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Editor Ian Scoones



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Youth Participation in Smallholder Livestock Production and Marketing^{* **}

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Benson Estambale⁴ and Isaac Nyamongo⁵

Abstract Agriculture is a leading source of employment for rural populations in Kenya. Through a mixed methods approach, this study sought to investigate youth participation in smallholder livestock production and marketing in Baringo County. The specific focus is on how social norms and micropolitics enable or constrain participation of particular groups of young people. The study established that personal choice, preference for paid over unpaid labour and gender norms in asset access, ownership and control influence smallholder participation in livestock production and trade. This shows a disconnect between Kenya's youth policy which advocates for equitable distribution of employment opportunities and the reality at community level. Interventions that seek to improve livestock production and marketing, particularly involving young people, should therefore adopt strategies that recognise these norms as a first step to addressing social exclusion.

Keywords: Africa, transformation, empowerment, Kenya, Baringo, livestock production, livelihoods, participation, smallholder, markets, gender norms.

1 Introduction

In 2014, Kenya's agriculture sector employed three in every four workers in rural areas and contributed to 27.3 per cent of the country's gross domestic product (GDP), mainly from crops (19.7 per cent) and livestock (4.9 per cent) (MoALF 2015). Sixty per cent of the country's livestock is found in the arid and semi-arid areas which make up 80 per cent of the national land mass (MoLD 2008). The total monetary value earned from animal products in 2014 was US\$464.5 million from beef, US\$279.2 million from goat, US\$375.0 million from mutton, US\$331.8 million from poultry and US\$1.6 billion from milk (MoALF 2015). There is growing demand for meat and milk fuelled by increases in population, purchasing power and urbanisation (Delgado *et al.* 1999; MoALF 2015). It is estimated that in developing countries such as

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Kenya, 48 per cent of food protein and 20 per cent of food energy is derived from livestock (FAO 2009).

Despite agriculture being the leading source of employment, young people are often said to prefer employment in non-farm sectors. Negative attitudes towards agriculture have been associated with drudgery, low returns, poor access to markets and market information, limited credit, lack of prestige compared to white collar jobs and awareness of the disparities between rural and urban life (Afande, Maina and Maina 2015; Leavy and Smith 2010). Other factors include non-involvement of youth in policymaking processes (Afande *et al.* 2015). In Kenya, the constitution classifies persons between 18 years and 34 years of age as youth (GoK 2010). This categorisation is used in the remainder of the article, but it is critically important to recognise that even within this age range there is a tremendous level of diversity across the broad range of social and economic indicators (Leavy and Smith 2010).

