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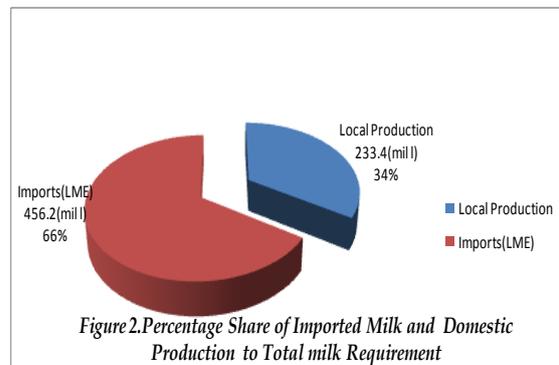
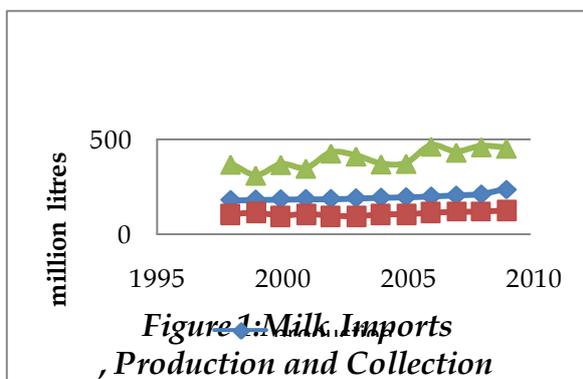
Estimated milk production has revealed that it has been increased from 177.6 million litres (1998) to 233.2 million litres (2009). Milk production has increased by 32 percent from 1998 to 2008 with the annual average of 02 percent . In contrary to this the milk production has significantly increased (12 %) from 2008 to 2009 (Figure.1).

1. Trends in Dairy Production in Sri Lanka

Dairy industry in Sri Lanka is the most prioritized sub sector for livestock development at present. It has its validity in providing thousands of job opportunities and cheap animal protein to the nation. Trends in the industry could be mainly explained by imports of milk and milk products, milk Production, formal milk collection and micro economics of dairy farming in the country.

The perusal reading of statistics of imports shows that the liquid milk equivalent of imports has increased from 370.3 million litres in 1998 to 456.2 million litres in 2009 (Figure 1). Although the increase has been 23 percent compared to 1998 there are ups and downs in importation in different years. The changes (ups and downs) in milk import curve (Figure 1) indicate the unsteady nature of milk imports and its association with underline factors such as world market prices, tax structure and local demand.

Similarly the formal milk collection is also in increasing trend. The formal milk collection has increased from 117.2 million litres in 2008 to 122.7 million litres in 2009 and the increase is around 5%. However the percentage share of formal milk collection to the estimated production was nearly 56.3% in 2008 and 52.7 % in 2009. It indicates the potential for further expansion of milk collecting net work. As a result of increased milk production and increased milk imports per capita availability has also increased from 30.4 l per annum (1998) to 35 l per annum (2009). However milk imports serve 66% of local milk availability in the current scenario (Figure 2). The contribution of local milk in total milk availability may depends upon price of milk in international market, powder milk imports, cost of milk production, farm gate price of milk and expansion of milk collecting net work. These factors are discussed in inner pages of this document.



2. Cost on Milk Imports

The local dairy industry is highly influenced by the international milk prices since the adaption of liberal economic policy in Sri Lanka. This section presents an analysis of cost of imported milk based on international liquid milk prices, powder milk prices and related factors.

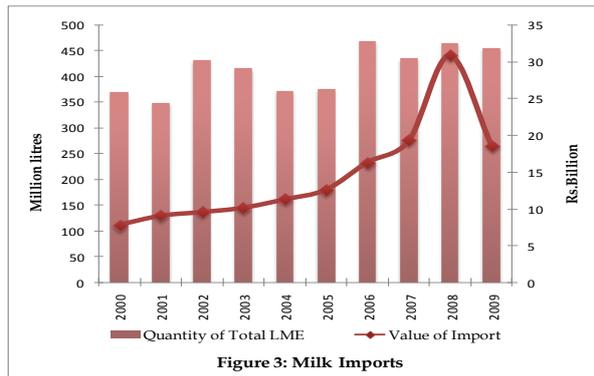
The Figure 1 in the previous section depicted the changes of milk imports for the last decade. Sri Lanka imports milk mainly in the form of powdered milk. It could be explained by main three factors such as international liquid milk price (€/100 kg), currency conversion ratio (Rs/€) and the cost of liquid milk equivalent (LME) of imported powdered milk.

