

Local institutions and smallholder women's access to land resources in semi-arid Kenya

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Abstract

Land is a critical resource in smallholder farming systems, access to which is guided by complex interpretations of local norms, customary values, and statutory laws. This study explores how smallholder women access land resources under local institutions in semi-arid Kenya following a major constitutional reform on land succession passed in 2010. We draw on social relations approach, access theory, and social-ecological resilience thinking to examine Kamba women's access to land resources using qualitative data collected through in-depth key informant interviews (n = 77), twelve focus group discussions (n = 134), and eight community meetings (n = 363). Results show that although some women were aware of their rights to inherit and own land, Kamba women were generally reluctant to claim land resources through local customary institutions and/or land registration processes. This stemmed from a desire to maintain gender dynamics within the household and to maintain their current relational access to land and other livelihood resources. Women, as daughters, sisters, wives, mothers, grandmothers, divorcée and widows, were found to face vastly different pressures in land resource access. They reported using relational access mechanisms to cope with, and adapt to, land resource constraints. When combined with rights-based mechanisms of access, women could better secure future generations' land resource access, especially in cases of skipped-generational households.

1 Introduction

Land resources are vital for agrarian livelihoods. For many subsistence and smallholder farmers who do not possess the formal rights to own, sell, or use land for cultivation (Dixon et al., 2001), access to land is often determined by complex interpretations of local customary laws, traditional norms, and values. Among subsistence farmers, women constitute an increasing proportion of the rural agricultural sector as more men seek seasonal or salaried work in urban centers (Doss and SFAT, 2011). However, women generally face more constraints than men in their access to arable land resources and other agricultural inputs, including credit (Agarwal, 1988, 1994a,b; Besteman, 1995; Carney, 1988; Carney and Watts, 1991; Gray and Kevane, 1999; Kevane, 2012; Koopman, 2009). Recognizing women's roles as cultivators and caregivers, and their multiple social and economic constraints (Akpotor, 2009; Horenstein, 1989; Kevane, 2012; Shah, 2012), national policy-makers, aid and development

agencies have focused on advancing policies and programs for more equitable resource allocation and land tenure security for women (Alkire et al., 2013; Doss and SFAT, 2011; Doss et al., 2015; Shah, 2012; Sraboni et al., 2014).

Previous research has identified the critical need to understand how agricultural and land resource access are governed and influenced by existing social norms and local institutions for rural development, particularly for women in smallholder agrarian communities (Agarwal, 1988, 1994a,b; Besteman, 1995; Cotula and FAO, 2007; Doss and SFAT, 2011; Englert and Daley, 2008; Gray and Kevane, 1999; Meinzen-Dick et al., 1997). Moreover, how women and men perceive land succession rules in national policies, and how such policies influence women's access to land resources within existing local institutions, requires further examination. Although there has been significant progress in many countries to secure women's land tenure, the adoption and integration of such policies are often gradual and meet resistance in many smallholder agrarian communities. In the arid and semi-arid rural regions of Kenya, women often work as semi-subsistence farmers, cultivating staple crops for their families without secure access to land resources. Focusing on the Kamba people, the majority ethnic group in Makueni County, Kenya, this article examines the social norms and local institutions that govern women's access to land resources.

Conceptually this research builds on the social relations approach to gendered resource allocation (Kabeer, 1994; Kabeer and Subrahmanian, 1996; Kevane, 2012; Meinzen-Dick et al., 1997), access theory (Ribot and Peluso, 2003), and social-ecological resilience thinking (Adger, 2006; Carpenter et al., 2001; Cote and Nightingale, 2012). Kabeer's social relations approach examines gender dynamics through scrutinizing de facto rules and practices of social and formal institutions based on actors' core values and assumptions. It recognizes there are structural causes that reproduce social inequalities; that institutions are not independent from one another; where changes in policy or practice from one level can cause changes in the rules and norms of another level; and that institutions evolve (Kabeer, 1994). Beyond focusing on the separate roles and capabilities of different genders, the social relations approach underscores development as increased human well-being.

Access theory complements the social relations approach when examining local institutions and gendered access to land resources. Some gender studies have conceptualized access as "the opportunity to make use of a resource", whereas control depicts "the power to decide how a resource is used, and who has access to it" (March et al., 1999, p. 19). Ribot and Peluso (2003) broaden the definition of access from the usufructary right to benefit from resources to "the ability to benefit" from resources (p. 153). Recognizing the majority of semi-subsistence women do not have formal ownership of land in Kenya (Nyamu-Musembi, 2008), we use access theory to examine the alternative strategies that Kamba women use. Ribot and Peluso theorize that "access is about all possible means" (p. 157) to benefit from resources. Besides women's right-based mechanisms, access theory considers strategies that occur among "a larger array of institutions, social and political-economic relations, and discursive strategies that shape benefit flows" (Ribot and Peluso, 2003, p. 157).

For example, a landowner with a title deed to her farm can fail to benefit from her farm if she lacks the labor, knowledge, or networks to grow and sell her crops.

Access theory introduces three broad mechanisms of access: rights-based, structural, and relational (Peluso, 1996; Ribot and Peluso, 2003). Rights-based access refers to that which is sanctioned by law, custom or convention. Statutory laws are written laws, found in compilations of statutes or codified laws within a formal legal system. Customary laws are oral, non-codified rules that have evolved from traditions and social norms (see Knight, 2010). Structural access mechanisms include technologies such as a granary or a fence, and more complex technologies such as mobile phones and communication infrastructure that can facilitate market access. Complementing structural mechanisms are relational mechanisms that require inter-personal relationships, such as access to authority, familial and community members, workers, informants, extension services, and collective social identities.

While we recognize there are social inequalities, economic challenges, and institutional barriers to women's access to land resources, we also acknowledge that women have long been informally gaining, controlling and maintaining access to land resources to support their livelihoods. There have been recent efforts to bring together the analysis of gender and social-ecological resilience in natural resource governance (Elmhirst, 2011; Kaijser and Kronsell, 2014; Resurreccion and Elmhirst, 2008) to foster critical analysis of how "gendered power relations shape processes of environmental and institutional change ... associated with environmental concerns" (Kawarazuka et al., 2017, p. 206). In a resource-dependent social-ecological system with high levels of uncertainties and shocks, resilience is one of the ways that we can characterize human well-being (Kabeer, 1994). Adger's (2000, p. 347) definition of resilience within the social domain is "the ability of groups or communities to cope with external stresses and disturbances as a result of social, political, and environmental change".

In this article, we draw on Robinson and Berkes' (2010) four types of resilience-enhancing strategies to examine how women prepare for, cope with, recover from, and adapt to constraints in land resource access. Preparatory strategies are plans and actions that take place well before the possible decrease in access to land resources as a preventive measure. Coping strategies are reactionary behaviors that do not directly restore access to land resources but ameliorate the wellbeing of actors after disturbances. Recovery strategies are enacted to regain access to land resources. Although the first three strategies can be understood as aspects of adaptation, adaptive strategies involve re-organization and innovation in livelihood activities. Different mechanisms may be used in times of stable access to land resources and in times of stress and shock, serving multiple functions for resilience. Integrating social-ecological resilience thinking with access theory and gender analysis can provide novel ways to examine the interplay between women's access mechanisms under gendered local institutions and their adaptation under social and environmental pressures.