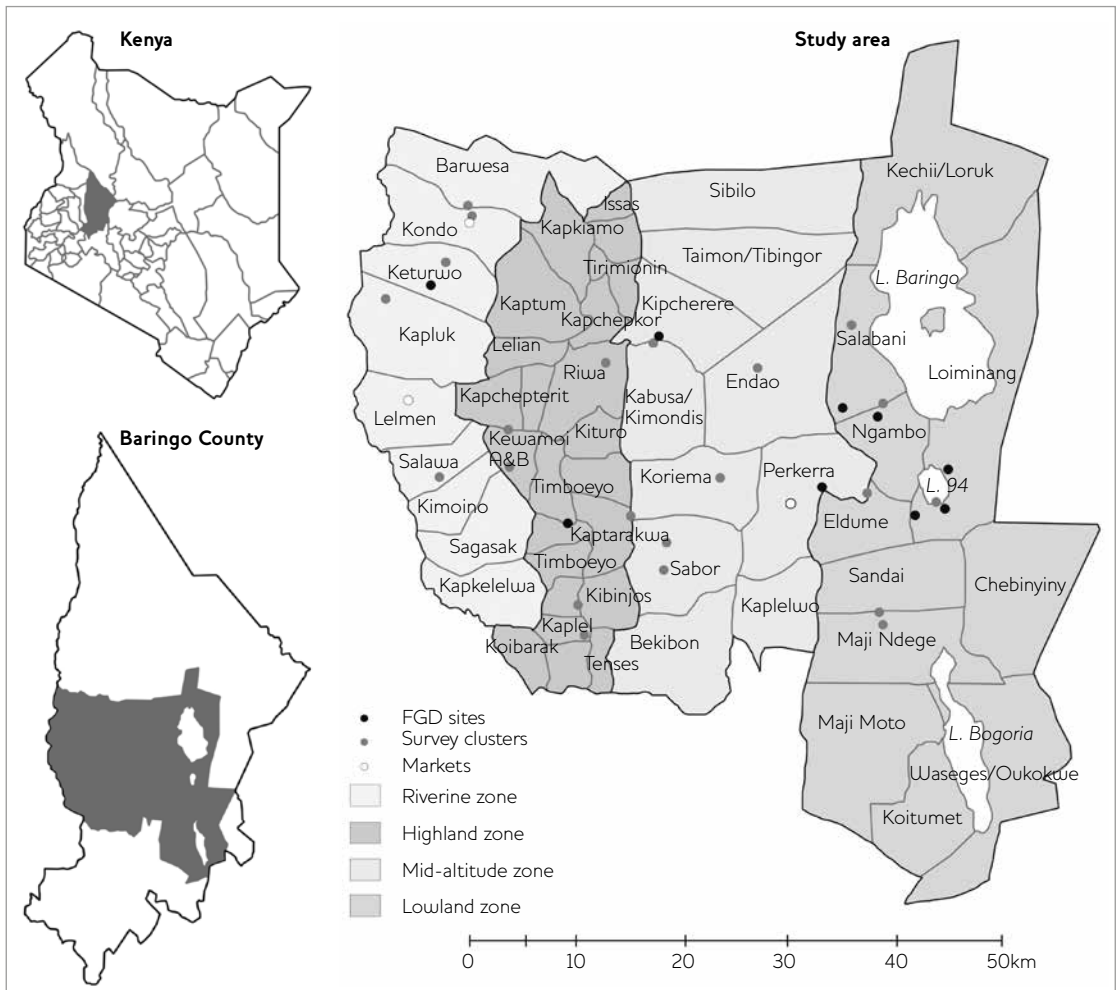
The Ministry of Agriculture, Livestock and Fisheries 2013–2017 strategic plan proposes to draw youth into agriculture through the introduction of new farming technologies such as irrigation and aquaculture (MoALF 2013). However, the plan does not explain how youth engagement in livestock production and marketing will be improved. Similarly, the national youth policy advocates for equitable distribution of employment opportunities but does not explain how that will be achieved in the livestock sector (MoYA 2006). The government's Vision 2030 recognises Kenya's youth as an important segment of the population and the livestock sector as key to Kenya's economic growth but does not state how the youth can gainfully engage in the livestock sector (GoK 2007).

The research reported here sought to explore the factors affecting youth participation in livestock production and marketing in Baringo County, Kenya, and the implications of these for youth employment and livelihoods. At the heart of the study is the question: who participates in livestock production and marketing, and what are the social norms and micropolitics around participation?

2 Materials and methods

Baringo County is part of Kenya's semi-arid regions, and in 2014 contributed to 2.4, 3.5, 2.2 and 2.1 per cent of the country's chicken, goat, cattle and sheep populations respectively (MoALF 2015). The study was conducted in three sub-counties, Baringo Central, Baringo North and Marigat, which make up the central part of the county (see Figure 1). The study site was divided into four ecological zones, namely riverine, highland, midland and lowland. The highland zone, defined as an altitude greater than 1,500 metres above sea level (masl), is the most favourable for crop and dairy farming. The midlands are at an altitude of 1,000–1,500 masl and have a high goat population. In the lowland and riverine zones, irrigated crop farming and livestock production are practised in the Perkerra Irrigation Scheme and along sections

Figure 1 Map of study site



Source Redrawn from authors' original, from the project titled 'Early Warning Systems for Improved Human Health and Resilience to Climate-Sensitive Vector-Borne Diseases in Kenya'.

of the Kerio River, respectively. The highland, midland and riverine zones are predominantly populated by Tugen people who are mainly agro-pastoralist, while the lowlands are populated by the pastoral Ilchamus people.

