly with others. Using plot-level information collected separately from both husbands and wives (see Appendix C for more information on the collection of these data), this section provides information on the extent of women's land ownership and rights.

4.1 Women's Land Ownership

For each plot, we first asked both the husband and the wife, "Who is the owner of this plot?" Multiple options were allowed: myself, my spouse, sons, daughters, my extended family, spouse extended family, and other.[11] We define "joint ownership" as any land for which the partners agree both the husband and wife own that land. "Male" ("female") land is defined as plots for which the husband (wife) has ownership and the partner does not. In all categories, the land may have additional owners (e.g., sons, extended family).

Figure 1 plots the distribution of land acreage across type of ownership.[12] Only 4% of the total land acreage is owned by women without their spouses, of which half of it was acquired through inheritance. Moreover, more than half of the land

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[11]The husband answered this question for every land plot that he listed. The wife answered this question for every plot she additionally listed, and for every plot her husband had previously listed and that he had reported she knew about.

[12]The distribution based on the number of plots provides a very similar picture, except for a more equal distribution of male and joint plots: male plots tend to be larger.

Figure 1: Distribution of Land Acreage by Type of Ownership

that women own without their partner is co-owned with either their sons (23%), daughters (8%), or extended family (28%). The share of acres that is considered jointly owned by both the husband and the wife is 33%. In addition, 29% of the land is reported as jointly owned by one of the spouses but not the other: the husband says that it is joint but the wife does not (13%) or the wife considers the land as joint but the husband does not (16%). This finding is consistent with previous research documenting substantial spousal disagreement in what constitutes joint ownership in Sub-Saharan Africa (Jacobs and Kes 2015; Kilic and Moylan 2016).

Women's access to land not only differs from their husbands' in quantity, but also in the type of land that they own. Table 2 reports sample means of plot characteristics by type of ownership, and the difference between "male plots" with "joint" and "female" plots. We merge the three types of joint ownership. In Table A5, the "joint plots" are divided in "both joint," "he joint," and "she joint." The summary statistics are similar when presented in terms of land acreage (Table A6).

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Table 2: Household Land Plots by Type of Ownership

				Difference with Male plots	
	(1) Male	(2) He/She/Both Joint	(3) Female	(4) He/She/Both Joint	(5) Female
Plot Characteristics					
Area	3.57	2.86	1.87	0.72	1.70***
				(0.56)	(0.63)
Cultivated	0.45	0.52	0.61	−0.06*	−0.16*
				(0.04)	(0.09)
Residential	0.41	0.34	0.16	0.07**	0.25***
				(0.03)	(0.05)
Distance	28.12	38.58	70.35	−10.46	−42.24***
				(7.30)	(14.72)
Wife works	0.57	0.78	0.80	−0.21***	−0.23**
				(0.06)	(0.09)
Husband works	0.86	0.87	0.27	−0.01	0.59***
				(0.04)	(0.10)
Acquisition					
Post-marriage	0.50	0.69	0.63	−0.19***	−0.13
				(0.04)	(0.11)
Purchased	0.40	0.51	0.31	−0.12***	0.09
				(0.04)	(0.09)
Inherited	0.41	0.23	0.55	0.18***	−0.14
				(0.04)	(0.10)
Gift	0.08	0.08	0.06	0.01	0.02
				(0.02)	(0.04)
Local government	0.06	0.09	0.02	−0.03**	0.04
				(0.02)	(0.02)
Other mode of acq.	0.02	0.05	0.02	−0.03***	−0.00
				(0.01)	(0.02)
Land documents					
Use as collateral	0.40	0.52	0.45	−0.12***	−0.05
				(0.04)	(0.12)
Any document	0.27	0.33	0.31	−0.06	−0.04
				(0.04)	(0.09)
Purchase document	0.14	0.23	0.18	−0.09**	−0.05
				(0.04)	(0.09)
Any government right of occupancy	0.08	0.07	0.00	0.00	0.08**
				(0.03)	(0.03)
CCRO	0.01	0.02	0.00	−0.00	0.01
				(0.01)	(0.01)

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The summary statistics are based on the household interviews. Columns (1) to (3) report sample means for the whole sample of land plots in each ownership category. Columns (4) and (5) report the difference between (1) and (2), and (1) and (3), respectively. The difference is estimated with an OLS regression clustering the standard errors, in parentheses, at the enumerating-area level. The wife/husband works plot characteristic only includes cultivated plots. The wife/husband works plot characteristic only includes cultivated plots. Other modes of acquisition include the following: used for many years, moved in without permission, rented in, and other. Any document includes granted right of occupancy, letter of offer, CCRO, purchase agreement, gift agreement, inheritance letter, rental agreement, other government document, utility bill or other bill, and other. Any government right of occupancy includes granted right of occupancy, letter of offer, and CCRO.

Women's land plots are, on average, smaller, more likely to be cultivated instead of residential, and farther from homestead. Not surprisingly, women also work substantially more on the land they own. The female plots are also more likely to have been acquired through inheritance than the plots they own jointly with their spouses. Similar patterns emerge when we compare the joint land with the male plots—the land that husbands own without their spouses. Joint plots are more likely to be cultivated than residential, and are more likely to have been acquired through purchase and after the current marriage.[13] As a consequence, these joint plots more frequently have some sort of ownership document and are perceived as valid as collateral to borrow money.[14]

4.2 Women's Land Rights

One might wonder what the meaning of "ownership" of land is in a household.[15] In general, ownership is thought of as a collection of rights such as the right to the product of the land, the right to use, the right to manage, or the right to sell or bequeath the land (Doss, Kieran, and Kilic 2020; Doss and Meinzen-Dick 2020). Within a household, owning land may come with a variety of rights such as selling, deciding on inheritance, or deciding whose names would be registered during a land titling process (Doss et al. 2015).

We collected information on both the husbands' and wives' beliefs about women's land rights at the plot level. Table 3 presents the share of plots over which they believe the wife would hold rights. In each of them, other individuals may also jointly hold the right. The findings presented in this paper are consistent with previous

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[13]The land market in Tanzania is active, though land markets may not operate in a gender-neutral manner (Wineman and Liverpool-Tasie 2017).

[14]Overall, 70% of the land plots do not have any type of ownership document, but substantial differences are present depending on how the land was acquired. Among purchased plots, 49% have no document, compared with 89% of the inherited plots.

[15]Especially in a country where, technically, all the land belongs to the president, however, state expropriation is not clearly more of a risk in Tanzania than elsewhere.

Table 3: Women's Land Rights by Type of Ownership

	(1) Male	(2) He: Male; She: Joint	(3) He: Joint; She: Male	(4) Joint	(5) Female
Husband's answer					
Right to sell	0.07	0.22	0.64	0.75	-
Right to bequeath	0.08	0.25	0.54	0.64	-
Right to decide on title	0.04	0.18	0.30	0.33	-
Wife's answer					
Right to sell in husband's absence	-	0.03	-	0.04	0.47
Right to bequeath	-	0.20	-	0.32	0.63
Right to decide on title	-	0.46	-	0.59	0.78
Right to keep at least 50% if divorce	-	0.16	-	0.31	0.65

Notes: The summary statistics are based on the household interviews. Columns (1) to (5) report sample means of husband's and wife's answers regarding the wife's right (described in each row) by the type of land ownership (described in each column). Male (female) indicates only the husband (wife) has been reported to own the land. Joint indicates both the husband and the wife have reported to both own the land. He: Joint; she: Male indicates the husband has reported the land as jointly owned, but the wife has not reported herself as the owner. She: Joint; he: Male indicates the wife has reported the land as jointly owned, but the husband has not reported her as the owner.

research documenting that ownership and rights over land do not always overlap in Sub-Saharan Africa (Slavchevska et al. 2021).

Men report greater rights for their wives on the land they define as jointly owned with them. Yet, they do not always think their wives would have some decision-making power regarding the sale or inheritance of joint plots. They especially grant their spouses little say in whose names would be registered as claimant/owners in case they obtained a land title (33% of the joint plots).[16]

Notice that women's rights over the land they own without their spouses are also limited. They do not always think they would have the right to sell the land in their husband's absence (47% of the plots), and their rights in deciding on inheritance and land titling are also restricted, which may partially reflect the fact that women own most of these plots with other people.

Beliefs about women's rights also differ by gender. Women are half as likely than men to think they would have some decision power regarding the inheritance of the joint land (32% vs. 64% of the plots). By contrast, they are twice as likely as

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[16]The question was framed in terms of CCROs; see section 2.

their husbands to think they could have a say in whose name would be on the title (59% vs. 33% of the joint plots), but the gap in expectations is smaller in terms of total joint land acreage (Table A7). Finally, note that disagreement over joint ownership is correlated with the rights that women self-report. Among all the plots that women report as jointly owned with their husbands, women report more rights when the husband agrees the plot is jointly owned.

Finally, note important differences exist in women's reported rights when comparing columns (2) and (4), and (3) and (4) in Table 3, suggesting both the presence and the direction of disagreements are not random. This finding is consistent with recent research documenting that spousal disagreements on intra-household decision-making matters for individuals' outcomes (Annan et al. 2021; Ambler et al. 2021).

5 Women's Tenure Security and Customary Law

Overall, we find most of the land owned by women is jointly owned with their husbands and that women have some, but limited, decision-making power regarding these jointly owned plots. Understanding women's land rights also means assessing the strength and security of those property rights (Doss and Meinzen-Dick 2020). In this section, we analyze husbands' and wives' expectations in case of divorce or his death. We also present evidence documenting women's self-perception of their tenure security, and evidence showing how adherence to patrilineal customary practices is an important barrier to women's access to land.

5.1 Inheritance Expectations

The extent and security of inheritance rights is of primary importance for married women.[17] Our survey collected information regarding inheritance expectations from both husbands and wives. With respect to the land jointly owned by the husband and the wife, we asked the husband to estimate the share of land that he expected to go to each of the current household members in the hypothetical case that he died intestate. In addition, we asked the wife about the share that she expected to get if he were to die intestate, and if she expected to own the land alone or with others.

The majority of male respondents, 91.2%, expect at least some portion of the joint land to go to the wife, with a 50% median share of the joint land. Most women also expect to inherit some of the land (92.6% report some positive share), but only 8% of them said they would be the only owner of that land. The rest expect to own the land jointly with their children.[18]

Although these numbers are encouraging in terms of women's inheritance expectations, we show next that women's inheritance rights seem to still be linked to their children, especially to the existence of sons, and that tenure security remains fragile.

5.1.1 The persistence of patrilineality

Inherited land represents about 30% of the total household land, among those whose husband reported less than six *shambas*, but only 4.70% of the acres were inherited by the wife versus 87.11% by the husband. This finding shows how the weak claim that women have as daughters to their family clan's land is an initial and quantitatively

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[17]Three percent of Tanzanian women ages 15 to 49 are currently widowed. In the investigated regions, the rates of female widowhood are: 1% in Katavi and 3% in Kigoma and Mwanza (DHS 2016).

[18]After reporting the share of land they expected to get, we asked them, "Do you expect to own that share of land alone or jointly?" The answer options were only owner, jointly with sons and/or daughters, jointly with spouse extended family, and other.

important barrier to women's ownership. This descriptive evidence is in line with the traditional patrilineal practices to which the household members' ethnic groups subscribe.

This section shows patrilineal customs influence both daughters' inheritance expectations from their fathers and women's inheritance expectations from their husbands. We start with the former. Though we may be tempted to compare inheritance expectations of girls and boys, doing so would be problematic because a body of evidence shows fertility decisions, such as the number of children or birth spacing, often depend on the sex of previous children (Milazzo 2014; Rossi and Rouanet 2015). Recent work therefore focuses on the gender of the firstborn as a source of variation to show the impact of a child's gender on family structure and fertility (Dahl and Moretti 2008; Jayachandran and Kuziemko 2011; Milazzo 2014; Ichino, Lindstrom, and Viviano 2014; Genicot and Hernandez-de Benito 2020), empowerment (Heath and Tan 2018) and on individuals' views on gender issues (Oswald and Powdthavee 2010; Washington 2008). The idea is that the sex of the firstborn qualifies as a random event, after we control for the decision to be a parent. In rural Tanzania, sex-selective abortion is not a concern, and sex ratios at birth are unbiased. In a large comprehensive exercise, Chao et al. (2019) find sex ratios at birth are not significantly different from the commonly assumed historical norm of 1.05 in Sub-Saharan Africa (see also the sex ratios at birth from the World Bank data[19] or Anderson and Ray 2017).

We therefore ask whether being female makes a difference in terms of the firstborn child's inheritance expectation. Husbands in our sample were asked about who they expected would inherit the joint land if they passed away without a will. We refer to joint land as jointly owned with their interviewed spouse. Exact shares were reported for each individual member of the household.[20] We can therefore look at

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[19]https://data.worldbank.org/indicator/SP.POP.BRTH.MF?locations=TZ

[20]For children living outside of the household, we do not know how much goes to each child.

households in which the firstborn child is still living in the household[21] and estimate:

$$Y_{hv} = \alpha + \beta FFB_{hv} + \gamma X_{hv} + \delta_v + \epsilon_{hv} \tag{1}$$

where Y_{hv} is share of joint land the husband expects to go to the firstborn if he dies intestate, and FFB_{hv} is an indicator equal to 1 if the firstborn child of a husband from household h living in village v is female. The vector X_{hv} is a set of household controls: the wife's and husband's dummies for age under 45 years old and having acquired at least primary education; and the wife's and husband's ethnicity and religion fixed effects. Finally, δ_v are village fixed effects, and ϵ_{hv} is a conditionally mean-zero error term that we cluster at the enumerating-area level.

Table 4 shows the share of the joint land inherited by the firstborn child is 9 to 13 percentage points lower if the firstborn is a girl. This finding highlights that patrilineal traditions are still strong today. This is consistent with Wineman and Liverpool-Tasie (2019), who finds that both men and women favor their sons in bequest decisions in Kagera, Tanzania (though the favoritism is more pronounced among men). Appendix Table A10 shows the results are robust, although more imprecise, to restricting the sample further to households whose firstborn is less than 17 (after which age girls are more likely to leave the household).

Given that inheritance rights favor boys, we may expect the distribution of inheritable land to widows to also depend on the gender of her children. A woman might be less likely to inherit if she has sons, who inherit more, as opposed to daughters. To explore this possibility, we run a specification similar to equation (1) to test whether having a female firstborn (irrespective of whether this child is currently alive, living

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[21]Table A8 presents summary statistics of households whose firstborn child lives in the household in comparison with households whose firstborn child currently lives outside the household or is no longer alive (10 observations). Logically, we observe that in households where the firstborn child still lives at home, both the husbands and wives are much younger, 13 and 17 years younger, respectively. These age differences also translate into observing that the parents of firstborn children in the household are more likely to have finished a primary education and to own more land. But, as Table A9 shows, these statistical differences disappear once we control for the respondents' ages.

