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The Tanga Dairy Platform: Fostering Innovations for more Efficient Dairy Chain Coordination in Tanzania

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ABSTRACT

The Tanga Dairy Platform, created in 2008, is an informal forum of different stakeholders involved in the dairy industry of Tanzania's Northeastern Tanga region. The platform's objective is to exchange knowledge and develop joint actions to common problems. Six years on, it is a sustainable example of a commodity association addressing the joint problems of the region's dairy industry. The platform has achieved a common understanding among chain actors on dairy price structure; it has successfully lobbied policy makers to reduce value-added tax on dairy inputs and products, and to remove limitations on urban dairy farming in Tanga city.

Keywords. Dairy value chain; Innovation platform; Commodity association; Tanzania

1 Introduction

Population growth and urbanization have increased milk demand in Tanzania. Current milk production growth rates cannot keep pace with this increasing demand. Consequently, there is a need for intensifying production practices and making marketing channels more efficient (Kurwijila et al, 2012).

In the Northeast administrative region of Tanga, small-scale dairy production is typical in mixed crop-livestock systems. However, the majority of the region's cows are raised by the Maasai and other tribes in pastoral systems where milk is produced in very small quantities per cow but with large cattle numbers (Njehu and Omere, 2014; Wassena et al, 2015). Dairy producers in Tanga Region seem trapped in a negative feedback loop of poor market access and poor organizational skills leading to low incomes and poor attractiveness for input suppliers, extension services and credit providers. They also suffer from low knowledge on livestock management and zoonotic diseases (Mangesho et al, 2013a, 2013b; Nkya et al, 2007; Pham Ngoc Diep et al, 2014).

There are three main 'modern' milk marketing channels in Tanga Region. The most important is organized around collection centres of the main local industrial milk processor Tanga Fresh Limited (AECF, 2011). A smaller competitor and a dairy based in Dar es Salaam also operate milk collection centres in the region's milk producing areas. However, the bulk of the milk produced in the region is distributed by farmers themselves or through the many small informal vendors linked to the dairies or selling to local restaurants and consumers (Nkya et al, 2007; Njehu and Omere, 2014). The industrial dairies in particular have to be vigilant in planning their supply chain to keep their plants running and to maintain the quality of their products throughout the year. This is a pressing problem during the dry season when lack of natural forage leads to very low milk production (Mangesho et al, 2013a, 2013b; Njehu and Omere, 2014;

Wassena et al, 2015). Tanga Fresh Limited is also in constant arguments with the rest of the chain and local government because it is the price setter for both farm-gate and retail prices.

In 2008 a research-for-development project funded by the UK Department for International Development (DFID) facilitated the creation of the regional Tanga Dairy Platform. This institution was set up as an informal forum of different stakeholders involved in the Tanga dairy industry to exchange knowledge and develop joint actions to common problems along the innovation platform model (RIU, 2008). Six years on, the project support has long ceased. Nonetheless, the platform is still running and currently meeting every quarter to discuss problems of the region's dairy industry.

A previous study has demonstrated the advantages of networking vertically and horizontally within food value chains in order to improve information sharing, trust and collaboration to pool resources for value chain development (*Gellynck and Kühne, 2010*). Consequently, as a mirror to the case study of organizational innovations undertaken by the Finnish company Valio to regulatory and institutional changes in Finland's dairy industry (*Lamprinakis, 2012*), this case study presents the institutional innovations embodied by the Tanga Dairy Platform to address the issues of the Tanga regional dairy industry. The case summarizes the story of the Tanga Dairy Platform, its position across all stakeholders in Tanga's regional dairy industry and its management structure. We report some of the achievements obtained by the platform that constitute relevant outcomes for its members. The case finishes by discussing current challenges for further development of the platform.

2 Platform background

2.1 Dairy production systems

The dairy sector in Tanga Region shares characteristics with the main dairy production systems identified in Tanzania by Kurwijila (2002). In Lushoto District (Figure 1), smallholder dairy farming is integrated with annual crops like maize and other cereals. Closer to Tanga city (Tanga and Korogwe Districts) specialized medium-scale dairy farms can be found (Nkya et al, 2007). Milk production is the main economic activity on these farms with 10 to 50 cows; there is little crop cultivation and a limited level of mechanization. In Tanga District and Town, peri-urban dairy farms are found because many civil servants and businessmen have taken up dairying as a means of generating additional income (Swai et al, 2005). Finally, the traditional semi-sedentary (transhumant) system, which accounts for 75 percent of total milk production in Tanzania (Kurwijila, 2002), is also present with the Maasai population in Handeni District of Tanga Region. Although it is located in remote areas and despite using traditional breeds that have not been selected for their dairy productivity, because of its extent, herd sizes and the large number of cows involved, this last production system has great potential to supply fresh milk to urban markets (Njehu and Omore, 2014).