A cross-sectional, mixed methods approach was used. Quantitative data was collected through two surveys that included 335 household heads and 203 livestock traders respectively. The household survey focused on household demographic characteristics, livelihood activities, types and numbers of livestock kept, and quantities of milk produced. Each zone was subdivided into five clusters, and households were selected through stratified random sampling. The trader survey was conducted on six different market days in November 2015 in three main livestock markets within the study site. All traders in the market were surveyed.

Data collection focused on demographic characteristics, types and numbers of livestock traded and trading frequency. Household survey respondents did not participate in the livestock traders' survey.

Qualitative data was collected through focus group discussions and direct observation. Twenty-six focus groups were organised – half included only men and half only women. Each group had 7–10 participants, for a total of 231. Participants were selected purposively, with the following inclusion criteria: having lived in the county for at least one year, and being a livestock keeper or coming from a household that keeps livestock. The discussions covered livelihood activities, how individuals become livestock owners, types of livestock ownership, and division of labour in livestock production and marketing practices. Following Quisumbing (1999), dimensions of livestock ownership were categorised as management, access, withdrawal, alienation and exclusion. Direct observation techniques were used to collect additional data that would further contextualise the research findings.

Quantitative data was entered and cleaned with CSPro⁶ and analysed with SPSS⁷ using both summary and inferential statistics. Qualitative data was transcribed and coded into emergent themes using NVivo⁸ and analysed using the content analysis method. All respondents were of consenting age and voluntarily agreed to participate in the study.

This study gives a snapshot of the context within which different people engaged in livestock production and marketing. The study did not investigate whether the livelihood activities the respondents engaged in were a result of choice or necessity, or whether they were considered as long-term or short-term activities. The results cannot be generalised beyond Baringo County.

3 Results

3.1 Demographic characteristics

A total of 335 household heads, comprising 260 males and 75 females participated in the household survey. Just over a quarter (27.8 per cent) were 34 years old or less, while the rest were 35 years or more. Three quarters of the young household heads were male (75.5 per cent) while the rest were female. Among household heads aged 35 years and above, 78.6 per cent were male and 21.4 per cent female. The vast majority of both young (88.6 per cent) and older household heads (79.7 per cent) were married. There was a statistical difference between the education levels of the young and the older respondents, with the youth having more primary, secondary and tertiary education ($\chi^2=28.810$, $df=3$, $p<0.001$). Among the youth, there was a statistical difference in education levels between the men and women (Fisher's test $p=0.013$), with more men than women having primary, secondary and tertiary education.

Nearly half of the traders interviewed (49.3 per cent) were 34 years old or less, and most of these were aged 25–34 years. Traders of all ages were overwhelmingly male (96.1 per cent overall). There was a statistical difference between the education level of young and older traders,

with more youth having post-primary education ($\chi^2=26.948$, $df=4$, $p<0.001$). The study participants were predominantly Christian.

3.2 Livelihoods and livestock

The main livelihood activities in this region are crop farming, livestock keeping, self-employment in supply of goods (such as firewood, water and food items), wage and salaried employment. As primary livelihood activities, household heads reported engaging in crop farming (50.2 per cent), livestock keeping (19.1 per cent), goods delivery (15.4 per cent), wage labour (9.5 per cent) and salaried employment (5.8 per cent). Their main supplementary activities were livestock keeping (52.1 per cent) and crop farming (32.1 per cent). Compared to their older counterparts, young household heads were more likely to engage in goods supply, wage labour and salaried employment than crop or livestock production as primary livelihood activities ($\chi^2=10.610$, $df=4$, $p=0.031$).

A clear majority of households (83 per cent) reported keeping livestock, with 29.7 per cent having goats, 29.1 per cent cattle, 25.6 per cent chickens and 15 per cent sheep. Heads commonly reported that their households keep more than one livestock species. The livestock are mainly of indigenous breeds: few farmers kept cross-breed cattle, favoured for higher milk production compared to local breeds. Households headed by young people had on average 11.1 tropical livestock units (TLUs),⁹ slightly lower than the average for older household heads (13.0). Among the youth, male-headed households had more livestock TLUs (12.3) than female-headed households (9.4).

