

Trends in Production, Procurement of Milk by Co-Operative Societies in Kerala

OPEN ACCESS

Manuscript ID:
ASH-2021-09013833

Volume: 9

Issue: 1

Month: July

Year: 2021

P-ISSN: 2321-788X

E-ISSN: 2582-0397

Received: 13.03.2021

Accepted: 20.05.2021

Published: 01.07.2021

Citation:
Nimisha, M., and
P. Shanmugam. "Trends in
Production, Procurement
of Milk by Co-Operative
Societies in Kerala."
*Shanlax International
Journal of Arts, Science
and Humanities*, vol. 9,
no. 1, 2021, pp. 119-124.

DOI:
[https://doi.org/10.34293/
sijash.v9i1.3833](https://doi.org/10.34293/sijash.v9i1.3833)



This work is licensed
under a Creative Commons
Attribution-ShareAlike 4.0
International License

M. Nimisha

*Ph. D. Research Scholar, Department of Economics
Bharathiar University, Coimbatore, Tamil Nadu, India*

P. Shanmugam

Assistant Professor of Economics, Bharathiar University, Coimbatore, Tamil Nadu, India

Abstract

Dairy sector has great contribution to the GDP of the country has come from the milk dairy cooperative sector. Milk and milk products are perhaps one of the very few consumption items common in all cultures around the world. Indian dairy Co-operative Societies sector contributes the large share in agricultural gross domestic products. Presently there are around 70,000 village dairy cooperative societies across the country. The main aim of this paper is to analyses the performance of Milk procurement and sales by dairy co-operative societies in Kerala. The study based on secondary data has been collected from dairy co-operative society's annual reports and the period of study from 1995 to 2018 and 2018 to 2020, expressed that the procurement has shown an increasing trend throughout the state of Kerala.

Keywords: Dairy co-operative societies, Milk procurement, Milk sales

Introduction

The Dairy Co-operative Societies started in India in the last decade of the 19th Century. The golden era of Cooperative movement began after India had won freedom. "Within two decades of independence the membership of dairy co-operative societies had increased four times while the share capital and working capital also increased to a greater extent. Dairy Co-operative Societies were established in early eighties as an implementing agency of the operation flood II programme by National Dairy Development Board in the State of Kerala. Through these years dairy co-operative societies could accomplish spectacular progress in milk procurement and become a household name in Kerala". The goal of Dairy Co-operative Societies was the socio-economic progress of the dairy farmer through procuring, processing and marketing of milk and it works with the mission "farmers prosperity through consumer satisfaction" and it is also worthwhile to mention that Dairy Co-operative Societies is one the few co-operative societies which work in the true democratic lines of "of the farmer, by the farmer, for the farmer". By implementing various welfare measures utilizing the funds from Central, State and somehow own funds. Dairy Co-operative Societies were able to guarantee welfare and financial security to the dairy farmers of the state. The farmers were given remunerative price for the milk poured by them to the Dairy Co-operative society at regular intervals. Necessary inputs like cattle feed, mineral supplements, medical aid facilities were provided to the farmers through Dairy Co-operative Societies. Whenever the farmers faced difficulties, because of the rise in production cost, Dairy co-operative societies has taken bold steps to reduce the burden of farmers by revising the procurement price of milk. (Dairy Development Department, Kerala, 2018) Dairy Co-operative Societies was also committed to provide nutrition to lakhs

of satisfied consumers of the state by providing quality milk constantly at affordable price by understanding the needs and desires of the consumers. (Dairy Development Department, Kerala, 2018)

Review of Literature

Prasad (2013) in the research article revealed that the organizational structure can improve the working condition of dairy co-operative societies. It was found that the design of the basic structure is somewhat different as it believes in the federal form of structure each unit is independent of each other. It is a popular belief that Dairy co-operative Societies are but Dairy Co-operative Societies Structure is a grand success. Dairy Co-operative Societies has an appropriate blend of policy makers, technology and a support system to the milk producers without disturbing their agro-economic system and ploughing back the profits, by materials and machines.

Periyasami (2006) said that the Procurement per litre of milk in India has been worked out to be the highest in the world. There was competitive advantage to increase India's global share of export in the dairy Co-operative societies. Since Indian dairy sector is one of the highest level subsidized Dairy Co-operative Societies in the world, it can therefore, afford to take a progressive in its position in world milk production. India became the world leader in milk production in 2001 with a production of 84 million tones.