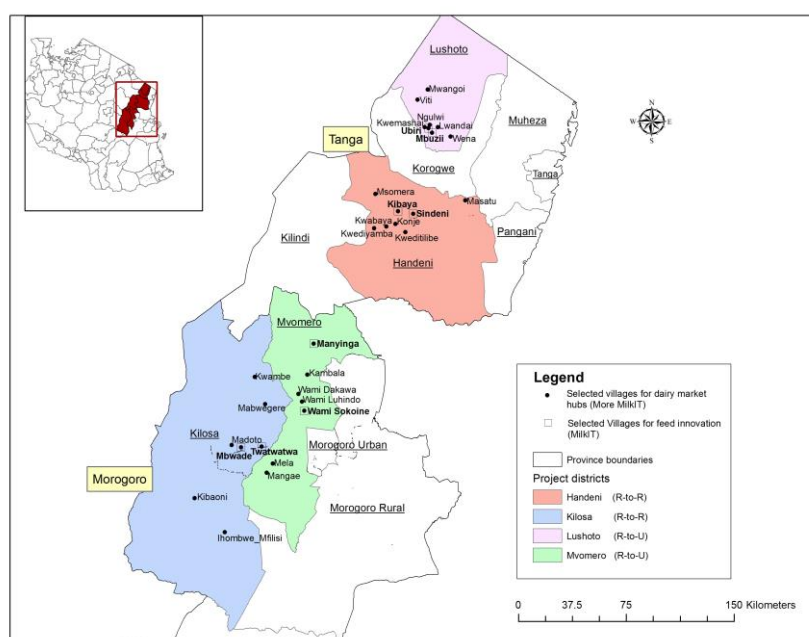


Figure 1. Map of MilkIT project sites in Tanzania showing Tanga region (North). Source: Pham Ngoc Diep et al. (2014)

Some of the dairy producers are organized within cooperatives. The Tanga Dairies Cooperative Union (TDCU) is the umbrella organization for 16 Primary Cooperative Societies (PCS). TDCU has a total membership of more than 4 000 dairy farmers. The PCSs are responsible for milk collection from one or several milk collection centres they manage in the production areas. They also arrange payment to the farmers. At the time of study, the PCSs did not get any special favour from Tanga Fresh because they are shareholders of TDCU, which itself holds shares in the dairy. Milk from TDCU members is delivered to Tanga Fresh, of which 42.5 percent of shares are owned by the cooperative union. Each PCS elects a board of five to nine members. One of them will attend the TDCU Annual General Meeting. Out of the 16 PCS representatives, a TDCU board of five to nine members will be elected with one Chairman. The TDCU Chairman represents the Union and monitors use of its shares on the board of Tanga Fresh.

2.2 Private sector stakeholders in the dairy value chains

Tanga Fresh Limited (TFL) was incorporated in December 1996 and started its operations six months afterwards. TFL began operating with a modest milk processing factory in the centre of Tanga city. After several years of rapid growth it was decided to build a new processing factory outside Tanga city, next to the airport. The new factory has a processing capacity of 50 000 litres per day. Within TFL, the TDCU is involved in a joint venture with De Oude Beuk Foundation (DOB) from the Netherlands, which took over the shares of Frisania Invest Cooperative. The main issue faced by Tanga Fresh is the seasonality of production due to the seasonality of forage availability. TFL's milk supply stands at 60 000 litres per day during the wet season but falls to 30 000 litres per day during the dry season. TFL operates a network of 47 milk collection centres (MCC). There are 40 MCCs in Tanga Region: 16 are cooperatives and 24 are private or registered groups. TFL also operates three collection centres in Morogoro Region and four in the Coastal Region. These seven centres sometimes close during the dry season for lack of milk supply. In total, 6 000 farmers sell their milk directly to one of TFL's milk collection centres. Nonetheless, only 30 percent of the milk produced in the region goes to TFL. The majority of the milk is kept by producers for home use or sold to local vendors, restaurants and other neighbouring households.

There are three other dairy companies with operations in Tanga Region: Amy Brothers of Tanga (500L/day), Tan Dairies Limited from Dar es Salaam (4 000L/day) and Shambani Graduates Enterprise Limited from Morogoro (700L/day). However, TFL (30 000L/day) has the biggest dairy processing capacity and market share (NIRAS, 2010). TFL is thus effectively the price setter for both farm-gate prices and for consumer retail milk prices in Tanga Region. There are several medium-sized agricultural inputs and services firms operating in Tanga Region to supply animal feed, veterinary products and services, transport services, banking and financial services and other inputs to farmers. Yet, the remoteness of some milk producing communities makes it difficult for them to access these services and shops.

2.3 Public sector and development projects supporting the dairy industry

Tanga Region has a dedicated civil service in the Tanga Regional Secretariat with its own Regional Livestock Service to support livestock development. The Regional Livestock Officer is in charge of coordinating the activities of District and Community livestock officers and rural extension services. The Region also has a regional station of the Tanzania Livestock Research Institute (TALIRI) with a mandate to conduct dairy research in the sub-humid areas along the coastal belt of Tanzania and to suggest innovations that are relevant to the local context.

