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# An Economic Analysis of Dairy Sector in India with Special Reference to Milk **Dairy Co-Operatives in Karnataka**

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Dairy activities play a predominate role in the Indian economy. Due to fail in agricultural crops the farmers not only depending upon cropping pattern alone, indeed they depend on other allied agricultural activities like poultry farming, fishing, agro based activities, family enterprises, food products. Among the allied agricultural activities, dairy is one of the prominent activities to the farmers. Dairying is not only cheap but also yield more returns. This is especially where more of woman are engaged in this activity. Due to various constraints in this dairy activity, co operative sector play a very important role in not only protecting the dairy activities but also promote it with various polices and packages of co operative sector. With this background the present study is more relevant as well to identify various issues of the cooperative dairy sector both in Karnataka and Tamilnadu.

Keywords: Deficit, Production, Dairy, Fodder, Schemes, Member, Operation Flood, Per-Capita, Federation, Societies

## Introduction

Dairy farming is one of the oldest and largest economic activities in the world which is practiced in almost all the countries and approximately 150 million households around the world are engaged in the milk production. In the last three decades, world milk production has increased by more than 60 percent from 530 million tons in 1998 to 852 million tons in 2019.

India is the major and largest milk producer in the world, nearly 22 percent of the world production followed by china, Brazil, Pakistan, and America. The highest milk surplus countries are Newzealand, America, German, Ireland, Australia and France, whereas china, Italy, Russia and Mexico, Indonesia and Algeria are the highest milk deficit countries According to the latest report from FAO, India is one of the world largest milk producer represent over 22 percent of the annual global milk production. The Dairy industries of India is highly fragmented nearly 70 million small farmers are handling very few cattle and buffalo. At present, 12 million framers is more than 22 states own 250 dairy plants handling twenty million litres of milk per day revealed by Gotha dairy farms in India. Total milk production increase from 51.33 million tons from 2016-17 to 53.77 million tons during the 2017-18. Total milk production registered an annual growth of 4.7 percentage during 2017-18.

Milk production amounted to about 187 million metric tons in fiscal year 2019, up from previous year's 176.3 million metric tons. The milk production in the country had an increase of 6.5 percent over the previous year.

# **Review of Literature**

(Sarkar and Dutt) in their work reveals that the number of chilling centres and cold chain distribution is absence in the village level. There is also a shortage of supply of feed and fudder, due to reduction in grazing land. The profitability of dairy industry has been declined due to higher level of feeding cost. The study also emphasised that there is a urgent need for healthcare centres, vaccination, regular deworming to ensure effective milk production and also stress the role of milk cooperatives to ensure, reasonable selling price to the farmers.

(Virupaksha and Kumar) in their research study, is based on both secondary and primary data. The study has been carried out to assess the operational performance of Tamil Nadu cooperatives and Karnataka milk cooperatives. The major implications of the study reveals that Karnataka cooperative performs better in terms of interest, income to total income, KMF utilised its resources efficiently, it also earned high rate of return on its investment. Although the financial performance of both TCMF and KMF have been improved, but the study clearly conclude that the KMF financial performance is better than TCMF.

(Selvakumar and Yoganand) The study is based on three meaningful objectives. Both primary and secondary data have been used. The primary study has been carried out with the help of 119 sample respondent in Salem district of Tamil Nadu. The research work highlights the major problem faced by the small; entrepreneurs in Dairy activities, particularly the cost of order, labour, cost, disease and medical expenses, marketing problems, lack of proper support from the government, heavy investment are some of the major hindrance in the dairy business.

(Divya) The study based on both primary and secondary data. The primary data was conducted in 12 villages of Kanchipuram district with the help of multi stage random sampling. Various information of dairy farming is was collected from the survey respondents. The study covers the details of input used quality of green fodder, labour, cost, veterinary, and breeding expenses, apart it also covers the output such as milk manure products and the profit of milk per day were taken into account. Extensive statistical tools were used to assess the energy use efficiency of dairy farming in Tamil Nadu. The study conclude that small farms are better than medium farms in respect of high heel of milk and efficient in the utilisation of resources results in economies of scale.

## **Objectives of the Study**

- To examine the milk production in India
- To assess the milk co-operatives in Karnataka

## **Milk Production in India**

India is the arena biggest milk manufacturer. This becomes now no longer the case some years ago. The U. S. Was milk short and imported milk from different nations to serve its developing population. India bills for over one-fifth of the worldwide milk manufacturing observed with the aid of using America, China, Pakistan, and Brazil. In 1950's and 1960's, India become closely depending on milk import till 1965. The Indian Government determined to set up a National Dairy Development Board to enhance India's Dairy Sector. From 1970's the U.S. aimed to decorate milk manufacturing, which caused the release of Operation Flood and in 1998, India exceeded America and have become the biggest milk manufacturer within side the world. India's in step with capita availability of milk greater than doubled in the course of 1991-2019, with the manufacturing developing at a 4% CAGR. The manufacturing of milk in India is virtually supplied in Table 1.