2 Case study

This research was conducted in Makueni County, Kenya, where the predominate ethnic minority community, the Kamba people, generally lead agro-pastoral livelihoods and are highly dependent on rain-fed agriculture for staple food and household income. Most Kamba people cultivate on land parcels of less than two acres, with income supplemented through casual labor, beekeeping, and small-scale trading of artisanal crafts (Juma and Ojwang, 1996). Highly variable rainfall and decreasing soil fertility contribute to low crop yields and a high prevalence of malnutrition in the region (Jaetzold et al., 2006; Kaplan, 1984; KNBS, 2015).

From 1969 to 1970, and in the mid-1980s, sections of land in Makueni County were formally surveyed. Through this process, farmers received administrative plot numbers and some eventually received formal title deeds for their agricultural land as part of Kenya's land registration process. Despite this effort, large areas of Makueni still lack formal tenure arrangements, partly due to the slow process and the administrative costs of surveying and registering land (Nyamu-Musembi, 2008). Kenyans who settled in the semi-arid and arid regions generally transformed pastures into cultivated farmland. In these regions, land represents much more than an economic asset. It is also viewed as a family legacy, a security for retirement and a place for old age. As a result, land is rarely sold in Kambaland. However, distress sales do occur as a last resort under pressures of poverty, such as the need for medical procedures, legal services, or burials. Distress land sales often result in long-term negative impacts on the poorest households in the community (Adoko and Levine, 2008). Traditionally, clan leaders have influenced the vetting process for a land buyer at the time of sale. However, their influence in land sales has greatly decreased due to large government efforts to establish individual freeholder land tenure systems (Nyamu-Musembi, 2008).

Kamba women generally access land resources to support their livelihoods without having formal tenure or customary entitlements to own or inherit land. Customary norms assert that women should access land through their husband or male kin (Kevane, 2012; Lambert, 1947). Such access to land resources through kinship is often tenuous, with loss of access common at the end of marital relations or the death of a husband (Gray and Kevane, 1999; Makura-Paradza, 2010). In Makueni County there are very low levels of joint-land titles between wives and husbands (Nyamu-Musembi, 2002), similar to other ethnic communities across Kenya and Africa (Claassens, 2005; Mitchell, 2007; Yngstrom, 2002).

In 2010, the Kenyan constitution signed into law the rights of people to own and inherit land without gender discrimination (The Constitution of Kenya, 2010). This reform aimed to address discrimination against unmarried, widowed, and divorced women (Cotula and FAO, 2007). However, the Kenyan constitution also contains an exemption for agricultural lands from the Land Succession Act, recognizing that in some counties, customary laws will govern inheritance rights as long as they are consistent with written laws (Judicature Act, Chapter 8, Section 3, 2010). The land succession clause has been met with some

resistance in Kamba communities where patrilineal system of land inheritance is the status quo.

Like many other rural areas in Kenya, Kamba female farmers increasingly depend on their access to land resources to provide for themselves and their family. Kamba women's access to land ranges from usufruct access through the household head who possesses a title deed to ownership of land generally acquired informally. The Kamba case can provide important insights into women's experiences in the pluralistic context of customary land resource management and more formal land tenure systems.

3 Methods

3.1 Data collection

To better understand how Kamba women access land resources within local sets of formal and customary institutions, we followed an exploratory case study approach (Creswell, 2007; Yin, 2003). From June 2013 to August 2014, the lead author conducted eight community meetings [four women-only (n = 280), four men-only (n = 83)], twelve focus group discussions [four women-only (n = 45), four men-only (n = 19), and four mixed-gender (20 men, 50 women)], and 77 in-depth key informant interviews (18 men, 59 women) within four administrative locations: Mumbuni, Kitandi, Kathonzweni, and Kathekani (Fig. 1). These locations spanned across 175 km of the approximately 190 km length of Makueni County. Key informants included smallholder farmers, agricultural extension officers, village elders, church community leaders, government-appointed chiefs and county agricultural officers. Community meetings and focus group discussions followed a semi-structured interview guide to explore the history of land use, young adults and women's barriers and opportunities to accessing land resources, views on the constitutional clause regarding land inheritance, and customary laws regarding land allocations. We followed purposive and snowball sampling strategies to identify key informants for in-depth interviews. Semi-structured and open-ended questions included topics on land and property relations among family members and their attitudes and perceptions of constitutional change affecting inheritance and land resource access. Informed consent was discussed and agreed prior to all community meetings, focus group discussions, and interviews. Audio recordings were transcribed in English or the local Kikamba dialect in full and then translated into English. Transcripts were thematically analyzed following an inductive process of semi-open coding and axial coding (Berg, 2004) using R-based Qualitative Data Analysis (RQDA) (Huang, 2016).

[Insert Fig. 1]

Fig. 1 Research locations in Makueni County, Eastern Kenya.

3.2 Data analysis

We employed a social relations approach (Kabeer, 1994) to institutional analysis that examined the rules, norms, and values at key institutional levels, namely, the family or kinship, the community, the market, and the state. Using

our data, we explored some of the immediate, intermediate, and long-term causes and effects of women's insecure access to land resources. This systematic analysis enabled us to identify how gender norms and local institutions reproduce social inequalities of land resource access and how different institutional levels are influencing each other (March et al., 1999).

We also classified the primary functions of the strategies that women used in response to loss or potential loss of land resources as: preparatory, coping, recovery, and adaptive (Robinson and Berkes, 2010). These strategies were then cross-categorized into the three access mechanisms: rights-based, structural, and relational (Ribot and Peluso, 2003). The criteria used to determine rights-based mechanisms included the means of access through entitlements supported by legal rights or by customary laws. Structural mechanisms were means of access to land resources through access to technology and access to markets. Relational mechanisms involved improving access, for example, through labor, authority, training, and social relations. We added "limited access" to describe a lack of access strategies that many women expressed, often leading to a drastic change in their livelihoods, for example, loss of land resources and moving to the marketplace.

3.3 Assumptions and management of limitations

Our research relied on a purposive sampling strategy across the four focal locations and across genders to capture diverse agro-ecological contexts, a range of livelihood measures, and perspectives on land resource access. Young children were not included in our analysis as primary data were not collected from boys and girls under 18 years of age. Semi-structured questions were piloted with five local research assistants to enhance reliability and reduce potential bias. Data were also triangulated from the in-depth interviews, focus group and community meetings to enhance reliability and trustworthiness. We further enhanced internal and external validity through dissemination of preliminary findings with local farmers and community members in November 2016 which allowed for general informant feedback and member-checking (Yin, 2003).

