Skills & Gaps –
A Capacity Needs Assessment of Dairy Chains in the Addis Abeba Milk-shed

Jan van der Lee, Abebe Tessama, Mengistu Nigussie, and Mekdes Asfaw

Wageningen UR Centre for Development Innovation, Wageningen, the Netherlands
in collaboration with SNV-Ethiopia, Addis Abeba, Ethiopia
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Executive Summary

The context for dairy development in Ethiopia has been changing rapidly, creating new opportunities. Over the past five years, the demand and prices for milk products have increased, along with urbanization, population growth, infrastructure, and market access developments. National policy priority has become more favourable towards pro-poor, gender sensitive and ecologically sustainable commercialization of smallholder production systems. Policy envisions an increasing role for the emerging private sector. These developments challenge existing actors, particularly research and development organizations, to revisit their roles and usual mode of operation, in order to adapt and respond to the changing number and diversity of actors, demands and situations.

In 2009, Wageningen UR Centre for Development Innovation and SNV Ethiopia assessed capacity development (CD) needs in the commercial Ethiopian dairy sector. This study provides a holistic framework for understanding the CD needs of the value chain, going beyond technologies and individual skills, and acknowledging the importance of institutions; habits, practices and incentives; and policy and enabling environment. The study tries to shed light on dairy sector CD needs in Ethiopia, with emphasis on the more formal/commercial supply chains in the peri-urban areas. The study follows a milk-shed approach to focus interventions in areas with comparative advantages for commercial dairying. Focus was on milk sheds around Addis Abeba. Focus group discussions, field observations, semi-structured interviews and questionnaires were used. The 47 actors contacted included actors from the entire supply chain: input suppliers, dairy farmers, dairy cooperatives, milk collectors, milk processors, retailers, institutional consumers, and service providers.

The overall objective of this study was to assess the capacity development (CD) needs in the peri-urban commercial dairy chains. Specific objectives of the study included:

- To identify the CD needs at individual, organizational and institutional levels in dairy chains, including specific skill demands;
- To examine approaches currently followed to meet capacity needs, existing training capacity (‘supply’) and new initiatives;
- To identify gaps between supply and demand for CD services;
• To identify potential ways for provision of additional CD services and opportunities for joint future efforts in CD.

**Capacity Development Needs**

Interviews held with sampled employees and HR managers of dairy chain actors revealed that critical CD need areas at individual level include quality milk production techniques, milk processing & packaging technology, feed formulation and AI services. Dairy farmers would like to be advised on feed formulation, dairy farm management, production of quality milk, AI techniques, and processing technology.

Organizations identified CD needs in the areas of business planning, risk management, use of technology, and marketing strategy. Processors and collectors appear to be most satisfied about their organizational capacity, while input suppliers and commercial farms see most need to improve.

At institutional level, main factors that prevent farmers from joining a dairy cooperative are distance to milk collection points (showing an issue with milk collection coverage) and delay in milk payments. Chain-wide, actors see the need to establish better coordination for introduction of innovations, involving relevant stakeholders/actors from planning up to implementation, and sharing information. A number of dairy processors achieve vertical integration through management of their own dairy farms, company-operated milk collection, processing, distribution, and retail networks. Dairy chain actors perceive that the Ethiopian government has given little attention to the development of the dairy sector. CD for dairy chain actors is considered to be left to international organizations and the private sector, with little institutional support. The dairy sector in Ethiopia does not promote the importance of consumption of dairy products to the public. At least part of the public seems to be aware of the quality issues associated with local dairy products.

**Capacity development services provided**

Formal institutions engaged in training of dairy professionals include a number of universities offering BSc, MSc and PhD level education on general animal production, dairy science, food technology, and veterinary science. Technical and Vocational Education and Training centres (TVETs) offer certificate-level vocational training in a range of vocational skills including animal husbandry.

Informal CD service providers include government agencies, NGOs and private firms. Government service providers play a dominant role in providing a wide range of CD services such as training, production support, input supply, extension, animal health services, and regulatory services. The focus is on short-term training that lasts for a maximum of six months. Informal education mostly is not much valued for career opportunities, as it often is offered by non-recognized institutions. Service providers target farmers, students, and employees of cooperatives, unions and private firms. They generally focus on general knowledge building, not targeting specific skills.