Several development projects have also been involved in supporting dairy production in Tanga Region. Over the years, these development projects have helped increase dairy production by smallholder farmers, and have structured dairy supply, marketing and processing in the region. For example, the Tanga Smallholder Dairy Development Programme (TSDDP) has run from 1985 to 2003 (Zylstra et al, 1995). Initially known as the 'Smallholders Dairy Extension Project' (SDEP), it was bilaterally funded by the governments of Tanzania and The Netherlands (Swai et al, 1993). This project led to the formation of the milk collection centres operated by the networks of dairy cooperatives and Tanga Fresh. The Austroproject Association is an organization focusing its support on Maasai herders to help them collect and market their milk (Kurwijila, 2002). Land O'Lakes is another non-governmental organization (NGO) with several projects focusing on dairy development in Tanga Region (Land O'Lakes, 2011). The Dutch NGO SNV is also active in supporting dairy value chains (SNV, 2014). The International Livestock Research Institute (ILRI) has led a project on enhancing dairy-based livelihoods in India and Tanzania through feed innovation and value chain development approaches (Pham Ngoc Diep et al, 2014). Commonly known as MilkIT, this project has been implemented in Tanga Region by the International Center for Tropical Agriculture (CIAT) since late 2012 with support from the International Fund for Agricultural Development (IFAD). The overall goal of the project is to contribute to improved dairy livelihoods in Tanga Region via intensification of smallholder production focusing on enhancement of feeds and feeding using innovation and value chain approaches. As part of the CGIAR Research Program on Livestock and Fish, ILRI and CIAT,

together with other international and local partners, are also implementing the 'More Milk in Tanzania' project in the region, funded by Irish Aid, which primarily targets pre-commercial smallholder cattle keepers who do not currently participate fully in dairy value chains (ILRI, 2015). Finally, the Government of Tanzania and several national and international development partners are spearheading operation *Maziwa zaidi* to increase milk production in the country, including Tanga Region.

2.4 Constraints of dairy development in Tanga Region

The MilkIT project's interactions with dairy stakeholders have led to the identification of six major constraints to dairy development in Tanga Region (Pham Ngoc Diep et al, 2014). Feed availability is the primary constraint, especially during the dry season (Mangesho et al, 2013b). The very dry conditions in the dry season lead to a dearth of natural forage, which impacts negatively on the dairy productivity of cows in the semi-sedentary production system. Difficult road access to producing areas and limited purchasing power of dispersed farmers makes it uncompetitive for animal feed suppliers to sell industrial feed to dairy producers in remote areas.

The availability of good stock of dairy cattle and heifers is another constraint to dairy development in Tanga Region. Considering the endemic status of tsetse flies, although populations have decreased constantly in past decades (Daffa et al, 2013), many dairy farmers are still breeding traditional cattle that offer some resistance to sleeping disease but which have not been selected for their milk productivity (Swai et al, 2005). It is thus difficult to improve their milk production quickly. Farmers in Tanga Region are known to travel to other regions of the country to buy heifers and bulls for reproductive purposes. Not finding good genetic material on site is another problem to the long-term betterment of the region's dairy production.

Public extension services in the region are not to the required level and there are insufficient private animal health services. The public resources to place field-based extension services are limited and extension officers are not always trained to provide support on livestock development. The public veterinary services are overseen by the Regional Livestock Officer of the Tanga Regional Secretariat, while extension officers are posted at district level, but more private veterinary providers would be welcome to improve animal health conditions. Some private sector companies have been using the ubiquity of mobile phones in the East African region to deliver technical information on better animal nutrition and farm management to producers in the region (Beal et al, 2014). Although successful in extending latest innovations all the way to smallholder farmers and consolidating the sustainability of value chains and local communities, these initiatives are still relatively small in scale.

The last three constraints to dairy development are consequences of the previous ones. Farmers in Tanga Region have limited knowledge of dairy agribusiness development. Their lack of technical education makes them unfamiliar with improved production techniques that could lead to more and better-quality milk. Farmers also lack the organizational knowledge to form and manage producers' groups in order to gain advantages from bulk input supply, or grouped investments into milk chilling, processing and dairy product sales. Low milk productivity per cow and low overall milk production resulting from the former constraints limit any action to increase dairy production, despite growing consumer demand for more milk. The difficulty to collect milk from remote producers and the strong seasonal variability of milk production both lead to low farm-gate prices. What is more, these difficult collection conditions also compromise the safety of the milk. These low prices and the absence of differential payments for better-quality milk in terms of protein and fat content do not encourage farmers to invest in their milk production or productivity, thus, sustaining a negative feedback loop and ever more disappointing milk yields.

3 Organization of the Tanga Dairy Platform

3.1 Brief history of the Tanga Dairy Platform

The story of the Tanga Dairy Platform can be divided into three stages. The first stage is defined by Research into Use's (RIU) creating and facilitating the first meetings of the platform. After creating the platform with key dairy stakeholders in 2008, RIU organized training of the platform members and leaders to facilitate their own meetings in 2009. The platform also conducted a baseline survey of the dairy industry in 2009 to understand its structure and challenges (RIU 2009). The discussions facilitated on the results of the baseline survey led to the platform identifying three major issues for dairy development in Tanga Region. The main constraints already identified in 2009 were milk production fluctuation in the dry season, the lack of a negotiation process between dairy chain actors to address milk price issues, and the lack of unity of stakeholders in the dairy industry.