4 Results

We identified that women experienced different challenges and employed different strategies to access land resources depending on their familial roles as "daughters", "sisters", "wives", "mothers", "grandmothers", "divorcées", and "widows". In what follows, we present salient examples of the shocks and stresses reported, the institutional causes and effects and finally how women used different mechanisms of access to be resilient to such challenges.

4.1 Women's familial relations and access to land resources

4.1.1 Daughters

The notion of young adulthood for women is relevant in rural Kamba communities where women tend to marry before Kenya's official age of consent at 18 years old. Focus group discussions revealed that when sons marry, they

are generally allocated land to build a new family unit. Daughters are expected to leave their natal family and access land resources through marital relations with their husband's family. A male participant explained:

My daughters are all married. They have got a husband so they have got their piece of land ... It was according to tradition that when a girl is married she owns her husband's portion and she is no longer mine ... unless one divorces her husband ... that's when you can tell her: 'just cultivate here' (July 10th, 2013).

4.1.2 Sisters

Even when parents had allocated land to their daughters and sons, women reported that their brothers convinced them to sell their inherited land in exchange for more liquid assets, such as cattle, with the reasoning that they are already cultivating on their husband's land, physically away from the natal family's farm. A male interviewee reported that his brothers planned to establish joint-title with their sisters as a way to prevent future land claims by their sisters' husband. From our interviews, we observed Kamba men more readily express rights-based access mechanisms such as joint titles to secure land resources than women, a topic further explored in the following sections.

4.1.3 Wives

Kamba women's access to land resources is predominately dependent on their relationship with their husbands. Kamba wives have user rights to the parcel of land given to her husband. Ceremonial exchange of bridewealth at marriage serves to symbolize the departure of the woman from her natal family and her acceptance into the husband's clan. Focus group discussions with both men and women revealed that, especially in rural communities, customary marriage rituals are usually performed as a prerequisite to civil and religious marriages, indicating that customary institutions regarding marriage and gender relations remain a high priority.

The married women we interviewed raised concerns regarding their claim to accessing land resources. This included uncertainty in maintaining their access to purchased land in the likelihood that the husband marries a second wife. During focus group discussions, women also expressed uncertainty in their rights to own land or the possibility of joint-registration of their husband's land. A female participant said, "We don't even know. We are surprised ... [we] have been married, [we] have stayed there for a long time and the title deed is for the husband [sic]" (July 24th, 2013). With little clarity of their legal entitlements to land within marriage, women did not have the means to draw on rights-based mechanisms of access when stresses and shocks occurred. As another participant explained, "It is the way ... in Ukambani. A woman cannot be given a title deed unless they change the situation" (Female interview participant, July 17th, 2013). Responses from younger women indicated that there is increasing awareness of their formal marital rights and how changes in government legislation might affect them. This can have implications for formal land inheritance by women in the next generation.

At the time of the research, formal rights to access land for women remained highly debated among community members. Women reported using relational mechanisms to access land resources. One woman described:

You know what is there at home is his, even the loan that I get [from women's groups] is his because he says [I] am his, so when I am there, I just submit ... Whatever I get out there [women's groups], I share a little with him so that he will not feel disrespected in his leadership in the family ... him also, when he gets casual jobs, he should also give me some so that I can pay back the loan (Female focus group participant, July 24th, 2013).

From the focus group discussions, we found that under the familial institution of the man as the household head, a wife builds trust through reciprocal financial support and compliance with her position under the husband as the household head to strengthen her relational access to household resources.

4.1.4 Mothers

Beyond Kamba women's individual access to land resources, we found that women's identity as mothers was closely tied to their access to land resources. Mothers reported using customary rights-based mechanisms in combination with their relationship to their children to secure land resource access. Our results indicate that giving birth to a son secured the mother's family position compared to a mother with a daughter or without a child. Interviewees recounted that at times a wife who has not given birth to a son may resort to finding another woman to marry customarily as her wife. The union with a female-husband observed in the Kamba culture is aimed to produce a male offspring. This would enable the now female-husband to continue the male lineage, which contributes to securing her land resources (Cadigan, 1998; Oboler, 1980; Po and Bukania, 2016).

Although having sons can provide younger women with some degree of security to land resources, as mothers, one of the major concerns that were raised was the security of their children's access to family land. Some mothers, who had sufficient savings to purchase land, reported they would register their son's name in the purchase contract as a way to secure land access for their sons. As one mother explained, "I have bought the land and have differed with my husband. He can come and take, but if I register it using my son's name, he can't take it from him. He is his son" (Focus group participant, July 24th, 2013). Indirectly, the mother also protects her purchased land from being taken by her husband.

However, we also found that women justified multiple reasons for their need to register any purchased land solely with their husband's name to ensure a formal succession of land to the next generation. One woman explained using only her husband's name as a preventive strategy for future conflicts between her sons:

I may have five sons and I buy land and register with the eldest one's name and unfortunately, I and my husband pass away. There will be a lot of problems because that son will never share it and

says it was bought for him alone. So it is good if I use my husband's name so that there will be no problems in case of anything [sic] (Female participant, July 24th, 2013).

In this sense, registering purchased land under the husband's name was viewed as a preventive mechanism against uncertainty within the family, which serves to secure land tenure among siblings in adulthood. One woman explained, detailing the use of national identification cards in the registering process:

If I am the one who has bought that piece of land, it should be registered under my husband's name ... I don't bear his names of our fathers [father-in-law]. But because the children will register using their father's [sur]name, ... it's good his name be used to register that piece of land - even if I am the one who bought it [sic] (Female focus group participant, July 24th 2013).

Beyond financial barriers, respondents reported considering different ways to overcome social challenges. One female participant considered recruiting the help of her natal parents to purchase land and explained that the risk of disturbing harmony within the extended family deterred her decision:

On the issue ... of land purchase, I can forge with my father, so that it appears that he is the one who bought it for me, but it can cause a lot of problems, because when my husband comes to know, he will say that his in-laws don't respect him and I may be beaten ... chased away, so it is better to use my husband's name on the title deed (Female participant, July 24th, 2013).

While men can often directly purchase land with the support of legal and customary institutions, women reported facing administrative and social barriers in the land registration process: "Let's say [my children] are in primary school and they have no I.D.'s and an I.D. number is needed to get the plot number. Where will I get it from? So it is better I write my husband's name even if we have differed since there is law and agreements are there" (Female focus group participant, July 24th, 2013). This example also illustrates additional challenges that single mothers with young children can face when they try to register land.