Koshta and Chandrasekar (1999) analyzed milk Procurement in Raipur District in Maharashtra State in India. The Dairy Co-operative Societies institutions were selected through field survey method. The required and relevant data were gathered through structured questionnaire with the dairy Co-operative Societies interview technique. The study analyzed the procurement of milk, size of the Dairy Co-operative Societies of milk procurement, categories of milk animal possessed, productivity cost and returns of milk procurement and sale. The study suggested supplying cattle feed and arrangements for the milk procurement and dairy co-operative societies arrangements for the sale and procurement of milk. Further it is suggested the provision of such services and facilities at cheaper rate to the dairy co-operative Societies for enhancement of milk procurement.

Sangu (1995) revealed the members and non-members had 1.65 and 1.57 animals producing 4.69 kgs and 4.40 kgs average of milk per day respectively. The milk consumption per head was 340.77 grams and 285.52 grams by members and non-member households respectively.

Objectives

- The brief objective of the study was to analyze the performance of dairy co-operatives in terms of procurement and production.

Methodology

This paper used secondary data and they are obtained from official publications such as Livestock Census (Department of Animal Husbandry, Kerala), Statistical Abstract of Kerala State, Economic Survey of Kerala (Directorate of Economics and Statistics, Govt. of Kerala) and from related websites. The reference period of the study was from 1995 to 2020.

Result and Discussions

Table 1: World Milk Production

Year	Total Milk Production (million tonnes)
1995	540.7
1996	542.9
1997	551.0
1998	559.8
1999	568.4
2000	579.4
2001	585.7
2002	602.5
2003	614.3
2004	620.2
2005	633.5
2006	665.2
2007	655.0
2008	689.8
2009	695.0
2010	700.0
2011	710.23
2012	735.4
2013	740.4
2014	748.6
2015	835.8

2016	860.7
2017	890.5
2018	895.3
CGR	2.21

Source: *Indian Dairyman*, vol. 59, no. 11, 2007, p. 11 and *Indian Journal of Dairy Science*, vol. 63, no. 6, 2010, p. 492

Milk production in India is the world’s largest; the total milk production in the world during 1995 to 2018 is depicted in Table 1. It was evident from the table that the world milk production over a period of 24 years has increased tremendously. There has been a fast growing trend in the world milk production over a period of 24 years. The share of the livestock sector out of India’s agricultural sector 1995-2000, was increased to 2005-2011 and 2012-2018. India’s dairy sector accounts for about highest of its livestock industry, making it an important sector in the country. During the reference period, the estimated Compound Growth Rate (CGR) of total milk production in the world was positive which was estimated to be 2.21 percent per annum.

The production and per capita availability of milk in India has been shown in table 2. It reveals that the milk production increased from 66.2 million tonnes in 1995-1996 to 112.1 million tonnes in 2009-2010. The per capita availability of milk also increased from

197 grams per day in 1995-1996 to 263 grams per day in 2009-2010. The estimated Compound Growth Rate (CGR) for production and per capita availability of milk was 3.78 & 1.98 percent respectively.

Table 2: Production and per capita Availability of Milk in India

Year	Production (in Million Tonnes)	Per capita Availability (grams / day)
1995-1996	66.2	197
1996-1997	69.1	202
1997-1998	72.1	207
1998-1999	75.4	213
1999-2000	78.3	217
2000-2001	80.6	220
2001-2002	84.4	225
2002-2003	86.2	230
2003-2004	88.1	231
2004-2005	92.5	233
2005-2006	97.1	241
2006-2007	100.9	246
2007-2008	104.8	252
2009-2010	108.5	258
CGR	3.78	1.98

Source: Department of Animal Husbandry, Dairying and Fisheries, Government of India

Table 3: Volumes of Milk Procurement by Cooperatives and Number of Functional DCSs and their Trends

	Procurement volume of milk (TKgPD) in 2015	% change in procurement from 2011–2015	Number of functional DCSs in 2015	% change in the number of functional DCSs from 2011-2015
Andhra Pradesh	2,044	8%	2748	5%
Assam	22	226%	178	84%
Bihar	1,726	63%	14,179	67%
Chhattisgarh	74	146%	654	129%
Goa	66	61%	176	2%
Gujarat	17,481	67%	16,020	22%
Haryana	450	-16%	3,3461	-13%
Himachal Pradesh	57	-16%	442	-2%
Jharkhand	61	1194%	46	21%
Karnataka	6480	52%	13,287	15%
Kerala	1099	37%	2892	5%
Madhya Pradesh	1029	43%	6315	31%
Maharashtra	3646	16%	11334	-9%

Nagaland	3	64%	30	0%
Odisha	526	75%	3871	54%
Punjab	1392	25%	6557	-3%
Rajasthan	2602	49%	9,991	16%
Sikkim	27	111%	323	65%
Tamil Nadu	3,040	41%	8550	3%
Tripura	5	86%	99	19%
Uttar Pradesh	322	-35%	7169	-12%
West Bengal	160	-27%	1528	13%