Table 4: Effect of Female Firstborn on Expectations of Firstborn's Inheritance

	(1)	(2)	(3)	(4)	(5)
					Women ≤ 45
Female firstborn child	-9.70**	-10.23**	-12.71*	-10.27*	-13.83*
	(4.06)	(4.33)	(6.31)	(5.52)	(6.85)
Wife primary education		-3.26	-5.44	-1.72	-4.69
		(6.70)	(10.06)	(6.76)	(11.40)
Husband primary education		8.73*	8.64	4.30	7.14
		(4.45)	(7.57)	(4.85)	(9.33)
Wife's age ≤ 45		-0.96	0.20		
		(5.04)	(8.58)		
Husband's age ≤ 45		9.81**	10.03	6.75	12.17
		(4.22)	(6.83)	(4.91)	(8.30)
Village FE	✓	✓	✓	✓	✓
Wife's religion FE		✓	✓		✓
Wife's ethnicity FE			✓		✓
Husband's religion FE		✓	✓		✓
Husband's ethnicity FE			✓		✓
Observations	133	125	113	100	84
adj. R^2	0.23	0.24	0.04	0.20	0.13
Male firstborn baseline	18.95	17.89	17.54	18.72	18.95
Percent effect	-51.19	-57.21	-72.47	-54.87	-72.96

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, in parentheses, are clustered at the enumerating-area level. The outcome variable is the share of jointly owned land with the spouse that male respondents would expect their firstborn child to inherit if the respondent died intestate. The male firstborn baseline is the average predicted outcome variable in male firsborn child households using the estimated coefficients on the control variables.

inside or outside of the household) makes a difference in terms of the wives' inheritance expectation. We consider two different outcome variables Y_{hv}: the share of joint land the husband expects to go to the interviewed spouse, and the share of joint land the wife expects to inherit. Both questions were hypothetical scenarios in case the husband happened to die intestate.

The first set of columns in Table 5 presents the husbands' expectations regarding the joint land. In columns (5) to (10), the outcome variable is the wives' expectations regarding the share of joint land they would expect to inherit, but this land could be jointly owned with others or not (only 8% report this share to be owned alone). The results from having a female firstborn are both economically and statistically significant: a 9%-10% and 7%-10% increase for males and females, respectively, on the share of joint land they would expect to go to the hypothetical widow.

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Table 5: Effect of Female Firstborn on Expectations of Wife's Inheritance

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Husband's Expectations					Wife's Expectations				
					Women $\leq$ 45					Women $\leq$ 45
Female firstborn child	7.15*	10.16**	9.01*	11.66*	12.52*	7.55**	7.86**	10.32**	4.23	8.63*
	(3.72)	(4.58)	(4.83)	(5.91)	(6.51)	(3.34)	(3.90)	(3.99)	(4.54)	(4.63)
Wife primary education		-3.02	-3.88	8.57	3.80		5.77	8.03	5.32	9.44
		(4.45)	(4.72)	(5.97)	(7.43)		(4.64)	(4.80)	(6.56)	(6.98)
Husband primary education		-9.20*	-6.76	-15.45*	-12.63		-6.18*	-4.92	-8.94*	-8.48
		(4.76)	(4.94)	(7.78)	(8.72)		(3.64)	(4.14)	(5.33)	(5.73)
Wife's age $\leq$ 45		-0.51	0.81				-8.62**	-8.07		
		(5.06)	(5.86)				(4.23)	(5.07)		
Husband's age $\leq$ 45		-8.80	-9.22	-9.33*	-10.52		5.98	3.01	5.15	2.36
		(5.26)	(6.02)	(5.29)	(6.60)		(5.05)	(5.35)	(5.63)	(5.91)
Village FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wife's religion FE		✓	✓		✓		✓	✓		✓
Wife's ethnicity FE			✓		✓			✓		✓
Husband's religion FE		✓	✓		✓		✓	✓		✓
Husband's ethnicity FE			✓		✓			✓		✓
Observations	365	314	300	198	187	432	379	363	251	241
adj. R^2	0.14	0.18	0.18	0.20	0.24	0.13	0.12	0.14	0.04	0.10
Male firstborn baseline	54.81	55.84	56.68	51.83	52.79	71.14	73.33	72.50	74.36	71.96
Percent effect	13.05	18.19	15.89	22.50	23.72	10.61	10.73	14.23	5.68	11.99

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, in parentheses, are clustered at the enumerating-area level. In columns (1) to (5), the outcome variable is the share of jointly owned land with the spouse that male respondents would expect their wife to inherit if the respondent died intestate. In columns (6) to (10), the outcome variable is the share of jointly owned land with the spouse that female respondents would expect to inherit if their husbands died intestate, although this inherited share might be jointly owned with others as well. The male firstborn baseline is the average predicted outcome variable in male firsborn child households using the estimated coefficients on the control variables.

We make four remarks regarding Tables 4 and 5. First, all the outcomes reported here are hypothetical, but we believe studying expectations is important because they are relevant for both welfare and choices. Second, notable consistency exists between the female firstborn coefficient of the husbands' and wives' inheritance-expectations regressions (columns (1) to (5) vs. columns (6) to (10) in Table 5). Third, the magnitude of the effect is comparable to the estimates in Table 4. If sons are expected to inherit more than daughters, widows without sons might inherit more. This finding suggests a possible trade-off between the inheritance of daughters and mothers. Finally, we should make clear that our results are silent about welfare

implications. Under various customs, sons are expected to care for their mother,[22] so mothers inheriting less if they have a son does not necessarily mean they would be worse off. Conversely, inheriting more in the case of a firstborn daughter does not imply a welfare improvement for women.

These results show customary patrilineal practices play an important role in rural Tanzania: widows' access to land is expected to depend on the presence of male children, and daughters are expected to inherit less land from their fathers than sons are.

Robustness checks and potential channels Even if sex ratios at birth are unbiased, using the gender of the first child can be problematic if it affects the likelihood of selection in the sample. For instance, selective mortality of women could be an issue. If having a girl results in outcomes that have negative consequences for women's health (e.g., lower birth spacing or higher likelihood of being unmarried), mortality rates among women with a female firstborn could increase, as seen in Nigeria (Milazzo 2014). We find no correlation between the gender of the firstborn and being born outside the village, family size, ethnicity, or religious affiliation. We also do not find any sign of selection among males. Among women, the sex ratio of the firstborn is overall not statistically different from the natural ratio, but women above 45 are more likely to have firstborn boys. The source of selection in our sample seems to come from the likelihood of remarriage. Women over 45 whose firstborn is a girl are less likely to have been married before. To address the selection issue among older women, we test if results are robust to dropping women over 45 years old (see columns 4-5 in Table 4, and columns (4)-(5) and (9)-(10) in Table 5). The results are also robust to restricting the samples to households whose firstborn is alive (Table A11). Finally, Figures A2 and A3 show the results are robust to a

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[22]Bau (2021) hypothesize that patrilocal practices, which are the custom in the majority of the ethnic groups in our sample, ensure old age support for parents by designating which children, in this case, sons, will care for them when they are old.

randomization-inference exercise (Young 2019).[23]

We also explore potential channels through which the gender of the first child may be affecting the reported effects on inheritance expectations. We focus on characteristics that, given prior literature, one could expect to have a significant relationship with inheritance expectations and might also be affected by the gender of the first child, such as total household acreage, posterior fertility decisions, and being in a polygamous marriage.[24] First, we test a statistical relationship exists in our sample between having a firstborn girl and this set of variables. The results show it does not (Table A12), suggesting the effect of the gender of the firstborn is not operating through these channels. The assumptions required to treat any of these variables as mediators are, of course, not necessarily met, because they could have been determined before the firstborn's birth (Acharya, Blackwell, and Sen 2016). Still, we also show the results are robust to augmenting equation (1) with the inclusion of these variables (Tables A13, A14). The results also survive restricting the sample to non-polygamous unions, although the estimates are more imprecise given the smaller sample size (Tables A15, A16). Finally, given the potential effect of having a firstborn girl on family structure (Dahl and Moretti 2008; Jayachandran and Kuziemko 2011; Milazzo 2014; Ichino, Lindstrom, and Viviano 2014; Genicot and Hernandez-de Benito 2020), we also show the effects are robust to keeping in the sample only those women who are in their first union, because the opposite might enhance men's reluctance to transfer land to the daughter (Tables A17 and A18).

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[23]To analyze the likelihood that the main results could have occurred by chance, we randomly permute the gender of the firstborn child (Athey and Imbens 2016; Young 2019). We then reestimate the main set of results and calculate what the coefficients of interest would have been under this new distribution. The observed outcome variables do not change for any unit under the null hypothesis, but the estimate of the coefficient on the gender of the firstborn child does. We repeat the procedure 1,000 times. The randomization-based p-value is the proportion of reassigned estimates at least as large in absolute value as the actual estimate.

[24]According to DHS (2016), 18% of Tanzanian married women have co-wives. In the investigated regions, the rates are: 24% in Katavi, 22% in Kigoma, and 16% in Mwanza.

5.1.2 Women's inheritance rights are fragile

A global report on perceptions of tenure security in 33 countries, including Tanzania, describes how widowed and divorced female respondents show much lower rates of tenure security than their male counterparts (Prindex 2019). To complement the understanding of women's inheritance rights, we presented household members with different vignettes to assess their expectations regarding women's tenure security in case of inheritance disputes. Specifically, we asked them to predict what they expected to happen (today) and what would have happened under their own clan customs. Respondents were first asked to imagine a woman who inherited a plot (*shamba*) from her husband, which she was cultivating and for which no land title existed, and a male member of his clan claimed the land. We then asked them what they thought would happen under three potential scenarios: the wife had no children, the wife had a daughter from the husband, and the wife had a son from the husband. The order of the vignettes was always the same: childless, daughter, son. Figure 2 reports both the "today" and the "clan custom" household answers to the three different vignettes. See Appendix C for the exact wording of the questions.

Overall, the evidence suggests women's inheritance rights have strengthened over time but are still greatly influenced by customary laws that favor men. About half of respondents still believe the wife would lose the land plot if she had no children (down from 67%). In the non-childless vignettes, only 10% and 5% of respondents think she would lose the *shamba* if she had a daughter or a son from him, respectively, versus 25% and 10% under their traditional customary law. Even under the most favorable scenario (with a son), less than half of respondents expect the wife to be able to fully keep the plot. The role of sons in tenure security has been documented outside of Tanzania. For instance, Lambert and Rossi (2016) show that, in Senegal, women who would compete for inheritance with ex-wives in case of widowhood increase their fertility until they have a son.

Though these findings may at first appear to contradict the results presented in

Figure 2: Household's Inheritance Views
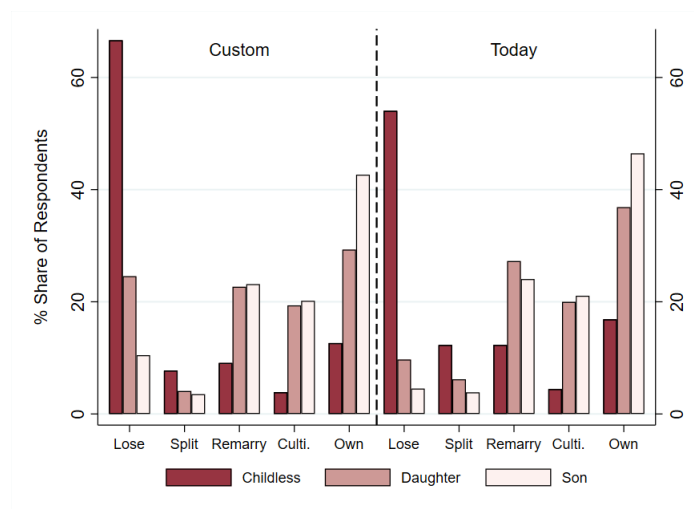
Tables 4 and 5, they are rather complementary. Tables 4 and 5 capture a trade-off in inheritance allocations between the female widow and the children, whereas this section assesses the female widows' capacity to retain the already inherited land if their in-laws tried to claim the land, a measure of their tenure security. They both show the role played by patrilineality in land allocations: sons are more likely to inherit land than daughters, and women would be more able to protect their land if they have a male descendant.

Land rights are often more complex than just insecure or secure. It is useful to think of the level of security of land rights in terms of a continuum moving from weak/insecure to strong/secure. Our survey let respondents choose from a range of intermediate ownership choices, in addition to the two extreme options of losing or fully keeping the land. Specifically, the possible answers were as follows: "they would split the land;" "she could keep it but would lose it if she remarries;" and

"she could cultivate it all her life (even if she remarries) but she could not sell it." [25]
First, note that both in the "today" and under the "clan custom" vignettes, a large proportion believe the woman would obtain partial rights to the land. The proportion of respondents whose answer is a partial right, as opposed to lose or fully own the land, range from 20% to 46% across vignettes. Second, and most importantly, a large part of the progress made from the strict customary law application to today's household expectations are in the form of partial rights—rather than expecting the hypothetical widow to get full ownership over the land. Approximately a quarter of the respondents believes that the woman could keep the land as long as she does not remarry if she has children, 20% expects she could continue cultivating the plot all her life even if she marries again, and 4% -6% believes she could own a portion of the land. In total, half of the individuals think the hypothetical widow would obtain partial rights if she had children. The proportion decreases in the childless vignette but still represents almost a third of the sample.

Interestingly, systematic differences exist across genders in perceived inheritance rights. To show clearly the intra-household differences in opinion, we estimate:

$$V_{ih} = \alpha + \beta W_{ih} + \delta_h + \epsilon_{ih} \tag{2}$$

where V_{ih} is the answer to the vignette by individual i from household h;[26] δ_h are household fixed effects; W_{ih} is a wife dummy; and standard errors are clustered at the enumerating-area level.[27] The coefficient β captures the average difference in expectations of widows' inheritance rights between a wife and her husband.

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[25]Levirate marriage was an additional possible answer for the clan custom practice: "She could keep it only if she marries the brother of the husband." In Figure 2, the levirate option was added to "Lose the *shamba*." The share of respondents who chose this answer in the three vignettes was 3.10% (childless), 2.7% (daughter), and 2.32% (son).

[26]The outcome is discrete: 1 *"She would lose the shamba,"* 2 *"They would split the shamba,"* 3 *"She could keep it but would lose it if she remarries,"* 4 *"She could cultivate it all her life (even if she remarries) but she could not sell it,"* and 5 *"She would be the owner (cultivate, sell, decide who inherits)."*

[27]The results are robust to wild boot-strapping the standard errors.

