

Enhancing dairy based livelihoods in Tanzania: Mid-term progress report of the MilkIT project

Ngoc Diep Pham, Brigitte Maass and Jo Cadilhon

The ILRI-led project on 'enhancing dairy-based livelihoods in India and Tanzania through feed innovation and value chain development' – commonly known as MilkIT – has been implemented since 2012 with support from the International Fund for Agriculture Development (IFAD).

The overall goal of the project is to contribute to improved dairy-livelihoods in these countries via intensification of smallholder production focusing on enhancement of feeds and feeding using innovation and value chain approaches. The overall objectives of the project include:

- Institutional strengthening: To strengthen use of value chain and innovation approaches among dairy stakeholders to improve feeding strategies for dairy cows.
- Productivity enhancement: To develop options for improved feeding strategies leading to yield enhancement with potential income benefit.
- Knowledge sharing: To strengthen knowledge sharing mechanisms on feed development strategies at local, regional and international level.

Year-round availability of feed for cattle was identified as one of the major constraints to the development of dairy-based livelihoods in Tanzania. Since 2012, the MilkIT project in Tanzania has been addressing this issue in Tanga and Morogoro regions via an innovation platform¹ (IP) approach.

These platforms involve stakeholders in a process of identification and materialization of their expectations surrounding changes to feed and feeding.

¹ An innovation platform is a space for learning and change. It is a group of individuals (who often represent organizations) with different backgrounds and interests: farmers, traders, food processors, researchers, government officials etc. The members come together to diagnose problems, identify opportunities and find ways to achieve their goals. (cgspace.cgiar.org/handle/10568/34157)

Project sites

MilkIT Tanzania is embedded in the Livestock and Fish CGIAR Research Program (<http://livestockfish.cgiar.org>). The project initially conducted a spatial analysis together with its sister project 'MoreMilkIT' to select sites for future research and development activities.

Site selection criteria

High cattle density;
High poverty level;
High population density;
Good access to market;
High production potential;
Deficit areas with potential for increasing supply through feed interventions;
Potential partners/stakeholders.

Tanga and Morogoro were selected in February 2012 as the focal regions for the project. After the team conducted a village census in September 2012 in 25 villages per district, a total of eight villages were finally picked as project sites during this three-year period. The two districts per region represent the two identified research domains: rural production to rural consumption (R-to-R) and rural production to urban consumption (R-to-U). Names and locations of the 8 villages can be found in the map (Figure 1).

Research activities

Alongside MilkIT, which focuses on feed issues via innovation platforms, the sister project 'MoreMilkIT' aims to adapt dairy market hubs for pro-poor smallholder value chains.

Both projects consider value chain factors as important driving forces to enhance dairy-based livelihoods.

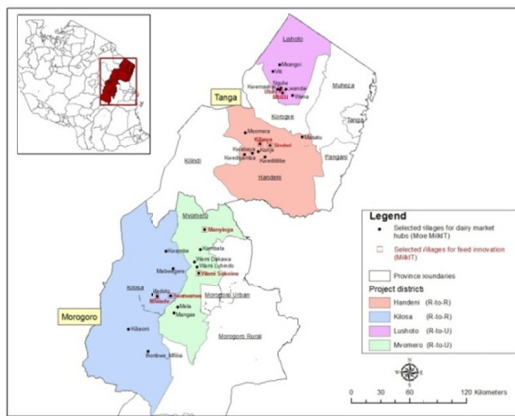


Figure 1. Map of MilkIT project sites in Tanzania

Value chain assessment

The two project teams conducted a participatory rural appraisal from July to August 2012 to assess dairy value chains in eight randomly selected villages.

The survey revealed many important findings underlying the fluctuation of feed availability, milk productivity and price setting between wet and dry seasons, especially in the extensive livestock system essential for rural production to rural consumption (R-to-R).

In the dry season, animals in the extensive system are moved to areas where there is pasture and water, which lowers milk availability and hence increases the milk price. During the long and short wet seasons feed is abundant with high production of milk, and the milk price decreases, leading to unpredictability in business activities.

In the semi-intensive/intensive system characterizing rural production to urban consumption (R-to-U), although animals have a wider variety of feeds, producers mentioned low and unreliable feed quality and lack of access to concentrates as major challenges to milk production.

Feed shortage in the extensive system is attributed to insufficient access to land and water, which are being used by protected wildlife reserves or agriculture. Lack of knowledge on feed conservation and improvement are the main constraints in the semi-intensive/intensive system. There is no strong presence of farmers' associations that could collectively tackle such common constraints as setting of milk price or feed quality assurance.

The survey identified three main milk channels including collection centres of the milk processors 'Tanga Fresh', 'Tan Dairies' and 'Shambani', local restaurants and neighbours or households through vendors. A large amount of milk produced by the semi-intensive/intensive system is sold to these collection centres whereas milk from the extensive system it is largely sold to neighbours and local restaurants.