The number of service providers and the types of services provided to the dairy chain actors shows an upward trend over the years. The presence of plans and ideas for new initiatives is one of the promising signs of vigour in the dairy sector – investments in input supply, production, and processing will result in increased felt needs for CD.
Gaps between demand and supply

The gaps in CD services concern both the range and volume of services. CD service providers are not large enough to support significant increases in dairy production across the chain in multiple areas. This results in limited access to services for many chain actors. Gaps between demand and supply show themselves in three areas:

- **Profitability of production** - producing significant amounts of milk at a profitable rate. Selected priorities are listed below.
- **Quality of production** – producing good quality milk for urban consumers.
- **Sustainability of production** - ensuring long-term competitive production and satisfaction of consumer demand.

Filling the gaps

This assessment clearly shows that capacity development gaps reveal themselves at different levels of complexity. The needs at individual, organizational and institutional level are intertwined and are reinforcing each other. They can only be addressed successfully through an integrated approach.

Four main areas emerge as priorities for capacity development:

1. **Direction of development** - The transition to privatized market-oriented dairy value chains ("transformation from traditional to modern dairy business") is ongoing and needs to be encouraged. Further development & implementation of a number of key policy institutions by relevant government agencies at local and higher levels is essential to create a conducive environment for increased dairy production and processing. Encouraging private investment in the sector to facilitate access to inputs and enhancing public-private partnerships are logical components. Pro-poor development of dairy production by smallholders requires further development of farmer organizations like cooperatives, set-up and maintenance of milk collection systems, and adequate input and service supply systems.

2. **Building capacity to produce quality products** – It is essential to address organizational development issues of chain actors concurrently, together with institutional development issues. To enable value chain actors to produce competitive dairy products, CD efforts need to focus on 4 areas:

   - **Adequate dairy genetics** – Important CD interventions range from training of AI technicians on AI techniques to a multi-stakeholder regulatory body for genetic resource policy. A dual service delivery system is preferred - private companies and government agencies operating alongside each other.
   - **Feed** – Enabling farmers to address the key bottleneck of feed availability requires an integral approach, engaging different stakeholders in developing local feed production, managing the number of livestock versus the available feed & land, encouraging formation of community bylaws regarding use of land and animal numbers, input supply, and culling of unproductive animals.
   - **Credit services & CB for business management** – To enable access to essential inputs and services, both the availability of these services and the value chain actors’ ability to
manage these inputs are essential. Increased availability of key inputs - adequate financial services, know-how on dairy business, and technology - require strong actors delivering such services.

**Milk quality control system** - An effective milk quality control system needs to be put in place to boast the trust in Ethiopian dairy products vis-à-vis imported products. Quality control systems and quality-based milk payment schemes go hand in hand – producers and processors will only invest in quality if this offers a consistent premium. Establishing a quality control system should include a number of essential CD activities, focused on both “hardware” and “software”: awareness raising, systems development and operation, extending testing facilities, and upgrading capacity of regulatory organizations.

3. **Cooperation and leadership in the value chain** – Increased cooperation and networking between actors in the chain is essential to achieve progress in the wide array of public, private and civil institutions that need strengthening. At the moment, the sector seems too fragmented to achieve this goal. Building on associations of value chain actors in the different segments, development of an apex organization (like a dairy board) would be a significant milestone. Such an apex organization could address lobby & advocacy to enlist policy support, joint learning & experience sharing, and leadership development.

4. **Strengthening of capacity builders** – Public and private CD service providers in Ethiopia need to significantly develop their own capacity to be able to provide sufficient, relevant, effective and reliable CD services. Increased use of value chain concepts will be beneficial in achieving this. The formal and informal education / CD organizations are in very different positions and hence need to look at different aspects for boosting their capacity:

   **Formal education systems** – University curricula may need review and strengthening in aspects of value chain development and management. TVET and BSc curricula should be designed to serve the demand for technicians and managers along the value chain. The gap between TVET and college graduates needs to be filled.

   **Non-formal education / Capacity Development Services** – The wide variation in situations in the country and identified CD needs warrant significant growth of informal CD services all along the value chain. Providers of informal CD services will benefit from recognition by certification. Institutes like EMDTI could augment formal education services with short-term courses and refresher courses for professionals. Active operational public-private-civil partnerships could make a large contribution to tailor CD services to the various chain actors. A strong farmer-to-farmer component is advisable. Private parties may benefit from targeting their services through farmer organizations, rather than targeting individual farmers.