Figure 3: Wife-Husband Coefficient on Inheritance Vignettes
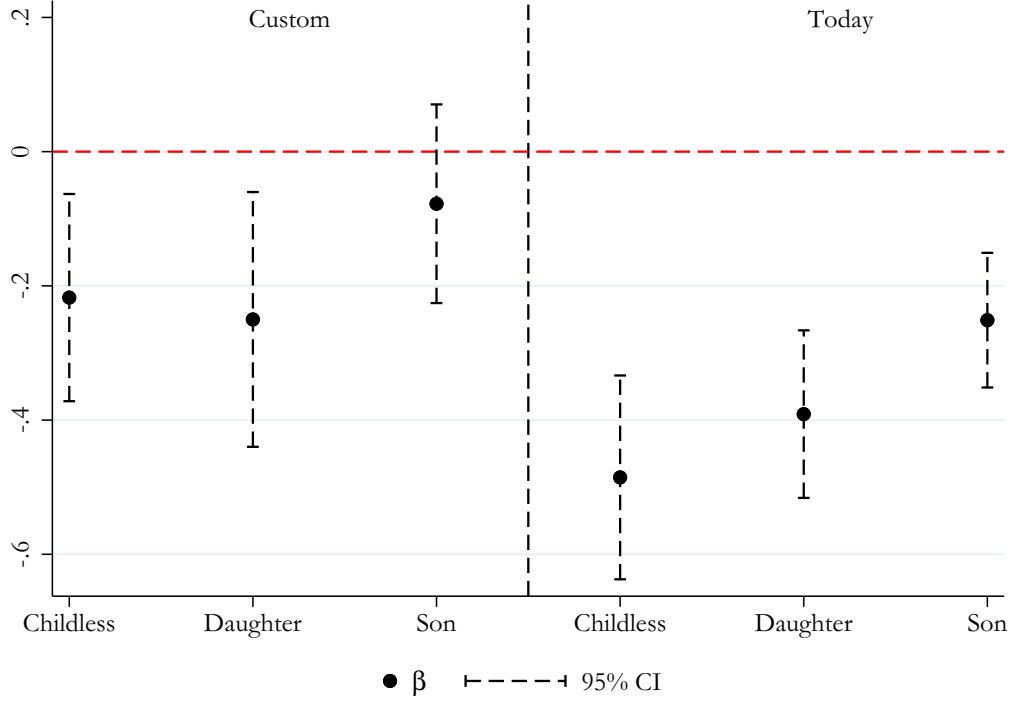
Notes: Figure 3 plots the $\hat{\beta}$ and 95% confidence intervals of estimating equation (2). All regressions include household fixed effects, and standard errors are clustered at the enumerating-area level. Each $\hat{\beta}$ comes from a different regression where the outcome variables are the answers to the different household inheritance vignettes (see Appendix for exact wording).

Figure 3 plots the estimated βs for each of the inheritance-vignette survey questions. The *Custom* and *Today* panels refer to the inheritance vignettes previously described. We see wives report less pro-women outcomes under their clans' customary laws than husbands. However, the difference of opinion between wives and husbands is even more pronounced when imagining what would happen today. Women have much more pessimistic expectations regarding widows' capacity to protect the inherited land.

A greater share of female respondents think the woman would lose the *shamba* as compared to the males, irrespective of the presence of children. In fact, in the childless scenario, women provide a remarkably similar answer to both vignettes,

Table 6: Current Inheritance Views. Wife Coefficient

Outcome variable	(1) Childless	(2) Vignettes Daughter	(3) Son
Lose the plot	0.14***	0.03*	0.02**
	(0.03)	(0.02)	(0.01)
Partial rights	−0.04	0.09***	0.07***
	(0.03)	(0.02)	(0.02)
Keep the plot	−0.10***	−0.12***	−0.09***
	(0.02)	(0.02)	(0.02)
Observations	890	900	900

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, in parentheses, are clustered at the enumerating -area level. All regressions include household fixed effects. See Appendix for exact wording of vignettes.

indicating a large share of the respondents expect traditional customary law to be applied; see Appendix Tables A19 and A20, which highlights the strong attachment of women's land rights to male descendance expected in patrilineal societies. We present further evidence of the importance of having children for women's inheritance rights in Table 6. The table shows the results of estimating equation (2) for three different binary outcome variables: lose the plot, partial rights, and keep the plot. The negative wife coefficient on the childless vignette seems to be driven by women assigning a lower probability to the wife keeping the plot rather than losing it completely. In the children vignettes, the trade-off comes from women assigning a higher probability to partial rights rather than ensuring full ownership.

5.2 Divorce expectations

Divorce is often viewed as another important source of vulnerability for women. In Tanzania, divorce is a fairly common practice. Nationally, about 10% of the female population ages 15 to 49 is currently divorced, as opposed to 4.7% of men, primarily due to higher male remarriage rates (DHS 2016).[28] Women's limited access to land within marriage can be exacerbated upon divorce if they lack the means to secure a

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[28]In the three regions studied in this paper, the rates of divorce as in 2015 are: 10% in Katavi, 7% in Kigoma, and 16% in Mwanza.

Table 7: Expectations of Wife's Access to Joint Land upon Divorce

	(1)	(2)	(3)	(4)	(5)	(6)
	Women			**Men**		
	Expectations			Expectations		
	Mutual	Her fault	Vignette	Mutual	Her fault	Vignette
0%	22.02	30.41	25.83	29.10	37.36	32.52
Less than 50%	4.27	4.15	6.18	6.08	6.32	5.75
50%	42.70	38.48	65.78	34.92	30.22	59.29
If children/remarriage	26.29	23.04	NA	23.81	20.88	NA
More than 50%	4.72	3.92	2.21	6.08	5.22	2.43

Notes: The numbers reflect the percentage of respondents per answer choice. The number of valid answers per column from left to right is: 445, 434, 453, 378, 364, and 452. Only men currently holding joint land were asked about their own divorce expectations. The answer "if children/remarriage" includes respondents who answered "Yes, she would be the owner if we have children living at home" and "She would be the only owner until she remarries.". The children/remarriage options were not provided in the custom questions. See Appendix for exact wording of divorce expectations and vignette.

fair share of the assets. The 1971 Law of Marriage Act grants the court the power to order the division of any assets jointly acquired during the marriage between the parties. In practice, however, the capacity of the statutory law to actually influence the division of assets upon divorce is limited, especially in rural areas. Marriages are predominantly customary to begin with and are not commonly officially registered (only 26% of the marriages in our sample are registered). When asked whom they would go to for help in case of disagreements on land ownership upon divorce, only 7.2% of men and 4.8% of women mention any supra-village institutions, such as the ward and district tribunal, or the high court.

At the plot level, women expect to keep at least 50% in the event of divorce for only 31% of the joint land (Table 3). In addition, our survey also collected information on both husbands' and wives' expectations regarding the distribution of jointly owned land under two hypothetical scenarios: what the wife would own if the couple were to mutually agree to get a divorce, and what the wife would own if she were at fault in the divorce. In addition, household members were presented with the following vignette: what would have happened under their customary law if a husband and a wife who jointly owned and cultivated a *shamba* were to mutually agreed to divorce.[29] Table 7 summarizes the answers.

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[29]The description of all the vignettes are in Appendix C.

Three interesting facts emerge from the respondents' divorce expectations. First, about 30% of women[30] and 40% of the men believe the woman would get less than an equal share over the joint land in case of divorce. In fact, the majority of the 0%–50% answers are "she would not be the owner." Note that we find a substantial agreement between men and women's expectations, but women are more optimistic. The difference between their answers is statistically significant at the 5% level in the three divorce scenarios.

Second, both men and women are about 8% more likely to think the woman would get nothing if she were at fault as opposed to a mutually agreed divorce. To understand better what would qualify as "fault" in a divorce, we presented the respondents a list of possible faults—e.g., adultery, infertility, family influence—and asked which of them would justify a change in land ownership. Appendix Figures A4 and A5 show 18% and 34% of women and men, respectively, believe there is nothing a husband could do to justify a change in ownership. By contrast, only 13% of women and 24% of men say there are no wife's faults that would justify such a change.

Third, men and women also provide remarkably similar answers to the expectations about their own divorce and what they believe would have happened under their clan law. This evidence suggests the clans' customary laws are still largely at play regarding post-divorce property arrangements. Among the Sukuma, the largest ethnic group in our sample, divorce is customarily recognized with an extensive list of grounds for divorce considered (Pfister 1962; Cory 1953). In case of divorce, wives are customarily allowed to retain possession of whatever property they brought to the marriage. But our data shows women own very little land before marriage, and therefore bring little land into the marriage relative to their husbands. The Sukumas' practices also state that any property jointly purchased by the husband and wife must go to the husband unless any agreements were made before witnesses (Cory 1953). Among the Ha, the second largest ethnic group in the sample, divorce has

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[30]This number is in line with the divorce expectations women reported at the plot level summarized in section 4.2.

traditionally been treated as a private affair between parties and their families, and not a matter to be discussed in court. In practice, marriage is considered dissoluble if any of the parties desire it (Scherer 1959)

We also directly asked respondents what occurred in the case of a previous divorce. However, our data analysis on this front is limited because one of the key eligibility requirements in the data collection was being currently in a union. Therefore, the statistics on what happened are limited to those who got divorced in the past and remarried after, which limits interpretations both due to small sample size and potential sample selection bias. Still, the findings of this descriptive evidence go in line with individuals' expectations in case of divorce. We collected data on previous marital status before the current marriage, and individuals were allowed to select multiple answers. Then, we posed the following question to those individuals who reported having been divorced before: "You told me you have been divorced. How did you split the land (*shamba(s)* and *kiwanja(s)*) that you owned with your ex-spouse?" The possible answers were the following: (1) I kept most of the land that we owned jointly; (2) My spouse kept only the land that she/he brought to the marriage; (3) We split the land that we owned jointly; (4) Spouse kept most of the land that we owned jointly. Only 41 men and 45 women reported having been divorced before. We find that 46% of these men answer that they kept most of the land, as opposed to 0 of the women. By contrast, 36% of the women say their spouse kept most of the land, as opposed to only one male respondent. Note these numbers are similar to what female and male respondents expect would happen in case of divorce, especially when posed as the divorce being the wife's fault (Table 7).

6   The Role of Village Institutions

The previous section made clear that women's inheritance rights in rural Tanzania remain fragile. As discussed in section 2, the VIs play a key role in securing property rights and enforcing gender neutrality. The administration of land is heavily

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decentralized at the village level, and village councils are legally responsible for the management of the village land, as well as for the registration, adjudication, and titling of the land. The Village Land Act mandates that every village must establish a dispute-settlement body named the VLC, although, in practice, not all villages have a VLC in place (see Appendix D).[31] Its goal is to mediate and assist parties to find an agreement in land-related disputes. Though not all villages have created a separate body, we find that in practice the VIs play a key role as arbitrators in case of disputes. Figure 4 shows that 80% of men and 70% of women say they would seek help from the VIs in case of land disputes. By contrast, only 15% of men and 21% of women mention family, friends, or informal VIs (religious leaders and village elders). Very few respondents report they would seek help from court, a higher supra-village institutions (7% of men and 5% of women).[32] Regarding divorce land disputes, the importance of the VIs decreases but remains substantial (46% of men and 52% of women). This is not unique to Tanzania. Winters and Conroy-Krutz (2021) for instance find respondents in rural Mali viewed customary institutions as more likely to produce a quick or fair outcome than the formal court system in case of land disputes.

Given that most household members would seek the opinion of the local VI members in case of land dispute, their knowledge and interpretation of the law is of primary importance for the protection of women's land rights. For a gender-neutral statutory law to affect actual practices, it should affect the VI's recommendations (Aldashev et al. 2012a,b; Cecchi and Melesse 2016). To assess the adherence of VI members to the gender-neutral statutory law, we collected information on what they would recommend in case of land-inheritance disputes presented as vignettes (see the descriptions in Table 8). Table 9 summarizes the answers, where each number

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[31]Of the villages in our sample, 64% had a VLC at the time of the interview. On average, the VLCs had overviewed four cases in the last two years. We also asked them how common a series of land disputes they overviewed were, including inheritance and divorce. In 24% of the villages, they responded "very common" or "somewhat common" in the case of inheritance disputes and 16% in the case of divorce.

[32]These higher supra-village institutions include the ward tribunal, the district tribunal, and the high court.

Figure 4: Whose help would households seek in case of land disputes?
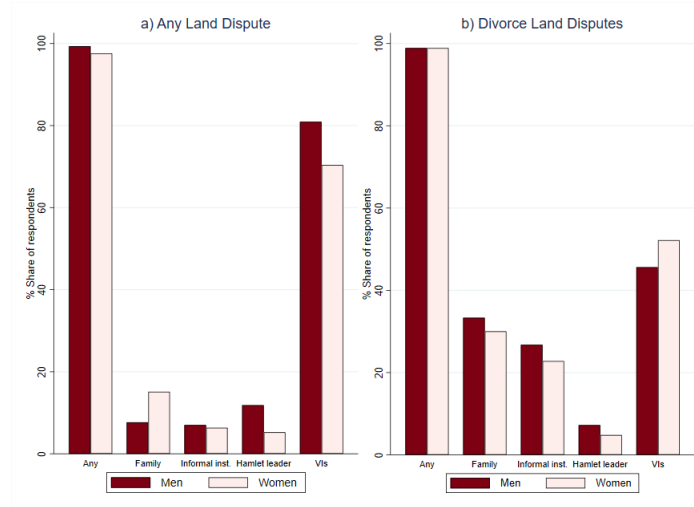
Notes: Figure 4 plots the share of respondents who answer they would seek each of the available options for help in case of dispute. "Any" if they mentioned anyone at all; "Family" includes own and extended family, children, and friends; "Informal institutions" include religious leaders and village elders; "Hamlet leader" stands for the leader of their hamlet (Kitongoji Leader/Chair); "VIs" include Village Council/chairman, Village Land Council, and VLUM; "Higher institutions" include Ward Tribunal, District Tribunal, High Court.

represents the share of VI members who answer the woman would keep the land. Across the board, we find no statistically significant differences in responses between male and female VI members. Although this finding is not causal evidence, it raises doubt on whether the strong gender quota on VIs put in place by the Tanzanian law would suffice to enforce gender egalitarian views (Yngstrom 2002).

The first vignette (V1) poses an inheritance dispute between a child (whose father intended to leave the land to) and a brother of her father. To investigate the presence of an implicit gender bias, we randomized whether the child in vignette V1 was a daughter or a son. The randomization, instead of presenting both vignettes to each respondent, mitigates concerns about social desirability bias when eliciting data on gender norms (Nillesen et al. 2021). According to Tanzanian statutory law, no difference between the two versions of the vignettes should exist. But the results show that VI members are about 10% more likely to recommend that the child own the land when the child is a son as opposed to a daughter (column (1) of Table 10).

Table 8: VI-Members Vignettes: Description

Vignette	Answers
V1: Imagine that a father dies without a will. The mother died a few years ago. The father intended to leave a shamba in the village to his only [daughter/son]. The [daughter/son], an adult, lives in Dar Es Salam. The brother of the father who lives in the village is claiming the land. **Who would you recommend to be the owner?**	1. The brother of the father 2. The [daughter/son]
V2: Imagine that a wife has cultivated for 15 years a shamba that her husband had inherited from his dead father prior to marriage. She has one [daughter/son] from him. Her husband dies. The brother of the husband is claiming the land. **Would you recommend that she keeps the shamba?**	1. Yes 2. No
V3: Imagine that a childless woman inherited from her husband a shamba (without CCRO) that she was cultivating, and that a male member of his clan claims the land. **What do you think would happen if the village land council made a recommendation?**	1. She would lose the shamba 2. She could keep it but would lose it if she remarries 3. She could cultivate it all her life (even if she remarries) but she could not sell it 4. She would be the owner (cultivate, sell, decide who inherits) 5. They would split the shamba.

Table 9: VI-Members Vignettes: Would Women Keep the Land?