Although women have gained legal rights to purchase and own land in Kenya, most Kamba women we interviewed expressed reluctance to formally register land purchases under their name. As one informant noted, "You know, we fear problems, because when the men hear that their wives have bought land, they will feel low and weak and so to avoid these problems, we give the land to our sons" (Female participant, July 24th, 2013). In rural Kambaland, the constitutional clause that provides equal rights for men and women to legally own land can be considered a gender-neutral policy. Our results indicate that, at least in the early stages of implementation, formal land reforms that promote women's access to land resources are constrained within existing gender and social relations. When women register land parcels under their son's name, the rights-based access mechanism serves to prevent future threats to their land ownership. By utilizing their sons' rights to inherit land and by transferring ownership to their sons, women indirectly gain access to land resources through relational mechanisms. Mothers forgo claiming their own formal ownerships and

land titles to maintain relationships with their husband, status quo within the family, and indirectly perpetuate inequitable social structures on formal land resource ownership. More importantly, claiming their rights would jeopardize existing relational mechanisms of access to, not only land resources, but also other household and agricultural livelihood resources, autonomies, and relational bargaining powers.

4.1.5 Parents with unmarried and returning daughters

Multiple respondents expressed that customary protections entitle unmarried women with children to cultivate on their natal parents' remaining land parcel. However, most of the parents we interviewed indicated that they had not considered allocating land to their daughters based on the expectations that their daughters will be married or their daughters were too young to be given land. Many families reported not having the financial means to formally subdivide their land or not having enough land to provide for their daughters and their grandchildren. A male participant recounted, "It is so hard for them [parents] to accept because they say, 'well, I only have a small piece. It is not even enough for my sons, how can you ask me to give to my daughter' [sic]" (July 11th, 2013).

We observed that customary norms and social discourse concerning land resource access for women were changing. Parents reported that marital separations were prevalent and daughters were returning to their natal home. The economic need to support never-married or returning daughters and their children have left many families hesitant to allocate land definitively to sons. Parents reported that one common strategy was to save a piece of land for the parents. If their daughters return, they could cultivate from the parents' land. Parents indicated that this strategy can also ease some of the pressures from their sons who seek their own land parcels to start their families. However, on numerous occasions parents reported allocating equal portions of land for their sons while returning daughters were expected to receive a much smaller land portion from the parents' remaining land parcel. One mother said, "In Ukambani, they don't usually give girls land unless you are not married and you are mature enough, like let's say you have children in your parents' home. ... That's ... when you can be given land with ... your brothers" (July 29th, 2013). From these results, we found that the customary allocations of land to unmarried daughters were primarily a coping mechanism to support daughters and their children as a last resort rather than originating from a sense of equality for daughters and sons.

4.1.6 Parents with married daughters

The expectation that daughters depend on their husband for their livelihoods reiterates the gendered institutions that govern women's land resource access. Fathers we interviewed reported a shortage of land to justify allocating their land to sons only. "He's saying that's too difficult because you [the daughter] have a piece of land from your husband and the [natal] land you have left here is very small, even not enough for the brothers so you should also be human enough to give them a chance to use the land as you use your husband's

land” (Male focus group participant, July 11th, 2013). A male village elder remarked, “It is like murder” (August 9th, 2013) in response to married daughters seeking land inheritance. Other parents saw that daughters inheriting land in addition to her husband’s land may lead to loss of family land, as one informant expressed, “She might sell the piece [I] have given her and go to stay with the husband” (July 11th, 2013). However, many households we interviewed reported cultivating on multiple farm plots at a distance from the homestead.

Parental views opposing the land inheritance rights of daughters were often justified through adherence to Kamba customary laws. As one respondent explained, “To the Kamba law, we are Kamba people. When someone is married, [she] gets land where she is married from the father [in-law]” (Male focus group participant, July 11th, 2013). Both men and women expressed that the Constitution of Kenya is viewed as a foreign institution. A woman stated, “The constitution is new, but we have practiced the Kamba traditions for long” (July 24th, 2013). Other parents reflected on customary institutions being slow to change. For example, a respondent said, the “Constitution should be followed, but these [land resource allocations] are things ... which already have their own [rules]. It is very hard to change it” (July 24th, 2013). Other women saw the constitutional change as giving them the power to bequeath land to their married daughters:

Yes, I am feeling the change [from the Kenyan constitution in 2010], because it says that daughters should inherit land ... When a daughter is married, she should inherit land and women should have title deeds like the husbands. But we don't know whether that is possible (Female participant, July 15th, 2013).

Others find ways to adapt the interpretations of customary law through commonly recognized Kamba community values such as unity. For example, the slogan “a child is a child” was introduced through the media to help eliminate gender discrimination in land succession. This hints at a gradual reorganization of a land resource allocation system that can adapt formal clauses of land inheritance to existing traditional egalitarian values.

4.1.7 Divorcées

Many Kamba women who are separated from their husband struggle to survive without any access to land resources. Respondents described a traditional process of divorce that can be initiated by the wife’s family. In this case, the wife’s family presents the “goat of refusal” (*mbui ya ulee*), which signifies the wife’s separation from the husband’s clan and her customary entitlement to land of the husband’s family. The wife’s natal family is expected to repay the full bridewealth to the husband’s family. Respondents explained that the inability of the women’s family to repay the full bridewealth is additional pressure for women to stay within undesired marital arrangements. If the husband initiated the separation and “chased away” the wife without due customary process, the wife and her children retain their customary entitlements in the husband’s clan.

One of these customary entitlements is a woman's right to be buried in her husband's land. Many participants indicated that if the customary process has not been fulfilled, and the wife dies, the husband has the customary right to collect her body and bury in his family land. Customary consensus also indicated that the burial of the wife within the land of the family-in-law could legitimize her children's claim to their father's land after they become adults. Community advocates for women explained that a husband's family can deter divorcées from being buried in their family plots to prevent their children from claiming family land in the future. Respondents explained that being buried at a government cemetery is viewed as one of the last options for a Kamba who does not have access to land. From the intricate process of divorce, burial implications, and future generations' entitlement to land, this result underscores the diverse meanings and practical consequences connected to land resource access for Kamba women and their families. Beyond agricultural assets, land access embodies a new settlement, a place of retirement, and a place to "rest the bones" after death.

4.1.8 Grandparents

Grandparents are facing increasing challenges to benefit from land resources in Kambaland. The pandemic of HIV/AIDS in the 1980s in Kenya increased the numbers of grandparents caring for their orphaned grandchildren. Some grandparents found themselves supporting young grandchildren as their single mother left in search of casual employment. At the time of our research, many grandparents reported selling productive assets, such as land and livestock, to afford their grandchildren's schooling and food. We witnessed grandmothers seeking additional land to cultivate for their grandchildren's welfare. One grandmother explained that even though she has access to land resources through marriage, her husband's land has been allocated to her adult sons and none was left for her returned daughter and grandchildren. In order to maintain harmony among her sons and their wives, she opted to rent additional land instead of asking her sons to share with their returned sister. Increasing prevalence of skipped-generation households in the region may reach a threshold for change, as one community leader expressed in a discussion about the vulnerability of grandmothers and returned daughters.

Nowadays because things have changed, people are going ... to think about the brothers and daughters because nowadays we are civilized ... We need education ... have barazas [community meetings], people are cautioned: [if] we are going to continue with this, we are going to be in trouble. So we have to change [the] format of living. (July 11th, 2013).

