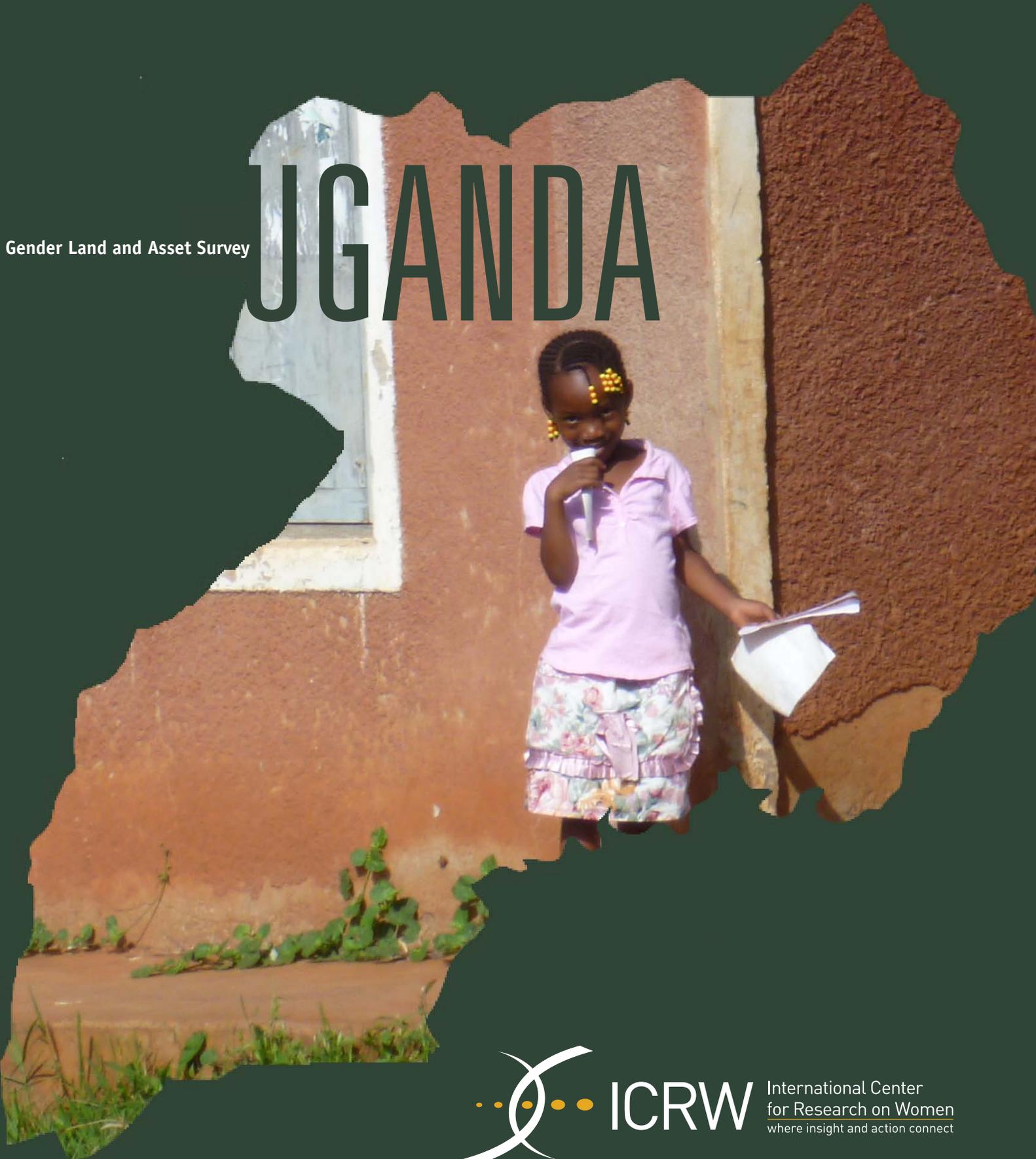


Gender Land and Asset Survey

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Gender Differences in Asset Rights in Central Uganda

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Recent studies have affirmed the importance of women's asset ownership, including land, housing, and other assets, for economic development and social security.

Though data showing the importance of asset ownership for women are proving valuable in raising awareness about the need to recognize and enforce women's rights, awareness-raising is only a first step. Deeper analysis is needed to understand individuals' engagement with assets beyond ownership and into use and decision-making, how women's engagement with assets differs from men's, and why asset rights are important. This entails building an understanding of the factors that may be correlated with women's asset rights. A more specific understanding of these factors in turn will allow movement from awareness to action by providing the data needed to guide programs and policy decisions that will ensure these rights are upheld.

To provide some of this more in-depth detail on determinants of women's asset rights, ICRW and Associates Research Uganda Limited developed and piloted a survey methodology for collecting and analyzing individual- and household-level quantitative data on women's rights over assets.^{1,2} The Gender, Land, and Asset Survey (GLAS) is one of the first studies to undertake a quantitative and gendered assessment of men's and women's rights over assets – including ownership, documentation, and degree of control over use, transfer, and transactions – and the implications thereof. Specifically, this study attempts to answer the following questions in the context of central Uganda:

- What are the differences in women's and men's ownership, use, and decision-making over land, housing, material assets, livestock, and financial assets?
- Which socioeconomic/structural factors influence women's and men's asset rights and in what ways?

Given the evidence from other contexts suggesting a link between women's rights over assets and domestic violence, the study also examines whether women's asset rights influence their experience of intimate partner violence in central Uganda.

Background

For individuals and households, asset ownership translates to a secure place to live, means to earn a livelihood, and the ability to mitigate the economic and social risks associated with natural disasters, disease, and economic shocks (Doss, Grown, and Deere 2008).

A growing literature demonstrates the particular benefits of women's asset ownership, not only for themselves, but also for their families and the economy as a whole. In various studies, women's asset ownership has been linked to increased spending on food, housing, and durable goods, and children's schooling (Katz and Chamorro 2003; Quisumbing and Maluccio 2003; Doss 2006). Duflo (2000) and Thomas (1990) also found that asset ownership by mothers can improve children's health outcomes, including survival rates, and long-term and short-term nutritional status. Women with more assets are also found to use prenatal care at higher rates than women with fewer assets (Beegle, Frankenberg, and Thomas 2001).

Besides enhancing the well-being of women and their families, asset ownership is also found to empower women in their relationships and to give them a stronger voice in public forums (Katz and Chamorro 2003). A number of studies exploring the pathways among women's asset ownership, socioeconomic status, and HIV risk suggest that asset inequality increases women's vulnerability to the HIV infection (Beegle

and Ozler 2006; Hallman 2005; Swaminathan, Walker, and Rugadya 2006). Other studies have established that assets may protect women from experiencing domestic violence (Panda and Agarwal 2005; Bhatla, Chakraborty, and Duvvury 2006; Swaminathan, Walker, and Rugadya 2006).

At the macro level, gender equality in asset ownership is shown to improve agricultural productivity, bolster resistance to economic shocks, and foster economic growth (Deere and Doss 2006).

Current Knowledge on Gender and Asset Rights in Uganda

The literature on men's and women's asset rights in sub-Saharan Africa is quite limited and for the most part focused on land. Evidence from these studies points to a substantial and pervasive gender gap in asset ownership, with women owning less land than men that is of lower quality (Doss 2006; Mason and Carlsson 2004; SOFA Team 2011). Data on assets beyond land are even scarcer, though general trends again suggest a strong advantage among men in terms of assets such as farm animals and transport vehicles (Doss, Grown, and Deere 2008).

Evidence from Uganda is similar to what has been found elsewhere in the region. Despite their significant role in the agricultural sector,³ only about 16 percent of Ugandan women own land in their own right (Rugadya 2010). Their ownership of registered land is even lower at 7 percent (Rugadya 2010; Bikaako and Ssenkumba 2003). Housing, often considered a combined asset with land, particularly in rural areas, is also overwhelmingly owned by men (Rugadya 2010).

About half of the farming households in Uganda are engaged in livestock rearing (Nayenga 2008), which provides them an additional source of livelihood. Differences also exist in ownership of livestock between men and women as well as in the types of livestock they

own. Oluka et al.'s study of men's and women's livestock ownership in north-eastern Uganda finds a significant gender gap. The disparity is most severe in cattle ownership with 62 percent of men and only 14 percent of women reporting ownership, but also extends to poultry and other small stock animals. Only 22 percent of women versus 39 percent of men indicate they own poultry, for instance, which is surprising given that it is often seen as a female asset (Oluka et al. 2005).

Land, by virtue of being the main productive asset and means of wealth accumulation for a majority of Ugandans, dominates the discourse on asset rights in the country. Evidence on gender inequities in asset ownership, particularly land, has in recent years helped move an extensive legal reform process to define and protect women's right to own, use, and transfer land and other assets. This includes the ratification of a new Constitution and several pivotal pieces of legislation such as the 1998 Land Act and the pending reform of the Succession Act. The draft National Land Policy further prescribes specific strategies to ensure that constitutional rights and obligations with regard to gender equality are upheld, particularly around reforming customary laws and practices (Rugadya 2010).

A fairly large literature is dedicated to understanding the underpinnings of persistent gender inequity in land rights, in Uganda and elsewhere in sub-Saharan Africa. Commonly examined in this literature are customary laws and practices that continue to shape many individuals' relationship with land. Molded by society's patriarchal norms, these laws and practices give ownership of land to men or male heads of extended families, while women enjoy "secondary" rights in the form of access to and use of land through their husbands, fathers, brothers, or other male relatives (Bikaako and Ssenkumba 2003; Benschop 2002; Rugadya 2010).