	All VI respondents		Men		Women		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Vignette	Share	Obs.	Share	Obs.	Share	Obs.	Diff.
V1: daughter	0.80	183	0.81	120	0.78	63	0.03
V2	0.87	408	0.87	245	0.87	163	0.01
V3	0.37	408	0.37	245	0.37	163	−0.00

Notes: In V1, each number in columns (1),(3), and (5) represents the share of VI respondents who answered "the daughter." In V2, it is the equivalent number that responds "yes" and in V3 that answered "She would be the owner (cultivate, sell, decide who inherits)". Column (7) represents the difference between (3) and (5) estimated using OLS regressions of the correspondent vignette's answers on a gender indicator variable and robust standard errors.

This "daughter" effect is as pronounced among female VI members as among male VI members (Table A23). These results are in line with the household expectations regarding daughters having a harder time inheriting land than sons (Table 4).

Vignettes V2 and V3 present scenarios about women's right to inherit land from their deceased husbands. V2 shows most of the VI members (87%) would recommend that the wife keep the land if she inherited it from her husband but a brother of the husband claimed the land. The answer is not statistically different if the woman in the vignette has a son or a daughter (Table A22). A limitation of this vignette, though, is that it does not allow for partial rights. As Figures 2 and A6 show, a recommendation of *partial* land rights is the most likely outcome. However, this evidence show clearly that, in line with customary law, being childless may make a greater difference for a widow's inheritance rights than the gender of her children.

Table 10: VI Vignette 1: Gender Bias and Customary Law

	(1)	(2)	(3)	(4)
Daughter vignette	-0.11***	-0.10***	-0.07*	-0.08*
	(0.033)	(0.038)	(0.036)	(0.040)
Village characteristics				
Pro-women custom index			0.17***	0.14***
			(0.047)	(0.044)
Ln(pop)				-0.01
				(0.022)
Ln(minutes to market)				-0.04*
				(0.020)
% Primary income: agriculture				0.16
				(0.110)
% Primary income: wage employment				0.03
				(0.665)
% Primary income: pastoralism				-0.25***
				(0.076)
% Primary income: non-farm enterprise				-0.02
				(0.120)
Financial access				0.05
				(0.039)
Individual controls	✓	✓	✓	✓
Ethnicity FE			✓	✓
Village FE		✓		
Mean son vignette	0.91	0.91	0.91	0.91
Percent effect	-0.12	-0.11	-0.08	-0.09
Observations	403	403	373	373
R2	0.03	0.14	0.07	0.10

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, in parentheses, are clustered at the village level. The outcome variable is an indicator variable equal to 1 if the VI respondent answered the daughter or the son would inherit the plot in vignette V1. All regressions include the following individual controls: gender, education, age, and age square, as well as ethnicity fixed effects. The full table is available upon request.

Overall, although VI members hold more progressive views on female property rights than household members,[33] they still fall short of the gender egalitarian standard held by the statutory law. These findings partially reflect the inherent tension in protecting women's land rights when customary laws are recognized. In fact, we find suggestive evidence that the recommendations from the VI members are correlated with how progressive, in terms of women's land rights, their clan laws are. Column (3) of Table 10 augments the specification of column (1) including a "pro-women"

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[33]Figure A6 compares directly the answers of the VI members and of the household members, excluding those few who are also part of the VIs, of the childless woman inheritance vignette.

village custom index.[34] We find that VI members who live in villages whose ethnic groups hold more "pro-women" customs are more likely to recommend that the child, rather than the uncle, inherit the land. Appendix Table A21 shows that the positive and statistically significant effect is only present among those VI respondents who answered the "daughter" version of V1. By contrast, column (4) shows that other village-level economic variables, such as the share of village households whose primary income comes from wage employment or the presence of a financial institution in the village, have very little to null prediction power on the VI recommendations. An interesting exception is the share of villagers whose primary income derives from pastoralism, which negatively predicts how much VI members expect daughters to inherit. This finding provides further evidence on the importance of gender norms in women's access to land, because pastoralism has been associated with worse outcomes for women including lower levels of female entrepreneurship, higher prevalence of female genital cutting, and more restrictions on women's mobility and sexuality (Becker 2019, 2020).

7   Conclusion and Policy Implications

A legal system is always a body of closely interrelated norms or rules (Woodman 2011), but especially in contexts of conflict between statutory and customary law. Studying the extent of women's land rights in rural Tanzania, we find women's property rights are still quite limited, and patrilineal customary land practices continue to prevail.

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[34]The "Pro-women" clan law village-level index is built taking the population-weighted average of the following practices: women can own land, daughters can inherit land, and widows can inherit land (either with full rights or until remarriage). The index is, by definition, between 0 and 1. The following two practices get a value of 1 if true and of 0 if false: women can own land, daughters can inherit land. The answers to whether women can inherit land from their husbands are assigned the following values: 0 (no), 0.5 (inherit until remarriage), 1 (full rights). The data come from the customary practices collected at the village-ethnicity level as described in section 3 (see Table 1). In 50% of the villages, all five of the most populated ethnic groups in the villages are reported to have clan laws that allow the three land practices and therefore "Pro-women" index equal to 1.

More than 90% of the land over which women have rights is jointly owned with their husband. Most wives and husbands expect the wife to have inheritance rights over a substantial share of the joint land if she becomes a widow. However, patrilineal practices still matter in terms of inheritance expectations and the fragility of land rights. We find that inheritance rights are often partial, and the gender of the children matter. Wives inherit land jointly with their children, and sons are more likely to inherit land than daughters. In addition, women's rights are fragile, and women may not be able to hold on to the land in case of dispute with a male member of the husband's clan, especially if she is childless or only has daughters.

Traditional views may retain a significant role and influence, in part due to the functioning and views of village institutions. We find that village leaders of both genders hold more progressive views on women's land rights than household members, but fall short of the gender-neutral standard held by the statutory law. This finding is likely to play a role in the persistence of discriminatory practices. And since male and female members of the village institutions share similar views on women's land rights, increasing the gender quotas is unlikely to solve the issue.

As Tanzania is promoting the issuance of land titles (CCROs), whether land titling would strengthen or weaken the rights of women who would have otherwise benefited from partial rights is an open question. Recent interventions incentivizing co-titling of joint land and educating household on the benefits of co-titling are promising: Ayalew et al. (2016) and Cherchi et al. (2018) in urban Tanzania and Uganda, respectively, find such interventions raise demand for joint titles without dampening overall demand.

Our findings suggest that attention should be paid to educating not just households but also VI members about women's rights if we want to strengthen their *de facto* rights. Interventions targeting household members alone (Mueller et al. 2018) may not suffice. This policy implication is particularly relevant to the design of the educational component of village land-use planning and systemic adjudication

programs.

In view of the inherent tension between customary inheritance practice and the non-discrimination aim of statutory law, and the strength of customary inheritance patterns observed in our sample, legal reforms may be needed. Though a progressive interpretation of current customary law and the non-discriminatory clause in the land act could be enough to improve women's inheritence rights, the lack of explicit provisions concerning widows' inheritance rights and the rights of divorcees in the VLA leaves a lot of ambiguity and therefore power to local institutions. Dancer (2017) outlines several possible legal reforms: a reform of the customary inheritance law, a constitutionally enshrined equal right to inherit, or a revised National Land Policy explicitely addressing inheritance.

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A   Appendix Figures and Tables

A.1   Appendix Figures

Figure A1: Map of VILART Survey

(a) Tanzania

(b) Regions Surveyed
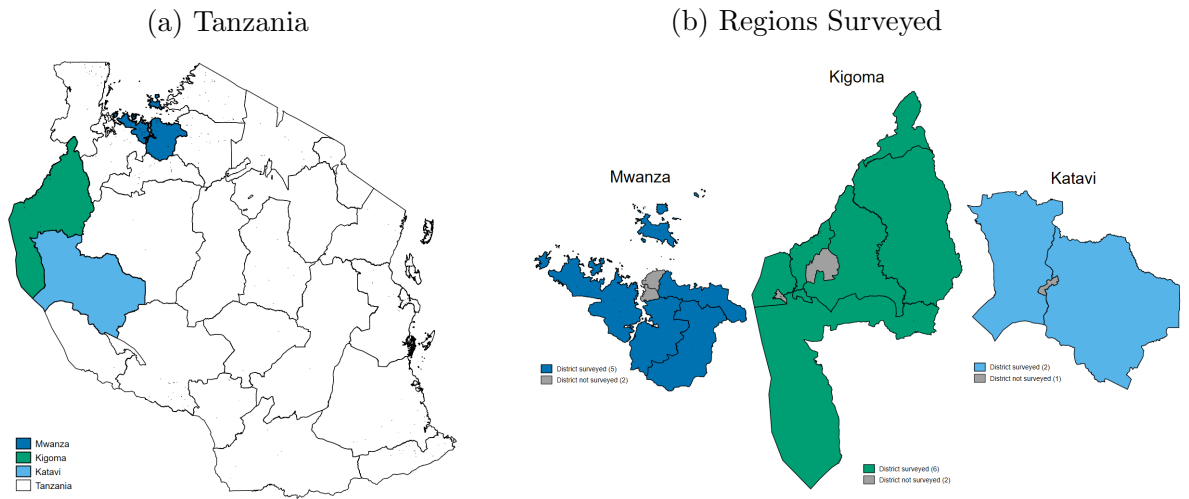
Figure A2: Randomization Inference: Effect of Female Firstborn on Expectations of Firstborn's Inheritance
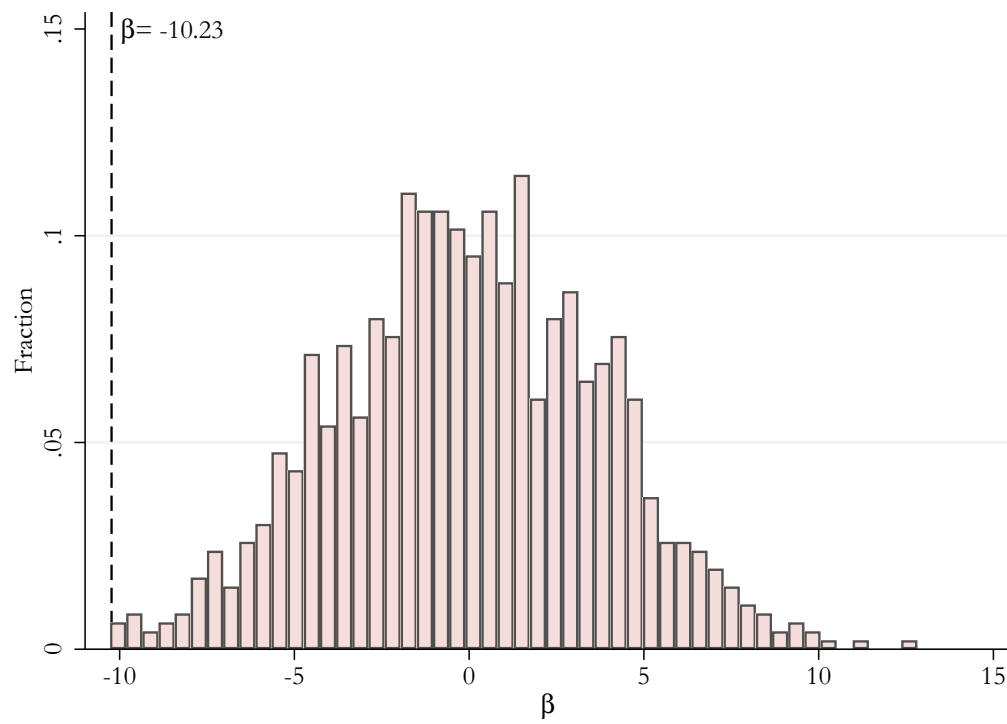
Notes: Randomization inference based on 1,000 replications, randomization-based p-value is 0.002. The regression specification corresponds to column (2) in Table 4.

Figure A3: Randomization Inference: Effect of Female Firstborn on Expectations of Wife's Inheritance
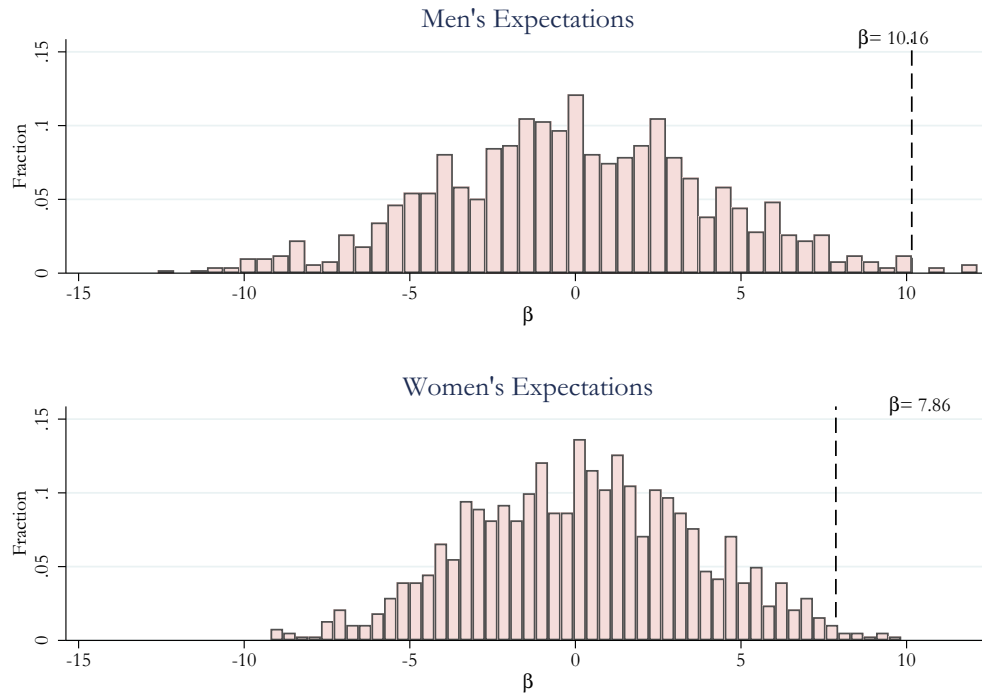
Notes: Randomization inference based on 1,000 replications, randomization-based p-values for the upper and lower panels are 0.015 and 0.025, respectively. The regression specifications correspond to columns (2) and (7) in Table 5.