Other challenges included: lack of market due to few collection centres, inadequate number of input suppliers and high prices for inputs, lack of access to credit and low knowledge on livestock management and diseases, especially zoonotic diseases.

Feed assessment

The research actors involved in MilkIT Tanzania carried out a comprehensive exercise of participatory feed assessment in February and March 2013 in the same eight villages using the Feed Assessment Tool (FEAST). The constraints and opportunities identified from the assessment are expected to constitute entry points for feed and feeding interventions that make up a major part of the project objectives and activities. Grazing is the major source of feed and strongly contributes to the diet of the animals. In the semi-intensive/intensive system, cattle keepers feed a higher diversity of feed stuffs. There is obvious lack of feeds during the dry season between July and October in all sites, as can be seen in figures 2 and 3.

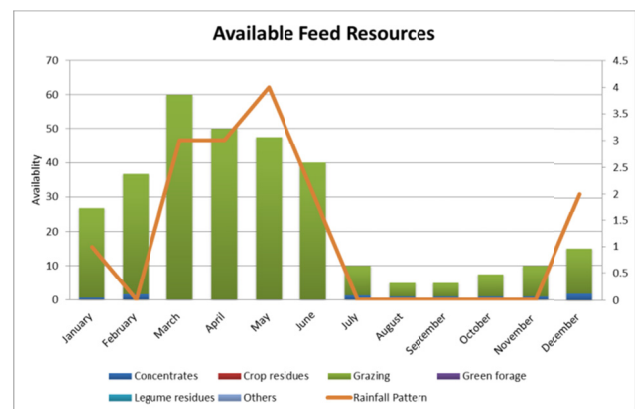


Figure 2. Seasonal feed availability in Twatwatwa village, Kilosa District, Morogoro Region.

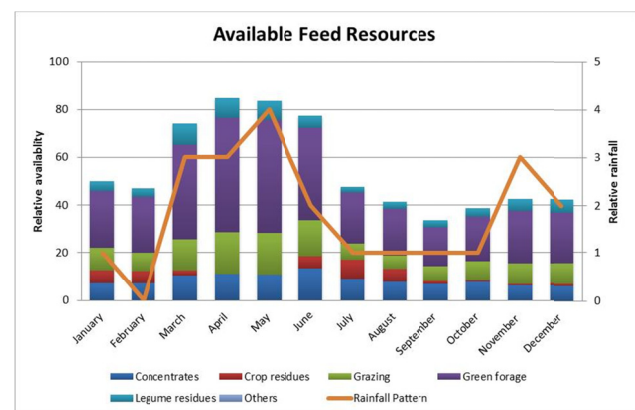


Figure 3. Seasonal feed availability in Manyinga village, Mvomero District, Morogoro Region.

On the other hand, participants involved in all the assessments did not perceive feeds or feeding as key constraints. The principle constraints identified were land, water, inputs, gender and markets for livestock and milk

in the villages with extensive systems. Participants involved in intensive/semi-intensive systems indicated additional constraints: the genetic potential of cattle and livestock diseases. Generally participants found that they lacked further training on animal husbandry. It is important for the project to link these identified challenges with feeds and feeding and address them through feed interventions.

The project team presented results from their investigation and suggested further actions to local stakeholders in village feedback meetings during April and May 2013 and in district council management team (CMT) meetings during June and September 2013. These meetings were also preparatory activities for the formation of an innovation platform in each village.

Innovation platforms

National platform integrating all dairy development projects

The Tanzania Dairy Development Forum (DDF) was set up in February 2013 to facilitate concerted collaboration among different stakeholders in the dairy sub-sector. MilkIT Tanzania is one of the seven projects under the DDF umbrella. Participating in the forum is a significant advance for the project in terms of sharing knowledge, identifying systemic bottlenecks and co-creating solutions via joint planning.

MilkIT joined regional dairy platform to allow wider dissemination of its results

Before the DDF was established, the MilkIT team in Tanga region joined a meeting of the Tanga Dairy Platform in November 2012 and became a member of this six-year-old regional platform. One important item on the meeting agenda was to discuss the composition of the platforms to be established in four villages of Lushoto and Handeni districts. The village platforms were considered to be useful for the Tanga Dairy Board's operation, and a mechanism for linking the village and regional platforms is being set up. Lessons from the MilkIT project are to be shared among other districts and villages within Tanga region and beyond.

MilkIT partners have targeted a similar regional platform in Morogoro. A stakeholder meeting held in April 2013 expressed strong support for its implementation.

