2.1 INTRODUCTION

The present chapter discusses the production and consumption of milk in the world, the milk industry in World, India and Tamil Nadu in general and Virudhunagar District in particular.

2.2 ORIGIN AND HISTORY OF MILK

Milk has been a part of our nutrition since time immemorial. Rich in nutrients, milk in its various forms has a long, long history...
Around 10 000 BC, the “agricultural revolution” occurred changing societies from nomadic tribes to those who settled in communities. With this came domesticated animals and the ingenuity for people to use by-products such as milk.

In ancient Egypt, milk and other dairy products were reserved for royalty, priests and the very wealthy.

By the 5th century AD, cows and sheep in Europe were prized for their milk.

By the 14th century, cow’s milk became more popular than sheep’s milk.

European dairy cows were brought to North America in the early 1600s.

Louis Pasteur, a French microbiologist, conducted the first pasteurization tests in 1862. Pasteur is credited with revolutionizing the safety of milk and, in turn, the ability to store and distribute milk well beyond the farm. Commercial pasteurization machines were introduced in 1895.

In 1884, the first milk bottle was invented in New York state.

In the 1930s, milk cans were replaced with large on-farm storage tanks, and plastic coated paper milk cartons were invented, which allowed for wider distribution of fresh milk.¹

2.2.1 Types of Milk

There’s a type of milk for every lifestyle. Whole milk contains at least 3.25 per cent milk fat (M.F.), which is lighter than cream but has more body than lower fat milk. When a portion of the milk’s fat is removed, it becomes partly skimmed milk, such as 2
per cent milk and 1 per cent milk, depending on the quantity removed. Skim milk is virtually fat-free, with only about 0.1 per cent fat.

Other than the fat content, all these milks contain the same 16 essential nutrients.²

2.2.2 Nutrients Content in Milk

Milk contains about 85 per cent water, making it an effective thirst quencher.

Milk Contains:

**Protein:** Helps build and repair body tissues, including muscles and bones, and plays a role in the creation of antibodies which fight infection.

**Vitamin A:** Aids bone and tooth development. Also aids in the maintenance of night vision and healthy skin.

**Vitamin B₁₂:** Aids in red blood cell formation.

**Vitamin B₆:** Factor in the conversion of food into energy and tissue formation, including bones.

**Riboflavin:** Factor in the conversion of food into energy and tissue formation.

**Niacin:** Aids in normal growth, and is a factor in the conversion of food into energy and tissue formation, including bones.

**Thiamine:** Releases energy from carbohydrate and aids normal growth.

**Pantothenic Acid:** Factor in the conversion of food into energy and tissue formation, including bones.

**Folate:** Aids in red blood cell formation.

**Vitamin D:** Enhances calcium and phosphorus absorption, on which strong bones
and teeth depend.

**Calcium**: Aids in the formation and maintenance of strong bones and healthy teeth.

**Magnesium**: Factor in bone and teeth health, conversion of food into energy and tissue formation.

**Phosphorus**: Factor in the formation and maintenance of strong bones and healthy teeth.

**Potassium**: Aids in the correct functioning of nerves and muscles.

**Zinc**: Factor in tissue formation, including bones, and conversion of food into energy.

**Selenium**: Factor in the correct functioning of the immune system, due to its antioxidant effect.

### 2.3 WORLD MILK PRODUCTION

Table 2.1 shows the world milk production

<table>
<thead>
<tr>
<th><strong>Sl.No.</strong></th>
<th><strong>Year</strong></th>
<th><strong>Milk Production</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2006</td>
<td>665</td>
</tr>
<tr>
<td>2</td>
<td>2007</td>
<td>679</td>
</tr>
<tr>
<td>3</td>
<td>2008</td>
<td>690</td>
</tr>
<tr>
<td>4</td>
<td>2009</td>
<td>701</td>
</tr>
<tr>
<td>5</td>
<td>2010</td>
<td>719</td>
</tr>
<tr>
<td>6</td>
<td>2011</td>
<td>733</td>
</tr>
<tr>
<td>7</td>
<td>2012</td>
<td>748</td>
</tr>
<tr>
<td>8</td>
<td>2013</td>
<td>762</td>
</tr>
</tbody>
</table>
Table 2.1 shows the world milk production from 2006 – 2014. It could be seen that the world milk production has increased from 665 million tonnes in the year 2006 to 776 million tonnes in 2014.

2.3.1 Country-wise Cow Milk Production

Country wise cow milk production is shown in Table 2.2

<table>
<thead>
<tr>
<th>Name of the Country</th>
<th>2013-2014</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States of America</td>
<td>91.27</td>
<td>1</td>
</tr>
<tr>
<td>India</td>
<td>60.60</td>
<td>2</td>
</tr>
<tr>
<td>China</td>
<td>35.31</td>
<td>3</td>
</tr>
<tr>
<td>Brazil</td>
<td>34.26</td>
<td>4</td>
</tr>
<tr>
<td>Germany</td>
<td>31.12</td>
<td>5</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>30.29</td>
<td>6</td>
</tr>
<tr>
<td>France</td>
<td>23.71</td>
<td>7</td>
</tr>
<tr>
<td>New Zealand</td>
<td>18.88</td>
<td>8</td>
</tr>
<tr>
<td>Turkey</td>
<td>16.66</td>
<td>9</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>13.94</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 2.2 shows the world’s top 10 major producers of cow milk during 2013 – 2014. United States tops the ranking with a cow milk production quantity of about 91.27
million metric tons. India and China have emerged as the leading milk producing countries.

2.4 INDUSTRY – AN OVERVIEW
2.4.1 Industry Structure

It is estimated that around 40 to 50 per cent of Indian dairy farmers are employed by the organised sector, approximately 65 per cent of milk in India is consumed (in fluid or processed forms) on farm or by the unorganised sector including local milk vendors, wholesalers, retailers, and the producers themselves. Of the total milk distributed jointly by both the organised and unorganised sector, around 46 per cent of the milk is consumed in fluid form and the rest is processed into various milk products such as butter, yogurt and milk powder.\textsuperscript{4}

India’s milk processing industry is small compared to raw milk production. Almost 55 per cent of the milk produced is consumed by the producer household. Of the remaining, two-third is sold in informal markets and 15-16 per cent of the total milk produced in India is processed by the organised market, including dairy cooperatives and the private sector. During 1999-2000, there were around 770 dairy processing units in the organised sector. Vendors and milk dealers dominate the informal market where the former generally procures milk from producers and sells them to urban households, while the latter supplies to private processing units. Of the milk that enters the formal and informal market, almost 45 per cent is consumed in the raw form while the remaining is processed to produce ghee, khoa, butter, curd, milk powders, cottage cheese and the like..
2.4.2 Production

Milk production in India from during 2005 – 2014 shows that there is a steady increase in production from 97.1 million tonnes to 134.8 million tonnes during the period.

