

More milk in Tanzania

Adapting dairy market hubs for pro-poor smallholder value chains in Tanzania



Goal

Inclusive growth and reduced poverty and vulnerability among dairy dependent livelihoods in relevant rural areas in Tanzania.

Outcome

Rural poor are more income secure through enhanced access to demand-led dairy market business services and viable organizational options, and low-income consumers have better access to affordable milk.

These aims are to be achieved through a major 5-year project with research-for-development objectives to:

- Inform policy on appropriate roles for pro-poor smallholder-based informal sector value chains in dairy sector development;
- Generate and communicate evidence on business and organizational options for increasing participation of resource-poor male- and female-headed households in dairy value chains;
- Develop scalable value chain approaches with improved organization and institutions serving resource-poor male- and female-headed households.

The problem and rationale

This project aims to address the following four inter-related problems that face resource-poor milk producers in Tanzania:

- Most milk is sold directly and in small quantities by individual smallholder producers, creating diseconomies of scale;
- High risks associated with unorganized milk sales—particularly in relation to prices, feed sources and animal health—discourage investment by smaller producers to improve productivity;
- Complex cooperative models and technology-driven solutions for smallholder cattle owners in most locations have largely failed because they presuppose an unrealistic level of production and organizational commitment and capacity that are often not pro-poor;

- Suitable organizational models have been lacking to facilitate collective action for bulking of milk, entry to milk markets and access to inputs and services while increasing the capacity of poor cattle keepers to innovate, manage risk, reduce vulnerability, increase their incomes and ensure food security.

Dairying offers opportunities for rural livelihoods and nutritional security, particularly in societies already having a tradition of cattle-keeping. Perhaps uniquely amongst agricultural pathways out of poverty, it offers many pro-poor benefits from small-scale production and marketing. These include opportunities for intensification and enhanced productivity and incomes, employment in services and marketing, and nutrition both for the smallholder household and the poor in towns and cities served by informal markets. Unlike most crop and livestock enterprises, its benefits throughout the value chain are generated daily rather than seasonally. In many cases especially in short value chains, benefits flow disproportionately to women, the landless, and other marginalized groups, an issue that has to be addressed with increasing commercialization.

Many of the past and ongoing dairy development efforts in Tanzania, however, have targeted high potential areas with better-off smallholder farms able to supply sufficient, steady quantities of milk to justify establishing a processing plant. Our proposed project will target areas where resource-poor pre-commercial men and women cattle keepers live, to provide proof-of-concept that such marginalized groups can also be targeted successfully. These households generally sell small volumes to a variety of markets and on an irregular basis (Table 1), and hence their descriptor as 'pre-commercial'. Few dairy development models have been documented that successfully target such households for sustainable increases in productivity and improvements in livelihoods. Nor are the modest levels of production conducive to creating economies

of scale and other factors needed for cost-effective provision of inputs and services. As these households generally operate in informal milk markets, they are also subject to considerable risks, particularly with respect to prices, feed sources and animal health. As a result, these households are not able to invest in improving their productivity or to participate fully in the market.

Table 1. Milk marketing outlets use by smallholders in Tanzania

Milk buyer	Wet season		Dry season	
	Number	%	Number	%
Neighbours	393,513	86.1	324,045	86.1
Local market	25,227	5.5	19,086	5.1
Secondary market	2,451	0.5	2,173	0.6
Processors	6,172	1.4	5,204	1.4
Large-scale farms	864	0.2	592	0.2
Trader at farm	20,784	4.5	17,713	4.7
Other	7,813	1.7	7,442	2
Total	456,824	100	376,255	100

Source: Tanzania National Bureau of Statistics. 2003. Livestock sample census

These organizational challenges for emerging dairy farmers have been addressed elsewhere in East Africa by 'dairy market hubs' (DMH) which are localized groups of smaller producers with common interests in accessing inputs (feed, breeding, animal health) and services (training, credit), as a means to achieve a critical mass of supply. Unlike formal systems supplying (often distant) processing plants, hubs tend to serve nearby communities, towns, and urban markets, drawing on local service providers. The pooled production of the hub offers an attractive volume of milk for traditional traders and formal sector collectors. Hubs can also become the focus for specific technologies (feed processing and storage, milk chilling plants). Such organizational forms targeting pre-commercial dairy farmers have not been tested in Tanzania, and the factors affecting the success of their establishment and sustainable operation there remain unknown.