International liquid milk prices

The international liquid milk prices has reduced from 30.03 €/100kg in 1998 to 26.92 €/100kg 2009 (Source: www.milkprices.nl). The lowest price recorded was 26.92 (€/100kg) in 2009 and highest price was 34.58 in 2008 (Table 1).

The value of international liquid milk in local currency

The value of 100 kg of milk in 1998 was 2164.86 SLR in 1998 when the world milk price (liquid milk) was 30.03 (€/100kg) and it has increased to 4418.92 SLR in 2009 when the world milk price was 26.92 (€/100kg). This indicate even though the international prices has come down, the value of milk in SLR has increased due to depreciating value of local currency (Table 1). The currency conversion ratio of SLR to Euro has increased by 116 percent in 2009 compared to 1998 (Source: Central Bank of Sri Lanka).



Value of imports

The milk imports in liquid milk equivalent form (LME) is taken in this calculation (one kg of powdered milk is equivalent to 7.2 litres of liquid milk). The quantities of milk imports in LME has gone up by 24 % from 1998 to 2008. The CIF value of milk imports has increased from 7 billion rupees to 18 billion rupees for the same period. The value of imports were nearly 30 billion rupees in the year 2008 when the world milk price was highest.

Since there had been a rapid depreciation trend of local currency the value of imports has increased by 139 % for the last decade. The highest quantity of imports has recorded in the year 2006 (Figure 3). The lowest world milk price was also recorded in the same year for the whole decade (Table 1). In addition local tax regime too gets similar importance in this scenario.

Tax on milk imports

There had been different tax structures implemented for milk imports. At present the tax is Rs. 125 per kg of powdered milk

Year	world liquid milk price (€/100 kg)	conversion rate (SLR/€)	world liquid milk price (SLR/100 kg)
1999	30.03	72.09	2164.86
2000	30.88	77.96	2407.40
2001	32.67	82.56	2697.25
2002	30.96	101.34	3137.49
2003	30.10	121.06	3643.91
2004	29.70	142.92	4244.72
2005	28.92	121.05	3500.77
2006	28.32	142.07	4023.42
2007	32.52	160.46	5218.16
2008	34.58	160.17	5538.68
2009	26.92	164.15	4418.92

3. Cost Comparison :Local and International

Cost of imported milk(CIF)

The cost, insurance and freight (CIF) charges together on milk imports has taken as the cost of milk imports in this exercise.

The comparative analysis of CIF value of milk imports in LME ,local powdered milk (LME) price , cost of milk production and world milk prices for the last 10 years presented in *Figure 4* .

The highest CIF value (Rs/l) for imported milk was recorded in year 2008 (Rs.66.57) and the highest world milk price was also recorded(Rs.55.39) in the same year. The change of CIF value for imported milk equivalent litre (Rs/l) was around + 93% from 1998 to 2008 .

Local milk Production cost

The local milk production cost (COP) has also shown an increase over the past ten years. The COP has changed from Rs.15.56/l in 2000 to Rs. 27.26/l in 2009. The change of milk production cost was around 75 % during this period .

The main cost component of local milk production in Sri Lanka is the opportunity cost for labour (Dairy Survey report,2008) .Therefore, we could say that the increase in cost of living has important effect of cost of milk production too.