### TABLE 2.3
Milk Production in India

<table>
<thead>
<tr>
<th>Year</th>
<th>Production (Million Tonnes)</th>
<th>Per Capita Availability (gms/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013-2014</td>
<td>134.8</td>
<td>----</td>
</tr>
<tr>
<td>2012-2013</td>
<td>132.4</td>
<td>296</td>
</tr>
<tr>
<td>2011-2012</td>
<td>127.3</td>
<td>290</td>
</tr>
<tr>
<td>2010-2011</td>
<td>121.8</td>
<td>281</td>
</tr>
<tr>
<td>2009-2010</td>
<td>116.4</td>
<td>273</td>
</tr>
<tr>
<td>2008-2009</td>
<td>112.2</td>
<td>266</td>
</tr>
<tr>
<td>2007-2008</td>
<td>107.9</td>
<td>260</td>
</tr>
<tr>
<td>2006-2007</td>
<td>102.6</td>
<td>251</td>
</tr>
<tr>
<td>2005-2006</td>
<td>97.1</td>
<td>241</td>
</tr>
</tbody>
</table>

Source: Economic Times.(Ministry of Agriculture)

From above Table 2.3, it is clearly evident that milk production in India from 2005-06 to 2013-14 is in upward trend. Production of 97.1 million tonnes in 2005-06 is increased by 134.8 tonnes in 2013-14. This upward trend shows that the milk production in India is increased by year after year.

2.4.3 Consumption Growth and Industry Response
Despite its huge production volume, India nevertheless faces a milk supply gap due to increasing demand from a growing middle class population. Estimation suggests that Indian dairy production is growing at a rate of about four per cent per year, yet consumer demand is growing at approximately double that rate. In response to increasingly strong demand for milk products, the Indian dairy industry is growing its milk production in several ways. For example, dairy farmers have responded to increasing dairy prices by increasing herd sizes. In addition, those farmers working directly with buyers from the organised sector generally have access to modern extension services, which provide support for the dairy farmers to improve management, feeding, fertility and veterinary care. Many of these extension service providers offer artificial insemination services that aim to further improve milk yields with new dairy cattle genetics. Artificial insemination services are expected to grow in the future, as the government of India continues to develop protocols for imported genetics products. Finally, commercial dairies are also continuing with strengthening their presence in India.\textsuperscript{5}
While the decade of 2000-10 has seen positive level of dairy exports from India, the next decade is predicted to be different and signs of change are already visible. Due to low global dairy prices and high domestic costs, India is finding it difficult to sustain exports of dairy products. On the other hand, factors such as the reintroduction of subsidies by European Union, devaluation of currency of New Zealand (a major dairy exporting country), combined with continuing global economic downturn, have made dairy imports into India attractive. It is predicted that dairy commodities have been the first large-scale imports and will be used by Indian dairy cooperatives and companies to make reconstituted milk and other branded dairy products. This is followed by Imports of branded dairy products.

In the past, India has not been permitting free import of dairy products. As the country’s dairy sector employs 90 million people, India has advocated that milk and cheese be excluded from the scope of free trade agreement under negotiations with the European Union. However, despite Indian government’s fear about how small dairy farmers could suffer from import liberalization, India is now facing strong pressure to open up its market to dairy products from Europe. There are arguments suggesting that removing such tariff would leave India’s farmers unable to withstand competition from European imports. Often these imports have been highly subsidized and can be sold at lower prices than domestically produced goods.
Other than the strong pressure from EU to open up its market, India’s dairy sector has also become jeopardized by the proposed free trade agreement with Australia and New Zealand. India has entered into a Free Trade Agreement with South Korea and ten other countries in 2009. Currently the plan is also to reduce the tariff rate for New Zealand and Australia to encourage trade. It is feared that entering into a free trade agreement with Australia and New Zealand would bring adverse effects to the dairy sector in India, as the cost of milk production in Australia and New Zealand is far lower than in India due to their pastoral system. In contrast, in India dairy animals are raised by concentrated feed and fodder, therefore the cost of production is much higher.

2.4.4.2 Supply and Demand

A recent survey has revealed that on average, an Indian family allocates 17 per cent of the household food expenditure on milk and milk products, with rural families allocating 15 per cent and families in the urban area allocating over 18 per cent. As income continues to increase, it is predicted that the demand for milk is going to rise faster than seen in the previous decade. Moreover, the overall demand is growing rapidly compared to milk production. The higher GDP growth rate, enhanced income of rural households and the farm debt waiver are influencing the demand for milk both in the rural and urban areas.

Apart from the rapidly increasing demand for milk and dairy products, other reasons such as the increased cattle feed cost and low availability of dairy farm labour in the rural areas have also resulted in increasing the cost of production. It is estimated that
the demand for milk will grow at 7 per cent per annum at current rate of income growth, while the growth in milk production is likely to continue at the present rate of 4.4 per cent in the near future.\(^8\)

A number of suggestions to the future development of India’s dairy industry have been proposed by Karmakar and Banerjee (2006):

1. **Production Cost Reduction:** In order to increase the competitiveness of Indian dairy industry, efforts should be made to reduce cost of production. This can be achieved through increasing productivity of animals, improved animal health care and breeding facilities and management of dairy animals. The Government and dairy industry will need to play a vital role in this direction.

2. **Strategy and Infrastructure Development:** Indian dairy industry should further develop proper dairy production, processing and marketing infrastructure, which is capable of meeting international quality requirements. A comprehensive strategy for producing quality and safe dairy products should also be formulated with suitable legal backup.

3. **Focus on Speciality Products:** Dairy industry in India is unique with regard to the availability of buffalo milk. In this case, India has been focussing on buffalo milk based speciality products, such as Mozzarella cheese, in order to meet the needs of the target consumers.

