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## Widening Opportunities for Increased Marketing of Processed Milk in Uganda

Swaibu Mbowa, Isaac Shinyekwa and Musa Mayanja Lwanga

### Executive Statement

The analysis of the 2009 Uganda National panel Survey (UNPS) collected by the UBoS shows that milk production from small-holder farm units was 1 billion litres, and about 52 percent (524 million litres) joined the second level of the milk value chain – and of which 72 percent was marketed in unprocessed form to consumers. High informality in milk marketing can be reduced by supporting strong primary dairy farmers' cooperative societies with capacity to invest in processing of scale neutral dairy products (yoghurts, ghee and cheese), at the same time hold strong bargaining power with large milk processing companies. This would allow the deeper participation of farmers (as groups) in the down-stream milk value chain, and enable having the right price incentives to draw more raw milk into the formal stream of the milk value chain. This would foster equitable spread of benefits and opportunities from the growing domestic demand for milk and other dairy products at all levels of the milk value chain.



Picture No1: Increasing Marketable milk surpluses from Dairying Households in Uganda

### Introduction

The dairy sub sector in particular is a promising key strategic sub sector of the livestock sector to transform the agricultural economy in Uganda<sup>1</sup>. This is not unique to Uganda- the FAO (2009)<sup>2</sup> observed that "livestock sector is one of the fastest-growing segments of the agricultural economy, particularly in the developing world, and expanding markets for livestock products would appear to offer opportunities for

improving the incomes of many rural poor who depend on livestock for their livelihoods". The brief is an excerpt from the main report by Mbowa *at al.* (2012)<sup>3</sup>The brief highlights how untapped opportunities in the promising milk value chain can be expedited to generate development impacts, and indirectly reduce poverty impacts via rural employment in Uganda, by addressing how to have more milk marketed in processed form with minimum interference in the dairy sector.

### The Status of Milk Production and Marketable Surpluses in Uganda

The 2009/10 UNPS data (Table 1) shows that milk output from dairying households was 1 billion litres<sup>1</sup>- and 524 million litres (about 52 percent) of the raw milk produced joined the second level of the value chain, and marketed to off-farm consumers. The bulk (56 percent) of traded surplus milk comes from the Western region, followed by Central (27 percent), Eastern (12 percent), and Northern (6 percent). The Central region provides the biggest (over 60 percent) of the milk market (Table 1).

<sup>1</sup> But administrative sources set milk production figures at 1.5 billion liters in the respective period.

**Table 1: Regional Distribution of Milk Output, Surpluses, and Consumption (Million litres)**

Regions	Production		Surplus Marketed		Consumption	
	(Million litres)	(%)	(Million litres)	(%)	(Million litres)	(%)
Central	302	29.9	139	26.5	430	63.9
Eastern	159	15.8	62	11.8	82	12.2
Northern	69	6.8	32	6.1	34	5.1
Western	480	47.6	292	55.7	128	19.0
Uganda	1,009	100.0	524	100.0	673	100.0

Source: Authors' calculations based on UNPS 2009/10.

A recap of the 2009 statistics on milk processing plants (Table 2) in Uganda shows that 313,100 litres of milk are processed per day – and this amounts to about 113 million litres (**22 percent**) per annum that entered the formal (processed) milk marketing channel. And 411 million litres (**78 percent**) out of the 524 million litres known marketable surplus (Table 1) were marketed through the informal channels. World Bank (2009)<sup>4</sup> reveals that 80 percent of raw milk is still traded informally outside the purview of the Dairy Development Authority (DDA), and the remaining 20 percent enters the formal market. However, with the 686,200 litres of milk per day installed capacity of processing plants (Table 2), there is latent potential to process 247 million (47 percent).

## Conditions Favouring the Formal and Informal Raw Milk markets in Uganda

Formality in the milk value chain refers to milk that goes through processing (pasteurized) before consumption. The formal milk marketing channel<sup>2</sup> is operational largely in the milk surplus south-Western region. Raw milk is collected at bulking (collecting) centres operated by primary co-operatives, and transported to larger bulking centres at the district level (operated by district co-operative unions) – where it is chilled and transported to the processing plants. **The formalized selling of raw milk via the primary dairy farmers' cooperative society is dictated by distance from markets and the need to have a guaranteed stable market throughout the year (especially in the peak seasons).** This plays out in reducing some of the market risk and stabilizes farmer income.