The implications for Ugandan women of the primacy of customary law is that their rights over land and housing depend significantly on the quality of their personal and social relationships, primarily with their intimate partners and to a lesser extent with other kinship groups (Walker 2002). A number of factors, including the weakening of the institution of marriage and increased scarcity of land, have contributed to the deterioration of women's rights under the customary framework (Tripp 2004; Khadiagala 2002). Like most other countries heavily hit by the AIDS epidemic, in Uganda, HIV has further contributed to increased vul-

nerability of women's land rights (Drimie 2002; Izumi 2006). Recent studies reveal the extent of property grabbing in HIV-affected households; with about 30 percent of widows and orphans the victims of this practice following the death of a spouse/parent (Ampaire et al. 2008).

The limitations of the statutory legal framework that includes gender equality principles have also been discussed in the literature (Cooper 2010). Although Uganda's statutory laws grant men and women equal rights to land and other property regardless of their marital status, application of these laws has been mired by a number of factors. First, legal pluralism that stems from the recognition of both customary and statutory land tenure in the Constitution and the Land Act results in multiple conflicts between customary and statutory laws, which are often not mediated by statutory provisions as prescribed in the Constitution. The application of statutory laws is further complicated by a number of factors, including lack of knowledge of the laws and the high costs of legal action to administer an estate (Ampaire et al. 2008). The weak institutional capacity of the legal system, particularly in rural areas, also prevents effective enforcement and administration of the laws (Whitehead and Tsikata 2003; Young 2010).



Krista Jacobs

The confluence of these factors results in customary law and practices still prevailing over formal law among Uganda's four predominant tenure systems – mailo, customary, freehold, and leasehold.^{4,5} Practices around marital property and inheritance, in particular, continue to be dominated by customs that impose serious constraints on women's ability to own and control land (Rugadya 2010).

Methodology

Informed by qualitative research conducted in the study areas, GLAS offers two main methodological innovations. First, it asks not only about ownership but also about use and decision-making over assets. Second, it allows for disaggregation of data by gender in asking each woman and man separately about her/his own ownership, use, decision-making, and documented claims over particular assets. Specifically, for women and men, the GLAS captures:

- **Documentation beyond land title:** The GLAS asks about multiple forms of documentation beyond a land title or certificate of registration, including purchase agreement, rental agreement, receipts, wills, and written permission from traditional authorities.
- **Joint ownership:** The GLAS data describe the extent of joint ownership of assets such as land, housing, material assets,⁶ livestock, and financial assets; the proportion of women's joint property ownership to their overall asset holdings; and with whom women and men jointly own assets. GLAS data also evaluate whether both respondents believe that they share ownership. For material and financial assets, respondents were asked if they own the assets by themselves or with someone else. The GLAS also allows more than one person to be recorded in cases where two (or more) names are on land and housing documents.

Specific Measures of Asset Rights

The GLAS measures a spectrum of rights over several types of assets. This report includes findings on land, housing, livestock, material assets, and financial assets. Depending on the asset, GLAS measures rights including (1) ownership (whether a respondent states that an asset belongs to him/her), (2) documented rights (whether a person's name appears on documentation for the asset), (3) use rights, and (4) role in making decisions about the asset. Within ownership, we also distinguish between sole and joint property ownership. Table 1 gives more detail on the primary measures of asset rights used in the analysis. All measures in Table 1 are at the individual level and are for both women and men.

It is important to note, especially in the context of joint ownership, that the measure of ownership used is perceived ownership (i.e., based on what the respondent reports versus based on legal proof of ownership). Perceptions of who owns what differ across respondents and may be influenced by norms favoring communal ownership or consolidating ownership with men. People may be more inclined to report assets that many household members use,

such as furniture, as belonging to the household as a whole or belonging to a couple. Additionally, anecdotal evidence suggests that women may be more inclined to report property as belonging to others in the household (to the children or their partner) than to themselves.

Sampling

The project team in Uganda piloted the GLAS survey in Butenga sub-county, in Masaka District. Across a total of six parishes, the total population of Butenga sub-county is 45,148. The site selection was intended to represent the mailo land tenure system in rural central Uganda. A multi-stage sampling approach was used that drew on a district-level "community information survey," which lists all parishes and villages in the district. First, two parishes were randomly selected; this was followed by a random selection of four villages in each parish. Households were randomly selected from each village, with the number of households selected proportional to the village's share of the parish population. The total sample size was 545. Two respondents were interviewed per household – the household head (either male or female) and a randomly chosen woman. In many instances, female-headed households did not have another eligible woman to be the randomly chosen woman respondent. As a result, the final sample included a total of 698 individual interviews. The analysis was based on data collected from 539 households and 674 individuals, 345 men and 329 women. Of these men and women interviewed, 344 men and 117 women were heads of their households. All but one of the women interviewed who were not heads of households were spouses of men who were interviewed.

Analytical Approaches

This report presents findings from three analytical methods: (1) summary statistics, (2) profile analysis, and (3) multivariate analysis.



Meredith Saggiers

Table 1. Rights Measured by Gender: Land, House, Material Assets, Livestock and Financial Assets

LAND	
Own	Whether a person owns land either jointly or by him/herself
Document	Whether a person reports having his/her name on any written documentation for land, including titles, rental agreements, receipts, permission to occupy orders, etc.
Decision-making	A measure of individual's decision-making over each plot of land associated with the household including land transactions (selling, renting, and collateralizing), who will inherit the land, who may use land, what to grow on land, selling the harvest, and keeping money from harvest sales
HOUSE	
Own	Whether a person owns a residence either jointly or by him/herself
Own (self)	Whether a person owns a residence by him/herself
Decision-making	A person's decision-making power over transactions on the residence (sell, gift, rent, collateralize, and bequeath)
MATERIAL ASSETS	
Own	The number of different asset types that a person owns either jointly or by him/herself
Own (self)	The number of different asset types that a person owns by him/herself
Use (total)	The number of different asset types a person uses regardless of who owns them
LIVESTOCK	
Own	Whether a person owns poultry either jointly or by him/herself
Own (self)	Whether a person owns poultry by him/herself
Decision-making (total)	A person's decision-making over use of livestock owned by all household members, including self
FINANCIAL ASSETS	
Cash (self)	Whether a person reports having cash

The summary statistics provide snapshots of what assets individuals have, use, and control. In comparing individual-level means and tabulations of variables by sex and women's headship (see Table 1) this analysis describes any differences in overall rights over assets between women and men.

Profile analysis is used to examine the characteristics of women with different levels of asset rights. Using indices that condense ownership, self-ownership, decision-making, and use into scores of low, medium, and high rights over land, housing, material assets, and livestock, women were grouped according to their rights score.⁷ This grouping allows for comparing the main attributes, or profiles, of women with different rights scores to traits such as age, education, marital status, etc.

Finally, multivariate linear regression⁸ is used to disentangle the influences of multiple socioeconomic factors on women's and men's property rights. Economic theory and the literature⁹ on asset rights and gender suggest several factors are related to a person's asset rights. Individual-level determinants include age, literacy and education, partnership status, relationship to the household head, having sons and daughters, proximity to natal family, main livelihood, whether earning cash income, and the prevailing tenure systems. Household-level variables capture household composition (number of adult men and adult women), proxies for household socioeconomic status (number of persons per room, quality of the physical dwelling), and how the household acquired its lands. The models include community-level fixed effects.

A binary variable for whether an individual in the sample is female is included in the multivariate estimations to capture the gender differentiated asset rights outcomes. This variable is also interacted with several other potential determinants (partnership status, headship status, prevailing tenure systems, how land was acquired, numbers of brothers, sons, and males in the household) to investigate whether these variables have the same relationship to women's asset rights as they do to men's. For example, the multivariate regressions can speak to questions like, "Is being in an individual customary land tenure system equally beneficial for women's and men's land ownership?"

Characteristics of Study Location and Sample

There are some notable differences in the sample in terms of the characteristics of men, women heads of households, and women who are not heads (see Table 2). While men and women are on average of similar age, women heads of households are significantly older than women who are not heads of households. Although there is a slight difference in the overall sample between men's and women's education level, a more significant disparity arises when comparing women who are heads of households and those who are not, with women household heads being significantly less likely to be educated or literate.

Among women who are not heads of households, monogamous customary marriage is most prevalent (around 33 percent), followed by monogamous religious marriages (30 percent) and cohabitating (28 percent). Meanwhile, most women heads of households are widowed (59 percent). Approximately 28 percent are divorced or separated, and a few (6 percent each) are married or single. Polygamous marriage is not common, constituting about 2-4 percent of all reported marriages. This is significantly lower than anticipated based on the Demographic and Health Survey data from the region, which suggests that about 24 percent of women are in polygamous relationships (Uganda Bureau of Statistics and Macro International Inc. 2006). The south-central region, where Masaka is located, is among the more affluent parts of Uganda, with more than one-third of its population in the highest two wealth quintiles nationwide

(Uganda Bureau of Statistics and Macro International Inc. 2006). The region also fares better than the rest of the country in terms of education. Women in particular have higher school attainment and literacy rates than those in other parts of the country. Although lower than the national average, the fertility rate in the region is high at 5.6 percent, adding to the population pressure in this already densely populated region. Masaka is also among the regions nationwide with the highest HIV prevalence, and women are affected more than men (Government of Uganda 2010).