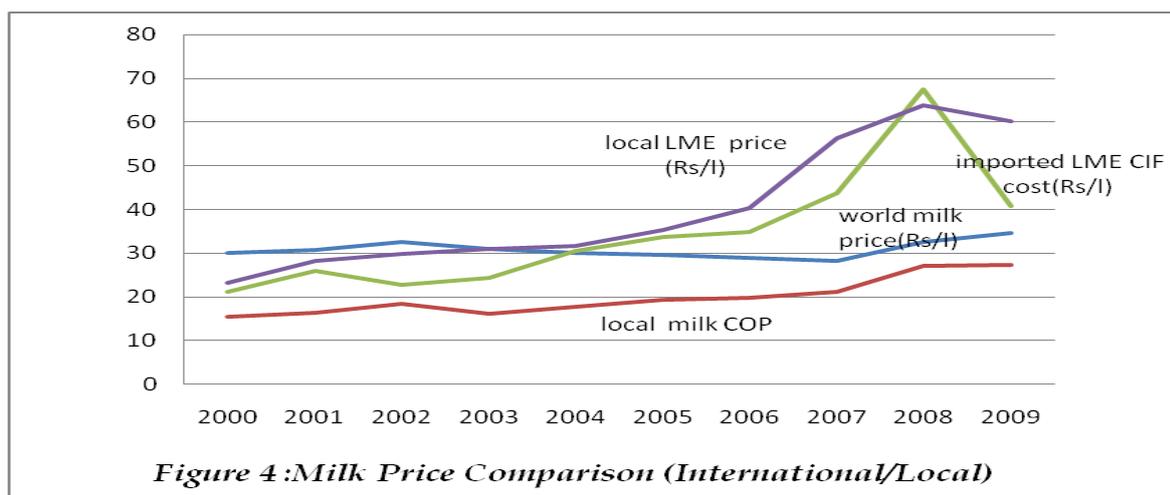


Figure 4 :Milk Price Comparison (International/Local)

Price difference

The cost (Rs/l) of imported milk (LME) was always higher to local milk production cost (Rs/l) for the period 1998-2008 (*Figure 4*). The difference between cost of imported milk (LME) and local milk COP in Rs/l was significantly high (Rs.39.60) in year 2008 (*Figure 4*) .

In the year 2009 the difference has come down to Rs.13.52 due to lowering of world milk prices.

Local market retail powder milk prices

The retail price of powdered milk(LME) in the local market also shows a sharp increase (*Figure 4*).

The different gaps in between the line of price of powdered milk (LME) in the local market and price of imported powdered milk (LME) indicate the different tax regimes and price controls adapted by the government from time to time.

All these factors have direct impact on local milk production and it's growth.

4. Dairy Input Price Changes (2008 -2009)

Prices of feed ingredients

Rice bran, rice polish and coconut poonac are the widely used three main agricultural by products as cattle feed in dairying .

The prices of rice bran, rice polish and coconut poonac were analyzed and compared in relation to milk production cost. The prices of all three ingredients have come down in year 2009 compared to year 2008. The price change of dairy meal was not that significant as feed ingredients (Table 2).

Milk feed ratio

Milk feed ratio is the amount (kg) of cattle feed that could be purchased on sale of one litre of milk. It is the criterion on evaluating dairy industry in most of the countries.

Since the coconut poonac is largely used in Sri Lankan dairy industry coconut poonac has been taken as 'cattle feed' in this comparison.

This ratio was 0.72 (2008) and 1.49 (2009) to the litre of milk . The increase of the ratio in 2009 shows the lowering of feed price and the potential of growing the dairy industry .

Milk production cost and payments

Though the prices of cattle feed has come down , the milk production cost has increased nearly by 1 % in 2009. The fact that the increment of 5.55 % of farm gate price of milk in year 2009 compared to year 2008 is a positive sign of dairy development in Sri Lanka.

Conclusion

It could be concluded that the local milk production cost is always lower to cost of imported milk . Therefore, local dairy industry has comparative advantage of expansion if the underline issues are properly addressed.

Table 2 : Retail Price of Animal Feed Ingredients and Milk 2008-2009

Item	2008 (Rs.)	2009 (Rs.)	Change (%)
Rice bran Kg.	22.37	15.67	-29.95
Rice Polish Kg.	29.66	23.14	-21.98
Coconut Poonac Kg.	33.63	20.45	-39.19
Dairy meal (Conc.)	54.25	52.16	-3.85
Farm Gate Milk Price	27.95	29.50	5.55
Cost of Milk Production	26.97	27.30	1.22
Milk /Feed(conc.) ratio	1:0.72	1: 1.49	

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