Informal milk markets refer to raw (unprocessed) milk sold to consumers in loose form mainly by traders or vendors. Because of lack of surplus milk in the Eastern and Northern regions the primary co-operatives (like Gulu Women Dairy Co-operative Society in Northern region and Eastern Dairies) sell loose unprocessed milk directly to consumers.

**Table 2: Milk Processing Plants and Mini-Dairies in Uganda, June 2009**

	Company	location		2004		2009			Products	
				Capacity	Capacity utilized	Installed capacity	Capacity utilized			Market Share (%)
							Litres/day	(%)		
1.	Sameer Agriculture & Livestock Ltd	Central	Kampala	130,000	-----	500,000	250,000	50	79.8	Pastured milk, UHT, yogurt, ice cream, butter, ghee
2.	JESA Farm Dairy	"	Busunju	20,000	-----	30,000	24,000	80	7.7	Pastured milk, yogurt, ice cream, butter
3.	Gouda Gold	"	Kampala	5,000	-----	15,000	1,500	10	0.5	Cheese
4.	MADDO Dairies Ltd	"	Masaka	2,000	-----	2,000	800	40	0.3	Pastured milk, yogurt
5.	NIRIMA Dairy & Foods Ltd	"	Entebbe	-----	-----	8,000	2,000	25	0.6	Pastured milk, yogurt, ice cream
6.	Napier Dairy	"	Ntinda	-----	-----	10,000	2,000	20	0.6	Yogurt, ice cream
7.	White Nile Dairy	Eastern	Jinja	10,000	-----	6,000	3,000	50	1.0	Pastured milk, yogurt, ghee, cream
8.	Kaisa Fresh Milk	"	Kamuli	10,000	-----	-----	-----			
9.	Teso Fresh Dairies	Northern	Soroti	3,000	-----	3,200	800	25	3.8	Pastured milk
10.	GBK Dairy Products (U) Ltd	Western	Mbarara	90,000	-----	54,000	15,000	28	4.8	Pastured milk, UHT milk, ghee, yogurt
11.	DairiBoard (U) Ltd	"	Mbarara	-----	-----	40,000		-	-	Plant yet to be operational
12.	Birunga Dairy	"	Kisoro	8,000	-----	15,000	12,000			UHT milk
13.	Paramount Dairies Ltd	"	Mbarara	3,000	-----	3,000	2,000	67	0.6	Cheese
14.	Alpha Dairies	"	Mbarara	50,000	-----	-----	-----			
	Total					686,200	313,100	46		

Source: DDA (2004) & BoU and PMA (2009) Agricultural Finance Yearbook

<sup>2</sup> The formal network is clustered around the raw milk collection networks of former government Dairy Corporation (DC) that was privatised to SAMEER Agricultural Livestock Limited (SALL) which remains the only large buyer of milk in Western Uganda. SALL currently controls about 78 percent of the formal milk marketing channel.



Picture No2: Well-equipped milk collection centre for Processing (formal) in South West-ern Uganda



Picture No3: Informal Raw Milk Outlets Delivering Relatively Cheaper Milk to Low income group Consumers

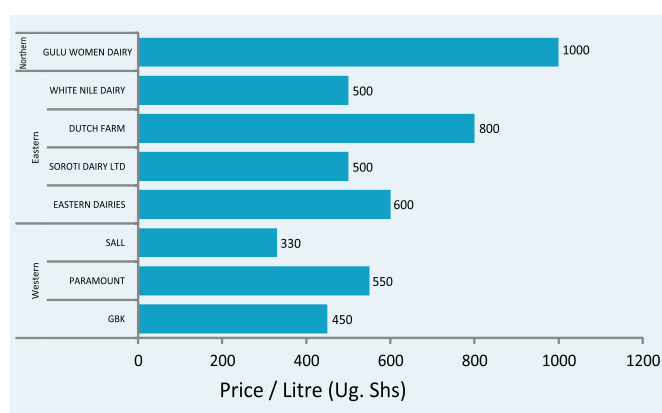


Even in the milk surplus south-Western milk shed, along the formal channel, some of the milk is drawn into the largely informal channels - some co-operatives have outlets that sell raw milk directly to individual consumers, and primary co-operatives often sell milk directly to traders and vendors when there is excess milk. Farmers closer to peri-urban centres (markets) are reluctant to join co-operatives and market a substantive volume of their milk through the informal market channel.