The animals were considered sources of food (meat, milk, blood, eggs and animal fat), medicine, income and prestige; as well as stores of wealth and means of social acceptance. For household heads, livestock keeping was considered an important indicator of wealth: households with few cattle, sheep or goats were perceived as poor and those with more were considered wealthy. The size of herds was also associated with the level of social capital and the respect extended to household heads and their families. Persons from households with a lot of livestock were more respected, had greater voice and were easily accepted as leaders. Inclusion and non-inclusion of women into groups locally referred to as 'merry-go-rounds' was partially determined by the members' perception of an applicant's individual wealth status, and thus livestock holdings mattered. 'Merry-go-rounds' are a form of rotating savings group in which members contribute savings at regular intervals with each member taking the pot in turn. Members with more livestock might be seen as less risky.

3.3 Sources of livestock and ownership

Men and women, young and old, reported sourcing livestock through purchase, gifting and loaning, as well as through the reproduction of animals already owned. Animals were purchased from friends, neighbours or from markets. The purchase was often done by the person that wanted the animal or a proxy assumed to be knowledgeable of prevailing market prices and skilled at selecting good animals.

Cattle, sheep and goat transactions were mainly handled by men, while chickens, eggs and milk were handled by women. A newer strategy of acquisition of cattle, sheep and goats by women was through the 'merry-go-round' groups.

Livestock were gifted to young persons as a result of good performance at school and at home. Boys were also rewarded for exhibiting bravery during circumcision, whereas girls were gifted animals upon getting married in a culturally acceptable way, and also after childbirth. Additionally, a bride's parents were gifted livestock by the groom's family (bride price). In some instances, the bride price was also shared with the bride's uncles and aunties, with the expectation that those who received these gifts would reciprocate when their children married.

Only sons were reported to inherit livestock from their parents, with the animals being bequeathed to the sons at a time of the father's choosing or after his demise. Traditionally, among the Tugen community, a father's livestock was only inherited by the firstborn son while the last-born inherited from the mother. However, this practice was reported to be in decline as sons press for equal shares of inheritance regardless of birth order. For girls, it was reported that inheritance of any kind of property encouraged insubordination and decreased the probability of getting and remaining married.

Sourcing livestock through traditional borrowing was reported as a last resort, when, for example, all other livestock had been lost. In this region, lack of cattle, sheep or goats is equated to nakedness, and the culture demands 'an individual borrows clothing to cover the shame'. Thus, an individual who does not have animals can borrow from one who has many, and utilise the milk in exchange for caring for the animal. Once the borrowed animal reproduces, the owner gives the caregiver a female offspring to start their own herd, then often repossesses the mature animal and any other young ones.

Livestock ownership was reported by men and women, but ownership has several different dimensions. For example, ownership claims are manifest in making decisions about livestock management (management); in determining who has access to livestock or their products (access) or not (exclusion), and which animals are sold, gifted or loaned, and to whom (alienation); and over the benefits accrued from the livestock and derived products (withdrawal). Management is the ability to make decisions on care of livestock. At household level, management of cattle, sheep and goats is primarily a male responsibility regardless of who or how the animal was sourced. Prior to marriage, cattle, sheep and goats belonging to male and female children are held in trust by their parents. According to focus group discussants, the majority of young women married aged 20–25 years while young men married aged 25–30, both well within the youth category. Upon marriage, most dimensions of ownership by young women are transferred to the new male head of household regardless of their age:

As a woman, you have nothing to say is yours. You won't say this livestock [cattle, sheep and goats] it is mine. (Female discussant, Litein4)^{10,11}

As far as livestock [cattle, sheep and goats] are concerned, women do not have authority to own or sell them. (Male discussant, Lorok1)¹²

There are those women who can buy cattle, but when it reaches home it does not belong to the woman because the home is the husband's, there is no home belonging to a woman. The home belongs to the man. So everything in the home belongs to the man. The children and the woman are his. Everything in that house is his. (Male discussant, Litein1)¹³

Despite these cultural norms, women still source and keep cattle, sheep and goats. However, their security of ownership depends on maintaining anonymity of who sourced the animal:

If you come to brag at home that you have [cattle, sheep or goats] he gets angry. He can sell or slaughter them. (Female discussant, Litein4)¹⁴

He [the household head] does not want you to tell others that you have [cattle, sheep or goats]. Even if they are full in the home and he doesn't have even one you don't tell anyone. You let it look like they are his. (Female discussant, Litein1)¹⁵

Chickens, milk and eggs are considered to be of less value than cattle, sheep and goats; they are mainly managed by women, even young women.

