



Extent of livestock and cropping enterprises in selected counties in Kenya: an assessment

Solomon W. Mwendia¹; Bernard A. Lukuyu²; Kevin W. Maina²; Ruth Odhiambo¹; Fredrick Muthomi¹; Kenneth Waluse¹; Mona Dhamankar³; Michael Peters¹.

¹ International Center for Tropical Agriculture, Tropical Forages Program, Kenya; ² International Livestock Research Institute (ILRI), Kampala, Uganda;

³ Royal Tropical Institute (KIT), Netherlands.

Contact: s.mwendia@cgiar.org

CIAT/Georgina Smith

Introduction

- ▶ 70% of the world's poor depend on livestock as a component of their livelihood strategy.
- ▶ Livestock provides multiple benefits for poor people, including supplying important nutrients for the households in the form of milk, meat and eggs. As well these tangible benefits the world's rural poor also benefit from a range of indirect benefits including provision of manure, traction and financial security.
- ▶ Feed is often the most expensive input in livestock production representing up to 50-70 % of production costs, depending on the system.

Results

- ▶ Most of the farms in small and medium. Small land entailed less than 0.75 hectares for Kisii and 0.25 for Meru.
- ▶ Total livestock units (TLU) were greater for improved dairy cattle across 1.99 and 5.1 for Kisii and Meru respectively (Table 1).

Table 1. Land and livestock holdings, and main crops grown in Mbarara, Kiboga, Mukono districts in Uganda and Kisii and Meru Counties in Kenya

Attribute	Enterprise	Kisii	Meru
Land holdings (%)	Small	26.9 (<0.75)	72.5 (<0.25)
	Medium	59.4 (0.75-3)	20 (0.25-2)
	Large	13.8 (>3)	7.5 (>2)
	Improved Dairy Cattle	1.99	5.1
Livestock holdings (TLU)	Local Dairy Cattle	0.19	
	Poultry - Village Conditions	0.08	0.12
	Goat	0.05	0.06
	Fattening an Draught Cattle	0.04	0.14
	Sheep		0.09
	Maize (<i>Zea mays</i>)	0.23	0.16
	Tea trees (<i>Melaleuca alternifolia</i>)	0.14	0.27
	Banana (<i>Musa acuminata</i>)	0.1	
	Broad beans (<i>Vicia faba</i>)	0.09	
	Kale (<i>Brassica oleracea</i>)	0.03	
Main crops (ha)	Common Beans (<i>Phaseolus vulgaris</i>)	0.03	
	Cabbage (<i>Brassica oleracea</i>)		0.05
	Coffee (<i>Coffea arabica</i>)		0.05
	Potato (<i>Solanum tuberosum</i>)		0.07

- ▶ In **Meru**, women make decision on fattening cattle, sheep, or goats while men do not decide on their own.
- ▶ In **Kisii** fattening is also women's decision in addition to off-farm work. Men in Kisii make decision on remittances, laboring in Meru.
- ▶ In both Kisii and Meru, men are more involved than women in decision on cash crops and dairying incomes (Figure 1).