DMH are collective arrangements for dairy producers that aim to stimulate bulking of milk, facilitating both entry to milk markets and access to inputs and services. This is a market-driven model whereby marketed volumes of milk attract entrepreneurs, whose services might be guided to achieve public health and organizational goals (so-called Business Development Services [BDS] models). DMH provide physical and organizational platforms that help increase the capacity of poor cattle keepers to innovate, manage risk, reduce vulnerability, increase their incomes and ensure food security. The proposed research will inform the introduction of DMH in Tanzania, including DMH-related innovations and commercialization that may or may not involve chilling plants depending on available milk volumes. We are particularly conscious that different situations often call for different solutions—rather than the one-size-fits-all approach that often informs establishment of dairy processing plants with the expectation that emerging resource-poor dairy farmers will respond to the opportunity and begin supplying milk to it. The existing low utilization rates of processing capacity and participation

dominated by better-off farmers in Tanzania suggest such a strategy has largely failed to work or to benefit the poor. The guiding principle will be to formulate strategies that help dairy milk hubs serving poor farmers evolve and grow, moving as fast as possible towards sustainable autonomy. Rising demand will be a key pull factor going by recent demand and supply projections (see <http://www.ilri.org/crp3.7>) that suggest excellent opportunities for significant growth in smallholder dairying in Tanzania, driven by demand growth in the country's expanding cities.

Contribution to broader Tanzania dairy sector objectives

This proposal contributes to the overall Irish Aid—Tanzania Country Strategy Paper (CSP) Goal for 2011–15 of Inclusive Growth, Reduced Poverty and Vulnerability, through Outcome 1—Rural poor are more income secure—and Objective 1—Improved livelihoods of smallholders and pastoralists—of the CSP.

By focusing on commercializing dairying and related value chains through DMH in marginalized rural areas of Tanzania, the project will use one of the most promising pathways out of poverty to contribute to food security and generate employment and income for Tanzania's rural poor. This is in line with the Tanzania Agricultural Sector Development Strategy (ASDS) and Programme (ASDP) that puts emphasis on strengthening the institutional framework to manage agricultural development; create a favourable climate for commercial activities; clarify public and private support services; and improve input and output markets.

Integrating the research process directly with dairy development will provide an environment conducive to develop practical solutions while working with partners who will be able to subsequently scale those solutions up and out. The project also contributes to the commitment of Irish Aid to support the CGIAR Research Program on Livestock and Fish led by ILRI (see <http://www.ilri.org/crp3.7>). If the project successfully establishes a proof-of-concept for this type of pro-poor DMH-based strategy, it will guide and accelerate implementation of future larger scale dairy development projects, notably the already anticipated extension of the East Africa Dairy Development (EADD) project to Tanzania.

Target groups

This project is primarily targeted at pre-commercial marginalized smallholder cattle-keeping men and women who do not currently participate fully in dairy value chains. The goal is to use the DMH approach to allow them to 'grow' towards greater participation. Most emphasis is expected to be on sedentary smallholders rather than pastoralists given that the migratory nature of pastoral production systems is not conducive to developing stationary milk hubs. However, there will be potential spill-overs in terms of pastoralists' access to services provided through businesses—including from animal healthcare BDS providers—that the project will aim to strengthen.

To enable learning, contrasting sites reflecting a range of contexts and implications for alternative models of DMH and value chains will be identified based on an evidence-based site selection process. A site selection tool and criteria will be agreed based on factors such as milk flows, access to markets, potential for collective action, predominantly sedentary producers vs. agro-pastoralists, and availability of related development activities. The project will seek to maximize positive interactions and synergies with existing dairy value chain research and/or development initiatives.

Project implementation

The project will be managed by ILRI and implemented with Sokoine University of Agriculture (SUA) and Tanzania Dairy Board (TDB). A steering committee (SC) will be formed with membership composed of representatives from organizations implementing the project, key public and private sector organizations in Tanzania and farmers' organizations.

Year one objectives

To ensure these longer-term objectives can be achieved, an initial 1-year inception phase is proposed with the specific objectives to:

- Assess the current status of the Tanzanian dairy sector and identify appropriate entry points and partners for promoting a more pro-poor development orientation;
- Develop a strategy for strengthening the policy environment to better support pro-poor dairy development, capitalizing on ongoing engagement with key policy actors and previous successes in Kenya and Uganda;
- Identify sites appropriate for piloting pro-poor dairy development interventions that have been successful elsewhere in East Africa, and assess how those interventions need to be adapted to the Tanzanian context.

