

Dairy Development in Kenya

By Frans Ettema

The Kenyan Dairy Sector

Kenya's dairy industry is private sector driven. It is the largest agricultural sub-sector and contributes 4% to GDP (KDB, MoALF 2012). The sector is dynamic with high growth figures of marketed milk and investments by dairy societies and processors mainly in the cold chain, production of long life milk (ESL) and milk powder. About 80% of Kenya's total milk production (ca. 5 billion litres in 2011, KDB) is produced on small scale farms. This poses huge challenges to the industry in terms of cost of production, collection and cooling, seasonal fluctuations in supply, and the quality of raw milk. There is however a fast growing number of medium-scale farmers/investors who invest in modern and commercial dairy production. Currently the sector provides food, income and employment for approx. 1.8 million people across the dairy value chain: farmers, transporters, traders and vendors, employees of dairy societies, milk processors, input suppliers and service providers, retailers and distributors. In terms of nutrition and food security, almost all Kenyans consume milk on a daily basis with an average per capita milk consumption of 115 litres per year (KDB, 2012).

Kenya has about 30 active milk processors, Brookside, NKCC, Githunguri and Sameer being the largest ones processing together ca. 85% of the 1.5 million kilograms of milk processed daily. Market leader is Brookside Dairy Ltd. Although the market for processed milk and milk products strongly grew over the past 10 years, approximately 70-80% of the milk is distributed to the consumer through the raw milk market. The industry's growth and competitiveness are constrained by seasonality in milk production, milk quality issues, a severe lack of knowledge and skills, sub-standard service provision and input supply, as well as high fragmentation of the supply chain and lack of inclusive business models. If these issues can be effectively addressed this will boost further commercialization and growth of the sector, and contribute further to creation of wealth, employment across the value chain, and to food security.

Acknowledging this opportunity, SNV has chosen to work in the Kenya dairy sector to help spur the industry into a viable path for a sustainable development. In doing so, SNV sees the formal sector for processed milk and milk products as the driver for growth, and advocates for stronger and more inclusive relationships between processors and farmers or farmer-owned dairy societies. In the broader context of food security, KMDP acknowledges the need for more efficient and competitive (dairy) value chains, to assure enhanced access for consumers with lower income to safe and affordable milk products.

Key strengths:

- ☺ Private sector-driven processing industry, built in only 20 years.
- ☺ Nation-wide availability and increasing variety of dairy products for all consumer groups.
- ☺ On-going investments in value added products incl. long-life milk and milk powder.
- ☺ An emerging dairy export sector.
- ☺ High demand for processed milk and milk products due to a growing urban (lower-) middle class; the processing industry is a pull factor for higher milk production.
- ☺ year round milk collection by traders, dairy societies and processors in all main dairy production areas from 100-thousands of small scale farms.
- ☺ Emerging segment of commercial dairy farmers with ability to invest and being innovative.
- ☺ A wide distribution network and good access to commercial input suppliers/service providers.
- ☺ Conducive government policies (zero rating, import duties on dairy products).
- ☺ Basic dairy genetics are available which can be improved through proper breeding policies.

Key weaknesses:

- ☹ Low skills and knowledge level amongst almost all farmers (small, medium and large scale).
- ☹ Low level of commercialization by small scale farmers when dairy is not the core business.
- ☹ High cost and seasonality of milk production due to low ability/skills to produce and preserve quality fodder.

- ⊗ Inefficient and high cost of milk collection and cold chain development (hence: high cost and low quality of milk at factory gate).
- ⊗ Lack of loyalty between value chain actors and high fragmentation.
- ⊗ Lack of credible input suppliers and services providers (“pushing products”).
- ⊗ Large raw milk market and lack of level playing field for the formal sector.
- ⊗ Oligopolistic nature of the processing industry (Brookside acquiring other brands).
- ⊗ Lack of clarity on a common vision amongst stakeholders on how to steer the dairy industry into a more sustainable growth path.
- ⊗ Ineffective sector regulation: policies in the shelves and not enforced on the ground

Dairy sector transitioning and MSFs

For a long-term sustainable growth, the sector needs to transition from small scale semi-subsistence farming, to an industry that relies on fully commercial dairy farming systems. In regards to milk procurement and processing, the sector needs processors that invest in supply chain development for enhanced productivity and milk quality, offering credible long-term milk procurement contracts. In addition to that, Kenyan government is urged to adopt and enforce dairy industry standards, to develop a strategy to phase-out the raw milk market and to provide – with private sector and knowledge institutions – a robust infrastructure for practical dairy training and education.

As for the dairy production, there is a growing segment of farmers that is fast commercialising, partly from within the membership of CBEs. Others from the emerging group of Medium Scale Commercial Dairy Farmers (MSFs) sell milk directly to processors or – unprocessed - to institutions like schools, hotels and caterers. These are farmers with 20-30 dairy cows and more, with ambition to grow to 50 milking cows or more, and with sufficient land to produce quality fodder.