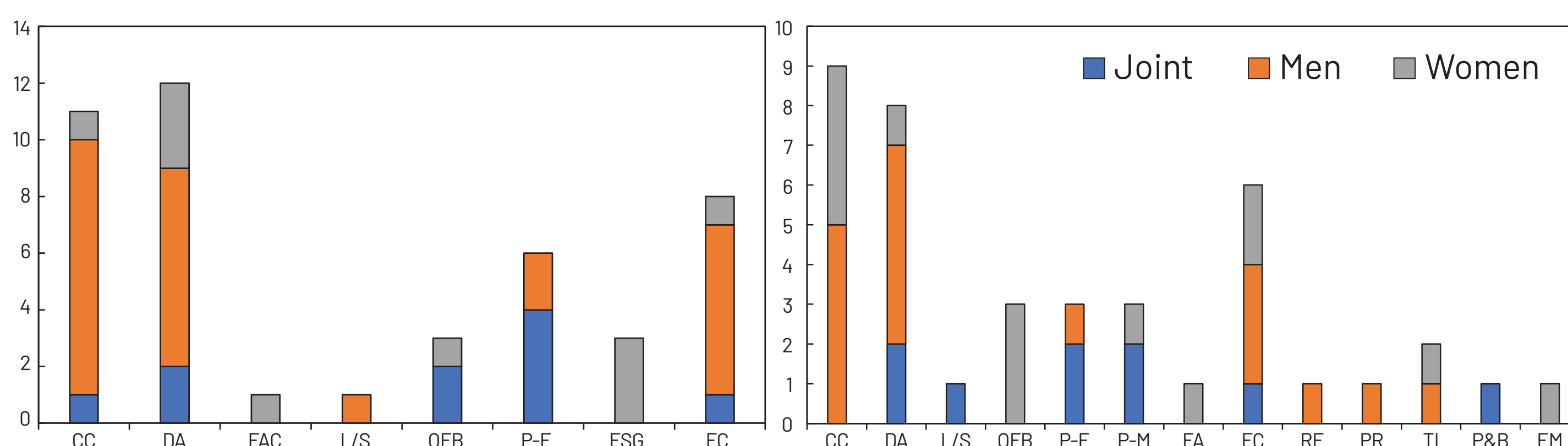


Figure 1. Gender decision making on household incomes from various sources in Meru (a) and (b) Kisii counties in Kenya.

References

Lukuyu, B., Eerdewijk, A. Van, Kinati, W., Sultana, N., Mulema, A. and Duncan, A. 2019. Gendered Feed Assessment Tool (G-FEAST) focus group discussion guide. Nairobi, Kenya: ILRI.

Acknowledgments

This work was carried out as part of the CGIAR Initiative on Sustainable Animal Productivity (SAP). We are thankful to all donors who globally support our work through their contributions to the CGIAR System. We thank the Royal Tropical Institute -KIT through NWO of Netherlands Government for financing for supporting the work.



INITIATIVE ON Sustainable Animal Productivity



KIT Royal Tropical Institute



Poster prepared for: Tropentag 2023 September 20-22, 2023 Berlin (Germany)

Methodology

- ▶ Feeds Assessment Tool (FEAST) developed by Lukuyu et al (2019).
- ▶ FEAST is a systematic, participatory approach supporting design of livestock feed interventions at village/community level.
- ▶ It involves a structured conversation with farmers at village level to characterize the local farming system, the role of livestock in the farming system and the way in which livestock are currently fed.
- ▶ This information is derived from two main components of the tool, a focus group discussion followed by individual interviews.
- ▶ Two contrasting intensive mixed farming systems were selected where livestock and dairy are an integral part of the farming activities.

- ▶ For either Kisii or Meru Counties, green forages followed by crop residues contribute most of the roughages offered to cattle (Figure 2). However, the contribution of the fodders to dry matter, metabolizable energy, and crude protein for livestock is as in Table 2.

