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Technical Policy Brief/ KIEP/12

Unlocking Baringo County's Livestock and Agro-Processing Potential through Value Chain Strengthening



Key messages

- ❖ High potential for agribusiness growth in Baringo County, especially in beef, dairy, and crop value chains, supported by rich natural resources and a strong agrarian base.
- ❖ Major bottlenecks include feed scarcity, poor processing and storage infrastructure, limited market access, and low adoption of modern technologies.
- ❖ BETA initiative, with support from the World Bank and MITI, provides a strategic framework to address these structural challenges.
- ❖ Proposed interventions focus on increasing feed production, establishing value addition infrastructure, expanding market access, and adopting digital and climate-smart technologies.
- ❖ Alignment with the CAIP framework is essential to coordinate investments, attract private sector participation, and drive inclusive, sustainable rural transformation.



Introduction

Baringo County holds immense potential for livestock and agro-processing development, particularly within the beef, dairy, and crop value chains. With over 80% of the county's population engaged in agriculture and livestock, and more than 70% of its land categorized as arid and semi-arid (ASAL), the region's agrarian base and expansive range-lands offer a strong foundation for agribusiness growth. The county is home to over 1.2 million livestock, including cattle, goats, sheep, and camels, making the beef and dairy sectors critical pillars for livelihoods. However, the sector is hampered by several persistent bottlenecks. Chief among them are the scarcity of quality animal feed, with only 32% of livestock keepers having access to improved feeds, inadequate processing and storage infrastructure—evident in the under-utilization of local milk cooling plants—limited access to markets due to poor road networks, and insufficient adoption of modern technology and practices, with less than 25% of farmers using climate-smart agriculture techniques. These challenges have constrained the county's ability to fully harness its agricultural and livestock potential. Aligned with this, the Bottom-Up Economic Transformation Agenda (BETA), with backing from the World Bank and the Ministry of Investments, Trade, and Industry (MITI), provides a strategic framework to address these gaps. This policy brief proposes targeted interventions designed to enhance productivity, promote agribusiness development, and catalyze inclusive economic growth. Key actions include scaling up feed production (including local fodder growing and feed mill investments), establishing value addition infrastructure (such as abattoirs, cold chains, and milk processing plants), improving access to market, and promoting digital and climate-smart technologies. Aligning these efforts with the County Aggregation and Industrial Parks (CAIP) framework will help optimize resource use, foster private sector participation, and ensure that investments are well-coordinated and sustainable across the region.

Methodology

The data used to generate this brief was compiled from the survey of the value chains which involved desk reviews, structured interviews, focus group discussions, site visits, observational techniques, data analysis and consultations with key stakeholders such as County government officials.

Challenges in Value Chains

The following challenges were identified in three value chains:

1. Beef value chain



Feed scarcity and poor rangeland management: Limited access to quality feed and poor pasture management during dry seasons significantly reduce livestock productivity.

Animal health issues: High livestock mortality and poor meat quality result from frequent disease outbreaks and inadequate veterinary services.

Limited market access and infrastructure: Poor roads, lack of cold chains, and insufficient market information restrict farmers from reaching high-value markets.

Low adoption of improved breeds and husbandry practices: Dependence on low-yield indigenous breeds and traditional methods constrains production and profitability.

Weak value addition and processing capacity: The absence of modern processing facilities and branding limits value addition and market competitiveness.

Insecurity and cattle rustling: Persistent cattle rustling deters investment and disrupts livestock production in affected regions.

Climate variability: Droughts and erratic rainfall reduce pasture and water availability, leading to livestock losses and poor beef quality.

Limited financial and technical support: Smallholder pastoralists lack access to affordable credit, extension services, and training essential for growth.

2.

Dairy value chain



Low Milk Production: Most farmers rely on indigenous breeds with low milk yields due to limited access to improved dairy breeds and inadequate breeding services.

Feed and Nutrition Constraints: Scarcity of quality fodder, especially during dry seasons, and poor feeding practices result in reduced milk output and animal health issues.

Poor Infrastructure and Market Access: Inadequate milk collection centers, cold storage facilities, and poor road networks limit farmers' ability to access markets and reduce post-harvest losses.

Limited Access to Veterinary and Extension Services: A shortage of veterinary professionals and insufficient farmer training on dairy best practices affect animal health and productivity.

Weak Farmer Organizations and Cooperatives: Many dairy farmers operate individually, which limits their bargaining power, ability to pool resources, and access to bulk markets or services.