Platform members therefore decided to work on three major thrusts (RIU, 2008): 1) enhancing self-organization and unity of milk producers and processors for effective lobbying and advocacy; 2) strengthening the milk and milk products market for more sustainability from the farmer to the processor and to the consumer; and 3) developing a sustainable, all-year-round and profitable milk production system with smallholder farmers. This decision was reflected in the composition of the platform's 'board' (see next section) with the nomination of a coordinator for each of the three thrusts.

In November 2009, due to strategic changes in RIU's headquarters in the United Kingdom, the research-for-development project had to stop funding and supporting the Tanga Dairy Platform while continuing its assistance to two other commodity-based innovation platforms in other regions. Nonetheless, the dairy stakeholders decided to continue their meetings on a self-funding basis. This started the second stage of the story of the Tanga Dairy Platform defined by dairy stakeholders continuing to convey meetings at agreed intervals to discuss various dairy challenges and deliberate on possible solutions. All meetings of the platform are documented. The reports are available from the Platform and from the Regional Livestock Officer of the Tanga Regional Secretariat; they mention the meetings' participating members, issues discussed, decisions taken and actions to be implemented.

The final and still ongoing part of the platform's story is characterized by a stronger involvement of the regional public administration in platform activities. This started in 2011 with a campaign run by the platform against an urban limit to dairy farming, a decision which was being proposed by the Tanga City Council in contradiction to existing by-laws allowing cows to be kept inside urban limits. Acknowledging the strong contribution of peri- and intra-urban dairy farming to the livelihoods of urban households in Tanga city, the Tanga Regional Secretariat backed the platform's campaign to allow dairy farming to be undertaken within Tanga cityurban limits. The proposal on an urban limit to dairy farming was repealed. Since then, the Regional Administration Secretary (RAS), who heads the Tanga Regional Secretariat, has been attending and chairing in person all the meetings of the platform. This high-level involvement from the regional government has increased the legitimacy of the Tanga Dairy Platform as an important forum to discuss and take action to improve the region's dairy value chains.

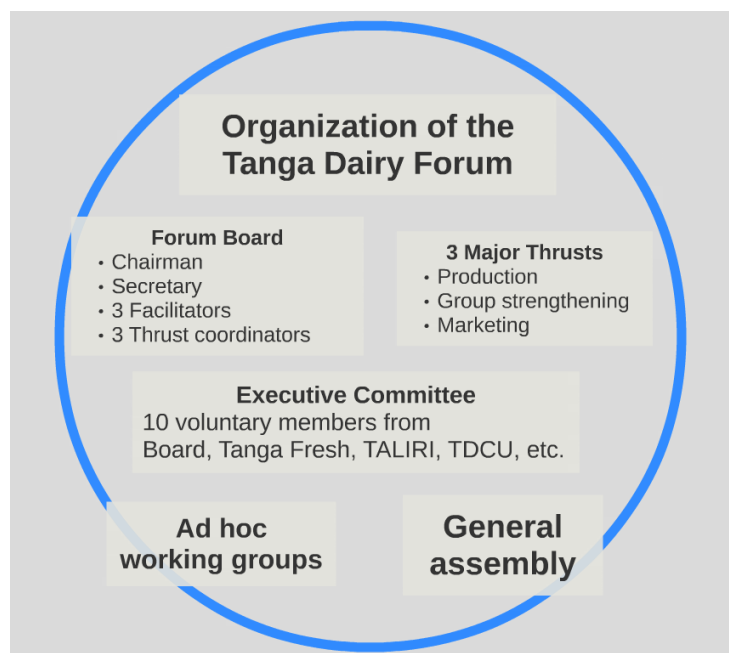


Figure 2. Organization chart of the Tanga Dairy Platform. Source: Cadilhon (2014).

3.2 Current management structure of the Tanga Dairy Platform

The members of the Tanga Dairy Platform are both individuals involved in dairy value chains, and firms and institutions that are linked to the dairy industry (Figure 2). Table 1 provides a classification of the current members by their stakeholder type. Media representatives sometimes attend platform meetings as well as help publicize the dates and locations of upcoming meetings.

Table 1.
Categorization of the members of the Tanga Dairy Platform by stakeholder type

Stakeholder type	Platform members
Government institutions focusing on livestock	<ul style="list-style-type: none"> -National level: Ministry of Livestock, Tanzania Dairy Board -Regional level: Regional Livestock Adviser's Office, Tanzania Livestock Research Institute, Livestock Training Agency-Buhiri extension agency -District level: District Livestock Officers -Sub-district level: Community livestock officers and extension agents
Other Government institutions	<ul style="list-style-type: none"> -National level: Ministry of Trade, Ministry of Finance, Ministry of Land, Tanzania Revenue Authority (TRA), Small Scale Industries Development Organization (SIDO) -Regional level: Regional Administration Secretary (RAS) -Local level: Tanga City Council, Local Government Authorities (LGAs), Tanga Urban Water Supply and Sanitation Authority (UWASA) -Banks: National Microfinance Bank (NMB), National Insurance Corporation (NIC)
Farmers, farmers' cooperatives and networks	<ul style="list-style-type: none"> -Individual farmers -Representatives of dairy farmers: Tanzania Milk Producers' Association (TAMPRODA), Tanganyika Farmers' Association (TFA) -Representative of primary dairy cooperatives and of TDCU
Private sector and other value chain actors	<ul style="list-style-type: none"> -Dairy input suppliers: Agricare Enterprises, Tan-Veterina, Ammy Brothers, Holland Dairies, PROMACO -Dairy processors: Tanga Fresh, Ian Dairies, Tanzania Milk Processors' Association (TAMPA) -Consumers' representative -Private transporters -Advertising companies -Utilities providers: Tanzania Electric Supply Company (TANESCO), Rex Solar -Banks and credit associations: CRDB, EXIM Bank, Private Agriculture Sector Support (PASS), Savings and credit cooperative organizations (SACCOs)
NGOs and development projects	<ul style="list-style-type: none"> -SNV -Land O'Lakes -MilkIT -MoreMilkIT -Heifer International -Farm Friends Tanzania