4.1.9 Widows

Under Kamba customary rules, after the male head of household passes away, the widow gains customary rights-based access to land resources. As one female participant affirmed:

According to Kamba customs and traditions, when the husband is alive, the woman can't sell goats. Hers are chickens. But when he is dead, the woman now becomes the head of the family and can sell anything she wishes to sell with no restriction from anybody whatsoever (July 24th, 2013).

Although customary entitlement exists, respondents noted that with formal ownership of land, formal entitlement hinges on legal transfer of title from the deceased husband to the widow, which is rare. Predominantly, widows are perceived to be the formal guardian of the title deed, retaining a customary entitlement to make decisions, but not formally recognized if legally challenged. Alternatively, it was commonly reported that the eldest son would become the guardian of the title deed to prevent conflicts until the widow passes away. However, the fragility of the widow's customary entitlement was revealed when a problem arises within the family. One female participant explained:

If my husband dies, the title deed will be with me because [I] am the wife. But if they [the sons] see I cannot give it to them, he [the husband] will leave the title to the first son and he will be like the father. It is like that, the culture (July 10th, 2013).

Younger widows reported that access to their deceased husband's land resources was highly subject to the relationships with their relatives, the support of their parents-in-law, and the community. A community advocate described occurrences of young widows being driven away by their extended family members due to land resource appropriation:

Now when the husband passed away, after two weeks from when they buried him, ... they called the clan and they chased the woman away. They put out all her belongings ... , only clothes not anything else, and told her to go away because she is the one who ... bewitched the husband (July 3rd, 2013).

Our findings also suggest that older widows were less vulnerable due to having increased relational access to land resources through social support from the community and their adult children. The trust and reciprocity that older widows may have established with their community can yield material benefits, such as sharing of harvest, fetching water and firewood, small monetary loans, and access to less tangible resources, such as better access to security, authority, and information.

The support from adult children and extended family members can increase access to labor for cultivation, maximizing their agricultural productivity from the land. Some widows who had reduced physical capacity to attend to their land parcels alone also reported that neighbors and relatives may target their fallow land. In such cases, their children's assistance with cultivation or farm-sharing with other widows in the community increased the likelihood of land security during old age. This situation has also been observed in the Luo ethnic community in western Kenya (Okuro, 2008).

4.2 Local institutional causes and effects of women's tenuous access

From our gender analysis, we identified the salient causes of women's tenuous access to land resources (Table 1). Although participants cited financial constraints and limited land assets as immediate causes of gender differences in land allocation, the gender analysis revealed more ingrained intermediate and institutional causes that perpetuate gender inequalities in Kamba land resource governance. At the household level, the Kamba gender norm of men being leaders of the household traditionally aligns with men as protectors and stewards of land resources for household members. Daughters gain access to land resources from their father-in-law indirectly through marriage. Sons gain access to land resources directly from their natal fathers (Lambert, 1947). However, with land privatization and titling efforts, men's role as stewards of land resources transformed into legal land owners. Moreover, the departure of a woman from her natal family when she is married, symbolized through the giving of bridewealth, was perceived by some as the end of the natal family's responsibility for the daughter's welfare. She now belongs to the husband.

The dichotomous view of larger household assets, such as land resources and cattle being controlled by men, and smaller household assets such as poultry and micro-credit loans controlled by women appear to factor into the belief that women's empowerment through financial independence can lead to disintegration of family unity. In contrast, there were parents who reported witnessing the benefits of gender equality in their children's education. They noted that adult daughters are more likely to send a share of their earnings to support their natal family than sons. Participants used the example of valuing both sons and daughters in education to indicate the possibility of a similar change in people's views toward land succession. In the intermediate term, parents expressed one of the aims of providing their children with higher-levels of education is for their children to become self-sufficient, to purchase their own piece of land. One respondent said, "These days daughters are being educated, so when she gets a job she can buy her piece of land" (Female participant, July 15th, 2013).

Table 1 Gender analysis of causes and effects of women's insecure access to land resources

Core problem	Women have insecure access to land resources
Immediate causes	
Kinship level	<ul style="list-style-type: none"> • Insufficient land to share among sons and daughters
	<ul style="list-style-type: none"> • Brothers cannot agree on land subdivision and succession arrangement
	<ul style="list-style-type: none"> • Mother has no authority to allocate land to support daughters and their children as the land has already been allocated among sons
Community level	<ul style="list-style-type: none"> • Self-help groups, farmers groups are occupied to solve immediate survival and agricultural needs
Market level	<ul style="list-style-type: none"> • Financial resources are diverted to more immediate needs (e.g. food, school fees, health services, shelter, repairs of productive assets)
State level	<ul style="list-style-type: none"> • Processing title deed is expensive
	<ul style="list-style-type: none"> • Land registration in mother's family name is incongruent with previous administrative processes of land succession
Intermediate causes	
Kinship level	<ul style="list-style-type: none"> • Land is not allocated to daughters as they are expected to leave the natal family and depend on family-in-law for their livelihoods
	<ul style="list-style-type: none"> • Land title belongs to a deceased household head and ownership has not been transferred to multiple sons as inheritors
	<ul style="list-style-type: none"> • Allocating land to daughters jeopardize harmony with extended family members
Community level	<ul style="list-style-type: none"> • Low literacy rate among women from older generations
	<ul style="list-style-type: none"> • Low awareness of marital and succession rights by women and men
	<ul style="list-style-type: none"> • Onus is on women to claim their rights
	<ul style="list-style-type: none"> • Clan leaders, land tribunals are costly to invite for resolving land disputes
	<ul style="list-style-type: none"> • Clan leaders, land tribunals are not trusted to be impartial

	<ul style="list-style-type: none"> Widows are cast out of their husband's household based on allegations from family members, traditional healers, shamans or witch doctors
	<ul style="list-style-type: none"> High prevalence of domestic violence against women and girls is condoned by the community
	<ul style="list-style-type: none"> NGOs prioritize measurable results in short-term programs and evaluations. Whereas gender transformative programming requires long durations, often with intangible results
Market level	<ul style="list-style-type: none"> Land fragmentation increases as population rises Informal land markets are less regulated
State level	<ul style="list-style-type: none"> Land adjudication processing is stalled in arid and semi-arid regions
Structural causes	
Kinship level	<ul style="list-style-type: none"> Social arrangement of men as leaders, planners and final decision-makers in the household is maintained as status quo
	<ul style="list-style-type: none"> Dichotomous views that men control large household assets such as cattle, goat, land for cash crop production and women controls smaller household assets such as poultry, micro-credit loans for subsistence
Community level	<ul style="list-style-type: none"> Patrilineal allocation of family land traditionally excludes daughters
	<ul style="list-style-type: none"> Customary consensus on women's primary access to land resources is via a husband
	<ul style="list-style-type: none"> Customary laws have higher legitimacy from community members than the Kenyan constitution in de facto resource governance
	<ul style="list-style-type: none"> Many perceived that women's financial and asset independence can reduce men's control and standing in the household, and disintegrate family unity
	<ul style="list-style-type: none"> Many perceived that women showing autonomy in the household can weaken husband's standing among his peers in the community
Market level	<ul style="list-style-type: none"> Women's entry into non-domestic labor force is viewed as their husband's inability to provide for his family. Women are discouraged from seeking