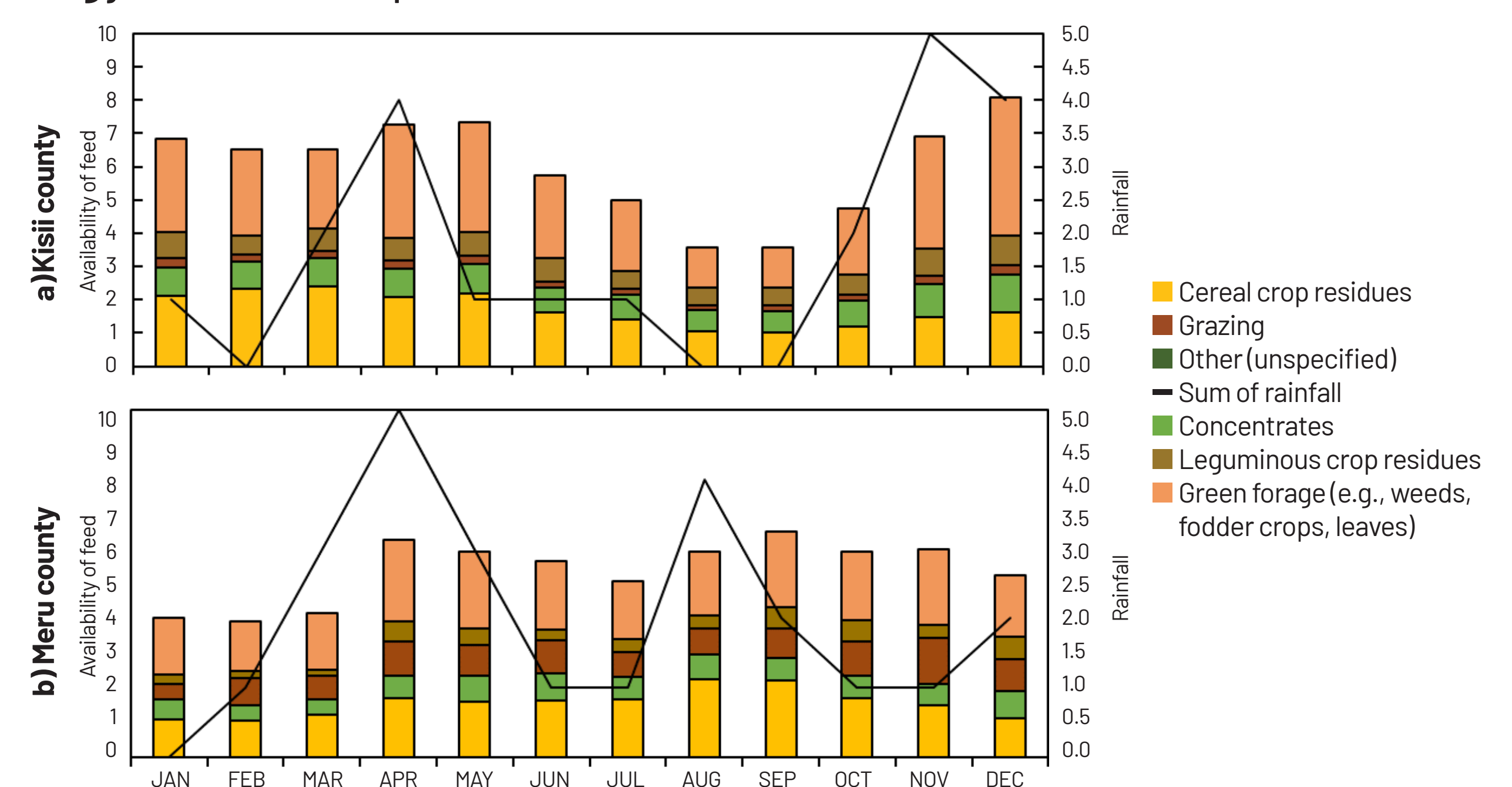


Figure 2. Livestock feed availability and rainfall scores as perceived by farmers in Kisii (a) and Meru (b) counties in Kenya

Table 2. Sources of dry matter, metabolizable energy and crude protein for livestock in Kisii and Meru counties in Kenya

County/District	Fodder/feed type	DM Intake (%)	ME (%)	CP (%)
Kisii	Collected fodder	13	14	12
	Cultivated fodder	56	57	65
	Grazing	12	11	9
	Crop residue	13	12	8
	Collected fodder	10	10	7
	Purchased feed	9	10	11
Meru	Cultivated fodder	41	42	41
	Grazing	2	2	2
	Crop residue	16	15	9
	Collected fodder	14	14	10
	Purchased feed	27	27	38

Conclusions

- ▶ For either women or men, responses on most cropping activities, landholdings and household incomes were similar.
- ▶ Some differences emerge that could be attributable to the actual gender that implement those roles- in the Meru, men take it tea precede any other crop while for women is maize.
- ▶ These crops may be contributing more to either gender's incomes respectively.
- ▶ Men viewed maize more as a fodder crop while women as food crop in Meru.
- ▶ In either Meru or Kisii, there is need to increase forage availability through cultivation to cater for the deficits observed.