



## Summary

### Authors:

Marie Lefèvre  
Ganda Ousseini  
Gilles Vias  
Eddy Timmermans  
Koen Van Troos  
Aude Delcoigne

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Vétérinaires Sans Frontières  
Belgium  
Avenue des Arts 7 - 8  
1210 Brussels  
T + 32 (0)2 539 09 89  
info@vsf-belgium.org

[www.vsf-belgium.org](http://www.vsf-belgium.org)

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# Local milk, an emerging value chain in West Africa.

A look back at Vétérinaires Sans Frontières Belgium's experiences in Burkina Faso, Niger and Mali.



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In West Africa, **livestock keeping has been developed essentially in the Sudano-Sahelian area, where it is at the heart of the economy.** In Mali, Niger and Burkina Faso, livestock keeping is responsible for 11 to 18% of the GDP and cow's milk production represents 20 to 40% of the livestock keepers' revenue. Mali and Niger are the largest milk producers in the region, with herds numbering close to 10 million animals and cow's milk production standing at 309 and 486 million litres per year respectively. Between 2000 and 2016, cow's milk production in West Africa is reputed to have increased by more than 50%, rising to 2.5 billion tons.

The same tendencies can be observed in terms of consumption: **the West African Economic and Monetary Union (WAEMU) countries are major milk consumers.** In Niger, Mali and even in Senegal, the average annual milk consumption is between 40 and 70 litres per inhabitant. These figures demonstrate the socio-economic importance of the local milk sector. In fact, the production and sale of milk are important sources of revenue. Milk is also a major asset in the fight against food security.

However, **the population's access to locally produced milk is very limited.** The local milk sector experiences difficulties responding to the demand of nations that import powdered milk and vegetable fat mixtures to deal with the structural deficit. On top of that, there are difficulties with the seasonal and fragmented nature of production, animal health and public health, and socio-economic challenges in general. In spite of everything, the local milk sector has strong development potential and thus deserves to be stimulated. The development of this sector is essential to reduce West Africa's expensive dependence on imports and to fight poverty and food insecurity among the families of producers.



Note: In this document, use of the masculine is generic and applies to both women and men.





**Supporting the local milk sector makes it possible to increase food sovereignty, develop the local economy, create jobs in rural areas and reduce the commercial deficit all at the same time.** This is why Vétérinaires Sans Frontières Belgium and its partners have been involved in supporting the development of the local milk sector in West Africa for more than 20 years. We use cooperative programmes to provide support, with the aim of strengthening the capacity of stakeholders in the sector. Our goal is to upgrade every link in the value chain – from milking to marketing – and to improve the quality and quantity of local milk. We do this work respecting the **One Health** approach, which takes into account the livestock, the livestock keepers and the environment in which they are developing.

# 1.

## Organisation of the local milk sector in West Africa

- **Pastoralism and agropastoralism are the dominant production systems in West Africa.** Approximately 70% of local milk in the WAEMU zone comes from pastoral and agropastoral systems. These systems are based on the mobility of herds and livestock keeper communities, motivated by the search for water and quality pastures and based on an excellent knowledge of the environment.
- **Milk collection and processing** are mainly the task of mini-dairies, generally located in peri-urban areas, which produce and sell various dairy products locally and on a small scale. These mini-dairies have a collection and distribution network and can generally collect and process between 50 and 300 litres of milk per day. In parallel, there are **multi-service farmers' collection centres**, which form the link between producers and industry. The latter collect between 1000 and 2000 litres of raw milk per day.
- The mini-dairies also have an important role in **marketing** local milk. Specifically, they buy the milk from the producers, process it and sell it to retailers or directly to customers at local markets. The milk can also be sold by the collection and processing units through distributors (supermarkets and local stores).
- Milk consumption in West Africa is very high. In fact, a **growing demand** for dairy products can be observed, linked to strong demographic growth, rapid urbanisation and the emergence of a middle class. This increase bears witness to the enormous opportunity that local milk represents for development in the region.

# 2.

## Challenges for the local milk sector and solutions proposed by Vétérinaires Sans Frontières Belgium

The local milk sector is unable to organise itself to respond to growing demand. The main challenges are in the areas of production, animal health and public health and economic viability. Vétérinaires Sans Frontières Belgium and its local partners are making efforts to change this, according to the One Health approach: *healthy animals and healthy people in a healthy environment*.

### Fragmented, seasonal production

- Local milk production in West Africa is mainly provided by **pastoral and agropastoral production systems that are based on the mobility of livestock keepers and their herds**. This mobility is crucial to ensure sustainable milk production, both at socio-economic and environmental level. However, the distance between the livestock and the urban centres where milk is consumed, and the dispersion of herds over great distances, are undermining the value of local milk. In Niger and Mali, for example, businesses and small producers are spread out over areas approximately 40 times the size of Belgium. Furthermore, pastoral and agropastoral livestock-keeping systems are characterised by local breeds which, although they are adapted to the local environment, produce little milk, depending on seasonal variations. The impact of this seasonality on the local milk sector is all the greater because when production decreases in the dry season, local demand for cold milk increases because of the great heat, and vice versa. **The fragmentation and seasonal nature of West African milk production complicate the collection and processing of milk.**
- Vétérinaires Sans Frontières Belgium and its partners support the **organisation of traditional local production in milk pools** and facilitate the **collection and marketing** of milk through processing units. This gives the local population access to milk in regular quantities, at a constant quality level and for a satisfactory price.