The average milk volumes reported by young and old household heads were 1.4 litres and 1.7 litres respectively, with the milk mainly being used for domestic consumption. Among the youth, male- and female-headed households produced nearly equal amounts of milk, on average 1.4 litres and 1.5 litres respectively. In cases where the volumes produced were high and milk value chains were commercialised, management claims reverted to men except in female-headed households:

There is no time men say that chicken are theirs. If someone comes to ask me [the man] for chicken, they will not be given because I am not the one that deals with chicken. I cannot take chicken and say I want to give this one out. For small things you ask the mother/wife because it is women who deal with chicken. (Male discussant, Borowonin2)¹⁶

Men consider chicken, eggs, milk as something small. Women are then ones concerned about them and when they are sold, nobody will question. (Female discussant, Kipcherere4)¹⁷

If the cow [you have] is a cross-breed that produces 3–4 litres of milk or more, it is the man who will decide whether it will be sold in a hotel or somewhere else. (Female discussant, Perkerra1)¹⁸

Access to livestock and livestock products is granted to all family members regardless of age. However, household heads can also deny access (exclusion).

In day-to-day activities related to the animals, men typically construct sheds, treat sick and injured cattle, sheep and goats, dip or spray animals infested with insects, brand or ear notch, castrate and slaughter. On the other hand, milking, caring for the sick, injured and those about to deliver, cleaning animal sheds and constructing sheds for young livestock are primarily female activities. Grazing and watering of livestock can be done by both men and women, who can be assisted by both male and female children. Girls do milking, while the care of chickens is left to women and children, with men rarely getting involved. Increasingly, women are involved in the treatment of sick livestock, particularly in households where the head stayed or worked away from home.

Decisions concerning the sale or lending of cattle, sheep and goats (alienation) and use of income generated from their sale (withdrawal) are predominantly made by household heads. Household heads may make these decisions before or after internal consultations with their spouses. Women independently make decisions on chickens, eggs and milk in non-commercialised systems. Consequently, in the study site, cattle, sheep and goats were considered male products while chickens, eggs and milk were for women, therefore influencing the types of livestock trade men and women engage in.

3.4 Market participation

Different livestock and livestock products are traded in different spaces and by different people. Cattle, sheep and goats are mainly traded by men in livestock markets where animals are publicly auctioned. Reasons provided as to why, despite a thriving livestock trade, only a few women participate include lack of market information and avoidance of male spaces:

Women do not know the price of cattle. So even if a woman is allowed to sell cattle, how will she sell? (Male discussant, Kipcherere2)¹⁹

Women don't trade in the livestock [cattle, sheep and goat] markets. They shy away the livestock section of the market. (Male discussant, Kipcherere1)²⁰

Market participation occurs at two levels. There are traders who are either selling cattle, sheep or goats to raise income to meet household needs, buying livestock for domestic purposes, or offloading stock to minimise losses in the dry season. These are essentially needs-driven traders and they comprised 44.8 per cent of all traders interviewed. The other 55.2 per cent of traders were those who derived a livelihood from livestock transactions. There was a significant statistical difference between the cattle volumes transacted by young traders and older traders, with the older ones trading larger quantities ($\chi^2=9.935$, $df=2$, $p=0.007$). For sheep and goats, there was no statistical difference in the volumes traded by young and old traders.

Most of the young male traders were aged 25–34 years, the age range within which most got married and assumed ownership of livestock. Of the eight female traders interviewed, only three were aged 34 years

or less, and two of these were aged 25–34 years. It appeared that half (4) were needs-driven and half (4) were regular traders. There was only one young female who worked as a regular trader. Three of the four regular female traders came from Trans-Nzoia County and Nairobi. They traded by negotiating with livestock owners before the animals were taken to the auction yard or by having male representatives or companions in the auction yard to help with sale or purchase. On livestock market days, women generate income indirectly from livestock trading through the sale of ropes for tethering livestock and ready-to-eat food items to the traders.