The Platform is facilitated by a 'board', members of which have been selected by the platform participants among the key stakeholders in the dairy industry based on their professionalism, enthusiasm and interest to help other stakeholders in the industry. The 'board' is in charge of organizing the platform meetings, responding to matters arising from participants, facilitating deliberations and reporting back on past proceedings. In between the platform meetings, the 'board' has to write the minutes of the previous meeting, follow up on decisions taken and prepare the next meeting. Table 2 provides the composition of the Tanga Dairy Platform 'board'.

Table 2.
Composition of the Tanga Dairy Platform 'board' in February 2014

Name	Position within platform	Institution	Position within institution	Date of joining platform
Julius E. Shoo	Chairman since 2009	Agricare Enterprises (input trader)	Director	2008
Flora A. Lukindo	Secretary since 2014	TALIRI	Livestock Scientist, extension	
Zodiac Lyimo	Organizer, overseer, coordinator, advisor and facilitator	Tanga Regional Secretariat	Veterinarian in charge of livestock matters in Tanga Region	2008
Issa Hatibu	Organizer, overseer, coordinator, advisor and facilitator	Tanga Regional Secretariat	Animal Scientist in charge of livestock matters in Tanga Region	2011
Justa Kashumba	Organizer, overseer, coordinator, advisor and facilitator	Tanga Regional Secretariat	Animal Scientist in charge of livestock matters in Tanga Region	2011
John Mnyikas	Coordinator of Production Thrust	LITA-Buhuri	Coordination of extension activities (now retired)	2008
Julius E. Shoo	Coordinator of Group Strengthening Thrust	Agricare Enterprises	Director	2008
Erhard B. Mlelwa	Coordinator of Marketing Thrust	Chimbe Enterprises	Owner	2008

Platform meetings are organized by the platform 'board' on a quarterly basis. All members are invited to the platform meetings. The dates and locations of the meeting are circulated widely in the regional press, by text messages to members' mobile phones and through radio programmes. Key stakeholders are called individually to remind them to attend the next quarterly meeting. In the past year the platform meetings have attracted many individuals and institutions involved in dairy. The number of participants in platform meetings has been known to go beyond 100, sometimes up to 300. Discussions and debates are heated. Largely unfunded, participants come at their own cost for these one-day meetings. The important number of self-funded and active participants is a testimony that this forum is widely considered as an essential place in which dairy issues can be discussed openly and solutions identified.

Although anecdotal, the seating arrangements of the Tanga platform meetings emphasize the importance of clearly identifying a meeting chairperson who will moderate the discussions among the many participants. Customarily, the 'board' Chairman and Secretary sit at a high table along with the guest of honour: the Regional Administration Secretary (RAS) who opens the meetings and sits through them. The rest of the platform 'board' and committee members sit in the hall with other platform members. One of the three people sitting at the high table is in charge of facilitating the meeting. The Tanga Regional Secretariat currently provides one of its large meeting rooms to hold the quarterly platform meetings. The costs of platform secretarial duties, meals and of the participants' travel to the meeting are covered by the stakeholders themselves; even those who are commuting from remote areas and who need to spend one night on site to take part come at their own cost (despite a popular belief among participants that SNV, which joined the platform in 2012, is providing funding for transport and accommodation of participants coming from far away).

In 2011 the platform members recognized that taking decisions in an assembly of up to 100 people was not efficient. But the 'board' was also too small and its members already very busy to take decisions and execute actions needed to implement the platform's agenda. Therefore, an 'executive committee' of ten active members was nominated with the specific task of following up on the issues raised during the platform meetings by suggesting concrete activities and implementing these actions to tackle the challenges raised by the platform members. The 'board' members sit in this committee.

They are joined by other key and active stakeholders of the region's dairy industry: one representative each of Tanga Fresh Limited, TALIRI and TDCU, among others. The committee meets on a quarterly basis in between the platform meetings.

At the March 2012 platform meeting, the committee submitted a draft proposal of a dairy development plan for Tanga Region. Platform members discussed and contributed to improve this proposal. The proposal was adopted at the August 2012 platform meeting. This plan identifies ten challenges to be addressed in the short term (1–2 years) and over the long term (more than three years). The November 2012 Committee meeting discussed specific activities to be taken in the short term between 2013 and 2015 to tackle these ten challenges, and those that should be initiated after 2015. Some activities could be performed without external funding and others could be undertaken via cooperation with development partners.