 Table 1 Per-Capita Availability and Production

 of Milk and Milk Production

Year	Per- Capita availability of milk (gm/day)	Production (million tons)
2001-2002	222	80.9
2002-2003	234	85.9
2003-2004	237	89.4
2004-2005	240	92.2
2005-2006	246	100.9
2006-2007	252	104.8
2007-2008	258	108.5
2008-2009	263	112.5
2009-2010	281	121.8
2010-2011	290	127.9

2012-2013	299	132.4
2013-2014	307	137.7
2014-2015	322	146.3
2015-2016	337	155.5
2016-2017	355	165.4
2017-2018	375	176.3
2018-2019	394	187.7

Source: Basic animal husbandry statistics, GOI, 2019-2020

It is very clear from the table 1 the per capita availability of milk was 222 (gm/day) during 2001-2002 which is gradually increases from year to year and during 2018-2019 the per capita availability of milk was 394 (gm/day) which was almost 63.3% jump in per capita availability of milk (gm/day) compare to 2001-2002. Similarly if look at the milk production, it was 80.90 million tons during 2018-2019 and it has become more than a double during 2018-2019 and stood at 187.70 million tons.

Figure 1 Per Capita Availability and Production of Milk and Milk Products



# Performance of Milk Co-Operatives in Karnataka

The performance of milk co-operatives could be analyzed with the help of statistical data available from Karnataka milk federation (KMF) during 2010-11 to 2014-15 in respect of growth of functional societies, number of members in the Karnataka Milk Federation and growth of sales of milk in KMF.

## Table 2 Growth of Functional Societies of Karnataka Milk Federation during 2010-11 to 2014-15

Year	KMF	Percentage Change
2010-11	11140	
2011-12	11726	5.36%
2012-13	12018	2.49%
2013-14	12334	2.63%

2014-15	12928	4.82%
MEAN	12029	
CGR	3.1	

Source: Basic animal husbandry statistics, GOI, 2019-2020

Karnataka Milk Federation is one of the leading societies in Karnataka. The progress of the federation is unique and the number of societies registered under KMF during 2010-11 was 11,140 and gradually the number of societies registered under KMF has shown a positive performance in the succeeding years until it reaches 12928 during 2014-15. The average Mean value of the growth of functional societies of KMF was 12029 and the CGR is 3.1. In respect of the percentage changes over previous years the growth of functional societies has shown an upward trend for the period from 2012-13 to 2014-15.

## Figure 2 Growth of Functional Societies of Karnataka Milk Federation during 2010-11 to 2014-15



Table 3 Numbers of Members in KMF

Year	KMF	Percentage Change
2010-11	1986000	
2011-12	2006200	1.02%
2012-13	2151000	7.22%
2013-14	2195000	2.05%
2014-15	2306200	5.07%
MEAN	2128880	
CGR	3.07	

Source: Basic animal husbandry statistics, GOI, 2019-2020

From the table 3, the number of members during 2010-11, was 19,86,000 has been increased to 23,06,200. The percentage change in respect of the number of members in KMF was significant during 2012-13 (7.22%) and 2014-15 (5.07%). The average mean value was 21,28,880 and the CGR is 3.07.

## Figure 3 Number of Members in KMF



#### Table 4 Growths of Sales in KMF

Year	KMF	Percentage Change
2010-11	28300.32	
2011-12	36500.86	28.98%
2012-13	42300.30	15.89%
2013-14	68200.21	61.23%
2014-15	106800.50	56.60%
MEAN	56420.44	
CGR	32.54	

Source: Basic animal husbandry statistics, GOI, 2019-2020

The growth of sales in KMF is clearly presented in table 4. The imply fee of income become well in KMF i.e. (Rs.56420.44 lakh). The income additionally multiplied from Rs.28300.32 lakh in 2010-eleven to Rs.106800.50 lakh in 2014-15 and registered an increase fee of 32.fifty four percentages at some point of the above given period. Further, the yearly increase fee in KMF becomes highest (61.23%) within side the yr 2013 and the bottom become 15.89% at some point of 2012-13.



## Conclusion

Dairy activity plays a very significant role in the rural areas. Majority of rural poor undertaken dairy activities for their livelihood. In this context, both the dairy cooperatives and governmental intervention is a must to support the rural segment of the economy. With the membership of cooperatives, the farmer will get a reasonable price for the milk. This would avoid the role of middle men in the sales of dairy milk. Similarly, government has to support the dairy activities by providing, free veterinary facilities to each and every block of the village. Also to provide free fodder to the farmers to carry out the dairy activities in a better way. The state should come out with a proper periodical price mechanism to the dairy activities. To improve the dairy activities, the state has to establish cold storage, in a convenient place. Further, the respective animal husbandry department officers need to visit the villages to conduct a periodical study about the dairy activities in the state, thereby the government could to bring out a constructive schemes to improvise the dairy sector in the state.

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