India’s production of milk has strongly increased over time with significant technical, policy and institutional support. This has led to significant changes in the
Indian dairy sector. In fact, the Indian dairy sector has undergone significant structural changes over time and some interesting patterns are unfolding along the milk value chain. Noteworthy among them are the changes in production of milk, composition of the livestock population (increase in the crossbred population), marketing of liquid milk pioneered by cooperative networks and increase in participation of private players in the milk-processing sector.

Despite breakthroughs in milk production, increase in crossbreeds and high-yielding livestock species, productivity of milch animals is quite low in India. This low productivity shows the result of many factors which include: poor genetic make-up of animals, shortage of feed and fodder, inadequate animal health care coverage, inappropriate dairy development policies, lack of market integration between producers and consumers, and lack of appropriate environment.

*With increase in income and urbanization, the demand for milk will increase further. The domestic demand of milk could be 209 million tonnes in 2026-2027, up from 127.3 million tonnes in 2011-2012. Supply projections indicate that with the existing growth rate of milk production during the last decade, India will be self-sufficient in milk by 2026-2027.*

Producer prices of milk are lower in India than in the leading international exporting countries. Prospects for export of milk to neighbouring, particularly SAARC, countries, most of which are deficient in meeting their requirements with domestic production are very promising.
Achieving higher growth of the dairy sector is essential to ensure long-term inclusive agricultural growth. Productivity-led growth is the only viable option for accelerated sustainable growth of the Indian dairy sector.

The status of supporting infrastructures and their delivery is still inadequate and concerted efforts are required to bring desired improvement. The strengthening of market linkages, either through expansion of cooperatives or by facilitating contract farming arrangements, would go a long way to ensuring sustainable growth of the Indian dairy sector.

India can emerge as an important exporter of milk and milk products. For SAARC countries, inclusion of milk in the South Asian Free Trade Area may increase trade among South Asian countries. Attendant non-tariff measure would be pre-requisite for tapping the markets in developed countries.\(^9\)

2.5 MILK MARKETING IN INDIA

Milk is an essential commodity, which is inevitable in our day-to-day life. There is hardly any human being who does not taste milk throughout his life. India being basically agricultural country, milk and dairy products are by-products of several million agriculturalists. Milk is purchased from various channels/chains. Dairy farming is a source of supplementary income for millions of small/marginal farmers and landless labourers in India. Market oriented smallholder dairying offers significant scope for diversification and thus helps in augmenting income and employment generation for the
farmers. The profitability of dairy enterprise depends upon cost structure and a remunerative price for which a good marketing outlet is crucial. Milk is procured, processed and sold by various agents involved in the dairy business from the point of production to consumption either as fresh liquid milk or processed milk products. Conventionally, these agents engaged in milk marketing have been classified into producers, vendors and institutional actors. In this paper, the vendors and institutional actors are defined as where some or all the actors involved in milk production, collection, processing and distribution operate outside the sector and selling milk to consumers. Broadly, they refer to the dairy cooperatives, Government run milk producing units and large private dairies. Producer who is engaged in milk production alone sells the milk to the vendors or other institutional actors. Here, institutional actors denotes, co-operative milk producers society, private milk agencies and cooperative milk producers union. From the data pertaining to approximate milk utilization and marketing pattern of milk for the year 2002-03, it can be seen from the figure that approximately 65 per cent of the milk produced enters the national exchange economy while the remaining 35 per cent is retained within the producer household. Moreover, nearly 85 per cent of all the milk that enters the exchange economy find its way into the urban areas. Thus, it is the urban demand that is the main source of cash for rural milk producers. It is further estimated that out of 3700 cities and towns in India, only 778 are served by organized milk distribution network. Only 15 per cent of the milk marketed is packed, of which 94 per cent is in pouches. It is evident that not only is the informal sector very large, it is the only chain available to about 80 per cent of the towns in India (Indian Dairyman, 2002).
2.6 MAJOR ORGANIZED MILK SECTOR IN INDIA

Cooperative Milk Society in India

Milk processing industry in India derives its significance from its high potential for employment at low capital cost, use of local resources, possibilities for forward and backward linkages and its scope for earning more output. With a share of about 14 per cent in world milk production, milk has achieved a unique status in terms of its output value exceeding ₹1,00,000 crores and has made a rapid stride both in terms of number of milk producers and quantity of milk produced.

The milk production in India was 17 million tons in 1950-51. This could meet only 25 per cent of the domestic demand; the remaining 75 per cent of the demand was met by importing the milk solids. The production has been stagnant for two decades till 1970, with annual growth rate of milk production of one per cent. Thanks to the vision and foresight of Kurien, in 1970, NDDB launched “Operation Flood Programme” with the objective of ending milk famine in the country and turning farmer’s cooperatives into a powerful catalyst for transforming India into a major milk producer in the world. Further, by providing milk producers a remunerative price round the year, milk production in India touched 74 million tons in 1997. By the year 2006, India has emerged as the largest milk producer with a production of 100.9 million tons. This is as a result of India’s “White Revolution” in milk production. Also as previously mentioned, the cooperative price becomes the benchmark price for other buyers (vendors and private dairy agents) and when it is low, so are the other prices paid. Thus there is no incentive for farmers to sell to the other buyers; only about 15 per cent of the milk is sold this way.
for the marketing of packaged milk and milk products. Policy efforts should focus on enforcing testing as the basis for milk pricing. This has been achieved by ensuring availability of testing machines at all milk collection centres, educating farmers to sell milk only based on testing and setting up policy norms for all players in the sector to collect milk only when it has been tested.

Another important aspect of milk pricing is the huge premium on the fat content compared to the non-fat solid content. Thus buffalo milk fetches a much higher price than cow milk, which has lower fat content.

The Dairy Industry has a bright future in India and is a viable alternative for farmers because of low cost of production. There is a huge potential for capturing the large unorganized market base in dairy.

2.6.1 De-licensing (1991) and Milk and Milk Products Order (MMPO), 1992

Post 1991, milk processing in large-scale plants has been de-licensed and opened for domestic and private players to participate. The Indian Dairy sector, at the time of liberalisation, was replete with many inefficient, obsolete and sub-scale units, which faced direct threat from domestic and foreign competition. Keeping in mind the employment and livelihoods contribution of these small and cottage dairy processing units, the Government of India announced the Milk and Milk Products Order (MMPO) in 1992, under the provisions of the Essential Commodities Act, 1955.