Inadequate Processing and Value Addition: Most milk is sold raw with minimal processing, reducing income opportunities from dairy products like yogurt, cheese, and ghee.

Climate-Related Challenges: Unpredictable weather patterns affect pasture and water availability, impacting consistent milk production throughout the year.

Limited Access to Finance: Smallholder dairy farmers often lack collateral or credit history, making it difficult to access loans for inputs, equipment, or infrastructure.

3.

Crop value chain



Unpredictable Weather and Climate Change: Erratic rainfall, prolonged droughts, and flooding adversely affect crop yields and farm planning, making agriculture highly risky.

Low Agricultural Productivity: Poor soil fertility, limited use of quality seeds, fertilizers, and modern farming techniques contribute to consistently low crop yields.

Inadequate Irrigation Infrastructure: Heavy reliance on rain-fed agriculture limits year-round farming, especially in arid and semi-arid areas of the county.



Pests and Diseases: Frequent infestations (e.g., fall armyworm, locusts) and crop diseases reduce yields and increase production costs due to higher pesticide use.

Limited Market Access and Price Volatility: Farmers often face challenges accessing reliable markets, leading to post-harvest losses, exploitation by middlemen, and low farm-gate prices.

Poor Post-Harvest Handling and Storage: Lack of modern storage facilities and inadequate handling practices result in significant post-harvest losses, especially for perishable crops.

Weak Farmer Organizations: Fragmentation among smallholder farmers limits collective marketing, access to inputs, and engagement with buyers and financial institutions.

Limited Access to Extension Services and Technology: Many farmers lack training on climate-smart practices, pest control, and modern technologies that could improve productivity and resilience.

Policy Brief Recommendations

1. Beef value chain

- Reduce Feed Scarcity and Poor Rangeland Management by Promoting climate-resilient fodder crops, establishing community-managed grazing reserves and pasture banks and encouraging investment in commercial feed production and distribution.
- Improve Animal Health Issues by deploying mobile veterinary units and train community animal health workers and increasing access to subsidized vaccines and veterinary drugs
- Enhance access to markets by upgrading rural road networks, improving livestock transport systems, and supporting livestock marketing cooperatives and producer associations
- Construct regional slaughterhouses, cold storage facilities and develop market information systems using mobile and radio platforms
- Promote adoption of improved breeds and husbandry practices through subsidized artificial insemination, training farmers on best practices in animal husbandry and feeding
- Reduce insecurity and cattle rustling by strengthen community-based security and livestock tracking systems.
- Promote drought-tolerant livestock breeds and water-efficient systems.
- Develop livestock-friendly credit and insurance products for pastoralists by providing financial and Technical Support.

2. Dairy value chain

- Enhance milk production by promoting access to improved dairy breeds through subsidized artificial insemination and breed programs.
- Reduce feed and nutrition constraints by supporting cultivation of high-quality fodder crops and train farmers on balanced feeding practices
- Increase access to veterinary and extension services by deploying mobile veterinary clinics and community animal health workers.
- Improve access to finance by partnering with microfinance institutions and SACCOs to improve farmer access to loans and equipment leasing.

3. Crop value chain

- Promote climate-smart agriculture practices and water harvesting to cushion against Unpredictable Weather and Climate Change
- Distribute certified seeds, promote use of appropriate fertilizers, support soil testing and train farmers on modern agronomic practices and sustainable land management.
- Strengthen integrated pest management by training farmers on pest surveillance and early response systems and timely access to safe and effective agrochemicals.
- Develop aggregation centers and farmer market linkages to reduce dependence on middlemen by promoting contract farming and value chain integration.
- Reduce postharvest losses by investing in modern storage facilities, training farmers on post-harvest handling, drying, and packaging techniques.
- Improve access to extension services and technology by promoting farmer access to mobile-based advisory services and partner with NGOs and research institutions to introduce relevant innovations.

General Cross-Cutting Recommendations

- Enhance infrastructure and improve market access for milk processing, while also developing irrigation systems to support more efficient and sustainable farming practices
- Promote processing by small-scale milk and meat processing units to boost value addition and local incomes.
- Strengthen farmer groups and cooperatives through formation, training, and support for collective input buying, marketing, and service access.



1. Baringo County Integrated Development Plan (CIDP) 2023–2027 Ministry of Agriculture, Livestock, and Fisheries – Kenya
2. Kenya Livestock Market Systems Activity Reports (USAID)
3. Kenya National Agriculture Investment Plan (NAIP) 2019–2024
4. World Bank – Kenya Climate-Smart Agriculture Project (KCSAP) - www.worldbank.org

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