Livestock sales were not restricted to established markets and market days only. Traders and farmers also buy livestock at the farm gate for resale, slaughter and herd expansion. Potential sellers declare their intentions to neighbours and local butchers as a strategy for attracting buyers. The key benefits of selling at the farm gate as reported by focus group discussants are that a seller does not bear the cost of moving the animal and they could utilise their social networks as market sources. The key weaknesses of this strategy are that it results in lower returns compared to established livestock markets, and buyers might not always be readily forthcoming.

Chickens, milk and eggs are mainly sold by women at the farm gate or in local centres. Despite these products being considered of low value, sales were reported to be more regular than large stock. The incomes gained were used to meet small needs in the household such as food items, stationery and payment of school fees. Women valued these products because they could use their discretion in relation to when to sell, and exercise control over incomes earned:

When it comes to milk and chickens and eggs you don't have to ask. That is yours. (Female discussant, Perkerra)²¹

We [men] are just not concern with chicken, eggs and milk. Women sell them and use the money to solve small financial issues. (Male discussant, Lorok)²²

4 Discussion

Overall, the study shows that livestock farmers and traders are not homogeneous groups. Social norms introduce differences in claims and privileges based on gender and age, inhibiting women's ability to gainfully engage with livestock. A detailed analysis of the differences in choice of livelihood activity, livestock sourcing, ownership and marketing highlights the norms and micropolitics that affect the participation of different social groups. Caution must be exercised, however, as it is not straightforward to distinguish between statements of community norms from those describing individual behaviour.

In the study area, young household heads reported a preference for self-employment, wage or salaried employment, while those aged 35 years and above mainly engaged in crop and livestock farming. This

suggests that while young people may be unwilling to provide unpaid agricultural labour in their household, they would provide it if it was paid. Young people's choice is informed by the need for regular income which small-scale crop and livestock farming do not offer. An important research question is whether the employment aspirations of the young household heads will shift more towards farming and livestock as they grow older.

Young household heads and traders had more primary, secondary and tertiary education compared to the older ones. The difference can be explained by improved access to learning institutions and growing parental appreciation for the value of formal education. An emergent research question is how the difference in education achievement will shape youth employment aspirations, engagement in livestock production and marketing, and parental expectations.

The study has demonstrated that there are gender differences in how men and women acquire livestock. The differences emerge in purchase, gifting and inheritance. Ability to purchase is determined by availability of the money to invest. A strategy adopted by women to circumvent financial constraints is purchasing through 'merry-go-rounds'. Through combining savings from different people, an individual is able to afford an animal that would otherwise have been difficult to buy. While men can purchase cattle, sheep and goats without consulting their spouses, women are required to declare their intentions beforehand. This opens up a possibility that the resources planned for livestock purchase are diverted to other purposes by the household head. Additionally, a household head can block or encourage purchase of livestock based on their considerations around land use. In the study area, women and girls rarely own land. They can, however, access it through their spouses or fathers but rarely have any decision-making capacity regarding its use.

Norms and practice around gifting of animals are interpreted flexibly, influenced by personal choice, cultural norms or implied expectation of reciprocity. A parent who feels that their child has excelled and deserves a reward gifts the child voluntarily. The parent whose son successfully undergoes a rite of passage is compelled by local culture to reward him with cattle, sheep or goats depending on their livestock endowment. When parents marry their daughters, the groom's family is expected to pay bride price. When a bride's parents share bride price with relatives, it is with the expectation that they will also receive a similar gift in future. It is clear that young people can benefit from gifting, but it is less clear whether gifting constrains participation of particular social groups such as young women.

On the other hand, only sons gain access to livestock and land through inheritance, but of course this can only happen when parents have livestock. By default, this practice excludes young women from sourcing livestock through inheritances. Even in the case of sons, inheritance is at the discretion of the parents: children have no control over the time

when a parent decides to redistribute their resources and cannot with certainty tell how redistribution will be effected amongst siblings.