The operation of MMPO was largely limited to registration of dairy firms in the organised sector, though as a policy, it had three major objectives:
Augment the supply of milk in milk deficient regions of the country, and ensure a
certain minimum quality standard.

Inspection and certification of dairy units for quality control, health and hygiene.

Maintain a database on the status of the organised dairy sector in the country.

MMPO required that the large-scale processing units having capacity of more than
10,000 lpd or 500 tonnes milk solids a year could operate only after a license from the
government. It is ironical that the government which liberalized the economy did not
allow the dairy companies to operate without government licenses and permits!

Licenses for milk processing capacities above 75000 lpd were only granted by the
Central Government, while permission for capacities below 75000 lpd but more than
10000 lpd has been granted by the state governments. For capacities below 10000 lpd no
license is needed.

The granting of government licenses is a political exercise, not in sync with the
market demands but directed by the vested interests of the political power-
groups and farmer unions. Government granted licenses based on its calculations of the
difference between the marketable surpluses in different areas, while keeping in mind the
processing capacity already installed. This did not permit healthy competition to develop
the dairy sector, and many small, sub-optimal, sub-standard and inefficient
dairy plants got indirect protection and respite from the growing competition. Rampant
corruption also made the license system difficult to deal with for new start-up enterprises.
Clearly, the MMPO is a disincentive to larger capacities, which could show greater economies of scale. Large-scale plants necessarily require backward integration and substantial extension work for ensuring stable procurement base of milk. As a result these large-scale units are most likely to help increase milk yields and, in turn the output of processed dairy products. MMPO encouraged companies to by-pass regulation, resort to sub-optimal units and poaching of milk from the cooperatives.

However, keeping in mind the growing pressure of competition from global players in the dairy sector, the tightening of the WTO Agreements, and the anomalies in the license structure, the government made an amendment in the MMPO (1992). The amendment allowed the dairy players to setup dairy processing units wherever and whenever they felt like. In other words, licenses need not be taken now for setting up dairy units. However, these dairy plants have to still seek government registration for purposes of ensuring sanitary and hygienic conditions and quality of products. In order to check red-tapism and bureaucratic delays, the registration procedure has to be completed within 45 days by statute.

2.6.2 In a Nutshell, the Salient Amendments in the MMPO in 1999 are as follows:

- The provision of assigning milk sheds has been done away with, giving full flexibility and freedom of choice to private enterprises and dairy cooperatives to procure and market milk in any region of the country.
- The registration under MMPO-92 will now not be for capacity installation, but only for sanitary and hygiene conditions, quality and food safety.
- The provision of inspection of dairy plants has been made more flexible.
The provision to grant registration in 90 days has now been reduced to 45 days.

2.6.3 Abolition of Quantitative Restrictions (Qr) in Dairy Imports, 2001

Dairy imports became liberal after the Quantitative Restrictions on such imports were done away with in 2001. The Government of India, in an agreement with the Government of United States, removed Qr from a plethora of dairy products. Table 5 highlights the trend in milk and milk products imports over the last few years, and a percentage of dairy imports in the total agriculture imports in the country.

The dairy imports were particularly high in the year 2003-04. This was on account of dip in domestic milk production, and a subsequent dip in the production of milk powder. Milk powder production declined by 10.9 per cent on a year-to-year basis in 2003-04. Total milk powder production during April to September 2003 dropped by 12.7 per cent.

The below-normal rainfall over the past three years had resulted in insufficient calving. Given this crisis, many cooperatives for instance, in Maharashtra sought help from the NDDB seeking around 1400 MT of skimmed milk powder. It was also reported that in Gujarat, procurement from 12 milk sheds declined by 9.6 per cent to 4505.3 thousand kgs per day as against 4986 thousand kgs per day in the same period in the previous year.

In the wake of the above crisis of fall in milk production and procurement from major milk sheds in the country, the Union Government allowed the NDDB to import 6000 tonnes of milk powder to ease the supply shortage. Many states had openly objected
to this decision of the Central Government. For instance, Punjab – one of the largest milk producing states – had raised objections citing that such imports would reduce milk prices, adversely affect farmers’ interests and result in large-scale killing of unproductive animals! However, states like Maharashtra cleared a proposal by the State Cabinet to increase the procurement price of milk from dairy cooperatives by ₹.1 per litre in order to increase procurement from the village cooperatives. What comes as a surprise is that the cooperatives had to wait for a government clearance to increase procurement prices! Rather than politics, it should have been the market that should have decided when and by how much to increase the procurement price.

2.6.4 Industry Structure – Liquid Milk and Milk Products

A total of 45.7 million tonnes of milk was processed into milk products in the year 2000-01, out of which the share of the organised sector (including all cooperatives) is an abysmal 10 per cent. On the other hand, 38.9 million tonnes of liquid milk was produced in India in 2000-01, out of which only 15.4 per cent was processed, and the rest was sold unprocessed. Both the above categories clearly show that the industry is dominated by small, informal and unorganized dairy units. In the absence of adequate integration and economies of scale, most of the milk and milk products are either sold unprocessed, or processed locally into low value-added products. Such products in absence of hygiene, quality and safety are unable to command premium prices from the consumers.

Reasons why the informal sector is able to survive and compete in the market with organised dairy players are as follows.
First, the informal milk vendors (colloquially referred to as dudhias) are able to work with very low levels of investments. Thus despite low volumes, they are able to compete with the organised players. They procure milk daily from the farmers, and supply within hours to the nearby consumption centres (urban areas), and thus do not have to invest heavily in chilling and pasteurizing units, unlike the case with organised players.

Second, most of the small, informal milk vendors have very small operating cycles, and are able to turn their stocks daily and recover their money from the business. In such a scenario, they are in a position to pay higher prices to farmers than most cooperatives and are able to procure milk from the members of the cooperatives without making any significant investments in developing a procurement base.

Finally, the concept of pasteurized milk has not yet taken off well with most middle-class Indian households, which still feel that fresh milk from the local milk vendors (dudhias) is the best and the most nutritious. The misconception that pasteurization kills not only the germs, but also the nutritive value of milk has made the acceptance of pasteurized milk rather difficult in many small towns in the country. It is in these small towns that most informal milk vendors have a flourishing business as they are able to encash on the misconceptions of the consumers.