New institutions wishing to join the platform have to state their case in front of the 'executive committee'. The committee members then decide whether to invite these potential new members into the platform. Most of the NGOs and development projects involved in dairy and wanting to participate in the platform had to undergo this screening process. For example, the Dutch NGO SNV was invited into the platform on the understanding that it would help fund capacity building activities requested as essential by platform members. The fact that the platform can now attract external funding to sustain its activities in favour of the region's dairy development is another testimony to its power as a main actor in dairy industry coordination and development.

Finally, the platform also hosts working groups of selected members who are interested in discussing in further details the actions needed to address certain specific issues to dairy development in the region. For example, the Tanga Dairy Platform hosts groups working on evaluating the quality of dairy heifers, milk pricing, and feed and forages, among other topics.

4 Platform achievements

From the point of view of its stakeholders, the Tanga Dairy Platform has managed some achievements that are particularly relevant to the dairy industry in Tanga Region.

First, the successful lobbying in 2011 to repeal the urban limitation on dairy farming imposed by the Tanga City Council is still seen as the first major achievement of the platform in its role as a lobby to raise the awareness of policy makers to the issues faced by the stakeholders of the region's dairy industry. Given the very important role of small-scale intra- and peri-urban dairying in strengthening the livelihoods of urban citizens, let alone its contribution to feeding the urban population with nutritious animal products, the battle to allow dairy cows to be kept within urban limits was a noteworthy one. (This issue has recently come back on the platform's agenda as the Tanga City Council has once again proposed a limit to urban dairy farming.)

An even more momentous policy changing achievement happened in 2012, when the Government of Tanzania had decided to levy an 18 percent value-added tax (VAT) on all sales of inputs and products from the agricultural sector. Given the strategic contribution of the dairy industry to Tanga's economy, and the fear of hindering its formal development because of this high taxation, the Tanga Dairy Platform went into action to persuade their representatives in the national assembly, as well as officials in the Tanzania Dairy Board and Ministry of Agriculture, Food Security and Cooperatives that such a high tax rate would actually undermine national economic growth. The action of the regional platform resulted in the national assembly voting a nationwide reduction of VAT from 18 percent to 0 percent on all inputs and outputs of the dairy sector. The fact that this decision was signed into law by the Head of State of Tanzania himself is seen as an indicator of how powerful concerted collective action across all stakeholders of a commodity industry can be in influencing policy making.

The Tanga Dairy Platform is also useful to the regional dairy industry in its promoting of equitable and competitive supply chains. One item that always seems to come up on the agenda of each quarterly platform meeting is milk price formation because producers always find the farm-gate price they get compares unfavourably with consumer retail prices. As the dominant dairy processor in the region and an active participant in the platform, Tanga Fresh Limited sees its participation in the platform meetings as crucial in order to develop a common understanding of how milk prices are formed across the value chain and how they compare with milk prices across the border in Kenya. The Tanga Dairy Platform has allowed all dairy stakeholders to reach a common understanding of how milk prices are formed and value added along the chain. Awareness was raised among participants of the important collection and processing costs that contribute to big price differences across the chain. Nevertheless, thanks to the discussions within the platform, TFL agreed to increase its farm-gate milk prices by TZS100/litre in October 2012 when

past price adjustments had only been of TZS20–50 per litre. (At the time of research TZS100 \approx US\$0.06.) The Tanga Dairy Platform has also helped the region's dairy industry become more competitive by promoting its dairy sector. For example, it has allowed farmers from the region to attend the annual National Milk Week, an event held every year on the last week end of May and where business and collaboration opportunities are investigated: in Songea, Ruvuma region, in 2013, in Musoma, Mara region, in 2014 and in Babati, Manyara region, in 2015.

The final achievement mentioned by platform members interviewed is the magnet effect created by the platform in attracting new individual and institutional members. The number of participants in the platform meetings is growing. Depending on the agenda for discussions, attendance is usually around 80 people and can go up to above 100. Individual members and representatives from small dairy cooperatives come from far away in the region's hinterland at their own, or at their organization's cost, to be part of the platform meetings. The Regional Administration Secretary has attended all the meetings of the platform in person from 2011 until his transfer to another position in early 2014, thus highlighting the importance the local government administration held in gathering and understanding the various viewpoints of the region's dairy industry stakeholders. Finally, the platform has now become a crucial partner institution for any project wishing to get involved in dairy development. Most new dairy development projects setting up activities in Tanga have made a formal request to join the platform as an institutional member. There are already too many dairy research and development projects in the Northeastern region, which is leading to fatigue by dairy farmers and other stakeholders (Amos Omore, personal communication). The screening process described above, which each new institutional member has to undertake to become part of the platform is, therefore, meant to filter in projects that are deemed to be really beneficial to the industry.

5 Strategic issues for the Tanga Dairy Platform

When asked about the strategic issues that the Tanga Dairy Platform is likely to face, the various responses from the stakeholders interviewed can be categorized into two major challenges.