Figure A4: Divorce. What Would Constitute "a Fault" of the Husband that Would Justify a Change in the Ownerhsip?
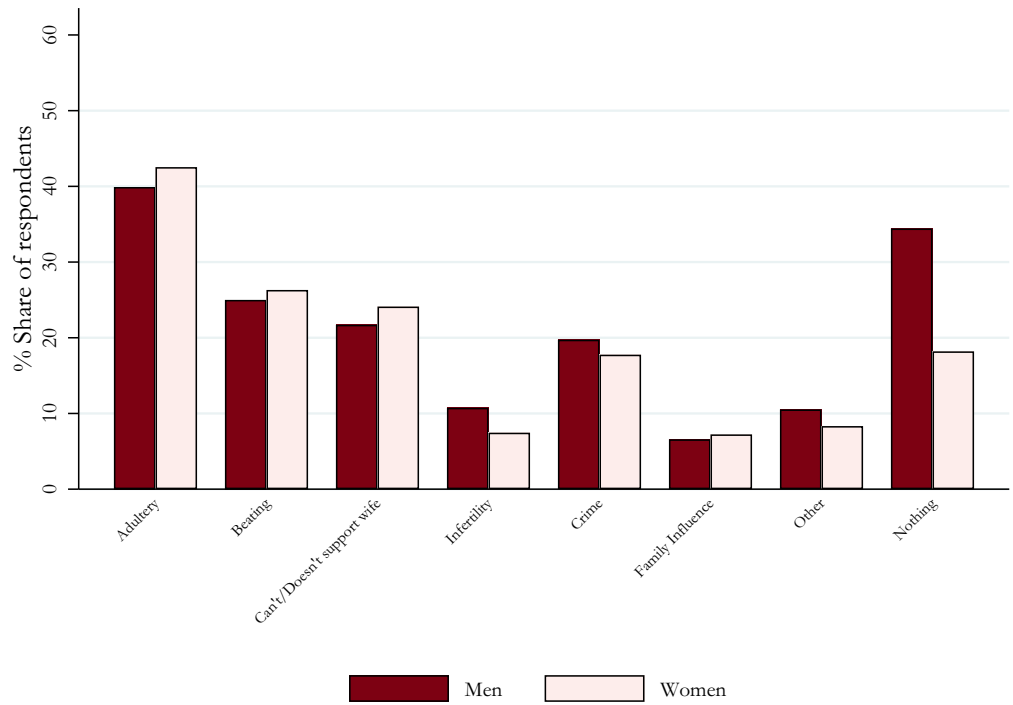
Figure A5: Divorce. What Would Constitute "a Fault" of the Wife that Would Justify a Change in the Ownerhsip?
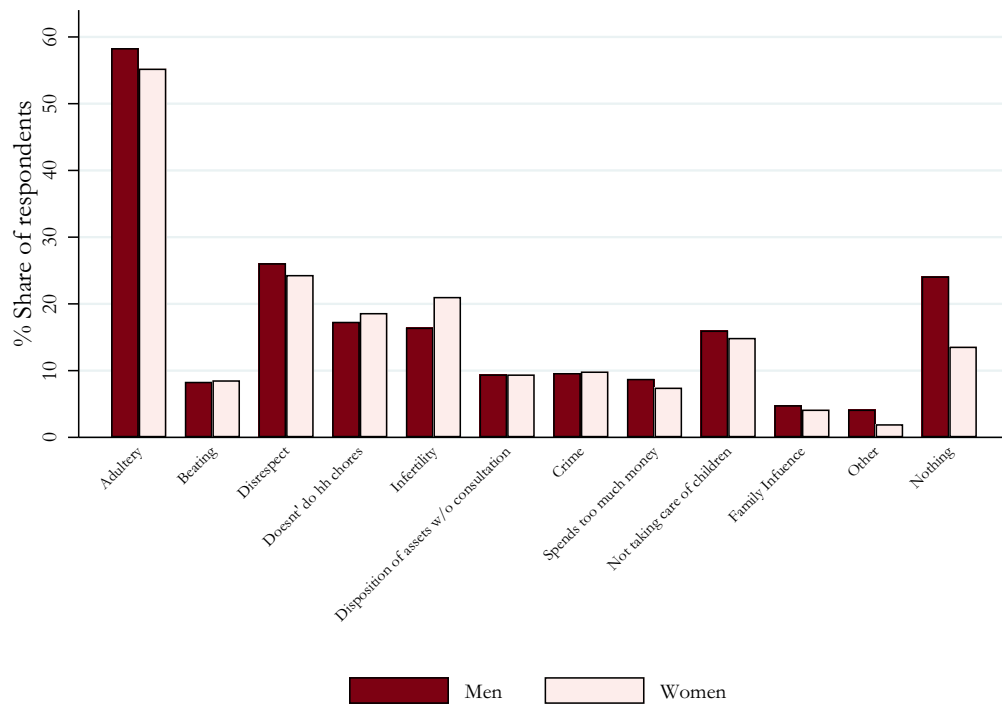
Figure A6: VI Members' Inheritance Views: Childless Woman
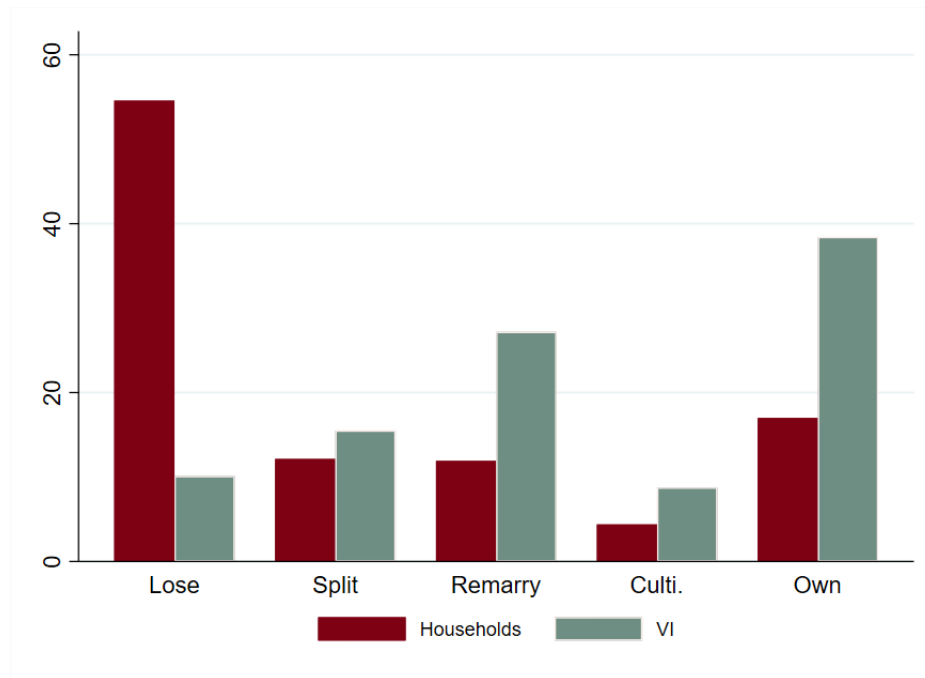
Notes: Figure A6 plots the household respondents' answers to the "today" and "childless" inheritance vignettes (see Appendix for exact wording) and the VI members' answers to vignette V3. "Lose" (she would lose the shamba); "Split" (they would split the shamba); "Remarry" (she could keep it but would lose it if she remarries); "Culti." (she could cultivate it all her life—even if she remarries—but she could not sell it); and "Own" (she would be the owner: cultivate, sell, decide who inherits).

A.2 Appendix Tables

Table A1: Household Summary Statistics

	Mean	Std. Dev.	Min	Median	Max	Obs.
Husband						
Age	47.64	15.03	19.00	46.00	96.00	439
Years of education	6.11	3.60	0.00	8.00	18.00	456
No education	0.19	0.39	0.00	0.00	1.00	456
Primary or less	0.74	0.44	0.00	1.00	1.00	456
Polygamous	0.12	0.33	0.00	0.00	1.00	456
Number of spouses	1.16	0.46	1.00	1.00	4.00	456
Children	6.00	3.50	0.00	6.00	21.00	456
Born in the village	0.62	0.49	0.00	1.00	1.00	456
Moved because marriage	0.00	0.00	0.00	0.00	0.00	174
Wife						
Age	39.57	12.77	17.00	39.00	86.00	402
Years of education	5.02	3.87	0.00	8.00	16.00	456
No education	0.33	0.47	0.00	0.00	1.00	456
Primary or less	0.64	0.48	0.00	1.00	1.00	456
Children	5.14	2.90	0.00	5.00	14.00	456
Born in the village	0.45	0.50	0.00	0.00	1.00	456
Moved because marriage	0.59	0.49	0.00	1.00	1.00	251
Household						
Animals	17.27	40.16	0.00	7.00	510.00	456
Electricity	0.13	0.33	0.00	0.00	1.00	456
Radio	0.48	0.50	0.00	0.00	1.00	456
Television	0.08	0.26	0.00	0.00	1.00	450
Mobile	0.80	0.40	0.00	1.00	1.00	455
Bank account	0.09	0.28	0.00	0.00	1.00	450
Internet access	0.02	0.15	0.00	0.00	1.00	456
Land acreage	9.04	14.78	0.00	4.50	125.00	455
Nuclear	0.70	0.46	0.00	1.00	1.00	456
Grandchildren in household	0.19	0.39	0.00	0.00	1.00	456

Notes: The summary statistics are based on the household interviews. The total number of animals owned by the household includes cows, bulls, pigs, chicken/poultry, goats, sheeps, donkeys, and horses.

Table A2: Summary Statistics of Households and Village Institutions' Members

	Male					**Female**				
Variable	VI	HH	Diff	p-value	N	VI	HH	Diff	p-value	N
Age	48.92	47.22	1.69	0.12	655	46.29	39.45	6.84***	0.00	552
Education	7.92	5.97	1.95***	0.00	672	7.63	5.01	2.61***	0.00	611
Born in village	0.65	0.62	0.03	0.50	672	0.54	0.45	0.09**	0.05	611
N. of children	7.81	5.91	1.90***	0.00	672	6.63	5.13	1.50***	0.00	611
Female First Born	0.48	0.48	0.00	0.98	660	0.49	0.48	0.02	0.69	589
Pastor	0.71	0.61	0.09**	0.01	672	0.69	0.67	0.02	0.65	611
Imam	0.11	0.11	0.00	0.98	672	0.11	0.10	0.01	0.66	611

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The summary statistics are based on the household and VI members' interviews.

Table A3: Village Summary Statistics

	Mean	Std. Dev.	Min	Max	Obs.
Number of people	4048.33	2610.12	605.00	12,864.00	45
Number of households	631.38	293.32	230.00	1506.00	45
% Agriculture	86.40	21.37	10.83	100.00	45
% Pastoralism	7.95	18.58	0.00	83.33	45
% Wage employment	2.75	2.04	0.00	9.62	45
Walking hours to nearest market	5.82	5.68	0.33	20.00	45
Bus per day to district capital	1.45	1.73	0.00	6.00	45
Financial access	51.11	50.55	0.00	100.00	45

Notes: The summary statistics are based on the community surveys. The % agriculture/pastoralism/wage employment statistics represent the share of households that derive their primary source of income from each economic activity. A village has financial access if any of the following organizations were located inside the village: SACCOS, Village Community Bank (VICOBA), Faith Based Organizations (FBO), Community Based Organizations (CBO), and "other financial institutions such empowerment council and microcredit."

Table A4: Ethnic Groups

Ethnicity	Population	Pop. share	+3 Villages	+1 Majority	Share VCs	Inheritance Rule	Inheritance Distribution	Marital Residence	Marital Composition
Sukuma	9029	32.2	1	1	29.3	Patrilineal	Primogeniture	Patrilocal	Polygynous
Ha	8983	32.0	1	1	34.8	Patrilineal	Primogeniture	Patrilocal	Polygynous
Hutu*	2295	8.2	1	1	8.6	Patrilineal	Equal/relatively equal	Patrilocal	Polygynous
Bembe	1207	4.3	1	0	1.3				
Kara	1100	3.9	1	0	2.6	Patrilineal	Equal/relatively equal	Patrilocal	Polygynous
Fipa	737	2.6	1	0	4.3			Patrilocal	Polygynous
Bende	708	2.5	1	0	2.3	Matrilineal	Equal/relatively equal	Patrilocal	Polygynous
Jita	593	2.1	1	0	2.7				
Tongwe	589	2.1	1	0	2.4				
Manyema	559	2.0	0	0	0.5				
Pimbwe	483	1.7	1	0	2.1			Patrilocal	Polygynous
Zinza	476	1.7	1	0	1.1	Patrilineal	Primogeniture	Patrilocal	Polygynous
Kerewe	391	1.4	1	0	2.5			Patrilocal	Polygynous
Rwila	292	1.0	1	0	0.4				
Konongo	150	0.5	1	0	0.2				
Bwali	56	0.2	0	0	.				
Lamba	58	0.2	0	0	0.1			Matrilocal	Polygynous
Sumbwa	49	0.2	0	0	0.2	Patrilineal	Equal/relatively equal	Patrilocal	Polygynous
Nyamwezi	48	0.2	1	0	1.4	Patrilineal	Equal/relatively equal	Patrilocal	Polygynous
Chagga	32	0.1	0	0	0.5	Patrilineal	Primogeniture	Patrilocal	Polygynous
Baruuli	35	0.1	0	0	0.1				
Kwaya	30	0.1	0	0	0.3				
Kuria	22	0.1	0	0	.				
Nyakyusa	38	0.1	1	0	0.1	Patrilineal	Primogeniture	Neolocal	Polygynous
Tutsi	40	0.1	0	0	0.5				
Rungwa	40	0.1	0	0	0.2				
Hehe	10	0.0	1	0	.			Patrilocal	Polygynous
Luguru	1	0.0	0	0	.	Matrilineal	Equal/relatively equal	Matrilocal	Polygynous
Bena	4	0.0	0	0	0.1	Patrilineal	Equal/relatively equal	Neolocal	Polygynous
Ngoni	1	0.0	0	0	0.2	Patrilineal		Patrilocal	Polygynous
Kinga	2	0.0	0	0	.				
Haya	9	0.0	0	0	0.1	Patrilineal	Primogeniture	Patrilocal	Polygynous
Gogo	1	0.0	0	0	0.1	N/A	N/A	Patrilocal	Polygynous

Source: Ethnographic Atlas by George P. Murdock. *Assigned the customary practices of the Ruandan ethnic group.