2.6.5 Indian Dairy Key Facts

1. Ranks 1st in world milk production (115 million metric tones)
2. Value of milk output from livestock (at current price) is around INR 2400 Billion
3. Value of dairy products market is around INR 4000 Billion
4 Ice cream industry is around INR 25 Billion

5 Milk production in India has come a long way over the years from a low volume of

6 MT in 1951 to around 115 MT in 2010; 70 per cent of milk is produced by marginal farmers.

7 65 per cent of the milk is sold in “loose” form

8 Only 5 per cent of the milk is sold through retail chains

9 70 per cent is delivered to the homes by ‘milk agents’

10 Carton milk or packaged milk has been growing at 24 per cent annually

11 Most branded FMCG companies are keen on launching flavoured dairy products whose market size is pegged at US$ 166 million. 

2.6.6 Milk Production and Per Capita Availability

**FIGURE 2.1**

**Milk Production and Per Capita Availability**

![Chart: Milk Production and Per Capita Availability](image)

The supply scenario for Milk. Figure 2.1 shows that in terms of per capita availability, it is clearly a far more reassuring trend than for Pulses. This indicator of
supply has been rising steadily, reflecting the many organisational and logistic innovations that were effectively implemented in this sector. However, two factors need to be taken into consideration here. One, the second graph Figure 2.2 shows on the slide indicates that the growth rate of Milk production is declining and volatile. Two, returning to the demand perspective, Milk is the most significant source of protein in expenditure terms for most households. Since it is directly related to the age composition of households, the preponderance of growing children and young adults is likely to boost demand for milk, all other factors remaining equal. With a sustained increase in demand, slowing growth and volatile production will clearly have an impact on prices.\textsuperscript{14}
2.6.7 Raising Input Costs

This Figure 2.2 explains as to why the milk supply situation may be turning adverse. Oil cake is a significant component of cattle feed and its price clearly has an impact on the cost of production of Milk. With oil cake prices trending up quite significantly over the past few years, changes in the feed mix may be resulting in lower yields, contributing to supply-demand imbalances and price pressures.\(^{15}\)

2.7 MILK PRODUCTION IN TAMILNADU

The total milk production in Tamil Nadu in the year 2009–2010 is 5.778 million tones, of which cow milk contribute 86.82 per cent. Total cow milk production gradually has increased up to the period 2004–2005 and tremendously increased thereafter which reflected the impact of implementation of various dairy development programmes. However, the buffalo milk production is found to increase till the period 2001–2002 and
decreased thereafter. The overall milk production has shown increasing trend with some slackness during the period 2002–2003 to 2004–2005.

### TABLE 2.4

**Annual Compound Growth Rates of Milk Production (in Percentage)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Indigenous cow milk</td>
<td>N/A</td>
<td>N/A</td>
<td>-2.00</td>
<td>-6.90</td>
<td>N/A</td>
<td>-2.51</td>
</tr>
<tr>
<td>Exotic and Cross breed milk</td>
<td>N/A</td>
<td>N/A</td>
<td>11.22</td>
<td>12.51</td>
<td>N/A</td>
<td>10.96</td>
</tr>
<tr>
<td>Cow milk</td>
<td>5.549</td>
<td>10.06</td>
<td>3.72</td>
<td>6.87</td>
<td>5.33</td>
<td>5.58</td>
</tr>
<tr>
<td>Buffalo milk</td>
<td>4.786</td>
<td>6.51</td>
<td>3.05</td>
<td>-11.22</td>
<td>0.50</td>
<td>-3.47</td>
</tr>
<tr>
<td>Total milk</td>
<td>5.193</td>
<td>8.50</td>
<td>3.45</td>
<td>2.41</td>
<td>3.88</td>
<td>3.14</td>
</tr>
</tbody>
</table>

Source: Food and Agriculture Organization of the United Nations

Table 2.4 reveals that the annual compound growth rate for total milk is 2.41 and 3.14 per cent, for last 10 (2000-01 to 2009-10) and 20 years (1990-91 to 2009-10) respectively. The growth rate in milk production is found to be 3.88 per cent per annum for the period 1977–1978 to 2009–2010. The annual compound growth rate in buffalo milk production is found to be -11.22 per cent for the period 2000–2001 to 2009–2010. During the same period, the indigenous milk production also has the negative growth rate. However, the total milk production has recorded a positive growth rate in spite of negative growth rates of buffalo and indigenous cow milk production. It implies that the growth in milk production is contributed solely through cross bred cows which is
an evidence for the successful implementation various cross breeding programmes in 
Tamil Nadu.

### 2.7.1 Year-wise Milk Production in Tamil Nadu

Table 2.5 shows the milk production in Tamil Nadu during year 2005-06 to 2013-14.

<table>
<thead>
<tr>
<th>Year</th>
<th>Milk Production (in 000 tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-06</td>
<td>5474</td>
</tr>
<tr>
<td>2006-07</td>
<td>6277</td>
</tr>
<tr>
<td>2007-08</td>
<td>6540</td>
</tr>
<tr>
<td>2008-09</td>
<td>6651</td>
</tr>
<tr>
<td>2009-10</td>
<td>6787</td>
</tr>
<tr>
<td>2010-11</td>
<td>6831</td>
</tr>
<tr>
<td>2011-12</td>
<td>6968</td>
</tr>
<tr>
<td>2012-13</td>
<td>7005</td>
</tr>
<tr>
<td>2013-14</td>
<td>7129</td>
</tr>
</tbody>
</table>

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

From above Table 2.5, it is clearly evident that, milk production in Tamil Nadu 
from 2005-06 to 2013-14 is in upward trend. The rural production of 5474 tonnes in 
2005-06 has increased to 7129 tonnes in 2013-14. This upward trend shows that the milk 
production in Tamil Nadu has increased year after year.
2.7.2 Major Organized Milk Sector in Tamil Nadu: Cooperative Milk Society AAVIN

The Dairy Development Department was established in 1958 in Tamilnadu. The administrative and statutory control overall the milk cooperatives in the State were transferred to the Dairy Development Department on 1.8.1965.