	casual wages
	<ul style="list-style-type: none"> Land privatization places an individual (primarily male household member) as the titleholder of land resources rather than the steward of land resources for future generations, weakening women's customary entitlement to land resources
State level	<ul style="list-style-type: none"> Kenyan constitution recognizes customary laws in governing inheritance rights for agricultural lands
	<ul style="list-style-type: none"> Kenyan constitution and Land Succession Act are gender-neutral, however land registration processes are gender biased against women
Effects	
Immediate effects	<ul style="list-style-type: none"> Women are struggling to cope with supporting their children or grandchildren without sufficient land resources (for food and nutrition security and livelihoods)
	<ul style="list-style-type: none"> Women's tenuous access to land resources is easily lost through marital discord, widowhood, sibling coercion, etc.
Intermediate effects	<ul style="list-style-type: none"> Women register purchased land using their husband or son's name as a form of security, which reproduces gender inequality in land ownership
	<ul style="list-style-type: none"> Women who claim land rights jeopardize severing family ties
	<ul style="list-style-type: none"> Women remain in informal labor markets, non-remunerable domestic labor, including cultivation in the homestead while more men seek employment away from home
Long term effects	<ul style="list-style-type: none"> Women's empowerment through education, entry into formal labor markets, gender-responsive programs and policies are not reflective of realities in intra-household dynamics
	<ul style="list-style-type: none"> Vulnerable women and their children are further entrenched in poverty

Table 2 Examples of women's access mechanisms to land resources and their functions for resilience

	Shocks or Stresses	Strategies	Access mechanisms	Other actors	Primary functions			
			(Rights-based; Structural; Relational; Limited access)	(Individual; Household; Community)	Preparation	Coping	Recovery	Adaptation
Sisters	<ul style="list-style-type: none"> Brothers pressure sisters to sell their inherited land portions in exchange for compensation 	<ul style="list-style-type: none"> Sisters and brothers negotiate the terms of exchange 	Relational	Household		X		
	<ul style="list-style-type: none"> Sister's husband comes to claim natal land 	<ul style="list-style-type: none"> Brothers register their names with their sister's name on the title deed of her land inheritance 	Rights-based	Household	X			
Daughters	<ul style="list-style-type: none"> Father passes away 	<ul style="list-style-type: none"> Father divides the land and plants some sisal to demarcate the land before he dies 	Structural	Household	X			

	<ul style="list-style-type: none"> The first wife dies. The children of the first wife are mistreated 	<ul style="list-style-type: none"> Children return to mother's natal family 	Relational	Household		X		
	<ul style="list-style-type: none"> Father sells land without his children's knowledge. Children cannot afford to repurchase family land after father passes away 	<ul style="list-style-type: none"> Neighbors, community, clan fundraise to support the children 	Relational	Household, Community		X		
Wives	<ul style="list-style-type: none"> Husband marries a second wife 	<ul style="list-style-type: none"> Woman secures her share of the family land with physical demarcation 	Structural	Household		X		
	<ul style="list-style-type: none"> Wife aims to maintain sufficient control of household and land resources 	<ul style="list-style-type: none"> Wife shares information and funds from self-help group savings with husband to build trust and reciprocity 	Relational	Household		X		
Mothers	<ul style="list-style-type: none"> Woman has not given birth to a son 	<ul style="list-style-type: none"> Woman becomes a female-husband by marrying a younger woman 	Rights-based, Relational	Household		X		

		who gives birth to a son						
	<ul style="list-style-type: none"> • Woman tries to secure her children's access to family or purchased land 	<ul style="list-style-type: none"> • Woman registers her son's name in the contract in case of discord with husband 	Rights-based, Relational	Household	X			
	<ul style="list-style-type: none"> • Husband feels disrespected when woman purchases land 	<ul style="list-style-type: none"> • Woman registers the land using her son's name 	Rights-based, Relational	Household	X			
	<ul style="list-style-type: none"> • Daughter separates from her husband 	<ul style="list-style-type: none"> • Parents ask their sons to share their land with their sister. The sons have their family to support. Some would not oblige 	Relational	Household		X		
	<ul style="list-style-type: none"> • Daughter separates from her husband 	<ul style="list-style-type: none"> • Parents save a piece of land for themselves when subdividing land to their sons 	Rights-based, Relational	Household	X			
	<ul style="list-style-type: none"> • Sons fight for purchased land after death of parents 	<ul style="list-style-type: none"> • Woman register purchased land under husband's name 	Rights-based	Household	X			
Divorcées	<ul style="list-style-type: none"> • Wife separates from husband 	<ul style="list-style-type: none"> • Woman lives with natal family and inherits land from 	Relational	Household		X	X	

		her father						
	<ul style="list-style-type: none"> Wife separates from husband 	<ul style="list-style-type: none"> Woman rents arable land, diversifies her livelihood activities 	Structural (access to financial capital, knowledge, markets)	Individual		X	X	X
	<ul style="list-style-type: none"> Wife separates from husband 	<ul style="list-style-type: none"> Woman rents a place in the market town 	Limited access	Individual		X		
Grandmothers	<ul style="list-style-type: none"> Daughter leaves her children under the care of grandparents 	<ul style="list-style-type: none"> Grandparents use remaining land or rent land to cultivate for food and household income 	Rights-based, Structural (access to financial capital)	Household		X		
	<ul style="list-style-type: none"> Grandchildren do not have land entitlement 	<ul style="list-style-type: none"> Grandparents support grandchildren's education, in hopes that their grandchildren can purchase land of their own 	Structural (access to knowledge, financial capital)	Household	X		X	X
Widows	<ul style="list-style-type: none"> Widow lacks sufficient physical energy to farm 	<ul style="list-style-type: none"> Widow employs someone to cut thorny shrubs, clear and prepare land to cultivate 	Structural (access to financial capital), Relational	Community			X	
	<ul style="list-style-type: none"> Widow lacks sufficient 	<ul style="list-style-type: none"> Widow participates in labor-sharing 	Relational	Community		X	X	

	physical energy to farm	groups to provide resources						
	<ul style="list-style-type: none"> Land tenure is insecure 	<ul style="list-style-type: none"> Children assist in the protection of title deed or the process of title deed transfer to the widow's name 	Rights-based, Relational	Household	X			
	<ul style="list-style-type: none"> Land disputes arise after the death of the head of household 	<ul style="list-style-type: none"> Chairman of the clan settles land disputes 	Relational (access to authority)	Household, Community		X		
	<ul style="list-style-type: none"> Widow receives threats of being chased away from the homestead 	<ul style="list-style-type: none"> Widow seeks assistance from NGO to go to court 	Rights-based, Relational	Household, Community	X		X	
	<ul style="list-style-type: none"> Widow receives threats of being chased away from the homestead 	<ul style="list-style-type: none"> Widow maintains good relationship with the parents-in-law and the relatives 	Relational	Household	X			
	<ul style="list-style-type: none"> Widow receives threats of being chased away by husband's relatives 	<ul style="list-style-type: none"> Widow leaves the family with her children 	Limited access	Household		X		

Development efforts at the community level to increase literacy, increase both men and women's awareness of marital and inheritance rights, as well as decrease the prevalence of domestic violence against women and girls can help address the intermediate and structural causes of gender inequality. Men's awareness of women's rights and their current challenges to land resource access can help reduce the onus on women to claim their rights. Some respondents reported cases of brothers insisting to their parents that their sisters should also receive land allocations during subdivision. This increases familial safety nets for their sisters in case they remain single, return from a marital separation, or they require land resources to support their future grandchildren.