A good number of these MSFs are wealthy landowners with formal jobs outside primary industries, also referred to as “telephone farmers”. MSFs invest often quite heavily in dairy but – like their farm managers – usually lack sufficient skills to make the dairy farm profitable. Yet they are eager to learn and improve their dairy enterprises. This group of farmers or land-owners are engaged in dairy farming as a core business (rather than as a livelihood strategy) and are willing and able to invest in expansion of the herd, cow housing, training of farm managers, on-farm (mechanised) fodder production and preservation.

These farmers – if organised well – also have the ability to attract more credible input and service providers and where applicable forge business linkages with the Dutch dairy sector, such as the members of the Dutch Dairy Development Platform. In doing so, they can fast track the development of a professional dairy support infrastructure that – once in place - will also benefit the smallholder supply chain. Through their political and business networks they also have the ability to push for policy reforms that will benefit the dairy sector as a whole.

Interestingly, a number of the more successful commercial dairy farms have gone into training (of small scale farmer) as a side-business and position themselves as Practical Dairy Training Farms or Centres. To some extent this fills the gap in practical dairy training & extension created by the withdrawal of government extension services. Lastly, these MSFs have the potential to supply smallholders with inputs and services. For example the supply of fodder and heifers or leasing of farm machinery for fodder production and preservation. Some MSFs have started bulking milk from small scale dairy farms around them offering market access for their milk.

Kenya Market-led Dairy Programme (KMDP)

SNV’s work in the Kenyan dairy sector is through the Kenya Market-led Dairy Program (KMDP). KMDP is a 4.5-year programm funded by the Royal Embassy of the Kingdom of the Netherlands in Nairobi and started on July 1st 2012. It has two main intervention strategies or pillars.

1. To increase efficiency and competitiveness of the small scale dairy value chain

Under this pillar, the project works in milk sheds across Kenya, with milk processors and farmer-owned dairy societies or companies - also referred to as Collection and Bulking Enterprises (CBEs) - willing to develop an inclusive business model, by investing in training & extension services (T&E), feed and fodder, improved input and service provision and milk quality. In this model, KMDP also engages with quality input suppliers and service providers, by linking them to the CBEs for members’ training and marketing of products and services.

2. To promote and facilitate innovation and address systemic issues in the sector

Under this pillar, KMDP interventions target stakeholders in the dairy industry that are best placed, willing and able to address systemic issues that hamper growth of the sector, through piloting innovations and best practice solutions. In particular those that address systemic issues related to feed/fodder, milk quality, total farm management and productivity, the skills and knowledge gap, and – also – sector governance. Under this pillar KMDP also operates an Innovation Fund and facilitates international business linkages.

KMDP Approach

The program focuses on stakeholders and partners whose key-concern is to enhance efficiency, productivity and profitability of the industry. Since its start in July 2012, SNV/KMDP has partnered with smallholder-owned dairy societies (CBEs), medium and large scale dairy farmers, commercial fodder producers, milk processors, training institutions, service providers & input suppliers, financial institutions and investors; both local and international. These interventions and partnerships are structured around the following KMDP Agendas.

1. Efficient and Competitive Smallholder Supply Chains

In the smallholder dairy value chain KMDP supports currently 17 farmer-owned dairy societies (CBEs) in North Rift, Central and Eastern, to enhance profitability and to develop a strong service model for their members, with a focus of increased productivity at farm level and feeding. The key interventions in KMDP's DVC Agenda are:

Management and Governance: KMDP supports CBEs with training of Boards, Management and operational staff, including the preparation of strategic plans. KMDP engages SNV Advisors and Business Development service providers to deliver on this output.

Training & Extension: KMDP's approach is to stimulate and facilitate dairy societies (and processors) to set up and equip in-house Training & Extension (T&E) Units or Departments, that are paid through a small "levy" or deduction on the price paid to their members for the delivery of raw milk.

Feed and Fodder: In T&E emphasis is on feeding, feed rationing and fodder supply. The latter both with regards to on-farm establishment and preservation, and by linking CBEs to Commercial Fodder Producers.

Linkages with Input Suppliers and Service Providers: KMDP supports the establishment of business linkages between CBEs and professional and credible input suppliers and service providers. This includes linkages with financial institutions for credit facilities and with training institutions.

Linkages with the market: KMDP's focus is on the formal market for processed milk and forging stronger collaboration between CBEs and processors. This includes stimulating processors to invest in the supply chain for higher productivity and milk quality, but also to support initiatives to develop new products or business models for enhanced access to safe and nutritious milk products by low-income consumers. KMDP partners with DSM/GAIN and a local processor to launch a fortified milk product for the mass market.