2.8 HISTORY AND DEVELOPMENT OF TAMIL NADU CO-OPERATIVE MILK PRODUCERS FEDERATION LIMITED -AAVIN

The Dairy Development Department has been established in Tamil Nadu in the year 1958 to oversee and regulate milk production and commercial distribution in the state. The Dairy Development Department took over control of the milk cooperatives. It has been replaced by the Tamil Nadu Cooperative Milk Producers Federation Limited in the year 1981.

On February 1, 1981, the commercial activities of the cooperative were handed over to Tamil Nadu Co-operative Milk Producers' Federation Limited which sold milk and milk products under the trademark “AAVIN”. With many private companies entering the field of dairy, the Tamil Nadu government is giving high priority to improve the performance of the cooperatives. Tamil Nadu is one of the leading states in India in milk production with about 14.5 million litres per day.

A. Structure of Dairy Development Department

Established in 1958, the Dairy Development Department is headed by the Commissioner for milk production and Dairy Development who is also the Functional Registrar of Dairy Co-operative Milk producer’s Federation Limited.
Statutory functions such as registration of societies, inspection of societies, settlement of disputes, conduct of election to the Boards of management, constitution of Boards, issue of direction to societies in the interest of public and so on are exercised by the Commissioner for Milk Production and Diary Development under the relevant Tamil Nadu Co-operative Societies Rules, 1988. About 24 Deputy Registrars(Dairying) at the regional level discharge the statutory and administrative functions. Now, the Government of Tamil Nadu has ordered to establish a separate office for Deputy Registrar (Dairying) in Tirupur District for the benefit of milk producers of Tirupur District. Accordingly the office started functioning from 01.04.13.

2.8.1 Three tire Structure of the Milk Co-Operatives

Tier 1-(Village level)-Primary Milk Producers Co-operative Societies at the grass roots level.

Tier 2- (District level)-Milk Producers unions at the middle level.

Tier 3-(state level)-Federation of District Co-operative Milk Producers unions at the apex level.

CHART-2.1
Three Tire Structure of the Milk Co-operatives
Chart 2.1 explain the three tire structure of the milk co-operatives

2.8.1.1 Village Milk Co-operative Societies

About 11,397 Milk Producers Co-operative Societies including 1,722 Milk Producers Women Co-operative Societies function in the state, besides 62 Milk Consumer Co-operative Societies which cater to the needs of the milk consumers. About 4.25 Lakhs Pouring members of the societies are paid dividend for their share capital, bonus and patronage rebate when the Society earns profit.
# TABLE 2.6
Union-wise Societies and Members

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the Union</th>
<th>No. of Societies</th>
<th>No. of Pouring Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Kancheepuram-Tiruvarur</td>
<td>510</td>
<td>13,428</td>
</tr>
<tr>
<td>2.</td>
<td>Villupuram</td>
<td>1,199</td>
<td>39,602</td>
</tr>
<tr>
<td>3.</td>
<td>Vellore</td>
<td>1,164</td>
<td>91,352</td>
</tr>
<tr>
<td>4.</td>
<td>Dharmapuri</td>
<td>823</td>
<td>21,207</td>
</tr>
<tr>
<td>5.</td>
<td>Salem</td>
<td>1,298</td>
<td>48,783</td>
</tr>
<tr>
<td>6.</td>
<td>Erode</td>
<td>782</td>
<td>38,913</td>
</tr>
<tr>
<td>7.</td>
<td>Coimbatore</td>
<td>652</td>
<td>21,927</td>
</tr>
<tr>
<td>8.</td>
<td>The Nilgiris</td>
<td>105</td>
<td>4,821</td>
</tr>
<tr>
<td>9.</td>
<td>Madurai</td>
<td>1,172</td>
<td>22,911</td>
</tr>
<tr>
<td>10.</td>
<td>Dindigul</td>
<td>365</td>
<td>7,415</td>
</tr>
<tr>
<td>11.</td>
<td>Tiruchirapalli</td>
<td>786</td>
<td>53,107</td>
</tr>
<tr>
<td>12.</td>
<td>Thanjavur</td>
<td>686</td>
<td>22,244</td>
</tr>
<tr>
<td>13.</td>
<td>Pudukottai</td>
<td>327</td>
<td>4,259</td>
</tr>
<tr>
<td>14.</td>
<td>Sivagangai</td>
<td>538</td>
<td>8,604</td>
</tr>
<tr>
<td>15.</td>
<td>Virudhunagar</td>
<td>309</td>
<td>5,084</td>
</tr>
<tr>
<td>16.</td>
<td>Tirunelveli</td>
<td>566</td>
<td>15,921</td>
</tr>
<tr>
<td>17.</td>
<td>Kanyakumari</td>
<td>115</td>
<td>5,498</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>11,397</strong></td>
<td><strong>4,25,076</strong></td>
</tr>
</tbody>
</table>

Source: Dairy Development Department Policy Note 2013-14.

Table 2.6 explains the union-wise societies and its members.
Figure 2.3 shows about the only union-wise number of societies.

2.8.1.2 District Co-operative Milk Producers Unions

17 District Co-operative Milk Producers Unions function in the state and the primary Milk Co-operatives functioning in the area of operation are affiliated to the District Unions concerned. In the absence of an elected Board, the Collector of the District where the Union is located acts as the Special officer/Administrative of the Union.
The main activities of the Unions are the following:

1. Procurement of Milk from Primary Societies.

2. Promotion of Clean Milk Production and quality based milk cost payment.


5. Conversion of Surplus Milk into Skimmed Milk Powder and Milk Products.

### TABLE 2.7

**District Co-operative Milk Producers Unions’ Capacity**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the Union</th>
<th>Year of Commencement</th>
<th>Number of Chilling Centres</th>
<th>Licensed Capacity including Dairy (in LPD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Kancheepuram-Tiruvallur</td>
<td>1979</td>
<td>2</td>
<td>1,10,000</td>
</tr>
<tr>
<td>2.</td>
<td>Villupuram</td>
<td>1982</td>
<td>2</td>
<td>3,00,000</td>
</tr>
<tr>
<td>3.</td>
<td>Vellore</td>
<td>1982</td>
<td>4</td>
<td>3,80,000</td>
</tr>
<tr>
<td>4.</td>
<td>Dharmapuri</td>
<td>1982</td>
<td>2</td>
<td>2,50,000</td>
</tr>
<tr>
<td>5.</td>
<td>Salem</td>
<td>1978</td>
<td>3</td>
<td>5,00,000</td>
</tr>
<tr>
<td>6.</td>
<td>Erode</td>
<td>1975</td>
<td>3</td>
<td>4,50,000</td>
</tr>
<tr>
<td>7.</td>
<td>Coimbatore</td>
<td>1979</td>
<td>4</td>
<td>2,50,000</td>
</tr>
<tr>
<td>8.</td>
<td>Nilgiris</td>
<td>1982</td>
<td>1</td>
<td>50,000</td>
</tr>
<tr>
<td>9.</td>
<td>Madurai</td>
<td>1983</td>
<td>1</td>
<td>2,00,000</td>
</tr>
<tr>
<td>10.</td>
<td>Dindigul</td>
<td>1987</td>
<td>2</td>
<td>1,50,000</td>
</tr>
<tr>
<td>11.</td>
<td>Tiruchirapalli</td>
<td>1980</td>
<td>3</td>
<td>3,30,000</td>
</tr>
<tr>
<td>12.</td>
<td>Thanjavur</td>
<td>1982</td>
<td>1</td>
<td>50,000</td>
</tr>
<tr>
<td>13.</td>
<td>Pudukottai</td>
<td>1985</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14.</td>
<td>Sivagangai</td>
<td>1982</td>
<td>2</td>
<td>74,000</td>
</tr>
<tr>
<td>15.</td>
<td>Virudhunagar</td>
<td>1985</td>
<td>1</td>
<td>60,000</td>
</tr>
<tr>
<td>16.</td>
<td>Tirunelveli</td>
<td>1982</td>
<td>4</td>
<td>1,00,000</td>
</tr>
<tr>
<td>17.</td>
<td>Kanyakumari</td>
<td>1982</td>
<td>0</td>
<td>20,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>35</strong></td>
<td></td>
<td><strong>32,74,000</strong></td>
</tr>
</tbody>
</table>

Source: Dairy Development Department Policy Note 2013-14.

Table 2.7 specifies name of the union, year of commencement, number of chilling centres and their licensed capacity.

**2.8.1.3 Tamil Nadu Co-operative Milk Producers Federation Limited**
The Tamilnadu Co-operative Milk Producers Federation was started on 01.02.1981 encompassing all the District Unions under its control. Designed on the ‘Anand Model’ of Gujarat state, the Dairy Development programmes are being implemented through a network of co-operatives, under the brand name ‘Aavin’. In Tamilnadu the three-tier structure of the Organisation functions under the Dairy Development Department, which implements several schemes through the Milk Cooperative Societies, the District unions, and the Federation with to augment the milk production.

A. Metro Dairies

**TABLE 2.8**

<table>
<thead>
<tr>
<th>Name of the Dairy</th>
<th>Activity</th>
<th>Capacity (in Litres Per Day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madhavaram Dairy</td>
<td>Milk Processing</td>
<td>2.00</td>
</tr>
<tr>
<td>Ambattur Dairy</td>
<td>Milk Processing</td>
<td>4.00</td>
</tr>
<tr>
<td>Sholinganallur Dairy</td>
<td>Milk Processing</td>
<td>4.00</td>
</tr>
<tr>
<td>Product Dairy Ambattur</td>
<td>Milk Products</td>
<td>0.10</td>
</tr>
</tbody>
</table>

Source: Dairy Development Department Policy Note 2013-14.

Table 2.8 shows the capacity of Tamil Nadu metro dairies in milk processing and milk products activities.

2.9 FUNCTIONS OF THE DAIRY DEVELOPMENT DEPARTMENT AAVIN
The main functions of the Dairy Development Department include organisation of societies, registration of societies, supervision and control of primary milk cooperatives, District Cooperative Milk Producers Unions and Tamilnadu Cooperative Milk Producers Federation.

The Dairy Development Department exercises statutory function - like Inquiry, Inspection, Surcharge and Super session, appointment of special officers, liquidation and winding up of dormant societies and so on. The Commissioner for Milk Production and Dairy Development, Deputy Milk Commissioner (Co-operation), and Circle Deputy Registrars (Dairying) are vested with quasi-judicial powers in respect of settlement of disputes, appeal, revision and review under various provisions of Tamil Nadu Cooperative Societies Act, 1983 and the Tamil Nadu Cooperative Societies Rules, 1988 made there under. The Commissioner for Milk Production and Dairy Development has been designated as the State Registering Authority for the state of Tamil Nadu, under the provisions of Milk and Milk Products Order 1992. All the Dairy units including private Dairies handling more than 10,000 lpd of milk or Milk Products containing milk solids in excess of 500 Metric tones per annum have to obtain registration certificate under the provision of Milk and Milk Products Order 1992. The Commissioner for Milk Production and Dairy Development/State Registering Authority has been conferred with powers to register the dairy units having handling capacity from 10,000 lpd to 2,00,000 lpd. The Commissioner/State Registering Authority, Deputy Milk Commissioner (Co-
operation)/District Collectors and Deputy Registrars (Dairying) have been authorized to carry out supervision and periodic inspection of the dairies.

2.9.1 Primary Dairy Cooperatives Milk Societies

A minimum of 25 or more individuals competent to contract under section 11 of the Indian Contract Act of 1872, owning milch animals, can form a Primary Dairy Cooperative Society, with one or more villages as its area of operation. Such persons have to approach the Circle Deputy Registrar's (Dairying) office functioning at the District for further guidance. The members of Primary Cooperative milk society have to supply milk to the Society which will procure milk on quality basis and they will receive milk cost once in 10 days/15 days from the Society.

2.9.2 Women Milk Producers’ Cooperative Societies

In order to encourage the women members to contribute more to the dairy sector, they are being called upon to organise women milk producers' cooperative societies in their respective areas. There are 1210 women milk Producers’ cooperative societies functioning in Tamilnadu.

Primary Milk Co-operative Societies and District cooperative Milk Producers Unions and Federation were previously administered by elected Boards. All the primary Milk Cooperative Societies are now functioning under the Control of Special Officers since 26.5.2001. In respect of District Cooperative Milk Producers Unions, the Collectors of respective Districts have been appointed as Special Officers and for Tamilnadu Cooperative Milk Producers Federation Ltd., the Managing Director of the Federation
has been appointed as Special Officer. Consequent on the bifurcation of the Dharmapuri District and creation of new District namely Krishnagiri, the District Collector of Krishnagiri has been appointed as Special Officer of Dharmapuri District Cooperative Milk Producers’ Unions Ltd., with effect from 27.2.2004.

