

# Traditional Dairy Farming in Southern Sri Lanka: Problems and Prospects

## Introduction

From the ancient times, Ruhuna has famed for milk production for curd and other dairy products. However, during last two-three decades, the milk industry in the southern Sri Lanka has been declining in several aspects causing adverse impacts on cattle and buffalo farmers in the South. Milk production in the south is primarily in the hands of about four million small-scale farmers who contribute significantly to the agrarian economy of the country. Therefore, enhancing milk industry in the south will improve the living standards of a large number of families while catering to the increasing demand for milk and milk products in the country.

Sri Lanka has spent Rs. 17,761 million in the year 2006 to import milk products, which is about 23% of the total outlay on food imports. Sri Lanka remains a food deficient nation, and malnutrition persists. Fifty-one percent of the population does not eat enough to satisfy its minimum dietary requirements, and just over half of the population is undernourished. Problems of stunted growth and insufficient weight gain are prevalent among children, especially in rural and estate sector. Although there has been a decline in child malnutrition over recent years, still 13.5% of children below 5 years of age are stunted, 14% are wasted and 29.4% are under-weight. In addition, many women and children suffer from iron, vitamin A and iodine deficiencies. To enjoy a good health, the man's diet should contain some essential amino acids which are not available in plants. A large portion of the diets of the western countries includes meat and milk while majority of Sri Lankans are not meat eaters. Therefore, milk and milk products are the main sources of animal protein for Sri Lankans. On the other hand, the importance of the milk industry of the country has been emphasized, especially with the rocketing prices of imported milk products while local milk producers are still suffering. This article presents the problems and prospects associated with dairy industry with special reference to the southern province of Sri Lanka. (CBSL, 2007) (Rajaguru, 1997)

## Present Status of Milk Industry in the South

The status of milk industry of Southern Sri Lanka has been investigated by the research studies conducted in Matara, Galle and Hambantota districts by the University of Ruhuna, during the last ten years. They revealed that only about 30% of the milk producers consider cattle/buffalo farming as the main occupation while others rearing a few number of animals as a supplementary work.

In Hambantota district, among the households which are involved in animal husbandry as a main or supplementary livelihood activity, 76% have neat cattle while 33% have buffaloes. Of the neat cattle herds, about 90% was with less than ten animals while about 46% was with less than five animals. However, 51% of buffalo herds consist of more than 20 animals representing comparatively large herd size. Only 15% of buffalo herds were with less than five animals.

## Performance of cattle and buffaloes

Table 1 shows average performance indicators of both neat cattle and buffalo in Hambantota district. It shows that performance of both cattle and buffaloes are poor as compared to standards of cross breeds in Sri Lanka. A cow produces only 24 litres of milk per month and 120 litres of milk per year. The value of the total production is about Rs. 3600 assuming price of milk Rs. 30.00 per litre. In the case of buffaloes, annual value of milk production is about Rs. 6300 per animal. To obtain this sum, farmer has to maintain the animal for about five years. The study further revealed that average production of a neat cattle herd is about 2.8 litres per day while that of buffaloes is about 11.6 litres per day per herd. Table 1 shows the performance indicators of cattle and buffalo in the Southern region.

Table 1  
Performance of neat cattle and buffaloes  
in Hambantota district

Parameter	Neat Cattle	Buffalo
Age of first calving (months)	44	42
Calving interval (months)	18	18
Milk yield (litres per head per day)	0.8	1.4
Length of lactation period (months)	5	5
Number of lactations	3	3

Source: Field survey conducted by the University of Ruhuna, 2004.

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## Dairying systems

In the Southern province, both neat cattle and buffaloes are reared under very less facilities. It is hard to see cattle sheds with a roof, milking parlors and other essential facilities, mainly due to low return from local breeds. Farmers always try to minimise the costs and hassle by keeping animals in nearby shrubs, jungles and fallow lands as the local breeds are well adapted to free range system with less facilities. There are several feeding systems in the dairy industry in south.

**Jungle-based feeding:** Farmers with large cattle and buffalo herds keep their animals in nearby reserved forest areas which are far away from the family dwellings. The animals are grazed on natural herbs and farmers collect milk from milking cows in the morning and sell it to the collectors who come to the places where cows are kept. This practice is common in Uda Walawe, Sooriyawewa, Kiri-ibbanwewa and many other areas in Hambantota district where natural forest reserves exist. In Uda Walawe and Bundala forest reserves, it is possible to see large buffalo and cattle herds grazing. In Uda Walawe wild life reserve, this situation has become a big issue as farmers enter their buffaloes into the forest reserve by breaking electric fence and consequently losing feeding grounds for elephants. This has exaggerated human-elephant conflict due to entering of elephants to nearby villages in search of food.

**Village-based feeding:** The farmers with medium and small cattle/buffalo herds are not going to feed their animals in forest reserves. They have their own roofless cattle sheds closed to their houses within the villages, in which animals are kept during night after feeding them during day time on the road sides, shrubs and fallow lands within the village.

**Jungle and village-based feeding:** This method is practised by farmers with both medium and large herds. During fallow periods in paddy lands, animals are fed on paddy residues paddy fields while during the cropping season, the animals are directed to nearby forest reserves to feed. This method is practised by about 50% buffalo farmers in Hambantota district (Table 2).

**Table 2**  
Distribution of different feeding systems in Sooriyawewa and Kiri-ibbanwewa area of Hambantota district

Feeding System	Percentage of cattle herds	Percentage of buffalo herds
Jungle based	0.0	21.2
Village based	82.8	21.2
Jungle and village based	17.2	51.6

Source: Field survey conducted by the University of Ruhuna, 2004.