At the state level, we found that the Land Succession Act within the Kenyan constitution is gender-neutral. Although it is a step forward for women's legal entitlement to own and inherit land, the local land registration process continues to constrain women's formal access to own or purchase land. Weighing their multiple options, many Kamba women justified solely registering their husband's name on a piece of purchased land to secure the land for their children. Moreover, the government's recognition of customary laws in land succession without policy mechanisms to ensure that these customary laws are not discriminatory serves to create institutional pluralism in rural land resource governance.

From the gender analysis, we found that such structural causes and institutional barriers contributed to uncertainties in women's entitlement to land resources. Women who refrained from claiming their marital or succession rights reported they did not wish to jeopardize family ties with their parents or their spouse. Remaining in non-remunerable domestic and agricultural labor without security to land resources can further entrench women and their children in poverty. In the next section, we examine the ways women used non-rights-based mechanisms to access land resources.

4.3 Access strategies and resilience in land resource access

Women in Kambaland reportedly depended largely on relational mechanisms of access, primarily through kinship and their community. Within the household, women use marital relations to maintain access to land and other household resources. This can involve the sharing of news, information, and external financial resources such as self-help group savings with their husband to build trust and show deference. Similarly, building trust and reciprocity with their parents-in-law and extended family can help prepare and protect women's access should they become widows. Furthermore, young mothers reported protecting their purchased land through registration using their husband or their son's name, combining relational and rights-based mechanisms to prepare for potential threats in the future. Single mothers and divorcées rely on their natal family to access land resources as a way to cope with limited or loss of land access. Although these women may have very limited options and bargaining power within their extended natal family, customary values of unity and solidarity in assistance were identified as sources of legitimacy to help them cope and recover. Older women reportedly augment the benefits from their land resources

through their adult children's labor and legal assistance in case of territorial disputes (see Table 2).

Within the community, women can increase their ability to benefit from land resources through relational mechanisms in multiple ways. Women build familiarity and friendships with neighbors, which strengthens the security of their distant farm plots. They cope with limited land resources when family land has been allocated to adult sons by renting additional land from neighbors. They increase agricultural productivity and share risks by participating in NGO assistance programs such as "Food for Work". Such community programs facilitate collective labor, train members on agricultural technologies such as incorporating drought resistant crops, water management, post-harvest storage, processing and preparation to increase the awareness and adoption of resilience-enhancing technologies (Muhammad et al., 2016). However, women reported that they faced barriers in sharing new technologies or knowledge with other members in the family. Some explained, "we cannot take on the role of 'teacher' to our men in the household". The knowledge that women gain through relational mechanisms in the community may not transfer readily to other household members when constrained by gender dynamics within the household.

Kamba women are also active in the community, such as participating in religious associations, water management groups, contributing to neighborhood fundraisers, paying visits to the sick, and attending community meetings called by chiefs. Participating in these activities serve to build their community network for information, training opportunities, and social standing among their peers. In times of urgent financial needs, community members have been reported to help individuals recover family land that was previously sold and to resolve land disputes. One woman reported that by volunteering at a sand dam water management committee, she found an opportunity for her farmers group to start a tree nursery by negotiating permission to access an available space at the water pump station. This is an example of how women can use relational mechanism to adapt and innovate when land resources are limited.

Table 2 summarizes our results using a cross-classification of Ribot and Peluso's (2003) rights-based, structural, and relational access mechanisms with four different resilience strategies: to prepare for, coping with, recover from, and adapt to land resource loss (Robinson and Berkes, 2010). We found that Kamba women generally use rights-based mechanisms of access to prevent and prepare for a pending loss of land resources and relational mechanisms of access to cope with existing difficulties with land resource access. Relational mechanisms, also contribute to other preparatory, recovery, and adaptive function of resilience. Women's multiple familial relationships as daughters, sisters, wives, mothers, grandmothers, and widows contribute to their different access to land resources. Un-married daughters and divorcées have comparatively fewer mechanisms of access to land resources.

5 Discussion

Building on previous research examining women's empowerment in agriculture and rural livelihood outcomes at the household and community level (Doss et al., 2015; Kevane, 2012; Meinzen-Dick et al., 1997; Palacios-Lopez et al., 2017; Quisumbing and Maluccio, 2003; Udvardy and Cattell, 1992), this paper explores the perceptions of rural Kamba women and men towards Kenya's constitutional clause on land succession and the common challenges that Kamba women face to access land resources in Kambaland. The institutional analysis based on the social relations approach demonstrated how a gender-aware but gender-neutral constitutional clause in land succession presents a major step, however one of many, toward addressing gender inequality in Kenya's land tenure system. Our findings also revealed how existing structural causes and local norms on gender relations within a household can undermine national policy objectives.

With the Kenya referendum for the constitution in 2010 still a recent memory, the participants' accounts in this case study provided rich empirical evidence of "forum shopping" by Kamba parents. The accounts support Meinzen-Dick and Pradhan (2002)'s observations of dynamic property rights within a pluralistic resource governance structure. Forum shopping is a process where individuals may justify their decisions with one or another sets of institutional rules, in our case Kenya's constitutional clause and Kamba's customary laws for land succession. While land parcels can be formally surveyed and registered to a male household head for tenure security, land succession for daughters follows Kamba customary laws.

Our findings also revealed the process of formal titling and land registration can contribute to the social reproduction of gender inequalities in land ownership. The discourse among Kamba women that justified placing their husband as sole titleholder of land resources may stem from a sense of a "zero-sum" space in household decision-making. The perceived risk of family disintegration which stems from women's financial independence illustrates an "internalised oppression" examined in feminist studies (Rowlands, 1995). The way people "are systematically denied power and influence in the dominant society internalize the messages they receive about what they are supposed to be like, and how they may come to believe the messages to be true" (p.102). This is also "adopted as a survival mechanism" (ibid.) that explains women's reluctance to change the status quo. The barriers for women to gain formal title and the resulting vulnerability can be seen in divorced women. The extensive burden of proof to demonstrate that the woman's contribution of money or labor to the land generally falls on the divorcée (Englert and Daley, 2008; Nyamu-Musembi, 2002).