2. Systemic Issues and Innovation

The Kenyan dairy sector is characterized by a number of systemic bottlenecks, of which high cost of production and poor raw milk quality is perhaps the most pressing. High cost of production is largely due to low skills and knowledge of farmers and the low quality of feeds and forages, and the seasonality of supply. Addressing these issues requires innovations and investments by dairy value chain actors and input & service providers. KMDP acknowledges that innovations are more likely to be adopted and successfully implemented by those who have the ability (knowledge, resources in terms of land and capital) to innovate and invest

These are usually not smallholder farmers and therefore KMDP also engages with other stakeholders in the sector, and at different levels and entry points. In doing so, KMDP recognises that the changes and reforms resulting from interventions at these other levels in the dairy value chain will benefit smallholders as well, in terms of an enhanced enabling environment, more inclusiveness in the supply chain and the development of a more robust – and quality-driven - dairy service infrastructure. In this Innovation Agenda, KMDP facilitates the following interventions:

Medium-scale Dairy Farmers Model: Medium and large scale dairy farmers play an important role in adopting innovations, demonstration of best practices, providing critical mass for the development of an effective dairy infrastructure with quality services, input suppliers and investors. They are also key in addressing the issue of food security for a growing urban population. KMDP supports medium-scale Farmer Forums in various milk sheds across Kenya, with the aim to capacitate dairy farmers in accessing/sharing best practice Farm Management, to develop innovative business models e.g. for breeding, fodder production and marketing, to engage in agricultural contracting services and in training & demonstration (through PDTs), and to lobby for good policies for the benefit of the entire sector. This segment of professional dairy farmers will also establish business linkages with smallholder farmers and their CBEs, amongst others through milk bulking, sales of fodder, heifers and opening their farms for training and demonstration.

Feed and fodder: The dairy sector's growth is hampered by high cost of milk production, which is largely related to low quality of feed and fodder, and the lack of year-round availability of quality forages. Milk processors suffer from milk fluctuations between dry and rainy seasons, resulting in capacity utilization of only 40-60% across the board. These high fluctuations arise because most farmers depend on rain for feed production and rarely make provisions for preserving fodder for the dry-season. KMDP's fodder intervention aims to increase year-round access to good quality fodder from individual farms or purchased from Commercial Fodder Producers. This includes improving farm-management skills in production, mechanisation and preservation, introducing new fodder seed varieties and piloting innovative technologies and business concepts for marketing of preserved fodders.

Dairy Consultants and Total Farm Management: Proper training & extension services for practical skills development are required, for farmers to apply good animal husbandry practices in regards to feeding, housing, fertility management, calf rearing and record keeping. This is essential to improve productivity and to reduce cost of production for higher profitability. However, there is a huge knowledge gap in Kenya in all aspects of dairy management and the institutional environment to provide training & extension is weak. KMDP helps to cushion this through various interventions (see also the VOSD Agenda below). One of these is to capacitate private local dairy consultancy firms and link them, on one hand, to the market (e.g. medium/large scale Dairy Farmer Forums), and on the other hand to international expertise and dairy consultancy firms in a franchise model.

Quality Based Milk Payment systems (QBMP): Milk delivered to processors is often adulterated with water and other additives and does not meet microbial standards set by the Kenya Dairy Board and the Kenya Bureau of Standards. Quality Based Milk Payment systems provide an incentive to farmers and farmer-owned dairy societies to maintain milk quality. This KMDP intervention aims to facilitate processors to pilot QBMP-systems, by providing technical advice and other support. This is done in collaboration with the Kenya Dairy Board.

Practical Training and Vocational Skills Development (VOSD): Transfer of knowledge, including vocational skills is the foundation of a competitive dairy sector. Agriculture training and extension (T&E) has traditionally been provided by government, but got dismantled with the implementation of Structural Adjustment Programmes in the 1990. Although private agents and institutions and NGOs have emerged to fill this gap, this privatisation process has not been completed. The skills and knowledge gap of farmers and other actors along the dairy value chain are significant. KMDP focuses on linking dairy value chain operators (farmers, dairy societies and processors) to training institutions, and to support these institutions to engage in more market-oriented approaches to curricula development and T&E delivery models (outreach, demo farms, etc.). In this VOSD Agenda KMDP is involved in the following projects or interventions:

Policy: Industry policies affect the business-enabling environment. Some policies are counter-productive to the growth and commercialization of the dairy sector, e.g. a VAT on liquid processed milk. KMDP engages with policy and opinion makers to identify or address policies constraining the growth and competitiveness of the sector. Examples of this are fiscal policies regarding tax exemptions for dairy equipment and liquid processed milk, regulation of the raw milk market, the introduction of dairy industry standards, the development of standards for milk fortification, piloting of new energy and protein rich fodder seeds, the regulations regarding the import of heifers, and the institutional environment for practical dairy training.

Kenya dairy sector, facts & figures

Land surface:	583.000 km ² .
Inhabitants:	44 million
Capital:	Nairobi
Population:	22% Kikuyu, 14% Luhya, 13% Luo, 12% Kalenjin, 11% Kamba, 6% Kisii, 6% Meru, 16% others
Languages:	English, Swahili
Main trading partners:	Uganda, Tanzania, Great Britain, Germany, South-Africa.
Total milk production:	5 billion kg (2011)
Production by smallholders:	80 %
Milk processed:	30 %
Raw milk market:	70 %
Smallholders:	800.000
Medium / large scale farms:	3500
Milk consumption / capita:	115 litres/year
Active milk processors:	30
Market leading milk processor:	Brookside

[Income and employment in the dairy value chain for 1.8 million people](#)

About Frans Ettema:

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About SNV:

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