Info Note

Sheep and goat marketing in Nyando Climate-Smart Villages of western Kenya

What do the farmers gain?

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Key messages

- The large number of actors in the market space for sheep and goats in Nyando leads to a small proportion of the profits reaching the smallholder farmers.
- Market prices for sheep and goats are highly variable, and are easily manipulated by other market actors depending on the needs of the sellers.
- In order to maximize returns, smallholder livestock farmers need to understand the markets, including the different categories of market actors, then produce and sell animals that meets market requirements to targeted traders.

Background

The Nyando Basin covering two counties of western Kenya, namely Kericho and Kisumu has been adversely affected by climate change. Prolonged droughts, followed by heavy and unpredictable rainfall that causes flooding has led to land denudation, crop and livestock losses (IPCC, 2007; Onyango et al., 2012; Kinyangi et al., 2015). To address the adverse effects of climate change, and improve incomes for smallholder farmers, the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) and the International Livestock Research Institute (ILRI) introduced improved indigenous breeds of goats and sheep to farmers grouped into clusters within the Climate-Smart Villages (CSVs) (Ojango et al., 2016). The aim was to cross selected Galla goat and Red Maasai sheep with the small local East African breeds for resilience.

From the initial 100 breeding units of Galla goat and Red Maasai sheep in 2012, their crosses represent about one third of the sheep and goats in the villages in 2018. These improved sheep and goats are currently a source of income for meeting various household needs.

Linking smallholder farmers to markets is key to sustain a long-term breeding program for the Climate-Smart Villages. In order to understand the livestock marketing process and the interactions among market actors, we studied the local markets for the animals and their products and outlined the existing value chain.

Method

Data collection was done through face to face interviews with traders in the market place on the main market days. The market centres are Sondu, Katito, Nyakwere, Ahero, and Kipsitet. Traders from the five markets were interviewed on their business activities, main livestock species traded, availability of credit facilities, and specific aspects of sheep and goat trading. The traders also provided information on the traits they looked for when purchasing sheep and goats, and the different types of buyers of sheep and goat products in the marketplace.

Results

A large number of sheep and goats were traded each week on specific market days in the five different markets where farmers from Nyando CSVs sell their livestock. The different market actors identified in those markets, and the interrelationships among them are presented in Figure 1.





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Figure 1: Schematic representation of the different actors and interactions among them in sheep and goat markets of Nyando.

Market actors and their roles

Producers: Smallholder farmers are the main suppliers of sheep and goats for sale in these markets. The farmers, however, have limited information on the markets available for their animals and the possible prices the animals would fetch. Sheep and goats from the farmers seem to be sold in an ad hoc manner using channels that provide very limited information on the demands, preferences and price flexibilities of the buyers. Farmers get information on prices for their animals when they arrive at the market. This places them at a disadvantage because information generally comes from intermediary market actors.

Four different types of intermediary actors were identified in the markets of Nyando (Figure 1): wholesale and local traders, collectors, and brokers. The intermediary actors buy and bulk animals then re-sell them at higher prices either within the same markets or to buyers from other external markets.



CCAFS is promoting Galla goats that are adapted to drylands, have good growth rate and mature earlier by up to six months compared to local breeds, and are docile and easy to handle. Photo: S. Kilungu (CCAFS)



Female Galla goats have good milking ability, long productive life, and continue to breed and rear kids for up to 10 years. Photo: V. Atakos (CCAFS)

Traders: Two types of traders were identified, wholesalers and retailers. Wholesalers are involved in livestock trade on a fulltime basis and trade in more than one species. The wholesalers are important actors in the value chain as they purchase large numbers and transport the livestock to other urban markets, thus expanding the market for the farmers. They have good knowledge on the quality and quantity of animals required by consumers and are willing to purchase animals at higher prices. Many wholesalers obtained sheep and goats through other intermediary traders.

Retail traders generally specialize in one species of livestock and are also engaged in a second enterprise such as crop farming. They buy animals from other traders within the market, then sell them either one at a time or in groups to end users.

Collectors: These are a group of stakeholders who are not active at the main marketing points but purchase animals directly from farmers. Collectors use their knowledge of the villages and their social relationships with the farmers to purchase animals, which they fatten over time, then sell them to retailers and wholesalers. They have extensive knowledge of the farming communities and are an important source of breeding stock for the smallholder farmers. The number of collectors serving the different markets is not clear, however, several traders indicate that they obtain animals from them.



The Red Maasai sheep is reared for meat and is renowned for its faster growth, resistance against internal parasites, and good tolerance to trypanosomes, drought and heat stress. Photo: S. Kilungu (CCAFS)

Brokers/intermediaries: Brokers serve as conduits for animals, adding little value to the products, yet seeking to make some profit from transactions on animals. They intercept animals for sale at different points and engage in fixing the prices of animals between buyers and sellers. Brokers take large fees for their services leaving the small-scale producers with little profit. Reduced returns to the farmers are compounded in cases where there were several different layers of brokers. Long transaction channels occur when animals are bought directly at the farm gate in the pretext of saving the farmers time required to go and sell their animals in the markets.

Factors influencing animal prices

The prices of animals in the markets were determined at the point of sale. Prices offered to individual producers depended on the prices of animals on the previous days and the number of animals available for sale at the marketing point. The prices for purchasing both sheep and goats are significantly higher in Kericho County than in Kisumu County (p<0.001). It is also notable that within Kericho County, sheep are bought at a higher price than goats, while in Kisumu County, goats are bought at a higher price than sheep.

Opportunities for farmers selling sheep and goats

- Establishing community-based sheep and goat improvement through the climate smart village approach for the smallholder farmers is increasing the knowledge and awareness of farmers on the opportunities for increasing their incomes through livestock production.
- Working together in groups, the smallholder farmers can take a more active role in collectively marketing their animals. As a group, they can source for market information, collectively determine minimum product prices prior to sale of animals, and negotiate for higher prices leveraging on a larger number of animals available for sale.
- Mobile phone tools used to collect information on productivity from the smallholder farmers could also be adapted and used for the collation and dissemination of market information within the climate smart villages.
- Farmers with information on product prices both in local and urban markets can plan to produce and market animals aligned to the market demands.

Detailed information on the actors in the rural markets of Nyando is available in Ojango et al. (2018).



The crosses of Red Maasai sheep have very strong compensatory growth after long dry seasons and mature earlier compared to the local breeds. Photo: S. Kilungu (CCAFS)

Further Reading

- IPCC. 2007. Fourth Assessment Report. Cambridge University Press, Cambridge, UK.
- Kinyangi J, Recha J, Kimeli P, Atakos V. 2015. Climate - smart villages and the hope of food security in Kenya. CCAFS Info Note. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark.
- Mango J, Mideva A, Osanya W, Odhiambo A. 2011. Summary of baseline household survey results: Lower Nyando, Kenya. Copenhagen, Denmark: CCAFS.
- Ojango JMK et al. 2016. System characteristics and management practices for small ruminant production in "Climate Smart Villages" of Kenya. Animal Genetic Resources, 58:101–110.
- Ojango JMK et al. 2018. Assessing actors in rural markets of sheep and goats in the Nyando Basin of Western Kenya: a key to improving productivity from smallholder farms. Tropical Animal Health and Production. 1–9.
- Onyango L, Mango J, Kurui Z, Wamubeyi B, Orlale R, Ouko E. 2012. Village Baseline Study: Site Analysis Report for Nyando – Katuk Odeyo, Kenya. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

This brief summarizes findings from a project entitled "Sustainable small ruminant breeding programs for Climate Smart Villages".

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