5.1 How to keep facilitating platform activities with evermore varied members?

The platform membership keeps growing. From a facilitation viewpoint (Ewen Le Borgne, personal communication), the number of members can keep growing up to 250, a skilled facilitator can still moderate a discussion as long as the objective of the meeting is to share information. However, in order to take decisions in a meaningful way, large assemblies are not ideal. Some delegation of tasks will be needed and the burden of work on the 'executive committee' will grow in terms of preparation, communication and gathering of viewpoints in between meetings, so that the general assembly only validate what has already been discussed and agreed in smaller but still representative working groups. The latest members to join are representatives of informal city milk vendors, who have a different viewpoint from producers and the larger dairies who were the traditional members of the platform. Platform meetings are becoming difficult to facilitate because of the large number of participants. The issues raised are becoming ever more complex and varied due to the diverse composition of the platform's membership. This raises problems on how to implement activities to address these issues in an efficient manner given the small financial resources available. Indeed, there are no operational funds for the functioning of the platform. Key organizational members like Tanga Fresh Limited, the Tanga Regional Secretariat and committed individuals who are passionate about dairy development all contribute their time and resources to sustaining the platform activities. How could the Tanga Dairy Platform reorganize itself to deal in a sustainable way with this growing complexity of the multi-stakeholder dairy system?

5.2 How to institutionalize further the platform so that it is not dependent on the enthusiasm and goodwill of a few key stakeholders?

Although the Tanga Dairy Platform is no longer dependent on core funding from an outside organization thanks to the commitment of its members to participate in meetings they organize themselves, the current activities are largely sustained by the enthusiastic and passionate commitment of some key individuals who are part of the platform 'board' and 'executive committee'. There is a risk of becoming over-dependent on these key stakeholders who might not stay within the platform permanently. For example, the Regional Administration Secretary who had attended all platform meetings from 2011 to 2014 has just been transferred to another position. Will the new RAS be as committed as his predecessor in monitoring the progress of the region's dairy industry? The platform has already seen the withdrawal of its first key financial partner (RIU). Could this happen again with today's small contributions from SNV or Land O'Lakes? What other organizational and funding models could be tried out by the Tanga Dairy Platform?

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Note

This case is based on a true business situation, and was prepared to provide material for class discussion; it is not intended to illustrate effective or ineffective handling of a managerial situation. The author may have disguised certain data to protect trade secrets and preserve confidentiality. Interested instructors at educational institutions could access a teaching note and additional teaching material through <https://cgspace.cgiar.org/handle/10568/73664> or by contacting the editor of the IJFSD.

References

- AECF (2011). Tanga Fresh. Nairobi, AECF (Africa Enterprise Challenge Fund), available at: <http://www.aecfafrica.org/sites/default/files/downloads/Tanga%20fresh%20-%20case%20study.pdf>
- Beal, T., Braga, F., Thiam, B. (2014). Building professional capacity in the livestock industry through ITC in East Africa. *International Food and Agribusiness Management Review*, **17**(B): 117–123.
- Cadilhon, J.-J. (2014). The Tanga Dairy Platform. A prezi presented at the International Food and Agribusiness Management Association Forum, Cape Town, South Africa, 18 June 2014. Nairobi, Kenya, International Livestock Research Institute (ILRI), available at: <https://prezi.com/qk0ys723n83y/the-tanga-dairy-platform/>
- Daffa, J., Byamungu, M., Nsengwa, G., Mwambembe, E., and Mleche, W. (2013). Tsetse distribution in Tanzania: 2012 status. *Tanzania Veterinary Journal*, **28**: 1–11.
- Gellynck, X., Kühne, B. (2010). Horizontal and vertical networks for innovation in the traditional food sector. *International Journal on Food System Dynamics*, **1**(2): 123–132.
- ILRI (2015). ILRI review assesses dairy development successes and failures in Tanzania. *Livestock and Fish blog*, available at: <http://livestockfish.cgiar.org/2015/06/26/tanzania-dairy-review/>
- Kurwijila, L.R. (2002). An overview of dairy development in Tanzania. In Rangnekar, D., Thorpe, W. (Eds). *Smallholder dairy production and marketing. Opportunities and constraints. Proceedings of a South–South workshop held at NDDB, Anand, India, 13–16 March 2001*. Anand, India, National Dairy Development Board (NDDB) and Nairobi, Kenya, International Livestock Research Institute (ILRI), available at: http://www.ilri.cgiar.org/InfoServ/Webpub/fulldocs/South_South/ch17.htm
- Kurwijila, L.R., Omore, A., and Grace, D. (2012). *Tanzania dairy industry overview 2012*. Morogoro, Tanzania, Sokoine University of Agriculture, available at: <https://cgspace.cgiar.org/handle/10568/33865>
- Lamprinakos, L. (2012). Organizational innovation and institutional change: the case of Valio in Finland. *International Journal on Food System Dynamics*, **3**(2): 95–105.
- Land O'Lakes (2011). Land O'Lakes Launches USDA-Funded Tanzania Dairy Development Program. Land O'Lakes Inc. website, available at: <https://www.landolakesinc.com/utility/news/business/ECMP2-0139381>
- Mangesho, W.E., Loina, R., Bwire, J. in collaboration with Maass, B.L., Lukuyu, B., Wassena, F.J. (2013a). *Report of a Feed Assessment 3 – Lushoto District, Tanga Region, the United Republic of Tanzania*. Nairobi, Kenya, International Center for Tropical Agriculture (CIAT); Tanga, Tanzania, Tanzania Livestock Research Institute

