

Evolving Opportunities for the Tanzanian Dairy Industry: An Analysis of Potential Impacts

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Abstract

The dairy industry is an important component of the livestock sector in Tanzania, accounting for over 30 percent of the livestock sector's output value. The sector has been identified by the Tanzanian government as having significant scope to improve smallholder farmers' livelihoods from the demand and consumption, as well as from the production side.

The Ministry of Livestock and Fisheries in Tanzania has recognized milk as a nutritionally dense food product that is high in protein and able to deliver many important nutrients in one product, especially to undernourished people in the country. Therefore, the government is aiming to increase the consumption of milk in Tanzania, which is currently 41 litres of milk per capita per year, most of which is consumed unprocessed and in rural areas. Over the past decade, a steady increase in demand for livestock products, including milk, has been observed in Tanzania. Rising incomes have contributed to this development and are likely to continue doing so.

These demand-side developments provide opportunities for the supply side and therefore for smallholder livestock farmers in Tanzania. Currently, a large share of the milk that is consumed in urban areas is imported, as are the inputs for processed dairy products. Additionally, about one third of processed milk is imported, with imports largely coming from outside the East African Community. This remains the case, despite import tariffs for Kenya and Uganda having been reduced. At present, Tanzania is a net importer of milk and milk products, but it has potential to increase production and possibly even exports if efficiency can be improved and tariff and non-tariff barriers that the sector is currently facing internationally are reduced. Such developments could reduce the high share of milk imports for formal markets and for use in the processing industry, make the Tanzanian dairy products more competitive on a global scale and increase exports of dairy products within the region and internationally.

At this stage, many production and distribution inefficiencies are evident, including insufficient transportation systems, hygiene and food safety issues, quality problems, inadequate information flows, lack of coordination, short shelf life of the dairy products and insufficient reliability of supply. These represent the main hurdles facing the dairy industry in Tanzania. However, the government is making an effort to support the dairy industry and help farmers to overcome some of the structural barriers. For this purpose, it introduced VAT exemptions on equipment used for collection, transportation and processing of milk products, as well as on heat-insulated milk cooling tanks and aluminium jerry cans for milk storage and collection, with the aim of achieving quality improvements.

These demand and supply-side developments in the Tanzanian dairy sector lift its potential in domestic and international markets. To analyse the impact of potential policy changes on the dairy industry, we use the Global Trade Analysis Project (GTAP) model which is able to capture international and intersectoral linkages. We explore a range of scenarios that represent potential opportunities for Tanzanian farmers due to developments in the dairy industry. Using updated estimates of income elasticities for the dairy sector, we first project forward to consider how a decade of rising demand is likely to impact the industry, before turning to examine the impacts of several alternative policy scenarios. The first set of policy simulations analyses the impact of productivity improvements in the raw milk and processed dairy sectors, due to improved factors such as animal health support systems, improved product quality, better transportation systems and access to processing plants, improved breeds and feeding systems. The second set of simulations considers the impact of tariff liberalization, starting with tariff reduction within the East African Community and then extending it to multilateral liberalization.

Given the highly vulnerable nature of many households in Tanzania, we are particularly interested in impacts of these types of policy changes on different household types. Therefore we undertake modelling using MyGTAP, modifying the standard GTAP model to include household data on

income sources and consumption patterns for Tanzania. This allows us to undertake rich and detailed analysis of the impacts of the policy changes under consideration, with a particular focus on impacts for vulnerable households in Tanzania.

Our preliminary findings indicate that the support strategy of the Tanzanian government to the dairy industry is likely to lead to an increase in the productivity of the sector and improve the situation for milk producers in the country. Improved export opportunities, and the increased demand for livestock products that comes with economic development are also likely to have positive overall effects. However, the impacts will differ in magnitude and even direction for different sectors and also households, depending on their income and consumption patterns. Our analysis considers the impact on the overall Tanzanian economy and the dairy sector, in addition to exploring the impact on different household types within Tanzania.