Table A5: Household Land Plots by Type of Joint Ownership

	(1) Male	(2) He Male, She Joint	(3) He Joint, She Male	(4) Joint	Difference with Male plots		
					(5) He Male, She Joint	(6) He Joint, She Male	(7) Joint
Plot Characteristics							
Area	3.57	2.60	2.44	3.15	0.97	1.14	0.43
					(0.60)	(0.69)	(0.67)
Cultivated	0.45	0.59	0.44	0.51	−0.14***	0.01	−0.06
					(0.05)	(0.05)	(0.04)
Residential	0.41	0.31	0.48	0.30	0.11***	−0.06	0.11***
					(0.03)	(0.04)	(0.04)
Distance	28.12	28.20	43.22	41.91	−0.08	−15.10	−13.79
					(5.51)	(18.98)	(9.77)
Wife works	0.57	0.59	0.84	0.88	−0.02	−0.27***	−0.31***
					(0.08)	(0.08)	(0.06)
Husband works	0.86	0.75	0.88	0.94	0.10*	−0.02	−0.08**
					(0.06)	(0.06)	(0.04)
Acquisition							
Post-marriage	0.50	0.65	0.65	0.73	−0.15***	−0.15***	−0.23***
					(0.05)	(0.05)	(0.04)
Purchased	0.40	0.43	0.46	0.58	−0.04	−0.06	−0.18***
					(0.06)	(0.06)	(0.05)
Inherited	0.41	0.27	0.30	0.19	0.14***	0.11**	0.22***
					(0.04)	(0.05)	(0.05)
Gift	0.08	0.12	0.08	0.05	−0.03	0.00	0.03
					(0.03)	(0.02)	(0.02)
Local government	0.06	0.10	0.09	0.09	−0.04	−0.03	−0.03
					(0.03)	(0.03)	(0.02)
Other mode of acq.	0.02	0.06	0.04	0.04	−0.04**	−0.02	−0.02**
					(0.02)	(0.02)	(0.01)
Land documents							
Use as collateral	0.40	0.50	0.47	0.55	−0.10*	−0.07	−0.15***
					(0.05)	(0.06)	(0.04)
Any document	0.27	0.32	0.30	0.35	−0.06	−0.03	−0.08*
					(0.06)	(0.06)	(0.04)
Purchase document	0.14	0.23	0.20	0.24	−0.09*	−0.06	−0.10***
					(0.05)	(0.05)	(0.04)
Any government right of occupancy	0.08	0.08	0.05	0.08	0.00	0.02	−0.00
					(0.04)	(0.03)	(0.03)
CCRO	0.01	0.02	0.01	0.02	−0.01	0.00	−0.01
					(0.02)	(0.02)	(0.01)

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The summary statistics are based on the household interviews. Columns (1) to (4) report sample means for the whole sample of land plots in each ownership category. The differences between columns (1) and (2), and (3) and (4), are reported in columns (5), (6), and (7), respectively. The difference is estimated with an OLS regression clustering the standard errors, in parentheses, at the enumerating-area level. The wife/husband works plot characteristic only includes cultivated plots. The wife/husband works plot characteristic only includes cultivated plots. Other modes of acquisition include the following: used for many years, moved in without permission, rented in, and other. Any document includes granted right of occupancy, letter of offer, CCRO, purchase agreement, gift agreement, inheritance letter, rental agreement, other government document, utility bill or other bill, and other. Any government right of occupancy includes granted right of occupancy, letter of offer, and CCRO.

Table A6: Household Land Acreage by Type of Ownership

	(1) Male	(2) He/She/Both Joint	(3) Female	(4) He/She/Both Joint	(5) Female
				Difference with Male plots	
Plot Characteristics					
Cultivated	0.62	0.72	0.79	−0.10	−0.17*
				(0.06)	(0.10)
Residential	0.10	0.10	0.07	0.00	0.04
				(0.02)	(0.04)
Distance	34.84	29.44	89.23	5.40	−54.39*
				(10.52)	(30.51)
Wife works	0.47	0.79	0.77	−0.32***	−0.29***
				(0.11)	(0.10)
Husband works	0.74	0.87	0.25	−0.13	0.49***
				(0.09)	(0.15)
Acquisition					
Post-marriage	0.42	0.68	0.56	−0.26***	−0.14
				(0.10)	(0.16)
Purchased	0.42	0.49	0.29	−0.07	0.13
				(0.07)	(0.13)
Inherited	0.43	0.20	0.63	0.23***	−0.21
				(0.06)	(0.15)
Gift	0.06	0.08	0.04	−0.02	0.03
				(0.03)	(0.04)
Local government	0.05	0.11	0.01	−0.07	0.04*
				(0.04)	(0.02)
Other mode of acq.	0.02	0.03	0.02	−0.01	−0.00
				(0.01)	(0.02)
Land documents					
Use as collateral	0.42	0.57	0.47	−0.16***	−0.06
				(0.06)	(0.14)
Any document	0.24	0.34	0.33	−0.10	−0.09
				(0.07)	(0.14)
Purchase document	0.13	0.24	0.07	−0.11	0.06
				(0.07)	(0.08)
Any government right of occupancy	0.08	0.07	0.00	0.00	0.08**
				(0.04)	(0.04)
CCRO	0.03	0.01	0.00	0.01	0.03
				(0.02)	(0.02)

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The summary statistics are based on the household interviews. Columns (1) to (3) report sample means for total land acreage in each ownership category. Columns (4) and (5) report the difference between (1) and (2), and (1) and (3), respectively. The difference is estimated with an OLS regression clustering the standard errors, in parentheses, at the enumerating-area level. The wife/husband works plot characteristic only includes cultivated plots. Other modes of acquisition include the following: used for many years, moved in without permission, rented in, and other. Any document includes granted right of occupancy, letter of offer, CCRO, purchase agreement, gift agreement, inheritance letter, rental agreement, other government document, utulity bill or other bill, and other. Any government right of occupancy includes granted right of occupancy, letter of offer, and CCRO.

Table A7: Women's Land Rights by Type of Ownership in Acres

	(1) Male	(2) He Male, She Joint	(3) He Joint, She Male	(4) Joint	(5) Female
Husband's answer					
Right to sell	0.03	0.21	0.74	0.78	-
Right to bequeath	0.03	0.27	0.49	0.68	-
Right to decide on title	0.02	0.16	0.35	0.27	-
Wife's answer					
Right to sell in husband's absence	-	0.02	-	0.01	0.56
Right to bequeath	-	0.26	-	0.27	0.67
Right to decide on title	-	0.39	-	0.37	0.79
Right to keep at least 50% if divorce	-	0.08	-	0.31	0.47

Notes: The summary statistics are based on the household interviews. Columns (1) to (5) report sample means of husbands' and wives' answers regarding the wife's right (described in each row) by the type of land ownership (described in each column), weighted by the land plot acres.

Table A8: Household Descriptive Statistics by Firstborn Child's Cohabitation

	Firstborn lives in household (1)	Firstborn does not live in household (2)	Difference (3)
Wife's age	32.86	46.25	−13.39***
	[8.70]	[11.73]	(1.24)
Husband's age	38.97	55.47	−16.50***
	[11.70]	[12.53]	(1.27)
Wife's primary education	0.66	0.44	0.22***
	[0.47]	[0.50]	(0.05)
Husband's primary education	0.65	0.53	0.12**
	[0.48]	[0.50]	(0.05)
Household land acreage	6.79	11.16	−4.37***
	[11.31]	[17.09]	(1.38)
Polygamous household	0.10	0.14	−0.04
	[0.30]	[0.35]	(0.04)

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column (1) presents sample means and standard deviations, in brackets, of the households where the firstborn child currently lives in the household. Column (3) presents sample means and standard deviations, in brackets, of the households where the firstborn child currently outside the household or is no longer alive. Column (3) is calculated with OLS and clustering standard errors (in parentheses) at the enumerating-area level. Column (3) reports the OLS coefficient of a regression of the household characteristic on an indicator variable equal to 1 if the firsborn child currently lives in the household.

Table A9: Household Descriptive Statistics by Firstborn Child's Cohabitation: Controlling by Age

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Wife's primary education			Husband's primary education			Household Land Acreage		
Firstborn child lives in the household	0.22***	0.01	0.04	0.12**	-0.06	-0.05	-4.37***	-0.39	-1.38
	(0.05)	(0.07)	(0.06)	(0.05)	(0.06)	(0.06)	(1.38)	(1.99)	(2.44)
Wife's age		-0.01***			-0.01***			0.20**	
		(0.00)			(0.00)			(0.09)	
Husband's age			-0.01***			-0.01***			0.16
			(0.00)			(0.00)			(0.10)
_cons	0.44***	1.06***	1.05***	0.53***	0.97***	1.04***	11.16***	0.60	1.98
	(0.04)	(0.13)	(0.11)	(0.04)	(0.12)	(0.11)	(1.52)	(4.30)	(5.48)
Observations	445	391	428	445	391	428	444	390	427
adj. R^2	0.05	0.08	0.11	0.01	0.02	0.05	0.02	0.04	0.03

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, in parentheses, are clustered at the enumerating-area level.

Table A10: Firstborn $\leq$ 17. Effect of Female Firstborn on Expectations of Firstborn's Inheritance

	(1)	(2)	(3)	(4)	(5)
					Women $\leq$ 45
Female firstborn child	-7.77*	-8.31	-11.83	-7.13	-11.94
	(4.55)	(5.62)	(8.54)	(5.43)	(8.10)
Wife primary education		-5.87	-6.22	-3.79	-6.05
		(9.35)	(14.32)	(8.18)	(14.41)
Husband primary education		4.46	0.99	3.00	0.79
		(5.40)	(9.44)	(4.83)	(9.75)
Wife's age $\leq$ 45		1.01	-4.81		
		(10.24)	(12.53)		
Husband's age $\leq$ 45		6.37	1.93	4.73	1.70
		(9.46)	(11.88)	(12.98)	(11.63)
Village FE	✓	✓	✓	✓	✓
Wife's religion FE		✓	✓		✓
Wife's ethnicity FE			✓		✓
Husband's religion FE		✓	✓		✓
Husband's ethnicity FE			✓		✓
Observations	93	89	70	84	63
adj. R^2	0.29	0.19	0.06	0.21	0.10
Male firstborn baseline	19.23	18.52	19.90	17.76	20.26
Percent effect	-40.41	-44.86	-59.48	-40.15	-58.93

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, in parentheses, are clustered at the enumerating-area level. The outcome variable is the share of jointly owned land with the spouse that male respondents would expect their firstborn child to inherit if the respondent died intestate. The male firstborn baseline is the average predicted outcome variable in male firsborn child households using the estimated coefficients on the control variables.

Table A11: Effect of Female Firstborn on Expectations of Wife's Inheritance. Firstborn Alive.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Husband's Expectations					Wife's Expectations				
				Women $\leq$ 45					Women $\leq$ 45	
Female firstborn child	7.90*	11.49**	9.03*	11.91*	12.21*	7.14**	7.02*	8.32**	1.84	4.92
	(4.08)	(4.84)	(5.15)	(6.41)	(6.95)	(3.49)	(4.02)	(4.13)	(4.59)	(4.75)
Wife primary education		-3.33	-4.74	6.44	-0.84		1.78	4.73	0.80	6.73
		(4.84)	(5.23)	(6.84)	(8.49)		(4.75)	(5.40)	(6.82)	(6.99)
Husband primary education		-12.14**	-7.37	-17.16**	-7.36		-4.93	-3.46	-9.33*	-7.85
		(5.03)	(5.28)	(8.36)	(9.83)		(4.02)	(4.75)	(5.15)	(5.75)
Wife's age $\leq$ 45		1.10	1.18				-4.37	-4.90		
		(5.35)	(6.00)				(4.72)	(5.23)		
Husband's age $\leq$ 45		-10.00*	-10.12	-9.99*	-10.99		3.77	1.31	3.28	1.94
		(5.54)	(6.45)	(5.53)	(7.50)		(5.27)	(5.57)	(6.05)	(6.57)
Village FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wife's religion FE		✓	✓		✓		✓	✓		✓
Wife's ethnicity FE			✓		✓			✓		✓
Husband's religion FE		✓	✓		✓		✓	✓		✓
Husband's ethnicity FE			✓		✓			✓		✓
Observations	326	285	270	183	171	387	345	329	232	222
adj. R^2	0.13	0.18	0.21	0.20	0.26	0.14	0.12	0.12	0.04	0.11
Male firstborn baseline	55.39	55.65	57.20	52.54	54.05	71.79	74.17	74.01	76.78	75.20
Percent effect	14.25	20.64	15.79	22.68	22.58	9.94	9.47	11.24	2.40	6.55

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, in parentheses, are clustered at the enumerating-area level. In columns (1) to (5), the outcome variable is the share of jointly owned land with the spouse that male respondents would expect their wife to inherit if the respondent died intestate. In columns (6) to (10), the outcome variable is the share of jointly owned land with the spouse that female respondents would expect to inherit if their husbands died intestate, although this inherited share might be jointly owned with others as well. The male firstborn baseline is the average predicted outcome variable in male firsborn child households using the estimated coefficients on the control variables.

Table A12: Effect of Female Firstborn on Potential Mediators

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	HH Land Acreage		Log(HH Land Acreage)		# Husband's children		Polygamous household	
Female firstborn child	1.06	1.33	0.05	0.09	-0.33	-0.52	-0.03	-0.04
	(1.06)	(1.18)	(0.10)	(0.12)	(0.39)	(0.43)	(0.04)	(0.05)
Wife primary education	2.14	1.71	0.20	0.16	-0.47	-0.33	-0.05	-0.03
	(1.85)	(1.71)	(0.15)	(0.14)	(0.40)	(0.42)	(0.04)	(0.05)
Husband primary education	0.46	-0.51	-0.01	0.02	-0.38	-0.16	-0.02	0.00
	(1.39)	(1.19)	(0.14)	(0.14)	(0.46)	(0.41)	(0.04)	(0.03)
Wife's age $\leq$ 45	-3.63**	-2.34*	-0.29**	-0.26*	-0.49	-0.75	0.01	0.01
	(1.38)	(1.18)	(0.13)	(0.14)	(0.56)	(0.59)	(0.05)	(0.06)
Husband's age $\leq$ 45	-2.58*	-2.78**	-0.48***	-0.45***	-2.75***	-2.80***	0.03	0.01
	(1.34)	(1.36)	(0.14)	(0.15)	(0.38)	(0.37)	(0.05)	(0.05)
Village FE	✓	✓	✓	✓	✓	✓	✓	✓
Wife's religion FE	✓	✓	✓	✓	✓	✓	✓	✓
Wife's ethnicity FE		✓		✓		✓		✓
Husband's religion FE	✓	✓	✓	✓	✓	✓	✓	✓
Husband's ethnicity FE		✓		✓		✓		✓
Observations	388	372	386	370	389	373	389	373
adj. R^2	0.27	0.23	0.27	0.28	0.27	0.30	0.04	0.07
Male firstborn baseline	8.18	7.82	1.54	1.51	6.34	6.45	0.12	0.13
Percent effect	12.93	17.02	3.36	6.16	-5.16	-8.14	-24.91	-32.92

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, in parentheses, are clustered at the enumerating-area level. The male firstborn baseline is the average predicted outcome variable in male firsborn child households using the estimated coefficients on the control variables.

Table A13: Effect of Female Firstborn on Expectations of Firstborn's Inheritance Including Potential Mechanisms

	(1)	(2)	(3)	(4)	(5) Women $\leq$ 45
Female firstborn child	-12.47*	-12.20*	-13.11**	-12.19*	-13.08*
	(6.52)	(6.47)	(6.23)	(6.90)	(6.83)
Wife primary education	-4.49	-5.63	-4.30	-2.92	-4.61
	(10.14)	(10.24)	(8.17)	(7.69)	(8.54)
Husband primary education	8.22	8.16	8.02	6.78	8.62
	(7.53)	(7.59)	(6.55)	(6.71)	(7.49)
Wife's age $\leq$ 45	2.16	-1.11	-2.63	-1.16	0.00
	(9.62)	(8.92)	(7.64)	(8.20)	(.)
Husband's age $\leq$ 45	9.30	10.59	1.28	0.13	-0.08
	(6.96)	(6.95)	(7.66)	(7.74)	(10.16)
Total hh land acreage	0.18**			0.28***	0.51
	(0.08)			(0.10)	(0.49)
Polygamous		4.92		5.43	5.26
		(4.67)		(5.81)	(6.98)
# Husband's children'			-3.28	-3.51	-4.39*
			(2.09)	(2.15)	(2.25)
Village FE	✓	✓	✓	✓	✓
Wife's religion FE	✓	✓	✓	✓	✓
Wife's ethnicity FE	✓	✓	✓	✓	✓
Husband's religion FE	✓	✓	✓	✓	✓
Husband's ethnicity FE	✓	✓	✓	✓	✓
Observations	113	113	113	113	84
adj. R^2	0.03	0.02	0.16	0.17	0.32
Male firstborn baseline	17.65	17.44	16.89	16.91	18.06
Percent effect	-70.66	-69.96	-77.58	-72.07	-72.44

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, in parentheses, are clustered at the enumerating area level. The outcome variable is the share of jointly owned land with the spouse that male respondents would expect their firstborn child to inherit if the respondent died intestate. The male firstborn baseline is the average predicted outcome variable in male firsborn child households using the estimated coefficients on the control variables.