Agriculture is men's and women's main source of livelihood in Masaka (Uganda Bureau of Statistics and Macro International Inc. 2006). This is reflected in the study sample, which shows agricultural self-employment as the main source of cash income for 84 percent of women and the highest ranked activity in terms of time spent. Men appear slightly more diversified with 69 percent earning an income through agriculture. Much like the rest of the country, land is therefore the key productive asset and means of wealth accumulation for a majority of those who live in the region.

Though several land tenure systems coexist in Uganda, mailo is the predominant tenure in Masaka.¹⁰ Transactions under this tenure are governed by statutory law, which only accords recognition of absolute rights to the individual in whose name the title is issued. All other powers relating to access, control, and use are governed by the customary law of Buganda (Rugadya 2007). In our sample, about 70 percent of men

and 54 percent of women reported being associated with mailo tenure, followed by historical occupation reported by 15 and 11 percent, respectively (see Table 3).¹¹ Other tenure forms, including freehold, leasehold, rent, individual customary, squatting, and informal tenure were reported by 10 percent of the respondents. It is important to note that about one-quarter of all respondents, most of them women who are not heads of households, indicated that they don't know their tenure types. Specifically, 50 percent of women who live in households headed by men do not know their tenure types. This may be due to the patrilocal marriage patterns in Uganda, which result in women moving to their partners' clans and away from the tenure regimes of their natal families, likely the only regime with which they are familiar



Meredith Sagers

Table 2. Select Demographic Characteristics of Respondents, by Sex and Headship

	Men (n=345)		Women (n=329)	
	All men	All women	Women, head of household (n=117)	Women, not head of household (n= 212)
Average age in years	43.9	41.2	55.1	36.2
Read and write in any language (%)	79	69	49	76
Ever been to school (%)	87	82	67	87

Table 3. Tenure Types (%), by Gender, by Sex and Headship

	Men (n=345)		Women (n=329)	
	All men	All women	Women, head of household (n=117)	Women, not head of household (n= 212)
Mailo	69	54	59	52
Historical occupation	15	11	9	12
Other	10	8	13	6
Unknown to respondent	15	37	23	42

Asset Rights of Men and Women in Masaka District

Land and Housing

As presented in Table 4, in Masaka, men own land and houses at higher rates than women. When accounting for both individual and joint ownership, nearly three times as many men as women own land (88 percent vs. 32 percent). Meanwhile, individual ownership for land is 43 percent among men and 17 percent among women. In terms of house ownership, there is a similar gender divide, with more than half of men owning a house as opposed to about one-third of women (see Table 5). Joint ownership is significantly more prevalent among women, with 15 percent of women indicating that they own a house jointly as opposed to 3 percent of men.

Worth noting is women heads of households' significantly higher levels of land and house ownership in comparison to women who live in households headed by men. In fact, women heads of households' house ownership as well as their individual ownership of land is at compa-

rable levels with those of men. Women who are not heading a household report significantly higher levels of joint house ownership than do men overall.

Around 60 percent of all households have some kind of land document, most commonly a purchase agreement, on at least one of their plots. Regardless of their position in the household, a significantly lower number of women, 13 percent, have their names on these land documents compared to 48 percent of men.

While no significant difference is detected between men and women's reporting of having their names on these documents, the subgroup of women who are in male-headed households appears significantly less represented in house documents. Overall, significantly fewer households have documentation for housing (15 percent) than for land (60 percent).

Inheritance, purchase, and transfers from living family members emerge as the most common forms of land acquisition in the region (see Table 6). Asked

how the lands they are associated with were acquired, men and women gave slightly different responses, with a majority of men indicating they are associated with inherited land, while the majority of women report purchase.¹² A significantly higher number of women heads of households also report they are associated with land acquired through marriage, as compared to women who are not household heads and men. This finding is consistent with a high percentage of female household heads being widowed, divorced, or separated.

The respondents were asked about their ability to make decisions regarding land and house, including transaction decisions (sale, renting, gifting, collateralizing), decisions regarding their use (crops grown and sold) and use of income they generate, and bequeathing. The ability to make an independent or joint decision was scored as 1, and lack of control over a decision was scored as 0. Based on this scoring, across all decisions – transactions, use, use of income, and bequeathing – men emerge as holding a relatively stronger position with respect to making

Table 4. Ownership of Land (%), by Sex and Headship

	Men (n=345)		Women (n=329)	
	All men	All women	Women, head of household (n=117)	Women, not head of household (n= 212)
Person owns land	88	33	75	17
Person owns land – by self	43	17	38	9
Person owns land – jointly	53	20	41	13
Person's name on document for land	48	13	30	7

Table 5. Ownership of House (%), by Sex and Headship

	Men (n=345)		Women (n=329)	
	All men (n=211)	All women (n=118)	Women, head of household (n=117)	Women, not head of household (n= 212)
Person owns house	57	33	59	24
Person owns house – self	54	19	56	5
Person owns house – jointly	3	15	3	19
Person’s name on document for house*	18	11	21	2

* Data on house documentation comes from the subset of individuals who indicate owning a house. This explains the low n.

decisions regarding land and house transactions (see Figure 1), as well as use of house and land. A more nuanced picture emerges, however, when different groups of women and particular decisions are taken into account. Specifically, though men have a clear upper hand on land transactions, including selling, gifting, and collateralizing land as well as bequeathing decisions, women heads of households appear to be better positioned than both men and women who are not heads in decisions on agricultural use of land. Both men and women heads of households report similar levels of control over income from land. With respect to house-related transactions, women who are heads of households once again have a very similar level of control over these decisions compared to men, while women who are not heads are significantly disadvantaged.

Material Assets

Data were also collected on men’s and women’s ownership and use of various material assets including agricultural tools and machinery, household goods (both durable and nondurable), transportation assets, and communication assets (see Table 7 for findings pertaining to ownership).

Once again, men emerge with a significant advantage in material asset ownership, particularly in individual ownership of key productive assets such as agricultural tools and machinery, transportation assets, and communication assets. The gender divide is somewhat miti-

gated when factoring in headship status of women. In fact, there is no notable difference between men overall and women household heads in the ownership of agricultural and communication assets, though men have a clear advantage in ownership of transport assets. Women in households headed by men, on the other hand, report significantly higher levels of joint ownership of some of these assets, specifically agricultural machinery and tools and communication assets. These women also own jewelry at significantly higher rates than both men and women household heads.

Similarly, the level of diversification in terms of different types of material assets individually owned is indistinguishable between men and women heads of households, while women who are not household heads own a significantly less varied basket of material assets. However, ownership seems to be less of a factor in use of material assets as the number of material asset types used by men and women is the same. Both men and women use, on average, 4.6 asset types across all assets in the household regardless of the owner.

Livestock

Cattle, goats, pigs, and poultry are the most commonly owned livestock among respondents. As shown in Table 8, ownership levels for livestock are higher among women than men, although the difference is not statistically significant except in the specific case of poultry.

The absence of a gender divide in livestock ownership is also reflected in comparable levels of decision-making on use of livestock reported by women and men (not shown in Table 8). On a scale from 0 to 1, both men and women have comparably strong decision-making control over use in self-owned livestock with a score about 0.44. While the absolute scores of decision-making control drop for jointly owned livestock (0.16 for women and 0.05 for men) and livestock owned by others in the household (0.03 for women and 0.02 for men), they remain comparable between men and women.

Financial assets

All survey respondents have a fairly limited array of financial assets, which consist of cash and individual and group savings accounts. In terms of cash holdings, there is no difference between men and women in general. Women who are heads of households are significantly more cash poor than men and, if joint cash holding is considered, also more cash poor than women who are in male-headed households. A significantly larger number of men hold individual savings accounts than women, while there is no difference in group savings account holdings. There is little or no joint ownership of financial assets.

Discussion

In line with what has been suggested by previous studies, a significant gender asset gap exists not only in the ownership of and decision-making over larger assets such as land and housing, but

also with regard to key productive material assets such as agricultural machinery and tools and communication assets. Across all these assets, individual rights predominantly lie with men, while women have some joint ownership and limited decision-making control. Livestock is the only asset that appears to be equally owned and controlled.

What appears to be a very stark gender divide in asset ownership is significantly mitigated or eliminated when women's position in the household is considered. There appear to be significant differences in the levels of asset ownership between women who are heads of their households and women who are members of a household

headed by men. Results from the profile analysis, which allows for the comparison of the characteristics of women with low, medium, and high rights over land, house, livestock, and material assets, support that headship is a significant factor in determining women's rights over property. Across different asset profiles described in the Methodology section, we find that a significantly higher percentage of women with high land, house, and material asset profiles are heads of their households. What is more, women heads of households emerge as having similar levels of asset ownership and control as men, with a few notable exceptions. Significant among them is women's lower land documentation, lower ability

to make land transaction decisions, and that they are more cash poor than men.

Women in male-headed households, on the other hand, are more asset poor than men and women heads of households, particularly in terms of individual ownership. Arguably, joint ownership can be thought of as equally valuable to sole ownership in partnerships, and jointly owned assets might be expected to form a sizable portion of partnered women's asset holdings. Yet, the pattern of reporting of individual and joint ownership seems to suggest that in fact a number of assets perceived as jointly owned by women are considered as individually owned by men. This is particularly apparent in the reporting of material asset ownership.

