

Maziwa Zaidi (More Milk) in Tanzania

Production and consumption responses to policy interventions in Tanzania's dairy industry

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Key messages

- Over the last 10 years, demand for milk in Tanzania has consistently outstripped domestic supply
- The Tanzania Livestock Modernization Initiative (TLMI) spells out priority actions and policy interventions to address the demand-supply mismatch
- Economic analysis of the likely impacts of the policy interventions indicate three highest priority interventions: 1) expand the national dairy herd, 2) improve and streamline industry regulations, and 3) improve farmer access to inputs and services

Objectives and approach

The TLMI outlines policy actions that the Tanzanian government intends to implement to modernize the livestock sector including the dairy subsector. But the likely impacts of the policies were not quantified at the time of policy formulation. The study quantifies the likely impacts.

A synthetic partial equilibrium model was calibrated to a historical baseline of annual data for the period 2000 – 2014. Simulations were undertaken for increase in herd size, reduction in cow prices, and improvement in regulations.

Key results

- Increasing the national dairy herd would produce the largest benefits for both milk producers and consumers.
- The increase in milk supply due to simultaneous implementation of the three policy interventions would offset at least a half of the annual milk deficit.
- Implementation of TLMI policy proposals would increase milk producer and consumer welfare by USD 3 million/year.
- The resulting increase in milk demand implies it would take about two decades for per capita consumption to reach the recommended level of 200 litres/year.

Opportunities to invest and scale

- Public investment in artificial insemination services to increase the national dairy herd
- Public investment in physical and institutional infrastructure to enable greater access by farmers to input markets
- Public investment in streamlining dairy industry regulations to promote greater private investment in milk production

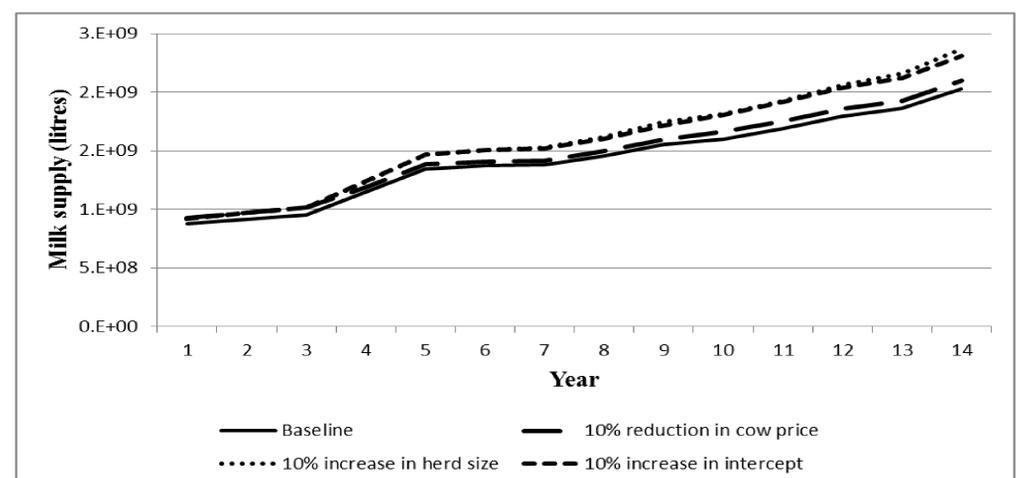
Table 1: Impacts of changes in cow prices, herd size and industry regulations

	Scenario 1		Scenario 2		Scenario 3	
	Reduction in cow price		Increase in herd size		Increase in intercept of farm supply equation	
	Unit Δ	% Δ	Unit Δ	% Δ	Unit Δ	% Δ
Farm supply (l)	51,998,428.57	3.65	168,708,928.57	11.83	156,667,000.00	10.98
Farm price (TSh/l)	-0.06	-2.30	-0.17	-6.35	-0.16	-5.99
Retail supply (l)	46,797,857.14	3.65	151,837,500.00	11.83	141,000,285.71	10.98
Retail price (TSh/l)	-0.33	-5.68	-1.03	-17.56	-0.97	-16.39
PC demand (l/yr)	1.20	3.71	3.70	11.47	3.45	10.71

Table 2: Impacts from simultaneous implementation of the three policy proposals

	Unit Δ	% Δ
Farm supply (l)	377,372,500.00	26.46
Farm price (TSh/l)	-0.39	-14.64
Retail supply (l)	339,634,785.71	26.46
Retail price (TSh/l)	-2.34	-39.63
PC demand (l/yr)	8.35	25.88

Figure 1: Baseline and simulated milk supply



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