Source: NDDB 2015

Table 3 shows the volume of milk procurement by volumes of cooperatives and the number of functional DCSs and their trends for selected states. One can see that the procurement volume was steadily increasing during the study period in most of the states. Uttar Pradesh is one of the exceptions; its procurement volume has decreased by 35 percent in the last five years. One reason for this decrease was that increased competition with other private and cooperative dairy Co-operative Societies. The competition became especially intense when milk

(Gujarat dairy cooperative) started procuring milk in Uttar Pradesh after some unions in Gujarat set up their dairy plants there. The purchasing price of milk was higher than that of other private companies, and private firms were forced to increase their purchasing prices. Currently, the purchasing price of milk and some private firms is about 15 percent higher than that of the cooperative in Uttar Pradesh. Under these circumstances, many cooperative members started to sell their milk to other dairy companies that buy milk at higher prices.

Table 4: Procurement of Milk by Dairy Groups in Kerala

District in Kerala	Procurement of Milk by Dairy Groups				Daily Increase (%)
	2016-2017		2017-2018		
	Total	Per Day (ltr)	Total	Per Day (ltr)	
Thiruvananthapuram	58178060	159392	69448711	190270	19.37%
Kollam	88969474	243752	98056256	268647	10.21%
Pathanamthitta	15147293	41499	17618211	48269	16.31%
Alappuzha	31809608	87150	38375154	105137	20.64%
Kottayam	29197957	79994	34370401	94166	17.71%
Idukki	58531054	160359	64140917	175729	9.58%
Eranakulam	41032391	112418	44425290	121713	8.26%
Thrissur	29851208	81784	3377791	92515	13.12%
Palakkad	41620849	114030	51093918	139983	22.7%
Malappuram	21211024	58112	2411109	66072	13.70%
Kozhikode	35907282	98376	38274280	104861	6.59%
Wayanad	74417711	203884	79671314	218278	7.06%
Kannur	47385432	129823	48263037	132227	1.85%
Kasargod	20775545	56919	22591145	61894	8.74%

Source: Dairy Development Report in Kerala (2018)

Palakkad district came first in the state with an increase of 22.76 percent in milk procurement through Dairy Co-operative Societies through implementation of Milk Shed Development Scheme and Ksheera Gramam Scheme. Alappuzha (20.64%),

Thiruvananthapuram (19.37%) and Kottayam (17.72%) were ranked second, third and fourth respectively. The state average growth was 11.81 percent. Kannur district has the lowest daily increase.

Table 5: Milk Procurement and Sales Trend in Kerala

Year	Procurement (Ltr / Day)	Milk Sales (Ltr / Day)
2010-2011	366272	392041
2011-2012	419053	411430
2012-2013	466461	422925
2013-2014	490620	423035
2014-2015	519824	449887
2015-2016	566268	475528
2016-2017	543214	492073
2017-2018	593605	488241

2018-2019	623496	495654
2019-2020	631126	505425
CGR	5.78	2.26

Source: Dairy Development Report in Kerala

Milk Procurement and sale prices in Kerala are showing a significant increase from year 2010-2020. Milk Procurement Sales in Kerala have increased significantly in the year 2019-2020. The estimated Compound Growth Rate (CGR) showed positive growth which was milk procurement and milk sales trend in Kerala was 5.78 (Milk Procurement) and 2.26 (Milk Sales) percent per annum.

Table 6: Milk Procurement and Input (P&I) in Palakkad District

Year	Farmer Members (APCOS)	Milk Suppliers	Milk Proc. PER - Supplier PER - Day	Total Milk PROC: APCOS Contribution
2008-2009	262,327	73,893	5.26	92%
2009-2010	278,410	79,039	4.94	96%
2010-2011	291,812	79,159	5.02	94%
2011-2012	293,908	80,293	6.33	96%
2012-2013	306,831	84,325	6.48	96%
2013-2014	319,219	84,107	6.36	96%
2014-2015	332,753	87,901	6.84	96%
2015-2016	342,938	92,353	6.99	97%
2016-2017	360,828	92,719	6.70	98%
2017-2018	353,192	88,937	7.87	98%
CGR	3.52	2.35	4.73	100

Source: Dairy Development Report in Kerala

Palakkad district, is number one in milk production, has recorded a 98 percent increase in milk supply during 2016-17 to 2017-18. The Year with the lowest increase was 2008-2009. The estimated Compound Growth Rate (CGR) was

farmer members (3.52), milk suppliers (2.35), milk procurement per supplier per day (4.73) and total milk PROC: APCOS Contribution (100) percent during the period of reference.