Year one activities

Current status of the Tanzanian dairy sector assessed and appropriate entry points and partners identified to promote more pro-poor development orientation

- *Understand policy environment:* Conduct situational and sector-wide analysis based on available methodological tools to understand the policy environment and institutional frameworks for smallholder dairy producers;
- *Consult and sensitize stakeholders.* A major stakeholder event will be conducted at the onset of the project to listen to a wide range of views on how the project should proceed, given the pro-poor focus;
- *Develop and implement value chain assessment tool:* Characterize and analyse value chains and stakeholders to identify their constraints and requirements including consumer preferences, opportunities for upgrading and expansion, associated risks, environmental threats and barriers to participation by poor men and women.

Strategy developed to strengthen the policy environment to better support pro-poor dairy development, capitalizing on ongoing engagement with key policy actors and previous successes in Kenya and Uganda

- *Develop a pro-poor strategy to strengthen policy environment.* We will engage key stakeholders in activities such as

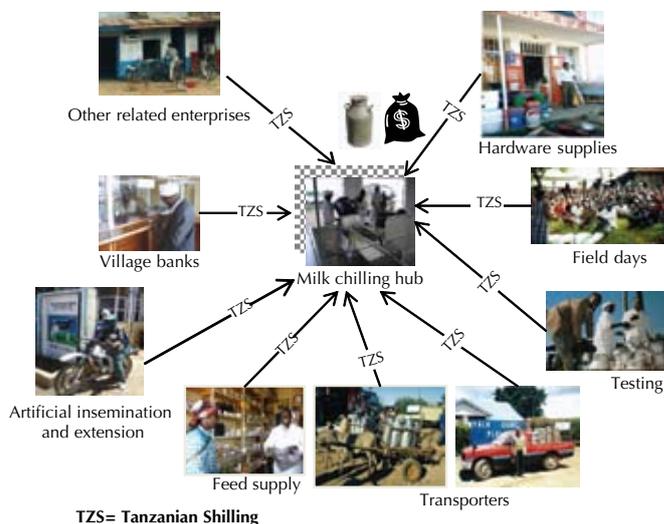
Outcome Mapping to achieve a joint vision for both the inception and research for development phases of the project, and hence establish communication, implementation, and monitoring and evaluation plans including provision for workshops to review progress. This will ensure a common vision and understanding among the partners of approaches, concepts and objectives, as well as outcome, implementation, communication, and monitoring strategies and tools. The framework can form the basis for project evaluations and impact assessment;

- *Improve quality assurance services:* TDB, under its mandate to coordinate and regulate the development of the industry by involving all stakeholders, will be supported to undertake this activity, to expand its quality assurance and related services through BDS, liaising with local government authorities as their agents. Given its central convening role of dairy industry stakeholders and promotion of dairy development in Tanzania, TDB will play a central role in communicating project outputs. Lessons from Kenya and Uganda on similar activities will help inform this activity;
- *Initiate process to strengthen actors and their organizations:* Successful policy-oriented research is usually underpinned by effective communication and involves relevant policy actors in the research process. The main policy issues that have been highlighted are: a) weak institutions that, given their nascent nature, are unable to accomplish their mandates in governing the dominant informal sector; and b) an over-regulated formal sector that processors claim stifles their growth and denies the industry the benefits of vertical integration. We expect to proactively use policy-oriented research findings from Output 1 to refine such policy issues and initiate steps to address them with the involvement of relevant actors.



Sites identified to pilot pro-poor dairy development interventions that have been successful elsewhere in East Africa; and available best-bet interventions adapted to the Tanzanian context

- **Develop and implement tools to target pilot interventions:** We will use participatory scoping procedures to identify implementation sites based on agreed tools with criteria such as target groups, milk flows, preferred products, access to markets, potential for collective action, and availability of related development activities;
- **Structured baseline surveys:** We will survey panels of smallholder dairy households at selected sites to establish a baseline for key household, livelihood, production and sales indicators, and for constraints. This would be supplemented by appraisal of market actors serving the smallholder dairy households (including input suppliers and milk marketing agents) to assess baseline market landscape, performance and constraints. The data generated will be used to monitor pilot project impact. It will also play a central role in determining which technical and institutional interventions the project implements at each site. Partnerships with Irish researchers and institutions will be explored to support components of the analysis;
- **Develop best-bet options for pilot interventions:** Based on a review of best practices and successes and failures related to pro-poor development including the results from the sectoral analysis, baseline and value chain assessments, a participatory process will be implemented and recommendations developed for pilot interventions to be undertaken after Year 1. Once a go-ahead is obtained from Irish Aid, a search for a development partner will be undertaken and a proposal developed together to agree on choices and formats/service/client types for DMH, and their establishment.



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