- (TALIRI) and Nairobi, Kenya, International Livestock Research Institute (ILRI), available at: <https://cgspace.cgiar.org/handle/10568/51747>
- Mangesho, W.E., Loina, R., Bwire, J.M.N. in collaboration with Maass, B.L., Lukuyu, B. (2013b). *Report of a Feed Assessment 4 – Handeni District, Tanga Region, the United Republic of Tanzania*. Nairobi, Kenya, International Center for Tropical Agriculture (CIAT); Tanga, Tanzania, Tanzania Livestock Research Institute (TALIRI) and Nairobi, Kenya, International Livestock Research Institute (ILRI), available at: <http://milkit.wikispaces.com/Outputs+and+reports>
- NIRAS (2010). *Survey on dairy products market in Tanzania. Final Report 12 May 2010*. Dar es Salaam, Tanzania, NIRAS Finland Oy, available at: http://www.tzdpd.or.tz/fileadmin/migrated/content_uploads/Final_Dairy_Market_Report_12_1_5.2010.pdf
- Njehu, A., Omere, A.O. (2014). Milk production, utilisation and marketing channels in Tanga and Morogoro regions of Tanzania. *Livestock and Fish Brief* 8. Nairobi, Kenya, International Livestock Research Institute (ILRI), available at: <https://cgspace.cgiar.org/handle/10568/64462>
- Nkya, R., Kessy, B.M., Lyimo, Z.C., Msangi, B.S.J., Turuka, F., Mtenga, K. (2007). Constraints on smallholder market oriented dairy systems in the north eastern coastal region of Tanzania. *Tropical Animal Health and Production*, **39**(8): 627–636.
- Pham Ngoc Diep, Maass, B., Cadilhon, J. (2014). Enhancing dairy based livelihoods in Tanzania: Mid-term progress report of the MilkIT project. *Livestock and Fish Brief* 6. Nairobi, Kenya, International Livestock Research Institute (ILRI), available at: <https://cgspace.cgiar.org/handle/10568/35029>
- RIU (2008). *First platform workshop on dairy. Workshop report. Panori Hotel, Tanga, 12–13 December 2008*. Tanga, Tanzania, Research Into Use (RIU), available at: <http://r4d.dfid.gov.uk/Output/183347/>
- RIU (2009). *Second Platform Meeting for Dairy Platform. Workshop report. Nyinda Hotel, Tanga, 25–26 May 2009*. Tanga, Tanzania, Research Into Use (RIU) and Tanga Dairy Platform.
- SNV (2014). Farmers gain skills, inputs and connections at Tanga Dairy Business Fair. SNV website, available at: <http://www.snvworld.org/en/countries/tanzania/news/farmers-gain-skills-inputs-and-connections-at-tanga-dairy-business-fair-0>
- Swai, E.S., Minja, E.N., and Zylstra, L. (1993). Dairy development programme in Tanga, Tanzania. In Kategile, J.A., Mubi, S. (Eds). *Future of Livestock Industries in East and Southern Africa: Proceedings of the Workshop Held at Kadoma Ranch Hotel, Zimbabwe, 20–23 July 1992*. Nairobi, Kenya, ILRI (International Livestock Research Institute): 157–164.
- Swai, E.S., Karimuribo, E.D., Schoonman, L., French, N.P., Fitzpatrick, J., Kambarage, D., Bryant, M.J. (2005). Description, socio-economic characteristics, disease managements and mortality dynamics in smallholder's dairy production system in coastal humid region of Tanga, Tanzania. *Livestock Research for Rural Development* 17, Article #41, available at: <http://www.lrrd.org/lrrd17/4/swa17041.htm>
- Wassena, F.J., Mangesho, W.E., Chawala, A., Laswai, G.H., Bwire, J.M.N., Kimambo, A.E., Lukuyu, B., Sikumba, G., and Maass, B.L. (2015). Effects of season and location on cattle milk produced and producer milk prices in selected villages of Tanga and Morogoro Regions, Tanzania. *Livestock Research for Rural Development*, **27** (10), Article #191, available at: <http://www.lrrd.org/lrrd27/10/wass27191.html>
- Zylstra, L., Lyimo, C., and Rutamu, I. (1995). Milk production and marketing in Tanga Region: farmer co-operatives versus private sector. In Kurwijila, L.R., Henriksen, J., Aboud, A.O.O., and Kifaro, G.C. (Eds) *Strategies for market orientation of small scale milk producers and their organisations. Proceedings of a Workshop held at Morogoro Hotel, Morogoro, Tanzania, 20–24 March, 1995*. Rome, Food and Agriculture Organization of the United Nations (FAO) and Morogoro, Tanzania, Sokoine University of Agriculture (SUA), available at: <http://www.fao.org/docrep/X5661E/x5661e0f.htm>