Table A14: Effect of Female Firstborn on Expectations of Wife's Inheritance Including Potential Mechanisms

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Husband's Expectations					Wife's Expectations				
					Women $\leq$ 45					Women $\leq$ 45
Female firstborn child	9.63*	9.19*	8.93*	9.79*	12.55*	10.36**	10.34**	10.68***	10.77**	9.23*
	(4.99)	(4.97)	(4.98)	(5.29)	(6.71)	(4.13)	(4.02)	(3.89)	(4.03)	(4.59)
Wife primary education	-3.18	-3.66	-3.93	-2.93	5.78	8.41*	8.05*	8.16	8.51*	9.77
	(4.72)	(4.81)	(4.81)	(4.89)	(7.64)	(4.85)	(4.76)	(4.88)	(4.87)	(7.31)
Husband primary education	-7.27	-6.98	-6.76	-7.59	-13.26	-5.01	-4.92	-4.87	-4.97	-9.05
	(4.80)	(4.95)	(4.95)	(4.82)	(8.83)	(4.13)	(4.13)	(4.17)	(4.14)	(5.62)
Wife's age $\leq$ 45	-0.19	0.83	0.70	-0.36	0.00	-8.66*	-8.08	-7.57	-8.14	0.00
	(5.96)	(5.98)	(5.76)	(5.95)	(.)	(5.10)	(5.07)	(5.24)	(5.30)	(.)
Husband's age $\leq$ 45	-10.71*	-8.96	-9.60	-10.96	-13.24	2.23	3.01	5.09	4.39	4.67
	(5.87)	(6.00)	(6.75)	(6.85)	(8.59)	(5.44)	(5.35)	(5.65)	(6.00)	(7.26)
Total hh land acreage	-0.47***			-0.48***	-0.75**	-0.23*			-0.24*	-0.14
	(0.16)			(0.15)	(0.35)	(0.13)			(0.13)	(0.42)
Polygamous		4.81		6.83	-1.02		0.38		-0.78	6.25
		(8.43)		(9.64)	(10.40)		(8.25)		(9.37)	(15.03)
# Husband's children'			-0.13	-0.20	0.02			0.72	0.74	0.94
			(0.97)	(0.99)	(1.93)			(0.74)	(0.88)	(1.23)
Village FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wife's religion FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wife's ethnicity FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Husband's religion FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Husband's ethnicity FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Observations	300	300	300	300	187	362	363	363	362	240
adj. R^2	0.20	0.18	0.18	0.19	0.24	0.14	0.13	0.14	0.14	0.09
Male firstborn baseline	56.76	56.69	56.70	56.79	53.21	72.55	72.50	72.42	72.44	72.01
Percent effect	16.97	16.22	15.75	17.25	23.58	14.27	14.26	14.75	14.87	12.82

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, in parentheses, are clustered at the enumerating-area level. In columns (1) to (5), the outcome variable is the share of jointly owned land with the spouse that male respondents would expect their wife to inherit if the respondent died intestate. In columns (6) to (10), the outcome variable is the share of jointly owned land with the spouse that female respondents would expect to inherit if their husbands died intestate, although this inherited share might be jointly owned with others as well. The male firstborn baseline is the average predicted outcome variable in male firsborn child households using the estimated coefficients on the control variables.

Table A15: Effect of Female Firstborn on Expectations of Firstborn's Inheritance. Non-polygamous Households.

	(1)	(2)	(3)	(4)	(5)
				Women ≤ 45	
Female firstborn child	-9.35**	-9.93**	-12.19*	-9.81	-13.27*
	(4.31)	(4.82)	(6.86)	(6.10)	(7.60)
Wife primary education		-3.25	-6.01	-2.67	-5.74
		(7.98)	(12.11)	(8.29)	(13.56)
Husband primary education		7.47	7.47	2.84	5.36
		(4.61)	(7.84)	(4.93)	(9.59)
Wife's age ≤ 45		-2.41	-2.06		
		(6.12)	(11.13)		
Husband's age ≤ 45		9.98*	10.59	6.20	11.66
		(5.02)	(8.74)	(5.36)	(9.43)
Village FE	✓	✓	✓	✓	✓
Wife's religion FE		✓	✓		✓
Wife's ethnicity FE			✓		✓
Husband's religion FE		✓	✓		✓
Husband's ethnicity FE			✓		✓
Observations	124	116	106	91	79
adj. R^2	0.20	0.18	-0.08	0.14	0.05
Male firstborn baseline	18.58	17.59	16.86	18.44	18.51
Percent effect	-50.29	-56.41	-72.34	-53.18	-71.69

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, in parentheses, are clustered at the enumerating area level. The outcome variable is the share of jointly owned land with the spouse that male respondents would expect their firstborn child to inherit if the respondent died intestate. The male firstborn baseline is the average predicted outcome variable in male firsborn child households using the estimated coefficients on the control variables.

Table A16: Effect of Female Firstborn on Expectations of Wife's Inheritance. Non-polygamous Households.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Husband's Expectations					Wife's Expectations				
				Women ≤ 45					Women ≤ 45	
Female firstborn child	9.32**	11.03**	7.86	11.52*	11.68	6.71*	7.08*	9.28**	3.24	8.64**
	(4.03)	(4.97)	(5.72)	(6.45)	(7.79)	(3.50)	(3.96)	(4.18)	(4.81)	(4.26)
Wife primary education		-2.64	-4.36	6.41	1.44		6.47	8.45	6.55	10.34
		(4.82)	(5.52)	(6.84)	(9.42)		(5.11)	(5.33)	(7.00)	(7.27)
Husband primary education		-4.97	-4.50	-9.42	-8.17		-5.24	-4.57	-7.05	-9.58*
		(5.08)	(5.57)	(8.28)	(9.37)		(3.85)	(4.40)	(6.07)	(5.70)
Wife's age ≤ 45		3.42	6.41				-5.49	-4.11		
		(5.55)	(6.50)				(4.76)	(5.78)		
Husband's age ≤ 45		-12.24**	-13.48**	-10.57*	-12.26		0.83	-4.01	-2.15	-8.18
		(5.74)	(6.64)	(5.77)	(7.38)		(5.64)	(5.67)	(6.52)	(6.20)
Village FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wife's religion FE		✓	✓		✓		✓	✓		✓
Wife's ethnicity FE			✓		✓			✓		✓
Husband's religion FE		✓	✓		✓		✓	✓		✓
Husband's ethnicity FE			✓		✓			✓		✓
Observations	327	287	274	179	169	385	344	326	227	217
adj. R^2	0.15	0.20	0.17	0.22	0.23	0.10	0.11	0.14	0.09	0.21
Male firstborn baseline	54.34	55.28	57.04	51.85	53.41	72.82	74.31	73.55	74.93	71.65
Percent effect	17.16	19.96	13.78	22.22	21.87	9.22	9.53	12.62	4.32	12.06

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, in parentheses, are clustered at the enumerating-area level. In columns (1) to (5), the outcome variable is the share of jointly owned land with the spouse that male respondents would expect their wife to inherit if the respondent died intestate. In columns (6) to (10), the outcome variable is the share of jointly owned land with the spouse that female respondents would expect to inherit if their husbands died intestate, although this inherited share might be jointly owned with others as well. The male firstborn baseline is the average predicted outcome variable in male firsborn child households using the estimated coefficients on the control variables.

Table A17: Effect of Female Firstborn on Expectations of Firstborn's Inheritance: Wives in First Union

	(1)	(2)	(3)	(4)	(5)
				Women ≤ 45	
Female firstborn child	-9.95**	-10.14**	-11.58*	-11.15*	-12.17*
	(4.14)	(4.41)	(6.23)	(5.91)	(6.85)
Wife primary education		-5.03	-5.32	-4.34	-5.06
		(7.50)	(10.15)	(7.65)	(11.92)
Husband primary education		10.25***	10.94*	7.49*	10.99
		(3.76)	(5.59)	(4.14)	(7.12)
Wife's age ≤ 45		2.33	-0.33		
		(5.36)	(7.60)		
Husband's age ≤ 45		9.90**	11.07*	6.20	13.02
		(4.67)	(6.45)	(5.71)	(8.14)
Village FE	✓	✓	✓	✓	✓
Wife's religion FE		✓	✓		✓
Wife's ethnicity FE			✓		✓
Husband's religion FE		✓	✓		✓
Husband's ethnicity FE			✓		✓
Observations	123	115	98	91	74
adj. R^2	0.24	0.30	0.15	0.28	0.22
Male firstborn baseline	19.73	18.51	17.32	20.03	19.27
Percent effect	-50.43	-54.81	-66.85	-55.66	-63.13

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, in parentheses, are clustered at the enumerating area level. The outcome variable is the share of jointly owned land with the spouse that male respondents would expect their firstborn child to inherit if the respondent died intestate. The male firstborn baseline is the average predicted outcome variable in male firsborn child households using the estimated coefficients on the control variables.

Table A18: Effect of Female Firstborn on Expectations of Wife's Inheritance. Not Previously Married Wives.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Husband's Expectations					Wife's Expectations				
				Women $\leq$ 45					Women $\leq$ 45	
Female firstborn child	7.02	9.56*	7.78	11.15	11.79	7.18*	8.84**	11.47***	4.74	8.89*
	(4.40)	(5.27)	(6.36)	(6.76)	(9.22)	(3.59)	(4.24)	(3.99)	(4.33)	(4.51)
Wife primary education		-0.97	-3.93	8.07	0.81		9.33**	10.68**	8.68	14.24**
		(4.83)	(5.42)	(6.63)	(8.90)		(4.63)	(4.77)	(6.12)	(6.99)
Husband primary education		-13.61***	-11.28**	-21.01**	-15.91*		-9.97**	-9.92*	-13.89**	-13.87*
		(4.91)	(4.83)	(7.88)	(8.73)		(4.40)	(5.23)	(5.84)	(7.19)
Wife's age $\leq$ 45		-4.38	-1.33				-14.19***	-13.11**		
		(6.27)	(7.53)				(4.89)	(5.68)		
Husband's age $\leq$ 45		-5.22	-7.76	-5.73	-7.31		10.38*	5.91	10.92*	5.78
		(5.71)	(6.60)	(5.96)	(7.41)		(5.18)	(5.32)	(5.69)	(5.72)
Village FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wife's religion FE		✓	✓		✓		✓	✓		✓
Wife's ethnicity FE			✓		✓			✓		✓
Husband's religion FE		✓	✓		✓		✓	✓		✓
Husband's ethnicity FE			✓		✓			✓		✓
Observations	320	271	258	173	162	378	327	314	221	212
adj. R^2	0.13	0.19	0.19	0.25	0.29	0.14	0.16	0.23	0.09	0.19
Male firstborn baseline	54.61	55.65	56.38	52.27	53.39	70.62	72.60	71.53	73.68	71.72
Percent effect	12.85	17.17	13.79	21.33	22.09	10.16	12.18	16.03	6.44	12.39

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, in parentheses, are clustered at the enumerating-area level. In columns (1) to (5), the outcome variable is the share of jointly owned land with the spouse that male respondents would expect their wife to inherit if the respondent died intestate. In columns (6) to (10), the outcome variable is the share of jointly owned land with the spouse that female respondents would expect to inherit if their husbands died intestate, although this inherited share might be jointly owned with others as well. The male firstborn baseline is the average predicted outcome variable in male firsborn child households using the estimated coefficients on the control variables.

Table A19: Male Household Inheritance Vignettes

Woman ownership	(1) No children Today	(2) No children Custom	(3) Daughter Today	(4) Daughter Custom	(5) Son Today	(6) Son Custom
Lose the shamba	46.7	62.61	8.13	23.12	3.51	10.55
Less than 50%	2.42	1.77	.44	.22		.22
Keep until remarried	12.11	9.73	26.15	21.15	22.81	21.76
50%	10.13	6.86	1.76	2.2	1.75	2.2
More than 50%	.44	.44	.22	0	.44	.66
Cultivate, not sell	5.95	3.1	20.44	20.48	20.61	20
Owner	22.25	15.49	42.86	32.82	50.88	44.62

Notes: Each column represents the proportion of respondents who select each of the answers, described in the rows, in each of the inheritance vignettes; see Appendix for exact wording.

Table A20: Female Household Inheritance Vignettes

Woman ownership	(1) No children Today	(2) No children Custom	(3) Daughter Today	(4) Daughter Custom	(5) Son Today	(6) Son Custom
Lose the shamba	61.52	70.66	11.31	26	5.56	10.4
Less than 50%	2.46	1.78	2	.89	.44	0
Keep until remarried	12.53	8.44	28.38	24.22	25.33	24.56
50%	8.72	4.67	7.32	4.89	4.22	3.32
More than 50%	.45	0	.67	0	.89	.66
Cultivate, not sell	2.91	4.67	19.51	18.22	21.56	20.35
Owner	11.41	9.78	30.82	25.78	42	40.71

Notes: Each column represents the proportion of respondents who select each of the answers, described in the rows, in each of the inheritance vignettes; see Appendix for exact wording.

Table A21: Vignette 1: Correlates with Customary Law

	Son Vignette		Daughter Vignette	
	(1)	(2)	(3)	(4)
Village characteristics				
Pro-women custom index	0.07	0.06	0.30***	0.28***
	(0.300)	(0.371)	(0.002)	(0.005)
Ln(pop)		-0.02		-0.05
		(0.498)		(0.344)
Ln(minutes to market)		-0.04		-0.07**
		(0.226)		(0.046)
% Primary income: agriculture		0.45***		-0.35
		(0.000)		(0.193)
% Primary income: wage employment		0.41		0.51
		(0.613)		(0.755)
% Primary income: pastoralism		0.16*		-1.08***
		(0.069)		(0.000)
% Primary income: non-farm enterprise		0.07		-0.49*
		(0.797)		(0.095)
Financial access		0.07		0.02
		(0.101)		(0.842)
Individual controls	✓	✓	✓	✓
Ethnicity FE	✓	✓	✓	✓
Observations	202	202	164	164
R2	0.10	0.15	0.09	0.17

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, in parentheses, are clustered at the village level. The outcome variable is an indicator variable equal to 1 if the VI respondent answered the daughter or the son would inherit the plot in vignette V1. All regressions include the following individual controls: gender, education, age, and age square, as well as ethnicity fixed effects. The full table is available upon request.