- The **organisation of milk pools** aims to bring producers closer to consumers, who are more numerous in urban centres. The goal is to turn milk production into a structuring activity for households, who will agree to transition from individual to collective management of production. The operational process of this strategy is built around four major key steps:

- identifying dairy sites and understanding how they work,
- organising milk collections and facilitating the transformation of traditional organisations into livestock keepers' organisations,
- reinforcing the leadership of these livestock keepers' organisations within the milk value chain by creating a federation,
- promoting this model for organising the milk pool.

### Vétérinaires Sans Frontières Belgium and the organisation of the milk pool in Niamey (Niger)

When we started organising the milk pool around the city of Niamey in 2001, we identified 1,562 production units, consisting of an average of 4 people and 6 cattle (or just over a third of the herd), of which 2 were lactating cows. We already worked with 11 livestock keepers' organisations in 2003, with a total of 578 members, 195 of whom were women, spread out along 6 main roads. In 2013, our network had grown to 30 livestock keepers' organisations, 23 of which were officially recognised.

Today in Niamey we have 5 milk collection centres, including the Kollo, Hamdallaye and Say centres that supply the SOLANI dairy industry. The milk collection by the Kollo centre is a good example of how the milk pool has been successfully organised: between 2015 and 2019, the centre's production rose from 85,327 to 101,814 litres of milk.

Once the milk pools and producers' organisations have been set up, the **organisation of collection** follows. For this, it is necessary to:

- structure the milk collectors and link them to the collection centres or mini-dairies,
- promote the multi-service collection centres to organise collections.

This sets up the upstream facilities for the sector, with production pools, collectors and multi-service collection centres.

Vétérinaires Sans Frontières Belgium also facilitates the cementing of contractual relationships between livestock keepers' organisations and collectors and with the multi-service collection centres that supply the dairy industry.

- To respond to the seasonality challenge, we teach the livestock keepers **innovative techniques** for strategically supplementing the diet of dairy cows. To balance the cows' feed rations, we highlight the value of local resources and the use of Reinforced Multi-Nutritional Blocks. We also subsidise the creation of "Cattle Feed Banks" managed by the livestock keepers' organisations themselves. Furthermore, to support the milk collection centres, we set up refrigeration equipment to ensure better preservation (in volume and duration) of the high levels of milk collected when the cattle are overwintered.

### The double challenge of animal health and public health

- In West Africa, **animal health problems are a major constraint** on milk production. They have a direct impact on the quality of the milk. These health problems are due to poor application of health measures and poor institutional support for livestock keepers. Parasitic and infectious diseases are rife, particularly those affecting the udders of dairy cows. **Public health is another obstacle** to the local milk sector. Although milk occupies a prime place in the diet of populations in West Africa, it is also the vector of foodborne diseases. It is not unusual for some of the milk produced to be contaminated and therefore not valued or undervalued, as is the case for example in the Niamey pool in Niger.
- To deal with this, Vétérinaires Sans Frontières Belgium supports the creation of **basic health care** conditions. In pastoral or agropastoral livestock keeping systems, this care is provided by setting up a network of community animal health workers trained and supervised by a private vet.
- To improve public health, it is important to understand how the milk becomes contaminated. This is why we identify the **critical contamination points** of the milk throughout the chain and encourage **coordinated quality management**. In particular, we organise debates on this subject with all the stakeholders involved (producers, collectors and collection centre managers).

### Economic viability

- It is crucial for the livestock keepers to get a **decent and fair price** for their production. In fact, the price of milk fluctuates seasonally and is subject to competition from powdered milk imported at a low price.
- To tackle this challenge, we support **governance of the sector** by the stakeholders themselves. To structure the milk value chain, we essentially work with two economic models: the multi-service collection centres and the mini-dairies. We intervene to organise and structure each link in the chain and the relationships between them, with the aim of setting up consultation frameworks.
- Vétérinaires Sans Frontières Belgium is also committed to **advocacy** activities, in order to make the institutional context more favourable to local milk than to imported milk powder. Our goal is to support the livestock keepers' organisations and communities and help them to obtain a decent price for their produce. In West Africa, we actively support the "Mon lait est local" (My Milk is Local) campaign by Oxfam and APSS. We also support the implementation of a milk offensive within the Economic Community of West African States (ECOWAS). To these ends, we have contributed to the production of monographs intended for the development of a detailed support programme for local milk sectors. In Europe, we are participating in the "N'exportons pas nos problèmes!" (Don't Export our Problems!) campaign, which defends the interests of West African dairy farmers in agricultural and commercial policies and policies for cooperation with the European Union.



# 3. Conclusion

The local milk sector has enormous potential for development in West Africa. This is particularly the case for landlocked countries in the Sahel region, such as Niger, Mali and Burkina Faso, in terms of both supply and demand. However, this potential is limited by a lack of investments and technical support and by policies that favour the importation of powdered milk. The low productivity of local breeds, the seasonal nature of milk production, scattered herds and livestock diseases only exacerbate these problems.

From our point of view, therefore, these difficulties are the main challenges to be tackled in order to fully develop the potential of milk in these countries. This is what we are trying to do with our local partners, by suggesting technical improvements. The latter are aimed at organising milk pools, supporting collection and processing, setting up basic health care, improving the quality of local milk and generally supporting governance of the sector. If accompanied by effective advocacy, these interventions will make it possible to significantly improve the quality and quantity of the milk produced locally in West Africa, ensuring it finds its way from the producer to the consumer.

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**The local milk sector  
has enormous potential  
for development  
in West Africa.**

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