Table 6. Land Acquisition (%), by Sex and Headship

	Men (n=344)		Women (n=325)	
	All men	All women	Women, head of household (n=116)	Women, not head of household (n= 209)
Land acquired through inheritance	43	40	33	42
Land acquired through purchase	36	43	29	49
Land acquired through family	19	17	17	18
Land acquired through marriage	1	5	18	1

Figure 1. Decision-Making over Land and House, by Gender and Headship, by Sex and Headship

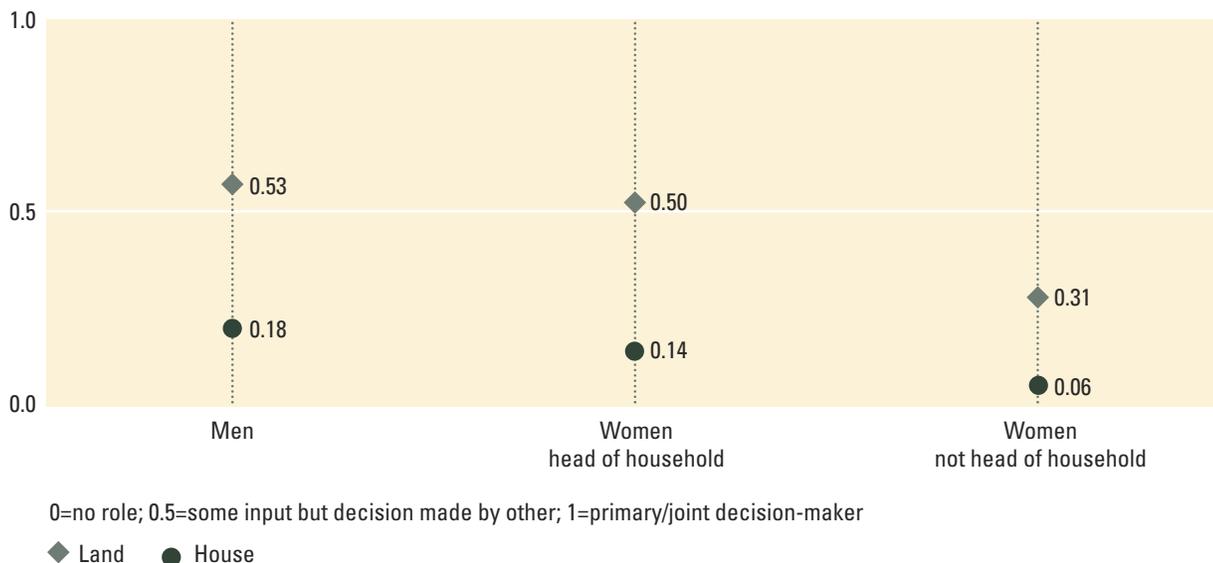


Table 7. Ownership of Material Assets (%), by Sex and Headship

	Men (n=345)		Women (n=329)	
	All men	All women	Women, head of household (n=117)	Women, not head of household (n= 212)
Respondent has self-owned transport assets	30	1	1	1
Respondent has joint transport assets	1	5	0	7
Respondent has self-owned agricultural assets	92	76	94	70
Respondent has joint agricultural assets	20	50	2	67
Respondent has self-owned communication assets	73	35	59	26
Respondent has joint communication assets	12	43	2	58
Respondent has self-owned household durables	3	3	0	4
Respondent has joint household durables	0	1	0	2
Respondent has self-owned household nondurables	70	65	90	57
Respondent has joint household nondurables	33	58	5	77
Respondent has self-owned jewelry/watches	10	22	12	26
Respondent has jointly owned jewelry/watches	0	0	0	0

Table 8. Ownership of Livestock (%), by Sex and Headship

	Men (n=344)		Women (n=325)	
	All men	All women	Women, head of household (n=116)	Women, not head of household (n= 209)
Person owns livestock	54	64	59	66
Person owns livestock – self	45	49	57	46
Person owns livestock – joint	12	22	2	29

Table 9. Ownership of Financial Assets (%), by Sex and Headship

	Men (n=345)		Women (n=329)	
	All men	All women	Women, head of household (n=117)	Women, not head of household (n=212)
Has savings account – self-owned	13	4	5	4
Has savings account – joint	0	0	0	0
Has cash – self-owned	43	35	25	38
Has cash – joint	6	6	0	9
Has group savings account – self-owned	6	12	11	12
Has group savings account – joint	0	0	0	0

Determinants of Asset Rights

Multivariate regression analysis was used to understand the underlying factors that shape men’s and women’s asset rights and to identify possible drivers of the gendered nature of these rights. (Figures 2 through 5 present results from the regression analysis, highlighting the factors that emerged as significant in shaping asset rights. Please refer to Appendix A for more detailed results.)

A number of individual-level factors emerge as significant determinants of women’s and men’s asset rights. Among them, age is positively associated with higher likelihood of owning land, a house, and livestock, with probability of ownership increasing by 3 to 5 percentage points for each 10 additional years. The likelihood of having cash holdings, on the other hand, appears to fall with age by 6 percentage points for every 10 years. Education, measured by whether individuals are literate or have ever been to school, has a varied effect on individuals’ rights over assets, most notably on their land rights. The likelihood of having one’s name in land documents increases by 10 percentage points if the person has ever been to school. Literacy only slightly increases decision-making ability regarding use and transfer of land, by a factor of 0.06 on a scale of 0 to 1. Meanwhile, education is associated with lower cash holdings by individuals. There is no effect detected between individuals’ education status and their house rights or their rights over livestock.

Partnership status and, particularly for women, position in the household have significant implications for asset rights. First, headship appears to be a significantly important variable for women. This is captured particularly in land and house rights. Female headship is found to have a large positive association with the likelihood of land ownership and to have a negative association with ability to make transaction decisions over house. Second, regardless of their gen-

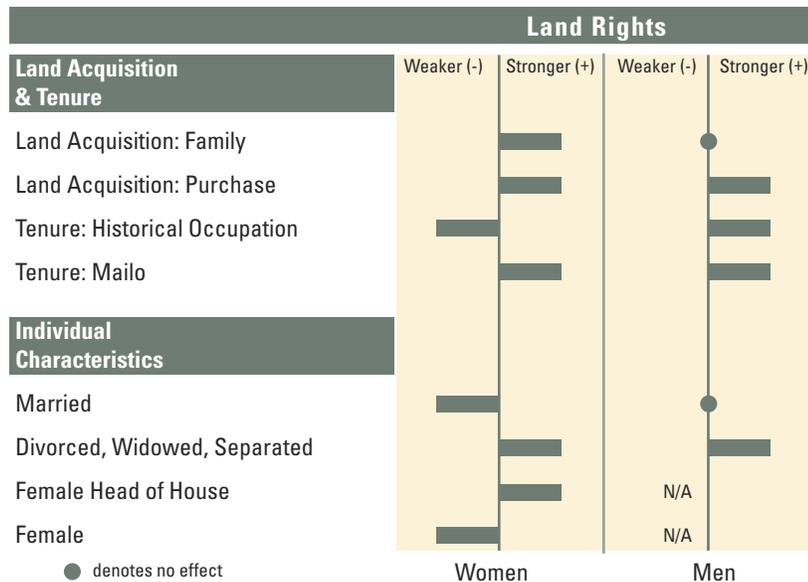
der, individuals who are divorced, widowed, or separated emerge as more likely to own a house and are significantly more in control over decisions of use and transfer of land. Third, marriage and cohabitation seem to affect men’s and women’s asset rights differently. Women who are married have lower likelihood, by 27 percentage points, of having their names on land documents than men who are married. Married and cohabitating women also have significantly less diverse material asset portfolios and use a smaller portion of the total household assets than men who are married or cohabitating. Finally, while marriage increases the likelihood of livestock ownership for men, it reduces the likelihood of ownership for women by about 12 percentage points. Marriage also weakens women’s ability to make decisions over use of animals.

Two individual-level variables – number of brothers and presence of natal family in the community – help identify the potential role of natal family in influencing women’s and men’s asset rights. What emerges very clearly is a positive association between natal family and rights

over livestock. The likelihood of individual livestock ownership is significantly increased by community presence of natal family members, particularly brothers. Number of brothers also significantly increases the use of total household livestock holdings. For both men and women, natal family presence in the community is associated with higher likelihood of house ownership, although women are less likely than men to solely own their own home. Finally, having brothers significantly weakens women’s ability to make decisions over house transactions

At the household level, an individual’s likelihood of land ownership is slightly reduced with each additional male household member. For house ownership, men experience a reduction in the likelihood of owning with the presence of an additional male household member, particularly individual house ownership, which is reduced by 16 percentage points. For women, the effect of an additional male household member on likelihood of house ownership is very small. Tenure systems and forms of land acquisition emerge as particularly impor-