The study suggested a clear delineation of the livestock species that can be owned by men or women. Livestock assumed to be of higher value such as cattle, sheep and goats are in the male domain, while chickens, milk and eggs are in the female domain. While women do own cattle, sheep and goats, this fact is usually kept hidden. Pursuit of livestock ownership is a potential source of intra-household conflict because it can be interpreted as a strategy to challenge the head's control over household assets. Nonetheless, women still pursued livestock ownership, an indication of the desire to be involved in production. While this norm does not exclude women completely, it certainly constrains their participation in large-animal activities. This constraint is probably even greater for young women.

No matter who owns them or how they were acquired, with the exception of female-headed households, decisions relating to management, alienation, exclusion and withdrawal of cattle, sheep and goats rest with men. This potentially inhibits women's participation in production of large stock and by extension, limits their ability to pursue livestock production as a means of livelihood. While women can claim ownership of milk, the quantities produced are very low, and availability is periodic (i.e. dependent on having a lactating animal).

Relatively few women are engaged in cattle, sheep and goat trading. According to prevailing social norms, livestock markets and marketing are predominantly male spaces and activities. Consequently, most of the women that regularly traded in livestock came from outside Baringo County, away from their home areas where cultural inhibitions would be greater. Further, because the animals the female traders purchased were either resold whole or as meat and were never considered as part of the domestic herds, the women gainfully participate in the trade and could exercise more decision-making powers over the gained resources. That there was only a single female regular trader aged 34 or less indicated that livestock trading was either not an accessible or a favoured livelihood activity among female youth, probably due to the cultural inhibitions experienced in the county.

5 Conclusions and implications

Agriculture and livestock will remain important sources of income and employment for many people in years to come, especially in rural areas where youth under- and unemployment rates are higher than urban areas (White 2012). Gainful participation in agriculture is determined by an individual's ability to manage the barriers to entry (Coles and Mitchell 2011). This study has demonstrated that coming from a livestock-producing community does not necessarily result in gainful engagement in livestock production. Participation can be inhibited by social norms and micropolitics that affect the choice of livelihood activities and access to other requisite resources such as land. While

the Kenya national youth policy advocates for equitable provision of employment opportunities for youth by creating enabling environments, the current study shows a disconnect between this ideal and the reality on the ground. This implies that programmes to promote livestock production and marketing should be carefully designed so that they do not perpetuate or deepen inequalities, particularly among the young. The programmes might consider implementation strategies that challenge existing barriers in ways that increase employment opportunities for male and female youth without attracting backlash from other groups. Further research should also be conducted to inform policymakers as to how increasing education among the youth will influence their employment aspirations and engagement in livestock production and marketing.

Notes

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- 5 Institute of Anthropology, Gender and African Studies, University of Nairobi, Nairobi, Kenya, and Cooperative Development, Research and Innovation, The Cooperative University of Kenya, Nairobi, Kenya.
- 6 Version 6.1, United States Census Bureau, Washington DC.
- 7 Version 22, IBM SPSS Statistics, Armonk, New York.
- 8 Version 10, QSR International, Melbourne.
- 9 The tropical livestock unit is a measure used to standardise across a number of different livestock species. According to Chilonda and Otte (2006), 1 cattle = 0.5 TLUs, 1 sheep and/or goat = 0.1 TLUs, and 1 chicken = 0.01 TLUs.
- 10 Interview, 3 August 2015.
- 11 The numbers relate to the order of focus group discussions (FGDs) conducted in an area; for example, Lorok1 means the first FGD conducted in Lorok and Litein2 means the second FGD conducted in Litein. The number is also used to distinguish between groups where two male-only FGDs or female-only FGDs were conducted per location.

- 12 Interview, 19 August 2015.
 13 Interview, 31 July 2015.
 14 Interview, 3 August 2015.
 15 Interview, 31 July 2015.
 16 Interview, 27 January 2015.
 17 Interview, 18 November 2014.
 18 Interview, 20 March 2015.
 19 Interview, 13 November 2014.
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