Table 7: Milk Pouring Details (2018 to 2019) (Palakkad District)

S. No.	Dairy Co-operative Societies	Total Number of Beneficiaries	Total Quantity of Milk	Total Amount of Milk	Total Days (Per Year)
1	Nalleppilly	50,622	12,55,205	43,55,1592	87,486
2	Oluvampatta	32,896	6,98,848.4	25,71,9433	68,009
3	Karinjalippallam	19,110	7,24,275.8	89,6462.5	48,753
4	Kaundankalam	17,391	6,02,956.3	18,68,3343	48,691
5	Arandappallam	13,861	50,3475	15,25,4344	60,590
6	Metukkada	11,325	7,86,283	32,25,0967	54,750
7	Panniperunthala	6,328	3,75,658	13,63,2547.40	40,880
	Total	1,5,1,533	1,03,73,3082	14,99,88,688.9	4,09,159

Source: Dairy Co-operative Society in Palakkad (2018-2019)

Nalleppilly panchayath in Palakkad district is situated very near to Tamil Nadu. Today in this panchayath there were 24000 cows. This region has more grasslands and the climate is also favourable for dairy farming the availability of grass and straw are largely helpful for feeding the cattles. Availability of sufficient water is another favorable factor for dairy development as this panchayath near to Tamil Nadu of better breed cows are brought from there. The with the development milk dairy cooperative societies, Cattle rearing has become more profitable. The reason for the development of the economy in Nalleppilly Panchayath is agriculture and animal husbandry has an important role in the economy of any village without strong industrial background. Cattle rearing are an easy way to obtain income. Rearing of cow is the important livelihood of the majority people in the Nalleppilly panchayath. Milk societies help the farmers to gain more profit. There are seven milk societies in this panchayath. These milk societies are also called dairy cooperative society. These societies are working very effectively. Nalleppilly Dairy is the largest milk collection (12, 55,205) dairy co-operative society in a year. The lowest milk storage group is Panniperunthala dairy co-operative society (375658). From this list it can be seen that Nalleppilly dairy co-operative society is the largest milk collector out of the total (1,03, 73, 3082) milk stocks.

Conclusion

The milk procurement has shown an increasing trend throughout the state of Kerala, which is a healthy sign for the future National Dairy Plan and help in increasing the milk production by the formation of new societies. The result also expressed that procurement & sales of Milk Products has shown an increasing, trend throughout state of Kerala.

References

Basic Animal Husbandry & Fisheries Statistics 2017.

Author Details

M. Nimisha, Ph.D. Research Scholar, Department of Economics, Bharathiar University, Coimbatore, India

Dr. P. Shanmugam, Assistant Professor, Department of Economics, Bharathiar University, Coimbatore, India

Department of Animal Husbandry, Dairying and Fisheries.

- Dairy Development Department Book, Kerala, 2018.
 Dairy Development Report in Kerala, 2008-2018.
 Dairy Development Report in Kerala, 2010-2020.
 Dairy Development Report in Kerala, 2016-2018.
 Department of Animal Husbandry and Dairying, Government of India, <http://dahd.nic.in/>
 Directorate of Economics and Statistics, Government of Kerala, <http://www.ecostat.kerala.gov.in>.
Indian Dairyman, vol. 59, no. 11, 2007, P. 11
Indian Journal of Dairy Science, vol. 63, no. 6, 2010, P. 492.
 Kerala State Animal Husbandry Department, <https://ahd.kerala.gov.in>.
 Koshta, A.K., and Chandrasekar. "Economics of Production a Disposal of Fluid Milk in Members and Non-Members of Milk Cooperatives." *Indian Co-operative Review*, vol. 36, no. 4, pp.300-309.
 Kumar, Ranjit, and A.K. Sharma. "Impact of Dairy Co-operatives on the Rural Economy in Nalanda District." *Journal of Dairying Foods and Home Science*, vol. 18, no. 2, 1999, pp. 92-97.
 National Dairy Development Board Annual Report 2011-2015.
 Periyasami, N. "Milk Production in India." *Kisan World*, vol. 33, no. 3, 2006, pp. 12-15.
 Prasad, Ruchira. "A Case Study of Dairy Co-operative in India in Relation to Organizational Design and Operational Efficiency." *International Journal of scientific & Engineering Research*, vol. 4, no. 1, 2013.
 Sangu, K.F.S., "Impact of Dairy Cooperative Societies on Production, Consumption and Marketed Surplus of Milk." *Indian Dairyman*, vol. 47, no. 8, 1995, pp. 43-46.
 Subramaniam, S. "Variation in Milk Yields – A Cross Breed and Agro Climatic Regions in Andhra Pradesh." *The Asian Economic Review*, vol. XI, no. 1, 1998, pp. 117-123.