2.10 MILK PROCUREMENT

The average milk procurement per day during 2010 – 2013 is shown in the below Table 2.9.

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Year</th>
<th>Average Milk Procurement per Day (in Lakh Litres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2010-2011</td>
<td>20.67</td>
</tr>
<tr>
<td>2.</td>
<td>2011-2012</td>
<td>21.40</td>
</tr>
<tr>
<td>3.</td>
<td>2012-2013</td>
<td>24.36</td>
</tr>
</tbody>
</table>

Source: Dairy Development Department Policy Note 2013-14.

Table 2.9 shows that, the milk procurement during 2012-2013 has increased to 24.36 lakh litres per day on an average as against 20.67 lakh litres in 2010-2011.

2.10.1 Union-wise Milk Procurement

Table 2.10 indicates the union-wise milk production during the year 2011-12 to 2012-13.

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Name of the Union</th>
<th>2011-2012</th>
<th>2012-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Kancheepuram-Tiruvallur</td>
<td>56,000</td>
<td>75,000</td>
</tr>
<tr>
<td>2.</td>
<td>Villupuram</td>
<td>1,52,000</td>
<td>1,78,000</td>
</tr>
</tbody>
</table>
Table 2.10 shows the union wise milk procurement during in year 2011-2012 to 2012-2013.

### 2.11 EFFORTS TO MODERNISE TN DAIRIES

With Tamil Nadu emerging as one of the major milk producers in the country, efforts are being made to modernise dairies to increase procurement and preservation of milk products.

A ₹21.41-crore plan is on to upgrade the dairies at Vellore, Ambattur, Krishnagiri, Kakalur, Madhavaram, Sholinganallur, Erode and Villupuram, Dairy Development Department sources said.
While the Vellore dairy would handle facilities like milk and cream pasteuriser, and ghee settling tank, orders have been placed to purchase 10 units of milk coolers to enhance ice-cream production facilities, among others.

2.11.1 Satellite dairy

The Kakalur dairy is being upgraded at ₹3.6 crores to handle up to one lakh litres of milk per day. The dairy would be made a ‘satellite dairy’, especially to serve Chennai residents.

Besides, the Government has undertaken an ‘intensive’ milk development programme under which it is proposed to create infrastructure to step up milk processing and marketing, improvisation of milk procurement and milk sales.

2.11.2 Mobile Milk Parlour

Noting that a new modern milk parlour is established in Chennai under the initiative of strengthening the cold chain network for milk products, the sources said the installation of mobile parlours across Chennai is on.

“The work for installation of two new parlours in the city is in progress”, they said.

“Observing that the Centre has sanctioned ₹ 2.99 crore to upgrade the District Co-Operative Milk Producers’ Union in Pudukkottai and Virudhunagar Districts, the sources said: “the Government of India has released ₹ 1.89 crore as the first year grant.”
However, the State Government has sent three new proposals to the Centre for establishing similar unions in Nilgiris, Dharmapuri and Kancheepuram-Thiruvallur districts, respectively at ₹10.13 crore.

The union’s activities are to procure milk from primary societies and promote milk production, among others.

At present, 17 district co-operative milk producers’ unions operate in the state. At the village level, there are 9,231 milk producers’ co-operative societies.

Sources in the Tamil Nadu Co-operative Milk Producers’ Federation Ltd (Aavin) said of the 21 lakh litres of milk procured by it from cooperative societies across the state, 11 lakh litres was supplied to meet the requirements of Chennai.\(^\text{16}\)

2.12 TALUK–WISE MILK PRODUCTION IN VIRUDHUNAGAR DISTRICT

Taluk-wise milk production in Virudhunagar District is shown in Table 2.11.

<table>
<thead>
<tr>
<th>Taluks</th>
<th>Milk Production (per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aruppukottai</td>
<td>3650</td>
</tr>
<tr>
<td>Kariapatti</td>
<td>2250</td>
</tr>
<tr>
<td>Rajapalayam</td>
<td>25320</td>
</tr>
<tr>
<td>Sattur</td>
<td>3420</td>
</tr>
<tr>
<td>Sivakasi</td>
<td>21370</td>
</tr>
</tbody>
</table>
Table 2.11 shows the milk production per day in each taluk of Virudhunagar District during 2013–2014. Rajapalayam, Sivakasi and Srivilliputhur produce large quantity of milk as compared to other taluks in the study area.

**2.13 RECENT PRICE HIKE OF MILK**

The Tamil Nadu Government has hiked procurement and sales price of Aavin milk by the dairy cooperative. The price hike per litre has been implemented for all varieties of Aavin milk. Despite the hike the cooperative milk brand will continue to be ₹ 6 a litre cheaper than that of leading private dairy brands. The milk price has been hiked after nearly three years and has been necessitated by the increasing cost of production as the cost of milch cows; animal feed and fodder have gone up.

In line with the demand by dairy farmers the Tamil Nadu Cooperative Milk Producers Federation, the apex body for cooperatives, has also hiked the procurement price of milk.

From November 1, 2014, the dairy cooperative will pay dairy farmers ₹.5 more per litre for cow milk taking the procurement price to ₹.28 a litre and ₹.4 more for buffalo milk which will give dairy farmers ₹.35 a litre.
The release pointed out that the cooperative had hiked the procurement price in January this year by ₹3 a litre but had not passed on the hike to the consumers. Typically, the procurement price of milk is about 75-80 per cent of the retail price.

The hike in sales price of milk will help improve the viability of the dairy cooperative. The State Government has given the Federation financial assistance of over ₹192 crore and helped stabilise its operations. The milk price hike will benefit over ₹22.5 lakh dairy farmers, the release said.

It is understood that the hike in sales price will help Aavin turn a small profit of about ₹0.22 (22 paise) a litre. Previously the dairy cooperative was making a loss of about ₹4.77 on every litre of milk sold. Aavin sells about 21.5 lakh litres of milk daily in Tamil Nadu with 11.5 lakh litres sold in Chennai and the balance across the State.

Due to sustained losses, Aavin has lost its dominant position in the dairy market to private brands.
REFERENCES

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13. http://shodhganga.inflibnet.ac.in/bitstream/10603/9835/12/12_chapter%204.pdf