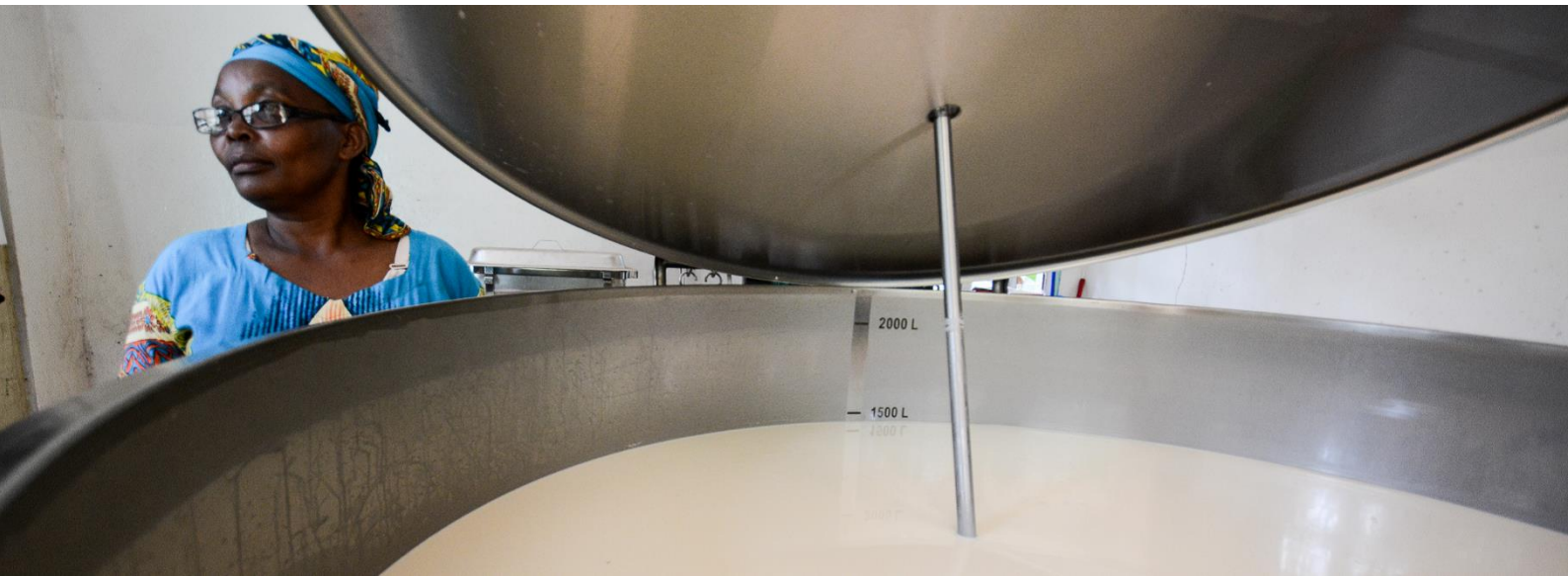


Factsheet midterm findings Global Challenges Programme Call 2



Local and International business collaboration for productivity and Quality improvement in Dairy chains in Thailand, Indonesia, Tanzania and Kenya (LIQUID)

Summary

The project LIQUID aims to provide a better understanding on how collaborative business models and quality management systems contribute to two performance indicators: milk quality and value chain inclusiveness. LIQUID involves research and capacity building.

Dairy value chains are important food chains in many developing countries, both for producers and for consumers. However, as the quality of raw milk and of processed dairy products is often low, producers miss income opportunities and consumers do not receive proper products for a healthy diet. Collaborative business models such as cooperatives, dairy hubs and contracting arrangements allow the introduction of dairy development, including quality management systems and quality incentive schemes. These models should help farmers get a better income and improve dairy quality at the same time. In dairy production and processing, women and youth play essential roles, particularly when innovations for quality improvement are required. Next to its focus on quality, LIQUID explores the options for improvement of inclusiveness in dairy value chains.

Interim Research Findings

LIQUID has generated knowledge on risk and uncertainty for smallholder farmers as well as the nature of unsustainable interventions. PhD research in Tanzania found that dairy development support from NGOs is not always aligned with the business models of private milk processors, potentially leading to unrealistic expectations among the NGO-supported farmers. Secondly the projects' capacity building and stakeholder consultation activities have strengthened inclusion, for instance by establishing youth councils at cooperatives, and by starting discussions on women in dairy cooperatives. Thirdly one of the postdoc projects, comparing informal and formal milk chains, found that milk production in the informal chain is substantially riskier than in the formal chain, particularly for young farmers. Given the uncertainties that farmers in the informal chain face, they are not likely to invest in quality improvement. Lastly, on a methodological note, the research group learned from an MSc thesis project on dairy cooperatives in Zambia that one cannot rely on information and data available with national associations in the capital city. Researchers have to collect primary data themselves and compare this data with what is known in administrative databases.

