

Production and Marketing Constraints of Small Scale Dairy Farming Systems in Kurunegala District of Sri Lanka

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ABSTRACT

Kurunegala district, which consists of a considerable extent of lands and favourable environmental conditions for dairy farming, accounts for 38% of the total national milk production of the country. Both small and large scale dairy production units are found in the district and current milk production has been accounted 54% of the targeted annual milk production in the district. Accordingly, there is a gap between the targeted and actual milk production in the district. This study attempted to discover the issues contributing to create this gap, specially targeting to production and marketing, and suggest solutions towards sustainable development of the small scale dairy farming systems in the district. A sample of 100 small scale dairy farmers from 10 veterinary divisions were subjected to the field survey using three stage stratified sampling method. The average milk yield per month per cow was reported between 101.5 L– 80 L showing a huge gap between expected and present production volumes. Further, major milk production issues creating a gap between expected and prevailing milk production volumes were discovered as insufficient profit, insufficient technical support, labour scarcity, insufficient grasslands, unavailability of improved breeds, insufficient knowledge and scarcity of buyers. The benefit cost ratio was below 0.64 including family labour cost, and 3.81 not including family labour cost. Further, net return was Rs.-6165 per month with family labour cost, and Rs.8235 without family labour cost. The findings lead for suggestions to reconsider changing the prevailing policies pertaining to provision of dairy farming inputs, addressing marketing problems and enhancing supportive services for achieving sustainable development in small scale dairy farming systems in Kurunegala district.

Keywords: Dairy farming systems, Marketing constraints, Production constraints, Potentials, Kurunegala District

Introduction and research problem/issue

Sri Lanka has a total land area of 65,610 sq. km. Of this, 75% of the agricultural lands are under small holdings and the balance is under estates. About 70% small holdings solely have devoted to crop production; the remaining has a mixture of crops and livestock and few cases solely have livestock (Hitihamu *et al*, 2007). The agricultural sector has contributed around 16.8 percent to the Gross Domestic Production (GDP), while the livestock sub sector has contributed around 1.2% to the national GDP in 2014. Livestock is spread throughout Sri Lanka with a concentration into particular farming systems in certain areas due to cultural, market and agro climatic reasons. Due to the reason that the country is endowed with required primary resources including favorable climate and available land area, nowadays Sri Lankan government has given priority to develop dairy sector under the directives of the Ministry of Livestock Development. The main set policy target is to attain 50% self-sufficiency in milk while the medium term goal is to double the local milk production to reduce the proportion of imported

milk from the current level of 70% to 35%. At present, 66% of the national requirement of dairy products is being imported laying a heavy burden on the national treasury (Central Bank of Sri Lanka, 2014). Both small scale and large scale farmers are engaged in dairy production, and they are facing difficulties basically due to regional variations in production technologies, cattle rearing systems and input availability.

In order to find solutions for the constraints faced by the dairy farmers, detailed information about the enterprise is mandatory. Therefore, this study attempted to generate production and marketing information of small scale dairy production systems in Kurunegala district paying attention to production and marketing constraints they are facing. Consequently, efforts were made to identify measures to be taken in enhancing the present status in small scale dairy production systems related to production and marketing in a sustainable manner.

Research Methodology

As there are number of constraints for small scale dairy farming systems, only a selected number of problems were covered by this study such as constraints of production and marketing of milk mainly due to serious resource constraints in the area. Three stage stratified sampling method was practiced to select the sample. At the first stage, six Veterinary Services Divisions were selected purposely and second stage a convenient sample of 10 livestock development instructors ranges (LDI) were selected proportionate to land extent and representing agro ecological zone. Finally, 10 dairy farmers were selected randomly for each LDI division. Data were collected through a pre-tested questionnaire and analyzed descriptively. Benefit cost ratio and net return were computed.

Results and findings

The results revealed that, 82% of small sale dairy production is a male dominant activity. Majority of the dairy farmers (46%) belonged to 46-55 year age category who consisted in families with 4-5 members in average. About 56% of the respondents' main occupation was dairy farming. Hence, majority of households were expected to rely on dairy farming. Fifty seven (57%) percent of farmers had over 10 years of farming experience in dairy. Further, about 87% of the farmers practiced semi-intensive rearing system with breeds such as Jersey, Sahiwal Jersey cross, local and Sahiwal breeds. Lack of improved breeds severely impacted on reducing the average milk production of the dairy farming systems in the sampled area. The average milk yield per month per cow varied between 101.5 L – 180 L and it shows a huge gap between expected and present production volumes. Farmers prioritized the major milk production constraints as insufficient profit, insufficient technical support, labor scarcity, insufficient land, unavailability of improved breeds, insufficient knowledge and scarcity of buyers. Farmers further mentioned that they are not satisfied with the AI services, extension services and available subsidies to the dairy farmers from private and government sectors. Constraints in milk marketing such as inappropriate market information sources, less availability of fresh milk buyers, popularity of the private and public sector on buying milk were further stressed by farmers. Results revealed that, the benefit cost ratio was below 0.64 including family labor cost and 3.81 without family labor cost. Net return was Rs. -6165 per month including family labor cost and Rs.8235 without family labor cost. Further, popularity of the private and public sector was considered when marketing fresh milk. The private sector holds 59% of popularity among the small scale dairy farmers. The reasons for the popularity of private sector were recognized as worthiness (50.84%), no one else to sell (23.22%), price (20.33%) and convenience (5.84%) respectively. But, most of the farmers were not satisfied with the established marketing channel, strength of extension services and accessibility to market

information either from public or private sector. Moreover, Large number of abundant lands available in the area including intercropped lands with coconut, use of coconut by products as concentrate feeds and presence of large number of small scale milk processors in the area were identified as the potentials in achieving sustainable production in dairy farming systems in Kurunegala district.

Conclusions, implications and significance

The low production capacity affects to lower productivity of dairy farming in sample area. Insufficient and low availability of technical support, lack of improved breeds, insufficient knowledge on milk production, ineffective veterinary and AI services, involvement of intermediates, unavailability of fresh milk buyers and long marketing channel were prominent as the constraints when producing and marketing dairy milk, irrespective of the potentials available in the area such as lands and small scale milk processors. Therefore, strengthening AI services and convincing the importance of AI services to the farmers while promoting improved breeds and improved management practices could be suggested as needed steps to uplift the production capacity and marketing in small scale dairy farming system in Kurunegala District of Sri Lanka.

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