Access theory and gender analysis complementarily highlighted the broader mechanisms of access which Kamba women consider. We found that women's considerations for land resource access go beyond individual costs and benefits, and take into account the security of their children's future access, their husband's community reputation, and potential impacts on the household's livelihood prospects on the whole. It may be considered a step backward in

women's struggle for self-determination and, their goal of individual ownership of land resources. However, our analysis revealed that women who forwent legal claims to land ownership even when they may be aware of their land rights accounted for the values of harmonious familial relationships, protection from domestic violence and their autonomy in other facets of life in the long run.

Using access theory and social-ecological resilience perspectives, we identified that young wives and un-married daughters tended to have very few rights-based mechanism of access to land resources. This severely limits their preventive measures against potential land resource loss. Preserving relational mechanisms of access appears to serve women's immediate and intermediate-term needs more readily than rights-based mechanisms of access. Most respondents reported that the heavy costs of acquiring or transferring title deeds was the source of delay in the process. In the rural arid and semi-arid regions of Kenya where household poverty and undernutrition levels persist (KNBS, 2015), immediate financial needs take priority over a formal title of land ownership. Furthermore, this title change can stir up disagreements among extended family members, especially when harmony in daily activities exist. Access theory explains how women maintain their benefits from land resources through transferring some benefits to others, such as household head, or their sons. It explains how relational mechanisms of building trust, reciprocity, associative participation within the community have helped individuals recover land resources and diversify their agricultural activities, such as raising tree seedlings, to adapt to land resource constraints in the rural context.

Beyond the associations between women's access to land resources in Kambaland and women's relational identities, our study empirically draws together the concepts of intersectionality in gender studies (Collins, 1998, 2000) and concepts of resource access and resilience more commonly used in natural resource governance. Intersectionality in gender studies examines how social categories such as race, class, gender and, in the current study, familial identities mutually construct one another. Our findings showed that recognizing women's familial identities is critical in understanding gendered customary land resource governance. Delineating vulnerabilities that are present for Kamba women in their different familial relations can help inform more gender-sensitive land use and land succession policy options. Women who themselves have usufruct access to land resources as wives but who are without inherited or formal land ownership are vulnerable to shocks as widows, divorcées, or grandmothers when providing for their grandchildren. The high prevalence of skipped-generational households where grandparents care for grandchildren in Kambaland signals the potential value of intersectional perspectives in designing land policies.

In an ecologically fragile, natural resource-dependent, social-ecological system, resilience is an important lens to understand how individuals and communities adapt to threats, uncertainties, and shocks to their resource access (Brownhill et al., 2016; Pelletier et al., 2015). Resilience science views a systemic reorganization and transformation can reach new stability domains (Gunderson, 2000). This perspective can provide a trajectory that complements the notions of agency, shifts in bargaining power and reorganization of the status quo. In a

social-ecological context where marital separations become more accepted, girls and boys achieve higher levels of education, and more women enter non-domestic labor force, our findings suggest that legal land registration processes need to also be reformed to support women's ownership of land purchases. At the time of this research, we found that the confluence of customary values and formal processes in rural land markets reinforced constraints on women's independent access to land purchases. From a social-ecological resilience perspective, changing gender relations and parents' views regarding land inheritance will require enormous efforts of activism, social agitation and support by both men and women in the younger generation to shift from the existing stable states.

Although our analysis only provided a "snapshot" of the complex land relations present in Kambaland, interviews with men and women indicated that people's interpretations of customary laws concerning land resources are slowly changing with their social environment. This aligns with Kabeer's (1994) social relations approach, which asserts that institutions are capable of change. Although institutions guide people's behaviors and decisions, people's realities and responses also reshape social institutions (Benda-Beckmann, 1981; Merry, 1988). Respondents' interpretations of customary law appeared to be more flexible when addressing the immediate survival needs of unmarried or returning daughters. Aligning with the observations Pasura (2010) found in Zimbabwe, reconciling Kamba customary laws, traditional values of harmony, unity and mutual assistance with gender equality in land resource governance can assist in the efforts to implement statutory land policies in rural Kenya.

Our study provided a "broad stroke" of gender dynamics within the Kamba rural society. We did not have sufficient data for a gender-specific analysis and instead examined women based on their familial relationships. This was found to be applicable within the Kamba cultural context, where the social importance of the family unit tends to outweigh individual needs. However, we recognize that using these categories may limit a broader understanding of women's livelihood strategies that includes other personal characteristics, such as occupation, education, or social position, which can also influence their access mechanisms. Perhaps more significantly, there is an emerging need to examine resource access by rural women from various class, education, and social-economic levels.

6 Conclusions

Access theory underscores the flow of benefits from land resources for women through their multiple familial and social relations. Social relations approach challenges the assumption that benefiting from resources translates directly to sustaining livelihood outcomes and instead focuses on the institutions that women navigate to increase their well-being. Social-ecological resilience thinking provides the lens to help understand what gender relations and resilience in resource access can entail within a context-specific system. This study showed that the types of access mechanisms available to women and the types of resilience functions they need in multi-generational households are

critically associated with their familial and social relations. In Kenya, more programmatic efforts are needed to increase women and men's awareness of changing land policies. In such awareness campaigns, it may be necessary to consult and collaborate with local community leaders from both genders who uphold customary laws and values. They can help clarify misconceptions between statutory and customary laws and assist with dissemination to the wider community. Further sensitizing state and non-state actors to the social concerns and operational barriers that rural women face has the potential to contribute to both the equity and effectiveness of existing land use policies. Conceptually, recognizing the importance of women's multiple relational identities, as daughters, sisters, wives, mothers, widows, divorcées, and grandmothers, may offer a valuable framework to help understand the intersections of generational and gender linkages with land resource governance.

Declaration of interests

We declare no competing interests.

Acknowledgements

We are thankful for the time and expertise contributed by the participants in this study as well as the dedicated enumerators and translators. This work was carried out with the aid of a grant from the International Development Research Centre (IDRC), Ottawa, Canada, and with the financial support of the Government of Canada provided through Global Affairs Canada (GAC) and various direct and indirect contributions by the Government of the Republic of Kenya through the Kenya Agricultural and Livestock Research Organization (KALRO). This research was part of a project titled: Enhancing Ecologically Resilient Food Security in the Semi-Arid Midlands of Kenya, led by McGill University and KALRO (Principal Investigators: Gordon M. Hickey and Lutta W. Muhammad). June Po would like to acknowledge the additional funding support she received through the Social Sciences and Humanities Research Council of Canada (SSHRC), the Margaret A. Gilliam Fellowship in Food Security, and le Réseau de Recherche en Santé des Populations du Québec. She would also like to acknowledge Julien Bolbach for his assistance with Figure 1. Comments on earlier drafts of this paper have been gratefully received from Kristen Lowitt, Arlette Saint-Ville, and Sarah Turner.

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