Figure 2. Determinants of Asset Rights: Land



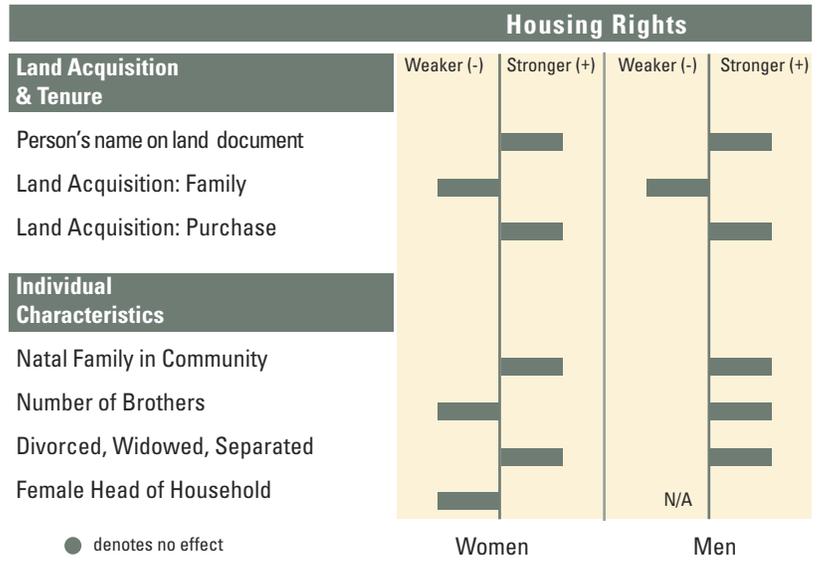
Note: Reference categories are for partnership status: single; for tenure: other tenure; and for land acquisition: acquisition through marriage. Regression results should be interpreted in comparison to these categories

tant elements in shaping women’s and men’s land rights, often in significantly different ways. Mailo tenure, the predominant tenure in the region, emerges as favorable to men and women. It is associated with a 25 percentage point higher likelihood of land ownership for both groups. However, mailo’s positive association with decision-making power over use and transactions on land is slightly smaller for women. Somewhat surprisingly, tenure has no effect on individuals’ ownership and decision-making rights over house.

Historical occupation, the second most prevalent tenure type in the study area, appears to be particularly favorable for men. Being associated with this type of tenure not only increases men’s likelihood of land ownership by about one-quarter, it also is associated with slightly stronger control over land decisions among men. On the other hand, historical occupation has a negligible positive effect on women’s likelihood of owning land and is associated with slightly diminished decision-making authority among women.

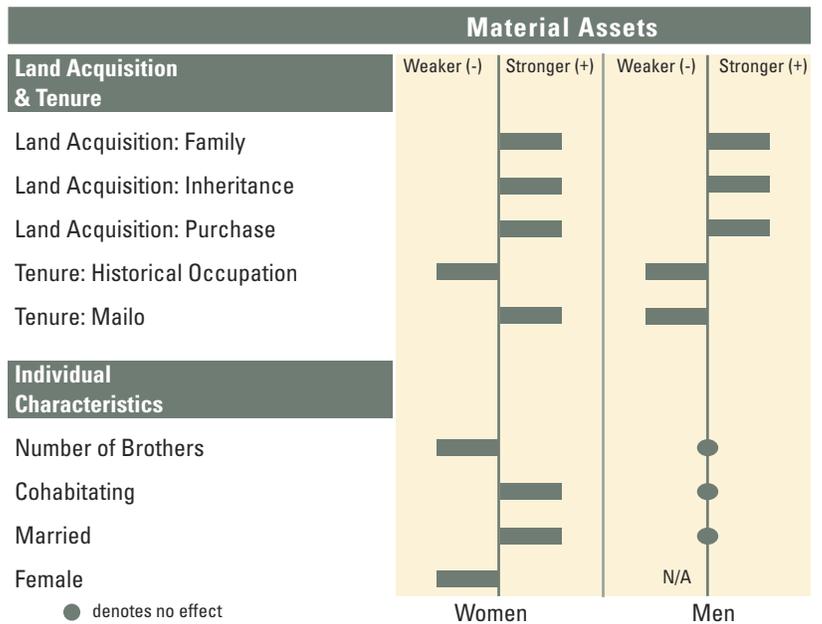
How land was acquired also affects individuals’ rights, chiefly over land but also over other assets.¹³ Our results reveal that individuals who are associated with inherited land have about a 16 percentage point higher likelihood to have their names on land documents. These individuals are also more likely to own livestock and own individually a slightly more diverse basket of material assets. For men, purchased land is associated with an increase of almost 50 percentage points in the likelihood of having their names on land documents. For women on the other hand, the association with purchased land only slightly increases the likelihood, by about 14 percentage points, of being named as a party in the land document. Association with purchased land also increases individuals’ likelihood of house ownership and is correlated with higher diversification in material assets.

Figure 3. Determinants of Asset Rights: Housing



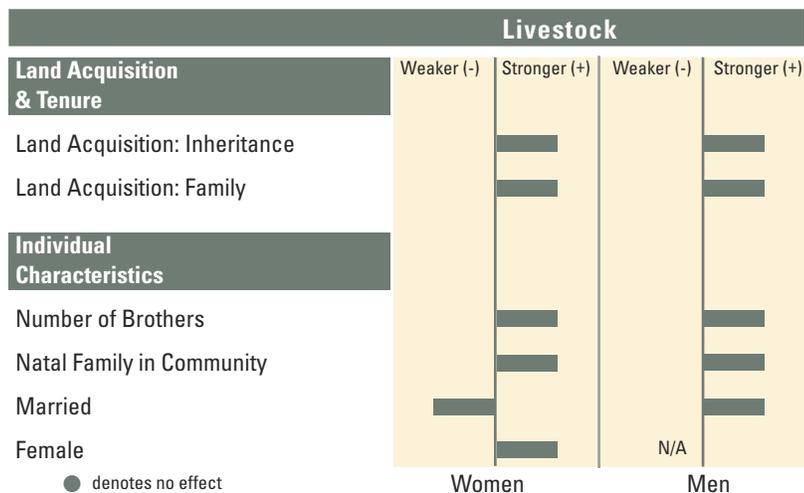
Note: Reference categories are for partnership status: single; for tenure: other tenure; and for land acquisition: acquisition through marriage. Regression results should be interpreted in comparison to these categories

Figure 4. Determinants of Asset Rights: Material Assets



Note: Reference categories are for partnership status: single; for tenure: other tenure; and for land acquisition: acquisition through marriage. Regression results should be interpreted in comparison to these categories

Figure 5. Determinants of Asset Rights: Livestock



Note: Reference categories are for partnership status: single; for tenure: other tenure; and for land acquisition: acquisition through marriage. Regression results should be interpreted in comparison to these categories

Surprisingly, association with land acquired through family seems to result in somewhat weaker rights over land as well as house compared to land acquired through marriage, particularly for men. Women who are associated with land acquired through family appear to have significantly stronger rights than men in decisions over land use and transactions as well as house transactions. Unfortunately, the GLAS data do not capture whether the land is from the man's or the woman's family, but the predominant practice in Uganda is for land to pass through male lines.

A person having his/her name on documentation for land is associated with increases in decision-making over land and housing: an increase of 0.06 on a scale of 0 to 1 for land and 0.24 on a scale of 0 to 2 for housing. The analysis cannot disentangle whether documentation led to stronger decision-making power or vice versa. It can say that even accounting for socio demographic and economic factors, land tenure systems, and means of land acquisition, persons with their name on land documents have stronger decision-making power over land and housing.

Discussion

As evident in the findings above, there are gendered differences in the factors that shape individuals' asset rights, shedding some light on the main drivers of the gender asset gap.

Arguably most noteworthy is the emergence of women's relationships and positions in the households as significant factors in defining their asset rights. In particular, headship emerges as a significant determinant of women's asset rights. Specifically, female headship is associated with higher likelihood of land ownership but weaker decision-making authority concerning house transactions. The latter finding, combined with findings that both women heads and non-heads have weaker control over land transactions, lends support to the evidence in the literature that women are particularly disadvantaged with respect to rights to sell, bequeath, or gift assets (Gray and Kevane 2001). A potential explanation for female headship's association with weaker decision-making authority over housing is that widows, who form 58 percent of heads in the sample, may be permitted to stay in the dwelling they shared with their late hus-

bands, but are often not considered to own it or the land on which it sits. Rather, her children or her in-laws are considered the owners, and their permission may be required for any transactions. Even mailo lands tend to be managed within families according to custom, which dictates that when women do inherit land, it is generally in the form of user rights. They have the right to use the land, but not to sell or make long-term decisions about investments without the consent of male relatives (Eilor and Giovarelli 2001)

Marriage is found to have a negative effect on women's asset rights. Married women are significantly less likely than married men to own livestock by themselves, and marriage weakens their ability to make decisions over use of livestock. Married women are also less likely to have their names on land documents than married men.

Natal family presence in the community is a significant support for men's asset rights, particularly in housing, while it has a significantly dampened effect on women's asset rights. For women, having brothers is also associated with lower decision-making ability over house transactions, in line with other findings that having brothers may have an adverse effect on women's asset rights (Rugadya 2010).

These findings are consistent with the literature at large, which articulates the centrality of intimate partner relationships for women's asset rights in Uganda and also supports the existing evidence that natal family relations are not particularly supportive of women's asset rights, likely attributable to the fact that in this region of Uganda, women's engagement with their natal family is minimized after marriage.

How land is acquired is highly important in defining men and women's asset rights, once again resulting in different outcomes. Most significantly, for purchased land, women are found to be less likely than men to have their

names on land documents. This finding is particularly important in light of the finding that having one's name on land documentation is associated with significantly stronger decision-making over land. That married women are also less likely to have their names on land documents supports the recent COHRE report finding that women tend not to be on land documents even when they contribute to the purchase (COHRE 2010).