Table 2 shows that jungle-based feeding is the predominant practice in buffalo herds as compared to village-based system in cattle herds.

#### Milk collection, marketing and processing

Except for a few collecting centres run by milk collecting corporative societies, and a few private sector collecting centres, the milk collecting and marketing sector is highly unorganised. There are private collectors for buffalo milk in Hambantota district, who produce curd. As about 90% of farmers do not have milk parlors, milking is done without following hygienic procedures resulting in poor-quality milk. Practice of clean production techniques is less in milking buffaloes compared to neat cattle.

About 50% of cattle farmers sell their milk to neighbors while majority of buffalo farmers either produce curd or sell their milk to curd producers. Farmers whose residents are closed to main roads produce curd by themselves and sell on roadsides while others who do not have proper access to the roads sell their milk to private collectors who are producing curd at large or medium scale. There are some potters in the area who produce clay pots and sell at the rate of five rupees each to large-scale curd producers. Although, rearing of cattle and buffalo is mainly done by men, the production and marketing of curd is done by women as a cottage industry.

#### Constraints to Milk Production

The foregoing analysis on the dairy industry of Southern Sri Lanka indicates that it is less remunerative and its contribution to employment

of the rural poor is limited (Yalagala, 1997). The following are some of the main problems confronted by milk producers in this area.

#### Low productive breeds

More than 90% of the cattle in the region are local inferior breeds (*batu harak*) which produce less than one litre per day with a shorter lactation period. This is not an economically viable yield and most farmers are willing to buy improved animals with high yield if available at a reasonable price.

#### Absence of marketable surplus

Majority of the producers with a few cattle do not have a marketable surplus. There are many cases farmers do not collect milk from their animals during the lactation period to leave it for feeding calves.

#### Absence of pasture lands

With the increasing demand for food and shelter and improved irrigation facilities in many areas in Hambantota district, farmers are loosing feeding grounds which was freely available in the past. This problem is critical in the village-based feeding system when the paddy fields are cultivated. Due to absence of enough feeding grounds, farmers cannot achieve the potential yield even from the local low-productive breeds.

#### Trespassing cattle into cultivated lands

As cultivated lands, especially paddy fields are not protected with fences, animals in free grazing system are frequently trespassing into cultivated lands, making conflicts between cattle owners and cultivators. This situation has led the farmers to sell their animals by giving up animal husbandry to avoid unpleasant environment in the villages.

#### Stealing of animals

This is a serious problem faced by farmers who mainly practise jungle-based and village-based feeding methods in almost all areas, especially in Hambantota district. Well-organised gangs of robbers steal well-grown and good-quality animals from the herds and transport to cities for slaughtering for beef. This situation has led the farmers to quit the industry and to deteriorate the genetic potential of local breeds in long run.

#### Scarcity of grasses and water during dry seasons

In Hambantota district, during prolonged dry periods, farmers who practise jungle-based and village-based feeding systems face the problem of non-availability of enough grasses for feeding

animals. They have to travel long distances to feed animals and consequently the milk yield of animals is reduced.

#### Poor veterinary facilities

Farmers have not used to seek veterinary services. When animals get diseases, traditional treatments are given. In many instances, farmers do not aware about the diseases. A good example is mastitis which reduces both quantity and quality of the milk yield.

#### Absence of an organised milk collecting mechanism

As the milk production of many farmers is small, carrying such a small quantity to the collecting centres is not economical. Moreover, especially in buffaloes, milk production is seasonal as the calving frequency is high in January. On the other hand, demand for milk is declining during fruit-bearing seasons due to availability of chief fruits.

#### Prospects for Milk Production

Free grazing system of cattle and buffalo rearing is no more attractive and profitable venture for unemployed youth. Unemployment remains a severe problem in the country, particularly among the educated youth. Interestingly, unemployment data reveals that the majority of unemployed females in Sri Lanka are either not finding work or not accepting employment. The percentage of unemployed women with GCE A-level or higher was 37.5% in 2005, compared to 20% for men. If there is a program to attract the unemployed women into the dairy production and processing, rural unemployment, a draining of large sums of foreign exchange and child malnutrition can be reduced considerably. The efforts made in recent past to increase dairy production and popularise fresh milk in the country have failed due to many reasons.

Sri Lanka has well-distributed rainfall pattern and consequently pasture and fodder can be grown to feed cattle and buffaloes throughout the year. It can be seen that grasses and fodders grown on road sides and fallow lands are abundantly available, but are under utilised. Paddy lands affected by sea water intrusion and various other reasons can be converted into pasture grounds to feed animals. Live fences with fodder legumes in rural areas and agricultural residues can be easily used for feeding animals.

Contd. on page 48

## Conclusion

The 3-tier structure of cooperatives which was first implemented in the state of Gujarat in Anand, and thus termed the Anand model of dairy development, was able to transform the Indian dairy industry in 60 years to make it the worlds largest. However, with changing macroeconomic conditions, the need for more robust structures in place of dairy cooperatives, have been felt and there is a new interest in India in Producer Companies for milk marketing which combine the institutional and philosophical strengths of a cooperative with the flexibility and autonomy provided under the company

law. While it is necessary that while supporting the existing dairy cooperatives, the People's Companies established under the Gemidiriya Project, could be made use for dairy development to take advantage of the partnership arrangement that the latter has with the National Dairy Development Board of India.

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