Network benefits of linking local and regional platforms

The participation of MilkIT and its partners in the national and regional platforms is valuable for the development of the village platforms. Issues of importance for the village

members can be repeated and raised in meetings of larger-scale platforms which, in turn, could become inputs for regional or national planning and policy making. Additionally, the membership of a platform is very flexible depending on its objectives at each stage. When needed, MilkIT can easily involve new short or long-term stakeholders in its platforms thanks to the connections formed with a larger network of partners at regional and national levels.

Village platforms set up and running

From July to September 2013 several meetings were held in the project sites both at district and village levels. Eight innovation platforms were officially founded in the villages with a wide range of stakeholders in the local dairy value chains. Each village (except for Kibaya, Handeni, Tanga - due to bad weather) had a meeting to select platform chairman, secretary, cashier and committee members.

These village platforms are initially intended to implement feed interventions related to the MilkIT project. Moreover, the sister project MoreMilkIT will also use them as forums to identify existing interest groups or to establish them for the intended dairy market hubs.

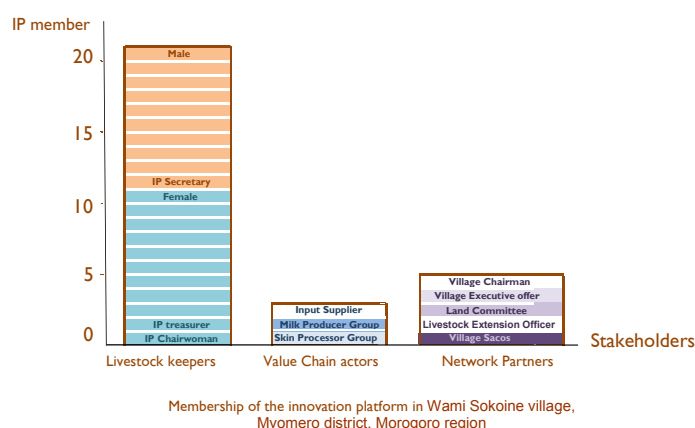


Figure 4. Membership of the innovation platform in Wami Sokoine village, Mvomero district, Morogoro region

Figure 4 presents the membership of one innovation platform in Wami Sokoine village, Mvomero district, Morogoro region. Out of 29 elected members, 21 (72%) are livestock keepers and the rest are stakeholders involved in dairy and other livestock production activities.

Because the village platforms currently focus on implementing feed interventions for livestock keepers, this typical composition with a large producer group reflects their present emphasis. One can note a relative equality in terms of gender of livestock keepers. Gender of other stakeholders is unknown since the representative of the specific business or institute may change at different meetings. This membership may also change over time with the development of the platforms.

Village innovation platforms – next steps

- Innovation platform members and their facilitators agree a constitution and clear guidelines for the ruling and operation of each platform;
- Innovation platform members identify objectives based on major constraints to be addressed;
- Based on the identified constraints and objectives, platform members and facilitators invite other types of stakeholders into the platform and draft a clear agenda to guide the platform's future activities;

- Platform members carry out technical feed-related interventions and other organizational market or value chain interventions in close cooperation with research actors and other partners;
- Feed-related experiments are conducted by farmer groups feeding into further activities within the village innovation platforms.

Preparation of this brief was funded by the Humidtropics CGIAR Research Program (<http://humidtropics.cgiar.org/>).



Every morning especially during dry seasons, dairy farmers in Lushoto collect forages from forests several km away from their farms.

Contacts

Brigitte Maass

International Center for Tropical Agriculture
PO Box 823
00621 Nairobi, Kenya
b.maass@cgiar.org

Fred Wassena

International Center for Tropical Agriculture
Morogoro, Tanzania
f.j.wassena@cgiar.org



CGIAR is a global partnership that unites organizations engaged in research for a food secure future. The CGIAR Research Program on Livestock and Fish aims to increase the productivity of small-scale livestock and fish systems in sustainable ways, making meat, milk and fish more available and affordable across the developing world. The Program brings together four CGIAR centres: the International Livestock Research Institute (ILRI) with a mandate on livestock; WorldFish with a mandate on aquaculture; the International Center for Tropical Agriculture (CIAT), which works on forages; and the International Center for Research in the Dry Areas (ICARDA), which works on small ruminants. <http://livestockfish.cgiar.org>

ilri.org

better lives through livestock

ILRI is a member of the CGIAR Consortium

Box 30709, Nairobi 00100, Kenya
Phone: +254 20 422 3000
Fax: +254 20 422 3001
Email: ILRI-Kenya@cgiar.org

Box 5689, Addis Ababa, Ethiopia
Phone: +251 11 617 2000
Fax: +251 11 617 2001
Email: ILRI-Ethiopia@cgiar.org



This document is licensed for use under a Creative Commons Attribution – Noncommercial- Share Alike 3.0 Unported Licence. February 2014