Women associated with land acquired through families, on the other hand, emerge as having significantly greater control over decisions on land transactions and use as well as transactions regarding house. Data do not allow for further exploration of this finding as they do not reveal whose family land is in question. If in fact land is acquired from women's natal families, this finding emphasizes the importance of improving policies and programs that promote girls' inheritance rights.

Finally, as expected, tenure systems have a significant effect on individuals' land rights. Mailo tenure in particular is found to be favorable for both men and women, while women appear to be disadvantaged under historical occupation. The relative advantage mailo tenure is found to offer to women is consistent with anecdotal evidence from the region, including that women in Buganda buy land at higher rates than those in other regions in the country. It would be important to explore the features of mailo land that provide women with favorable terms and identify ways to further improve women's rights under this tenure.

Exploring the Links Between Women's Asset Rights and Intimate Partner Violence

In a separate module of the GLAS administered to women only, the survey asked women about their experience of intimate partner violence (IPV) dur-

ing their lifetime and in the 12 months prior to the survey. In this report, IPV includes physical, sexual, and emotional violence by a relationship partner and is for the most part based on the World Health Organization methodology (World Health Organization 2005). The prevalence rates established by GLAS data are similar to those reported in other studies (Uganda Bureau of Statistics and Macro International Inc. 2006), with about 74 percent of women reporting having experienced intimate partner violence in their lifetime. Current prevalence of intimate partner violence was found to be 48 percent with about 50 percent of women reporting intimate partner violence with their current partner.¹⁴

A substantial literature delineates several factors that may increase or decrease a woman's risk of violence, including socioeconomic status, women's empowerment, or prevalence of violence in the community. A small subset of the literature explores the effects of asset rights on women's experience of violence with varied conclusions. In a majority of these studies, asset rights are found to reduce women's likelihood of experiencing violence through empowering women in their relationships and also through providing them with an exit option (Swaminathan, Walker, and Rugadya 2006; Panda and Agarwal 2005).

Multivariate analysis was used to explore whether asset rights have a similar protective effect in the study sample¹⁵ by modeling a woman's probability of having experienced IPV in the 12 months prior to the survey. Other factors accounted for in the model were drawn from the literature and findings from the qualitative fieldwork. They include the same demographic and household composition measures in the models for asset rights; main livelihood or earned cash income; quality of the physical dwelling and total land area associated with the household; the woman's and her current or most recent partner's alcohol consumption and partner's frequency of drunkenness; frequency of quarreling



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with current or most recent partner and an index of communication between partners; exposure to family violence in youth; and a series of measures associated with women's empowerment, including power in making household decisions, mobility, involvement in community groups, and self-esteem. Different model specifications were used to account for weak instruments used to address potential endogeneity.¹⁶

The analysis reveals robust evidence on the significant connections that women's housing rights and their cash holdings have to lower risk of recently experiencing intimate partner violence. Specifically, across different model specifications, having stronger control over house transaction decisions was associated with 18 to 21 percentage points lower likelihood of intimate partner violence. Also fairly consistent across different models is the link between women's cash holdings and lower likelihood of intimate partner violence. In one of the models, cash holding is associated with a 17 percentage point lower likelihood of experiencing such violence. Both these results support the evidence from various contexts that asset ownership may protect women from experiencing violence in their personal relationships. What is more, the particular assets that emerge as significant, housing and cash, suggest that asset ownership deters intimate partner violence by providing women with an exit option. These results support findings from an earlier qualitative study by ICRW in Uganda, which suggested that housing in particular offers women a concrete exit option from abusive relationships (Swaminathan, Walker, and Rugadya 2006).

Among the key drivers of intimate partner violence often cited in the literature is alcohol consumption, particularly by women's male partners. Evidence from this study supports this linkage, as both women's own alcohol consumption as well as their partners' frequency of drunkenness are found to be associated with higher likelihood of intimate part-

ner violence. Specifically, higher frequency of drunkenness by the partners is associated with 14 percentage points higher likelihood of intimate partner violence, while the respondents' own drinking is found to increase the likelihood of intimate partner violence by 10 to 17 percentage points in different model specifications.

The analysis also reveals that women who have brothers may be slightly more protected from intimate partner violence. Specifically, an additional brother reduces women's likelihood of experiencing violence by 4 to 7 percentage points. Having sons does not appear to protect women from intimate partner violence. On the contrary, the likelihood of experiencing such violence is found to increase for women with sons by about 6 to 8 percentage points.

As revealed in this study, asset rights – particularly housing – may have the far-reaching effect of reducing women's likelihood of experiencing violence in their homes, possibly by providing them a viable exit option, as has been noted in other studies (Swaminathan, Walker, and Rugadya 2006; Panda and Agarwal 2005). The numerous social, economic, and health-related costs of intimate partner violence are widely documented in the literature and provide a strong argument for more robust asset rights for women so they can protect themselves from such violence.

Conclusions and Policy Recommendations

Adding to the growing body of evidence, this study points to significant gender gaps with respect to women's asset ownership in Uganda. Further, it sheds light on more detailed aspects of asset ownership, looking beyond land to a wider array of assets, and not just asset ownership but also control and decision-making authority over assets. The gender asset gap is most stark if individual rights are taken into account and only slightly narrowed if joint rights are also considered.

The results also point to significant nuances in the nature of the gender asset gap and its drivers. Specifically, the gender-based differences in asset rights are shaped to a large extent by women's position in the household and by their relationships with men. Women heads of households, more than 85 percent of whom are widows, divorced, or separated and not in an intimate partner relationship, emerge as having similar asset rights to men and much stronger rights than women who live in male-headed households. Women who live in male-headed households as intimate partners of the male head were found to have significantly weaker rights. The asset rights of women heads of households and of widows have long been central to the discussions and policy around gender, asset rights, and poverty. Shaped largely by the discourse around both the vulnerability of HIV widows and unfavorable customary practices in land inheritance, land, and other asset rights of widows and female household heads in most developing countries have been described as quite insecure (Ovonji-Odida et al. 2000). Results from this study, however, find female household heads and widows to be slightly better off than other women in terms of their asset rights, though all women tend to have weaker asset rights than men. In some respects, particularly decision-making, men also face limitations on their asset rights. These results should not be interpreted as diminishing the injustice of property grabbing from women or as saying that female household heads and widows are not vulnerable economically and socially. Rather, they suggest that, overall in the study region, widows and female household heads may be less disadvantaged in terms of asset rights – only one aspect of welfare – than previously believed. The next steps are to identify and understand the mechanisms, whether legal, customary, economic, or otherwise, that support the asset rights of these otherwise vulnerable women and leverage them to strengthen the asset rights of all vulnerable groups.

Findings also draw attention to the need to better understand and address the asset rights of women who live in male-headed households. Until recently, few studies have been able to explore extensively the asset rights of these women, for the most part due to a lack of individual-level data. What emerges in Masaka is that women who live in households headed by men tend to own smaller bundles of assets, often jointly with their partners, over which they have significantly weaker control. This finding brings to the forefront the need to understand the dynamics of joint asset ownership in households and to identify the key levers for change that can strengthen both the individual and joint asset rights of women in male-headed households. Current law allows for joint ownership of property and protects spouses' rights to property used for sustenance. However, mechanisms need to be put in place to ensure that the law granting spouses joint ownership is enforced (Rugadya 2010). Similarly, joint titling efforts need to be supported to ensure that claims of joint ownership, by women as well as men, can be substantiated and rights associated with this ownership properly exercised.

Recent proposed policy and legislation include positive steps to strengthen joint asset ownership rights and to address gender inequalities in asset rights within partnerships. The draft National Land Policy also obligates the Ugandan government to provide for joint or spousal co-ownership of family land and home (Rugadya 2010). A recent version of the proposed Marriage and Divorce Bill takes steps to clarify property rights within partnerships by defining matrimonial property and considering it as jointly owned by default. (Jacobs, Asiime-Mwesige, and Hollingworth 2010) The Bill further states that both parties have equal rights to use and benefit from matrimonial property. A provision that entitles persons who have invested substantially in their partners' individual property to an interest in the property could be especially beneficial for women who devote their resources to improving land or housing.



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Further, the Marriage and Divorce Bill proposes allowing married persons and cohabitants to make arrangements as to how property will be owned during and after the relationship, and reiterating existing rights of both women and men to individual property within a partnership. Legislating asset rights for unmarried cohabiting couples represents an important advance. Twenty-eight percent of women in our sample were cohabiting, and so their claims over assets acquired during the relationship had limited legal and social protection. Such legislation could be helpful in clarifying, and if well enforced, protecting the rights of women in male-headed households, especially women in cohabiting relationships. Underlying efforts to improve women's asset rights through legislation and programming is the importance of educating women and men on the rights they have over jointly as well as individually owned assets. Although low among both men and women, knowledge of laws is often found to be particularly minimal among women (Deininger, Ali, and Yamano 2008). In this study sample, for example, more than half of the women in male-headed household are not aware of the tenure

system they are under, which means they do not know their associated rights. Provisions in the draft National Land Policy to integrate land rights and administration education into the national curriculum and to decentralize land services are two useful steps to improve awareness of women's asset rights.