Table A22: Randomized VI Vignettes: Gender Bias

	(1)	(2)	(3)	(4)
	Vignette 1		Vignette 2	
Daughter vignette	-0.11***	-0.10***		
	(0.033)	(0.038)		
Daughter vignette			0.01	0.00
			(0.040)	(0.042)
Individual controls	✓	✓	✓	✓
Village FE		✓		✓
Mean son vignette	0.91	0.91	0.86	0.86
Percent effect	-0.12	-0.11	0.01	0.01
Observations	403	403	403	403
R2	0.03	0.14	0.02	0.14

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, in parentheses, are clustered at the village level. In columns (1) and (2), the outcome variable is an indicator variable equal to 1 if the VI respondent answered the daughter in vignette V1. In columns (3) and (4), the outcome variable is an indicator variable equal to 1 if the VI respondent answered the wife would inherit the plot in vignette V2. All regressions include the following individual controls: gender, education, age, and age square, as well as ethnicity fixed effects. The full table is available upon request.

Table A23: Randomized VI Vignettes: Heterogeneity by Gender

	(1)	(2)	(3)	(4)
	Vignette 1		Vignette 2	
Female	0.03	0.03	0.02	0.00
	(0.039)	(0.043)	(0.043)	(0.041)
Daughter vignette	-0.09**	-0.08*		
	(0.042)	(0.044)		
Daughter vignette $\times$ Female	-0.04	-0.05		
	(0.074)	(0.075)		
Daughter vignette			0.03	0.02
			(0.050)	(0.051)
Daughter vignette $\times$ Female			-0.05	-0.03
			(0.069)	(0.069)
Individual controls	✓	✓	✓	✓
Village FE		✓		✓
Mean son vignette	0.91	0.91	0.86	0.86
Percent effect	-0.10	-0.09	0.04	0.02
Observations	403	403	403	403
R2	0.04	0.14	0.02	0.14

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, in parentheses, are clustered at the village level. In columns (1) and (2), the outcome variable is an indicator variable equal to 1 if the VI respondent answered the daughter in vignette V1. In columns (3) and (4), the outcome variable is an indicator variable equal to 1 if the VI respondent answered the wife would inherit the plot in vignette V2. All regressions include the following individual controls: gender, education, age, and age square, as well as ethnicity fixed effects. The full table is available upon request.

B Regions comparability

Table B1 below provides some information on how comparable our three regions, Katavi, Kigoma, and Mwanza, are to the rest of the country, aside from being far from Dar es Salaam. To do so, we use the 0.1% sample from the 2012 Tanzanian National Census made available by IPSUM at the Minnesota Population Center (Integrated Public Use Microdata Series, International). One issue that arises to carry the exercise is that regional boundaries have changed over time. Both Mwanza and

Katavi were until recently part of bigger administrative units. To alleviate this issue, we use the regions' classification based on consistent boundaries from 1988 to 2012. Table B1 presents sample means for a series of household and individual characteristics using sampling weights. The variables summarized at the household level (electricity, owns dwelling) are calculated using household weights. The variables at the individual level are calculated using individual weights. The variable "child ever born" is calculated as the average number of ever-born children for all women 12 years old or above. The "child survival" variable is calculated as the share of children ever born that are currently alive for all women 12 years old or above. The "literacy" and "primary completed" variables include every individual 4 and 12 years old or above, respectively. The "Agric./Fisher" variable represents the share, among the employed, of individuals working in skilled agriculture or fishery activities. We see that the region containing Mwanza is very similar to the average mainland Tanzania (excluding Dar es Salaam). Katavi and Kigoma appear to have lower than average access to electricity and literacy rate. Katavi also has a slightly larger immigrant population (3% compared with 1%).

Table B1: 2012 Census Summary Statistics by Region

Region	Electricity	Own dwelling	Foreign born	Literacy	Primary	Child born	Child survival	Agric./Fisher
Mainland Tanzania	0.14	0.75	0.01	0.64	0.50	3.17	0.85	0.73
Mainland Tanzania - excl: Dar es Salaam	0.10	0.79	0.01	0.62	0.49	3.27	0.85	0.78
Arusha, Manyara	0.15	0.73	0.00	0.64	0.50	2.92	0.91	0.69
Dar es Salaam	0.50	0.42	0.01	0.85	0.59	2.13	0.89	0.18
Dodoma	0.09	0.85	0.00	0.57	0.46	3.44	0.82	0.81
Geita, Kagera, Mwanza, Shinyanga, Simiyu	0.09	0.78	0.01	0.59	0.48	3.38	0.85	0.76
Iringa, Njombe	0.11	0.80	0.00	0.71	0.54	3.14	0.83	0.80
Katavi, Rukwa	0.06	0.77	0.03	0.54	0.44	3.46	0.84	0.80
Kigoma	0.06	0.85	0.01	0.58	0.47	3.41	0.85	0.82
Kilimanjaro	0.20	0.76	0.00	0.80	0.60	3.20	0.90	0.70
Lindi	0.08	0.83	0.01	0.56	0.44	3.21	0.80	0.85
Mara	0.09	0.81	0.01	0.66	0.56	3.52	0.83	0.80
Mbeya	0.10	0.79	0.01	0.67	0.53	3.15	0.83	0.75
Morogoro	0.13	0.73	0.00	0.65	0.51	3.17	0.83	0.77
Mtwara	0.05	0.83	0.02	0.58	0.45	3.04	0.80	0.86
Pwani	0.11	0.74	0.01	0.59	0.45	3.22	0.83	0.76
Ruvumba	0.09	0.81	0.01	0.71	0.59	3.13	0.84	0.84
Singida	0.08	0.85	0.00	0.61	0.50	3.45	0.86	0.80
Tabora	0.09	0.78	0.01	0.50	0.40	3.28	0.86	0.75
Tanga	0.13	0.77	0.00	0.67	0.51	3.25	0.86	0.80

Source: 2012 Tanzania National Census. Notes: The columns present sample means using sampling weights.

C   Data and Variables Description

Land Data

We first asked the husband how many plots (*shambas* and *kiwanjas*[35]) he owned both independently and jointly with the interviewed spouse. The husband was allowed to list up to five *shambas* and two *kiwanjas*, as long as the total number of *shambas* was less than six.[36] We collected self-reported data on land characteristics for each individual plot (e.g., size, quality, use); ownership, selling, inheritance, and divorce

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[35]Shambas are cultivated plots and kiwanjas are plots with a dwelling.

[36]Only 39 respondents (8.5% of the sample) reported more than five *shambas*, in which case they were asked a series of questions about their land -holdings characteristics in general.

rights; and existence and demand for land titles. We also asked the husband if the wife knew about the existence of each plot, to avoid disclosing any confidential information (only 1.08% of the plots were not known to the wife). Then, we showed the wife the list of land parcels listed by the husband and asked her if there were any other plots with or without her husband that she owned were missing from the husband's list. Again, if the number of *shambas* was less than six, we allowed her to list five extra *shambas* and two *kiwanjas*.[37] The same information was collected on these additional plots. For those already listed by the husband, the wife only answered questions on ownership and other land rights. In total, we collected data on 692 *shambas* and 517 *kiwanjas* listed by husbands and 68 *shambas* and 49 *kiwanjas* additionally listed by wives.

Ethnic Characteristics

During the group VI interview, we asked, *What are the five most common ethnicity by population size in this village?* Then, for each ethnicity, we asked whether the ethnic group traditionally allowed for some practices. The gender-related questions follow:

Does the traditional clan law of the XX permit

1. Women to own land ?

2. Sons to inherit land?

3. Daughters to inherit land ?

4. Women to inherit land from their husbands?

   (a) Yes, inherit full rights

   (b) She can use land until remarries

   (c) No

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[37]None of the female respondents listed more than five new *shambas*.

Household Vignettes

Wife inheritance

For the following questions, imagine that a woman inherited from her husband a shamba (without any land title/ownership document) that she was cultivating, and that a male member of his clan claims the land.

Today: *What do you think would happen if*

1. she had no children?

2. she had a daughter from him?

3. if she had a son from him?

Custom: *What do you think would have happened under your clan customs?* under these three scenarios.

The possible answers to the "Today" and "Custom" inheritance vignettes were

1. She would lose the shamba.

2. She could keep it but would lose it if she remarries.

3. She could cultivate it all her life (even if she remarries) but could not sell it.

4. She would be the owner (cultivate, sell, decide who inherits).

5. They would split the shamba (followed up by *What share would the woman own?* Less than half ($< 50\%$); Half (50%); More than half ($> 50\%$)).

An additional option was "She could keep it only if she marries the brother of the husband" for the "clan custom" questions.[38]

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[38]During focus -group discussion, we were discouraged to put levirate as a possible contemporaneous option.

CCRO: *Suppose a husband and a wife own a shamba. Their names are the only ones on the CCRO. The husband dies. Could his brothers claim ownership of the land?*

1. No
2. Yes

Divorce

Custom: *Imagine a husband and a wife own a shamba jointly and they both cultivate it. Suppose they mutually agree to divorce. What would have happened under your clan customary law to the ownership of the shamba?*

1. He would be the owner.
2. She would be the owner.
3. Split the shamba (followed up by *What share would the woman own?* Less than half ($< 50\%$); Half (50%); More than half ($> 50\%$)).
4. Sell the shamba.

Expectations for household members

Inheritance Expectations

Question asked to male respondents: *If you did not have a will and (god forbid) you die, what share of the land you own jointly with (spouse interviewed) would you expect to go to the following household members?*

Question asked to female respondents: *Imagine, god forbid, your spouse happened to die without a will. What share of the land that you own jointly with your spouse would you expect to get?*

Divorce Expectations

Question asked to male respondents:

Imagine, god forbid, you and (spouse interviewed) mutually agree to get a divorce. Would she be the owner over the shambas you and (spouse interviewed) own jointly? Would the ownership of the shambas be different in the case your spouse were at fault? If yes, what will be your answer?

1. No, she will never be owner.

2. Yes, she would be the owner if we have children living at home.

3. Split the shamba (followed up by *What share would the woman own?* Less than half ($< 50\%$); Half (50%); More than half ($> 50\%$)).

4. She would be the only owner until she remarries.

5. She would be the only owner.

6. She is not allowed to own land (jointly or alone)

Question asked to female respondents:

Imagine, god forbid, you and your spouse mutually agree to get a divorce. Would you be the owner over the shambas you and your spouse own jointly? Would the ownership of the shambas be different in the case you were at fault? If yes, what will be your answer?

1. No, I will never be owner

2. Yes, I would be the owner if we have children living at home

3. Split the shamba (followed up by *What share would the woman own?* Less than half ($< 50\%$); Half (50%); More than half ($> 50\%$)).

4. I would be the only owner until I remarry

5. I would be the only owner

6. I am never allowed to own land (jointly or alone) under any circumstances

Plots ownership rights questions

1. Who is the owner? (for joint ownership: check all that apply)

2. Who has the right to sell it? (check all that apply)

3. Who has the right to give it out as inheritance? (check all that apply)

with the following options

1. Myself

2. My spouse

3. Me and spouse jointly

4. Sons

5. Daughters

6. Whole family

7. My extended family

8. Spouse extended family

9. Nobody

10. Other

Who would decide on who would be registered as claimant/owner for this shamba?s CCRO? [Select one]

1. Myself alone

2. Spouse alone

3. Jointly me and spouse

4. Sons alone

5. Daughters alone

6. Jointly me and Sons

7. Jointly me and daughters

8. Jointly with sons/daughters and spouse

9. Jointly with my extended family

10. Spouse extended family

11. Jointly with sons & daughters

D Village Institutions in Tanzania

The Composition of Village Councils

Once a village registration has taken place, the Village Assembly (VA) (an organ composed of all adult villagers) elect every five years a *Village Council (VC)* composed of 15 to 25 members. VC members must be above 21 years old, be residents of the village, and be able to write. Twenty-five percent of the seats must be reserved for women. We see in Table C1 that both the average and the median share of women in the VCs is 30%, but 25% of the villages do not meet the one quarter-threshold.

Table C1: Village Institutions

Village Institution	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Number of Members			Share of Women			
	Obs.	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max
Village Council	45	18.98	3.47	12.00	26.00	29.29	7.26	8.33	41.18
Village Land Council	26	6.81	1.23	4.00	10.00	34.90	10.19	16.67	57.14
Village Adj. Comm./VLUM	19	7.79	2.78	4.00	16.00	38.24	21.20	0.00	71.43

The Village Land Act (VLA) mandates that every village must establish a dispute-settlement body named the Village Land Council (VLC). Its goal is to mediate and assist parties to find an agreement in land-related disputes. Under the 1999 Act,

the VLC should consist of four to seven members, of which at least two should be women. The most recent 2002 Land Disputes Settlements Act required the VLC to consist of seven members and a minimum of three women. Table C1 shows that in practice, not every village has established a VLC. Only 57% of our sampled villages ever had one, and 54% of them have only one or two women in the council.

The VLA also demands that the VC establishes a Village Adjudication Committee (VAC) with six to nine members, and at least three women. Additionally, it recommends that the VCs create a Village Land Use Management (VLUM) committee, ideally gender balanced. Table C1 shows that, when a village has VLUM, it does average seven to eight members but is still far from equal gender representation.

The Village Assembly

The Village Assembly (VA) may also play a role in women's land rights. VCs are not allowed to allocate land or grant a customary right of occupancy without prior approval of the VAs. The VA is composed of all adult villagers, men and women, above 18 years. Given this inclusiveness, the relevant question is whether men and women participate to the same extent in the VA meetings. When asked, VI members claimed men and women are equally represented at the VA meetings. However, household interviews painted a different picture. Table C2 shows that male and female household members are strongly statistically different in terms of attendance, participation, and beliefs that their opinion matters. Overall, only 20% of respondents report to have never attended a meeting of the VA. The share of household males who attended the last meeting were 53%, versus 26% for females.[39] We measured both participation and self-valuation of individuals' opinions being heard by asking, "Do you actively participate in the VA?" and "Do you believe

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[39]These numbers could only match the 50%-50% male-female attendance reported by the VIs if the number of eligible females was approximately four times as large as the number of men, which is extraordinarily unlikely and not supported by the Tanzanian 2012 Census population data https://www.nbs.go.tz/.

your opinion is heard in the VA?" We provided three possible answers ranging from low to high participation/opinion and assign values from one to three to value the answers numerically.[40] In both measures, men average above 2.1 and women below 1.7, suggesting that men still dominate the issues discussed in the meetings and the resolutions ruled by the VA.

Table C2: Village Assembly Participation

	(1) Men	(2) Women	(3) Difference	(4) Obs.
# Times last 12 months	2.85	1.60	1.26***	911
			(0.11)	
Attended last meeting	0.53	0.26	0.27***	912
			(0.03)	
Participation	2.15	1.43	0.72***	706
			(0.06)	
Opinion heard	2.12	1.66	0.46***	714
			(0.05)	
Never attended	0.11	0.32	−0.21***	912
			(0.03)	

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The summary statistics are based on the household interviews. Columns (1) and (2) report sample means. Column (3) reports the difference between (1) and (2) estimated with an OLS regression clustering the standard errors, in parentheses, at the enumerating-area level.

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[40]The participation options were as follows: (1) No, I attend but usually remain silent; (2) Yes, I attend and raise my opinion in the matters that affect me directly; and (3) Yes, I attend and I raise my opinion with respect to most issues that affect my village. The opinion options were as follows: (1) No, I don't think it is heard; (2) Sometimes; and (3) Always.