as they are often poorly designed, not made of food grade material and difficult to clean.

Most processors use lactometers to exclude heavily adulterated milk with a common lactometer reading cut-off point of 26. Seasonal fluctuations in quantity, quality and prices of raw milk is yet another area of concern for processors.

The value chain actors should
Demand unadulterated milk from suppliers to minimize adulteration.

Use approved milk containers
Large hotels and supermarkets often demand quality and safety for value added products that are properly and attractively packaged and are endorsed by quality control bodies such as Bureaus of Standards. Some high-end supermarkets demand packaged products to have bar codes for ease of sales and stock control.

Very few small and medium enterprises meet these demands for quality and safety. Some SMEs were found to have poorly designed or inappropriately, inadequately, or erroneously labeled containers and wrappings in the case of butter and cheese. These shortcomings have tended to degrade the quality and safety perception of such products by potential buyers, or more importantly, acted as barriers to accessing high end supermarket shelves in some of the major cities of the six countries.

Regulatory and policy perspectives
All countries have standards bodies and regulations that prescribe hygienic and food safety standards for milk and dairy products. Nevertheless, informal trade in raw milk is

Attractive value added milk products

predominant in all countries and compliance by SME is still low.

High fees for quality testing and certification, lack of quality control facilities, the high cost of packaging materials; high cost of appropriate milk handling equipment such as milk cans and milk coolers; and lack of appropriate knowledge and skills were cited as major barriers.

Actions to address some of these constraints could include training and offering group concessions in quality certification schemes.

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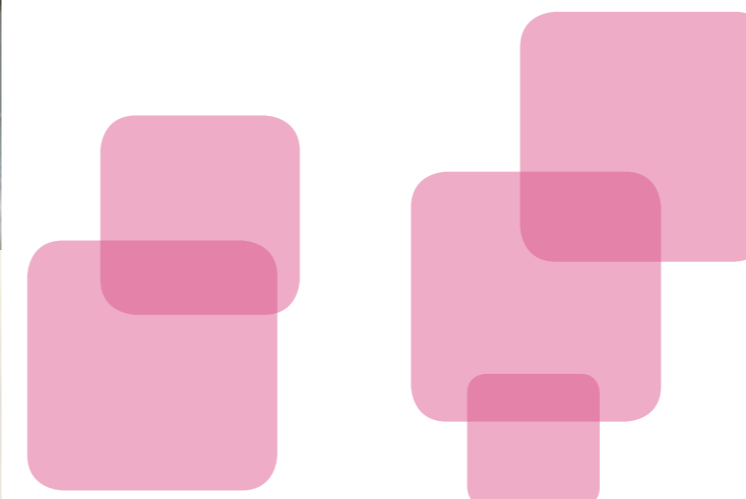*For more information Contact*
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Quality and safety of value added milk and dairy products

A farmer transports milk to a cooling plant

Background

Most Sub-Saharan countries including those in the ASARECA region are net importers of dairy products. Most products are imported from Europe and South Africa.

In Southern Sudan, nearly all value added products are imported. At the same time, there is a growing demand for quality dairy products by the growing population and the tourist market.

The unmet demand is providing opportunities for value addition. However, significant technical and institutional barriers continue to limit the exploitation of these benefits by small scale producers and small and medium scale enterprises (SMEs) engaged in value addition activities.

A study characterizing value chains for both conventional and niche markets for dairy and meat products was carried out in Ethiopia, Kenya and Tanzania in 2006 and in Rwanda, Uganda

Milk at a local cooling plant due to be transported for value addition

and Southern Sudan in 2010. The main objective of the project is to enhance the capacity of small and medium scale enterprises to meet demand for quality and safety of the various value chain actors and regulatory requirements.

Major concerns and opportunities for value addition are presented here to stimulate action by producers, processors and traders on key pertinent issues regarding the quality and safety of milk and dairy products produced and marketed by small and medium enterprises.

Consumer perceptions

The issue of quality milk evokes different perceptions and reactions by different categories of consumers in the six countries covered in the study.

More than 80% of the milk is traded as raw milk. Colour, smell, viscosity, perceived fat content and cleanliness of the milk handlers, milk vessels and premises from where milk is sold are some of the most important criteria used by those purchasing raw milk.

Adulteration of milk, often judged by observations on viscosity and physical appearance is a major food safety concern to individual consumers counter-balanced only by personal judgment and mutual trust between the buyer and seller. Most adults consume fresh milk in the form of tea or makyato (Ethiopia) while children drink fresh milk directly after boiling.

The quality of packaging, presence of quality certification mark, expiry date and reliability

Milk products in a supermarket

of supplier are very important considerations to consumers buying value added dairy products such as pasteurized milk, yoghurt, fermented (sour) milk, cheese and butter.

More than 50% of consumers interviewed, saw quality of packaging to be an important measure of both the quality and safety of products they purchased and would be willing to pay more for better quality (packaged) milk.

This is not surprising as most of them were already purchasing considerably more expensive but better packaged imported dairy products.

The actors should

Supply products with required quality and safety standards and package products to acceptable standards

Perspectives of value chain actors

Between the milk producers and consumers, various market intermediaries including informal milk traders, vendors, hawkers, and formal dairy chain actors such co-operative societies and processors play various roles in the transformation of milk into value added products.

All processors consider milk producers as their primary clients. The primary concern of the informal traders is the quantity of milk supplied to them which can vary alot by season, especially where traditional pastoralists are the major suppliers. Adulteration with water is a common problem especially in the dry season.

The main concern of the organised sector in all the six countries is the quality and hygienic level of milk handling. Use of plastic vessels for carrying milk is a major source of contamination