Intermediate achievements

Working on the postdoc project "Making Dairy Development Do Better" in Thailand and Indonesia has offered some interesting windows of opportunity in impacting on national policy formulation as well as the practices of major commercial milk processors in Thailand. LIQUID project member Gea Wijers (WUR) tells her story: "My research flows from a very simple question. Why is it accepted that female farmers do a lot of work in dairy production on smallholder farms but are often not explicitly addressed by governmental and private dairy extension programs?" In practice, women are not excluded in dairy development activities, but the context and planning of these activities are not conducive to their participation due to, for instance, cultural norms, formal requirements or the location where such activities take place. "It seems to me a foregone conclusion that having women be part of dairy development activities could significantly

contribute to improving milk quality. Fortunately, during interviews and consultations with governmental experts and academics in meetings and during farm visits, facilitated by the Netherlands Embassy in Bangkok, this idea proved relevant and urgent. I am very happy that my findings on gender-focused dairy extension are welcomed with enthusiasm and will hopefully help change dairy development practice."

Messages to

A) Actors from private sector:

- Seek collaboration with researchers to find out institutional opportunities and constraints;
- Focus on the long term if you want commitment from local producers.

B) Civil society and practitioners organizations:

- Seek collaboration with private sector;
- Coordinate your activities with colleagues from other organizations and countries.

C) Policy makers:

- Explore constraints in the implementation of current rules instead of developing new rules;
- Support inclusiveness by giving the good example.

Knowledge products

- Academic paper (12, 2016) [Organizational challenges and the institutional environment](#)
- ILRI Livestock Brief (12, 2017) [Uncertainty in smallholder milk production in Tanzania: Implications for investment](#)
- Academic paper (12, 2017) [Uncertainty in milk production by smallholders in Tanzania and its implications for investment](#)
- Agroberichten buitenland (03, 2018) [Milk Quality Improvement in Thailand \(LIQUID Program\)](#)
- Summary PhD (06 2017) ["Quality and safety control in Tanzania milk chains: current practices and interventions"](#)

Knowledge networks

- [International Cooperative Alliance](#) (ICA)
- [International Centre of Research and Information on the Public, Social and Cooperative Economy](#) (CIRIEC)

Co-creation

- In the individual projects active consultations, exchanges and knowledge sharing activities with farmer groups, farmer respondents and other grass root stakeholders have been organized to embed the research directly into existing structures and address existing needs.
- In the individual projects the collaboration with local, regional and national governments institutions has been sought to ensure knowledge uptake and the sustainability of research results.
- At the programme level, communication within the consortium, with stakeholders and with related projects has been used to allow for co-creation, feedback and reflection as well as changing agenda's and focus according to urgency.

Future research and activities

In order to implement production of traditional fermented products, the research findings need to be translated as to work together with stakeholders in their marketing plans by using a business model canvas. To allow members of farmer cooperatives to process Mabisi and Munkoyo, the traditional production needs to be scaled up from the household level to an SME scale that suits local cooperatives. This upscaling needs to be designed and tested in a facility that mimics the facilities of production that cooperatives would have at their disposal. Using the network and experience of the research consortium, members of cooperatives can be sensitized and will receive training on how to process the mixtures of microbes for fermentation (starter cultures) that needs to be produced.

For this, research into upscaling of production and training of members of farmer cooperatives is needed. The project is developing plans for a facility at the University of Zambia. The research team has made a first sketch of how such a facility would look like. There are also plans to establish the facility by the end of the project.

Consortium Partners

- [Wageningen University & Research, Management Studies Group](#) (NL)
- [Royal Friesland Campina](#) (NL)
- [Agriterra](#) (NL)
- [International Livestock Research Institute \(ILRI\)](#) (Tanzania)
- [Sokoine University of Agriculture](#) (Tanzania)
- [Egerton University](#) (Kenya)

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Project websites

- [F&BKP Research Project page](#)
- [LIQUID website](#)
- [WUR project website](#)
- [LinkedIn Group](#)