Finally, further research is needed in at least three critical areas:

- 1) Joint asset ownership needs to be better understood. In particular, further areas to explore include the importance of jointly owned assets for women's livelihoods and vulnerability; whether perceived joint ownership is truly joint and equitable between the sexes; and how use of and decision-making ability over joint assets differs.
- 2) A deeper understanding of the characteristics, livelihoods, and vulnerabilities of women living in male-headed households is necessary to increase their ownership, use, and control of assets.
- 3) Additional research should seek to understand what makes mailo land tenure favorable for both women's and men's ownership and decision-making over land as opposed to other tenure systems.

Notes

- 1 The University of KwaZulu-Natal in South Africa, the other country partner, helped develop the survey methodology and led the pilot study in Uganda. Results from this portion of the study are reported separately.
- 2 For the study and in this report, the term “assets” encompasses land, housing, livestock, material assets (farm equipment, modes of transport, etc.), and financial assets.
- 3 Nearly 85 percent of economically active women in Uganda work in the agricultural sector producing 70 to 75 percent of the country’s agricultural output (Rugadya 2010).
- 4 Land tenure “is the relationship, whether legally or customarily defined, among people, as individuals or groups, with respect to land.” It establishes “how access is granted to rights to use, control, and transfer land, as well as associated responsibilities and restraints” (<http://www.fao.org/docrep/005/y4307e/y4307e05.htm>) “Being associated” with a particular tenure system means that a person lives on, owns, uses, or makes decisions about a piece of land in that particular tenure system.
- 5 Freehold tenure grants full rights of registered ownership. Leasehold tenure refers to land leased for a specific period under certain terms. Under customary tenure, land is regulated by customary rules often administered by clan or family leaders (Rugadya 2007). Under *mailo* land tenure, the owners of the land, called landlords, have legally recognized ownership rights over the land and have the right to hold registered land in perpetuity. The tenants who live on the land have legally recognized occupancy rights (Rugadya 2010).
- 6 Material assets refers to agricultural assets (hand tools, plough, tractor/thresher/planter, small farm equipment, wheelbarrow, irrigation equipment, processing equipment), communication assets (cell phones, radio, TV), household goods (refrigerator/freezer, sewing machine, small household nondurables, household furnishings), and transportation assets (bicycle, motorcycle, car, or pickup truck).
- 7 Financial assets are not part of the analysis due to the low levels of ownership/access reported by respondents.
- 8 The estimations account for clustering and sampling weights in linear probability and regression estimations and in the calculations of means and frequencies.
- 9 e.g., see Antonopoulos and Floro 2004; Katz 2000; Cross and Hornby 2002; Feder and Noronha 1987; Brandt et al. 2002; Place and Migot-Adholla 1998.
- 10 A product of the 1900 Buganda Agreement between Kabaka (King) of Buganda and the British Government, *mailo* tenure essentially privatized half of the land in the region, dividing it among the Kabaka, other notables, and chiefs. The smallholders who were settled on this land under customary tenure were subsumed into a feudal arrangement, making them rent-paying tenants. Rent could be paid in cash *busuulu* or in kind *evujjo* to the landlords among whom the land had been divided. While landowners held formal ownership rights and Certificates of Title, the tenants had permanent use rights to the land (Rugadya 2010).
- 11 In this context historical occupation is equivalent to occupancy rights under Buganda customary law.
- 12 “Being associated” with land means that a person lives on, owns, uses, or makes decisions on that piece of land.
- 13 Data on land acquisition was asked at the plot level and does not include information on who inherited land from whom, whose money was used in purchases, or whose family gave it to whom.
- 14 The high prevalence rates registered in this as well as in the DHS study are a result of the inclusion of emotional violence in the prevalence calculations.
- 15 Rights included in the model were a woman’s reported ownership of land, decision-making over land, whether she had her name on any land documents; reported ownership of housing, decision-making over housing, whether she had her name on any documents for housing; number of material asset types owned, number of material asset types used; ownership of livestock; and having cash.
- 16 To address potential endogeneity of women’s property rights as determinant of their experience of recent intimate partner violence (IPV), we used augmented regression tests and instrumental variables estimation as appropriate. Augmented regression tests revealed which of the selected property rights measures were empirically endogenous. These property rights variables were replaced with predictions of themselves based on models in earlier sections originally used to examine the determinants of property rights. However, examination of the earlier models indicates that they may not be well identified, and instruments are weak. Because using weak instruments can cause inconsistent estimates and inaccurate standard errors and hypothesis tests, we synthesize results across the following four estimations: (1) and (2) use original property rights variables with and without measures of empowerment, alcoholism, relationship quality, and partners’ personal problems; (3) and (4) use predicted property rights variables for variables that are endogenous with an alpha of 5 percent or lower, with and without measures of empowerment, alcoholism, relationship quality, and partners’ personal problems. To limit simultaneity bias from past violence leading to changes in women’s property rights, we measure violence as intimate partner violence within the 12 months prior to the interview. Our model still implicitly assumes that the property rights variables are reflective of rights that were established before the onset of violence.

Appendix A: Multivariate Linear Regression Results for Models of Asset Rights

A.1 Determinants of Land Rights

	Own	Document	Decision-making ^{** ****}
female	-0.343*	-0.031	-0.096
age in years	0.003**	0.004**	0.001
literate	-0.061	-0.064	0.063**
ever schooled	0.072	0.102***	-0.045
cohabitating	-0.002	-0.051	0.059
married	-0.01	0.006	0.048
divorced, widowed, separated	0.073	0.031	0.106***
earns cash income	0.041	0.022	0.053
# of sons	0.007	0.007	-0.001
# of daughters	-0.007	0.009	0.003
# of brothers	0.005	-0.001	0.003
any natal family lives in community	0.036	-0.001	0.014
# of adult men in the HH	-0.024**	-0.02	-0.036
# of adult females in the HH	0.06	0.039	-0.011
# of persons/room	0.041	-0.004	-0.005
index of physical quality of dwelling	0.003	0.032	0.001
land tenure: historical occupation	0.263*	-0.002	0.101**
land tenure: respondent does not know	0.08	-0.033	-0.011
land tenure: mailo	0.238***	0.104	0.076**
land acquired through inheritance		0.163**	-0.004
land acquired through purchase		0.469***	0.022
land acquired through family		0.125	-0.05
land acquired through other means		0.024	-0.204***
person has name on land documents			0.064**
female * head	0.237*	0.028	0.049
female * cohabitating	-0.295	-0.109	-0.06
female * married	-0.277	-0.266*	-0.051
female * # of boys	-0.012	-0.011	0.007
female * # of brothers	0.002	0.009	-0.003
female * natal family in village	-0.057	-0.016	-0.003
female * # of adult males in the HH	0.097	0.09	-0.003
female * mailo tenure	-0.07	-0.058	-0.086*
female * tenure unknown to respondent	-0.142	-0.009	-0.055
female * historical occupation	-0.214*	-0.044	-0.190***
female * land acquired through purchase		-0.325***	0.003
female * land acquired through inheritance	-0.125	0.05	
female * land acquired through family		-0.111	0.114**
female * land acquired through other means	-0.037	0.164***	
female * name on land documents			0.028
Predicted y_hat	0.624	0.318	0.457
R2	0.549	0.406	0.424
N	670	665	665

^{**} includes transaction (sell, rent, collateralize, gift), bequeathing, and use decisions

^{****} scale of land decision-making is (0-1)

^{***} statistical significance at the 1 percent level, ^{**} at 5 percent, and ^{*} at 10 percent

A.2 Determinants of Housing Rights

	Own	Own (self)	Decision-making** ****
female	-0.226	-0.294	-0.014
age in years	0.005**	0.005*	0
literate	0.055	0.05	-0.009
ever schooled	0.1	0.097	0.114
cohabitating	-0.033	0.007	0.174
married	-0.132	-0.073	-0.092
divorced, widowed, separated	0.144	0.196*	0.064
earns cash income	-0.021	-0.084*	0.031
# of sons	-0.015	-0.015	-0.003
# of daughters	0.005	-0.001	0.014
# of brothers	0.008	0.011	0.018*
any natal family lives in community	0.180*	0.213**	0.148
# of adult men in the HH	-0.064**	-0.156**	-0.039
# of adult females in the HH	0.086	0.061*	0.029
# of persons/room	0.022	0.01	-0.045
land tenure: historical occupation	-0.041	-0.017	0.247
land tenure: respondent does not know	-0.058	-0.04	0.033
land tenure: mailo	0.017	0.07	0.092
land acquired through inheritance	0.2	0.129	-0.139
land acquired through purchase	0.184*	0.128	0.046
land acquired through family	0.145	0.037	-0.178*
land acquired through other means	-0.162*	-0.192*	-0.343***
person has name on land documents			0.236*
female * head	0.08	0.135	-0.151*
female * cohabitating	0.056	-0.049	-0.247
female * married	0.04	-0.042	-0.096
female * # of boys	0.028	0.005	-0.002
female * # of brothers	-0.008	0.003	-0.036***
female * natal family in village	-0.107	-0.148*	-0.077
female * # of adult males in the HH	0.07	0.143*	0.039
female * mailo tenure	0.045	-0.07	0.025
female * tenure unknown to respondent	-0.056	-0.018	0.046
female * historical occupation	-0.066	-0.022	0.069
female * land acquired through purchase	-0.087	-0.146	0
female * land acquired through inheritance	-0.236	-0.186	0.015
female * land acquired through family	-0.13	-0.1	0.108
female * land acquired through other means	-0.005	0.08	0.238**
female * name on land documents			0.057
Predicted y_hat	0.464	0.381	0.280
r2	0.265	0.372	0.232
N	666	666	666