**Growth in informal milk trade has been facilitated by increasing preference for cheap raw milk over significantly**

**more expensive pasteurised milk.** The high informality in milk marketing is blamed for inability to have enough raw milk to be processed – amidst the growing number of private milk processing plants. But **the price mechanism in the raw milk market provides** limited incentives for supplying milk to the formal market as opposed to the informal market. The low prices offered by Sameer Agriculture and Livestock Ltd (SALL) the biggest (80 percent) player in the formal milk channel (Table 2), are working against the expansion of the necessary formal milk marketing network (Figure 1). The stiff competition for raw milk from the informal sector is well documented by the World Bank (2009).

Figure 1: Price offered by Different Processors

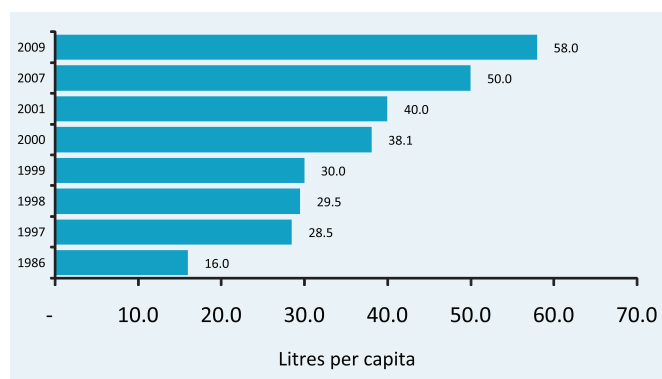


Source: EPRC (October, 2011) Field Work

## Opportunities from the Growing Consumption of Dairy Products

Growth in household incomes especially in central Uganda has created an expanding domestic market for dairy products – and the national per capita domestic consumption of milk has been growing with time (Figure 2), and through increasing demand – room for milk supply has grown.

Figure 2: Per capita annual consumption of fluid milk, 1997-2007 (litre/p.a)



Source: Wozemba and Nsanja (2008)&Authors' calculations based on UNPS 2009/10.

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The per capita milk consumption, on average, stood at 58 litres per annum well below that of neighbouring Kenya of 72 litres and the internationally (FAO/WHO) recommended 200 litres (cited in World Bank, 2009). While the World Bank (2009) indicates that Uganda has attained a level of near national self-sufficiency in the milk production, it is apparent that attaining the 200 litres per capita per person mark recommended by the World Health Organization (WHO) requires 6 billion litres per annum to be produced in the country (assuming a population of 30 million Ugandans). Currently administrative sources indicate that annual milk production in Uganda is estimated to be 1.6 billion litres, as opposed to the 1 billion litres based on the 2009/10 Uganda National Panel Survey (UNPS) data collected by the Uganda Bureau of Statistics (UBoS).

#### Implications and Recommendations

The informal milk trade provides the biggest milk outlet in Uganda; however the informal milk trade renders limited room for quality control, and puts the consumers at risk of infections from unprocessed milk. DDA needs to foster mechanisms to draw most milk traded informally back to the formal system

to regulate and enforce quality standards. The approach towards the informal milk sector have varied from country to country – in Kenya for example the Kenya Dairy Board has recognised the informal milk sector as a major entity and are helping to improve its functioning through gradual regulation, in contrast to India which ignores and neglects the informal sector (World Bank funded South-South Symposium, 2009). The way forward for Uganda lies in fostering the development of primary dairy farmers’ cooperatives. This is because when such groups become stronger; they can **foster the deeper participation of farmers in the milk value chain through establishment of mini-dairies producing scale neutral dairy products (yoghurts, ghee and cheese)**. This has resulted into building the capital base of the cooperatives and creation of employment opportunities for the communities. Stronger primary coops in Western Uganda have amalgamated into a union (Uganda Crane Creameries Cooperative Union-UCCCU) which is in the process of establishing milk processing plant. The unutilized processing capacity can be leveraged to expand the formal milk processing to 247 million litres – thereby growing the formal sector to 47 percent compared to 22 percent, with the right price incentives in place..

#### Endnotes

- 1 MoFPED (2008/9; 2011/12). Ministry of Finance, Planning and Economic Development, Background to the Budget Reports.
- 2 FAO (2009). The State of Food and Agriculture: Livestock in the Balance. Food and Agricultural Organization of the United Nations, Rome 2009. <http://www.fao.org/catalog/inter-e.htm>
- 3 Economic Policy Research Centre, Dairy Sector Reforms and Transformation Report (Kampala, 2012)
- 4 World Bank (2009). *South South Exchange – Sharing of Knowledge and Innovations, The case of the Dairy Sector in India, Uganda and Tanzania. The World Bank.*

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