** includes transaction (sell, rent, collateralize, gift) and bequeathing decisions

**** scale of house decision-making is (0-2)

*** denotes statistical significance at the 1 percent level, ** at 5 percent, and * at 10 percent

A.3 Determinants of Material Asset Rights

	Own	Own (self)	Use (total)
female	0.886***	-0.044	1.061
age in years	-0.012	-0.010**	-0.016*
literate	0.366	0.361**	0.252
ever schooled	-0.032	0.244	0.051
cohabitating	0.679	0.369	0.267
married	0.452	-0.036	0.103
divorced, widowed, separated	0.025	0.394	-0.074
earns cash income	0.822***	0.697*	0.837**
# of sons	0.096*	0.042	0.086*
# of daughters	0.085*	0.078**	0.084**
# of brothers	0.009	-0.015	-0.001
any natal family lives in community	0.122	0.09	0.18
# of adult men in the HH	0.484	0.315	0.527*
# of adult females in the HH	0.355*	0.235	0.450**
# of persons/room	-0.263**	-0.175	-0.192**
index of physical quality of dwelling	0.168**	0.05	0.236***
land tenure: historical occupation	-0.461	-0.761*	-0.386
land tenure: respondent does not know	-0.599	-1.092***	-0.586
land tenure: mailo	-0.585	-1.168*	-0.569
land acquired through inheritance	0.778	0.690*	0.541
land acquired through purchase	0.987**	1.188*	0.897**
land acquired through family	1.521**	1.463**	1.247**
land acquired through other means	0.365	0.394	0.394
female * head	-0.269	0.172	-0.596
female * cohabitating	-1.720**	-1.748**	-1.454**
female * married	-1.431*	-1.641**	-1.129**
female * # of boys	-0.009	0.06	-0.024
female * # of brothers	0.059	0.101*	0.074
female * natal family in village	-0.487	0.003	-0.366
female * # of adult males in the HH	-0.094	-0.431	0.044
female * mailo tenure	0.918	1.243*	0.903
female * tenure unknown to respondent	0.705	0.899	0.728
female * historical occupation	0.478	0.252	0.459
female * land acquired through purchase	-0.492	-0.985	-0.461
female * land acquired through inheritance	-0.753	-0.582	-0.825
female * land acquired through family	-0.952*	-1.279*	-0.894*
female * land acquired through other means	-0.308	-0.496	-0.227
Predicted y_hat	4.377	3.223	4.619
r2	0.349	0.368	0.379
N	665	665	665

*** denotes statistical significance at the 1 percent level, ** at 5 percent, and * at 10 percent

A.4 Determinants of Livestock Rights

	Own	Own (self)	Decision-making ^{''}
female	0.462**	0.024	0.297
age in years	0.005**	0.006*	0.005**
literate	0.151	0.112	0.17
ever schooled	0.108	0.113	0.042
cohabitating	0.16	0.143	0.157
married	0.219**	0.205***	0.231**
divorced, widowed, separated	0.083	0.109	0.056
earns cash income	0.076	0.197*	0.184*
# of sons	0.006	0	0.003
# of daughters	0.003	-0.013	0.006
# of brothers	0.021**	0.016***	0.019***
any natal family lives in community	0.062	0.097**	0.058
# of adult men in the HH	0.007	-0.02	-0.064
# of adult females in the HH	-0.01	-0.074*	-0.115*
# of persons/room	0.039	0.05	0.055*
index of physical quality of dwelling	-0.021	-0.005	-0.024
land tenure: historical occupation	-0.109	-0.086	-0.094
land tenure: respondent does not know	-0.047	-0.158	-0.233
land tenure: mailo	0.022	-0.057	-0.023
land acquired through inheritance	0.190*	0.099	0.151
land acquired through purchase	0.105	0.058	0.105
land acquired through family	0.173*	0.035	0.133
land acquired through other means	-0.062	-0.039	-0.044
female * head	-0.115	0.027	-0.096
female * cohabitating	-0.174	-0.127	-0.209
female * married	-0.296	-0.322*	-0.334*
female * # of boys	0.014	0.027	0.026*
female * # of brothers	-0.006	-0.004	-0.009
female * natal family in village	0.037	-0.045	0.018
female * # of adult males in the HH	0.023	0.055	0.105
female * mailo tenure	-0.109	0.062	-0.074
female * tenure unknown to respondent	-0.04	0.093	0.109
female * historical occupation	-0.013	0.083	0.126
female * land acquired through purchase	-0.088	0.054	-0.016
female * land acquired through inheritance	-0.075	0.054	-0.059
female * land acquired through family	-0.026	0.091	0.01
female * land acquired through other means	0.058	0.212	0.129
Predicted y_hat	0.589	0.468	0.528
R2	0.198	0.138	0.167
N	665	665	665

^{''} includes use decisions

*** denotes statistical significance at the 1 percent level, ** at 5 percent, and * at 10 percent

A.5 Determinants of Financial Asset Rights

	Cash (self)
female	0.237
age in years	-0.006**
literate	-0.027
ever schooled	-0.157**
cohabitating	0.254
married	0.259
divorced, widowed, separated	0.117
earns cash income	-0.103
# of sons	0.012
# of daughters	0.013
# of brothers	0.004
any natal family lives in community	-0.083
# of adult men in the HH	-0.058
# of adult females in the HH	-0.033
# of persons/room	-0.033
index of physical quality of dwelling	0.056
land tenure: historical occupation	0.343**
land tenure: respondent does not know	0.1
land tenure: mailo	0.327**
land acquired through inheritance	-0.053
land acquired through purchase	-0.095
land acquired through family	-0.1
land acquired through other means	0.011
female * head	-0.02
female * cohabitating	-0.254
female * married	-0.154
female * # of boys	0.013
female * # of brothers	-0.031
female * natal family in village	-0.085
female * # of adult males in the HH	0.031
female * mailo tenure	-0.208
female * tenure unknown to respondent	-0.06
female * historical occupation	-0.316*
female * land acquired through purchase	0.104
female * land acquired through inheritance	0.048
female * land acquired through family	0.082
female * land acquired through other means	-0.031
Predicted y_hat	0.395
r2	0.193
N	665

*** denotes statistical significance at the 1 percent level, ** at 5 percent, and * at 10 percent

Appendix B: Determinants of Current Intimate Partner Violence

Results are marginal effects from multivariate probabilistic estimation

	MODEL 1	MODEL 2	MODEL 3	MODEL 4
variable	dy/dx	dy/dx	dy/dx	dy/dx
age in years	-0.002	-0.004	-0.002	-0.003
literate	-0.055	-0.169	-0.240**	-0.311*
ever schooled	-0.058	-0.027	-0.148**	-0.109
cohabitating	0.392	0.097	0.130	0.157
married	0.209	-0.081	0.009	0.055
divorced, widowed, separated	-0.179	-0.393***	-0.446***	-0.434**
# of sons	0.065***	0.077**	0.074***	0.080***
# of daughters	0.020	0.020	0.081***	0.065**
# of brothers	-0.047***	-0.048***	-0.079***	-0.074***
any natal family lives in community	-0.042	0.018	-0.153	-0.112
earns cash income	-0.356**	-0.195	-0.429***	-0.304*
media exposure: # of different sources of information accessed	0.013	0.004	0.032***	0.023***
# of adult men in the HH	-0.011	0.008	-0.114*	-0.102
# of adult females in the HH	-0.064	-0.082	-0.160**	-0.144
index of physical quality of dwelling	0.075*	0.053	0.118***	0.093***
# of persons/room	0.108*	0.085**	0.043	0.041
hh plot area	0.023	-0.009	0.063*	0.032**
growing up witnessed violence directed to others father was present when growing up	-0.124*	-0.046	-0.024	0.049
witnessed/heard father violent toward mother	0.070	0.003	0.088*	0.023
respondent's alcohol frequency with most recent partner	0.109***		0.173***	
alcohol frequency of most recent partner	-0.130	-0.030	-0.192**	-0.045
seen most recent partner drunk in the past 12 months	0.146**	0.132**	0.143***	0.114**
frequency of quarreling with most recent partner	0.160***		0.139***	
index of quality of relationship with partner	-0.439***		-0.436***	
Rosenberg self-esteem score	0.006		0.006	
mobily - number of places need permission	0.024*		0.008	
household decision-making: average score across decisions	0.075		0.042	
number of community groups belong to	-0.102		-0.052	
owns land: self or joint	0.023	0.004	-0.073	-0.058
has name on land document	0.132	0.124	0.242	0.189
land decision-making average scale	-0.078	-0.084	-0.122	-0.111
owns house: self or joint	-0.041	-0.079*	-0.011	-0.069
house decision-making transactions	-0.181***	-0.199**	-0.218***	-0.222**
number of diverse material assets owned: self or joint	0.050	0.026	0.025	0.016
number of total hh material assets used	-0.078	-0.060	-0.055	-0.034
has livestock: self or joint	-0.090	-0.040	-0.130	-0.062
decision-making over all livestock owned by hh	-0.024	-0.001	0.004	0.014
has cash self (instrumented has cash self)	-0.176**	-0.140	-1.476***	-1.219***
Predicted probability of recent IPV	0.386	0.397	0.387	0.409

*** denotes statistical significance at the 1 percent level, ** at 5 percent, and * at 10 percent

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