CHAPTER I

INTRODUCTION

1.1. Introduction

Milk has enjoyed a pride of place among all foods in India, being regarded as "nectar" since the dawn of Indian civilization some 5000 years back. The dairy sector is important for its complementarities with agriculture and for its capability to provide protein-rich diet to the vegetarian population. Consequent to the remunerative price being received by the milk producer, the milk economy is transforming from a subsistence activity to commercial activity. Yet, the consumer has benefited because the increase in milk prices has been generally lower than the rate of inflation and in comparison to other food products. As the world's largest milk producer, India's production exceeds 258 million litres per day. Some 70 million farmers maintain a milch herd of about 105 million i.e. 58 million cows and 47 million buffaloes, fed largely on crop residues. They account for 98 per cent of all milk produced in India. Milk production starts as a trickle of one to two litres per family in some five lakh remote villages. A unique collection system transforms this trickle into a veritable flood of 140 million litres per day for urban consumers.¹

India is among the world's largest and fastest growing markets for milk and milk products. The average annual growth rate of milk production has been 4 per cent during the past decade. However, the country's per capita milk availability is

lower than the world's daily average of 285 grams though it doubled from 124 grams in 1966 to 240 grams per day in 2005. The demand for milk has always kept pace with the production. The dairy sector is emerging as an important growth leverage of the Indian economy. It is the largest contributor of agricultural sector to India's GDP, contributing 27 per cent to gross domestic product from agriculture. From chronic shortages, India has emerged as the largest milk producer in the world. The backbone of the Indian dairy sector is the milk co-operatives. Dairy co-operatives account for the major share of processed liquid milk marketed in the country. Milk is processed and marketed by 170 milk producers' Co-operative unions, which federate into 15 state Co-operative milk marketing federations.

1.2. Milk

Milk is nature's most perfect food containing all the essential ingredients of rich diet. The proteins not only have essential nutritional quality, but also have the ability to raise the biological value of vegetable proteins. Milk and its products are traditional and highly accepted form of food and it occupies a special position of being an animal food that has vegetarian connotation. James M. Wamer says that life expectancy and milk consumption are related. Those nations consuming the largest amount of milk has the longest expectancy of life, while, those with low per capita consumption of milk have the lowest expectancy of life. Wikipedia encyclopedia defines dairy milk as an opaque white liquid produced by the mammary glands of mammals including monotremes. It provides the primary

---

source of nutrition for newborn mammals before they are able to digest other types of food. The early lactation milk is known as colostrum, and carries the mother's antibodies to the baby. It can reduce the risk of many diseases in the baby. The exact components of raw milk varies by species, but it contains significant amounts of saturated fat, protein and calcium as well as Vitamin C. Cow's milk has a pH ranging from 6.4 to 6.8, making it slightly acidic.

1.3. Importance of Milk

Milk is one of the greatest blessings that are given to humans by nature. Milk is considered a complete and great food. People in the past used milk and things made by it most of the time like cheese. According to the research of health experts, the secret behind long ages and good health of people was use of milk. Milk is proved to a complete food from latest scientific researchers. All the important elements that are needed for body are in milk. Milk has hundreds of benefits to our bodies, health and mind. Especially the milk of cow and goat has many benefits. The milk of cow keeps the stomach system of old people and kids strong. Most of the people drink milk while sleeping but the correct time of drinking milk is morning.

Milk and milk products contain various nutrients and provide a quick and easy way of supplying these nutrients to our body while keeping the calories in check. Milk provides nutrient & like calcium, phosphorus, magnesium and protein to name a few. One glass of milk provides all the recommended dietary allowances of nutrients. The calcium in the milk helps to build strong bones and teeth. Bones development and growth is dependent on calcium intake. Most of the bone
development takes place in childhood and teen years. Milk products reduce the risk of high blood pressure due to the presence of potassium, magnesium and calcium. It is recommended that we drink a minimum of 8 glasses of water daily. As milk is high in water content drinking milk takes care of a part of our daily fluid intake. It is amazing that although milk has so many healing powers yet adults and children alike refuse to drink a glass of milk like it is the energy.

1.4. Dairy Co-operatives

Dairying, as an activity has existed in India since the dawn of civilization. Vedas, Epics and Puranas depict cattle as a symbol of prosperity. The epidemic outbreak of rinderpest in 1836 causing heavy mortality amongst cattle and buffaloes, led to the setting up of Indian Cattle Plague Commission. This paved way for setting up of Indian Civil Veterinary Department in 1891. From this evolved the department of Animal Husbandry and Veterinary Services, in all the states. This helped in setting up of a network of facilities to provide preventive health cover to livestock. The idea of dairy Co-operative originated first in Switzerland in the village of Kiesen in 1815. Later on it spread over Denmark, Europe, and the USA. In India the seed of co-operation was sown in 1904 with the passage of first Cooperative Act. The Indian dairy co-operatives are organized on three-tier structure: at the bottom, village level primary dairy Co-operative societies; at district/tehsil level, milk processing unions; and at the state level state Co-operative marketing dairy federations. Village level primary Co-operative societies form a milk union at district level to process their milk in a plant. Similarly, district level milk unions federate into a state level milk marketing
federation for the efficient marketing of their produce. On a closer look, one could find that these co-operatives are working for the same purpose i.e. maximizing return for milk producers by adding value in different ways in the whole value chain. There is also a fourth tier, the National Co-operative Dairy Federation of India, which is a national-level body that formulates policies and programmes designed to safeguard the interests of all milk producers. In India dairy co-operatives are successful because of their empowerment, labour intensiveness and cost effectiveness.

In India the first dairy Co-operative society was registered in 1913 at Allahabad in Uttar Pradesh and was called "Katra Co-operative Dairy Society" and subsequent facilities were established in Bangalore, Ootacamund and Karnal. This did not have any impact on the supply of milk to the urban consumers. To some extent, the second world war gave impetus to private dairies. Polsons, Keventers and Express Dairy were some of the pioneers in urban processing dairies. In one of the earliest urban milk supply schemes, Polsons, a private dairy at Anand procured milk from producers through middlemen, processed it and then sent the milk to Mumbai, some 425 km away. Mumbai was a good market for milk and Polsons profited immensely.

In the mid 1940s, when the milk producers in Kaira asked for a proportionate share of the trade margins, they were denied even a modest increase. The milk producers went on strike, refusing to supply milk to Polsons. On the advice of Sardar Vallabhai Patel, a leader in India's independence movement, the milk producers registered the Kaira District Co-operative Milk Producers’ Union,
now popularly known as Amul, in 1946. The Kaira District Co-operative Milk Producers Union at Anand was the first producer oriented union formed in 1946 and constituted an important landmark in the development of the dairy Co-operative movement.

In October 1964, on the occasion of the inauguration to Amul's cattle feed plant, the then Prime Minister of India, Lal Bahadur Shastri spent the night as the guest of a village milk Co-operative society near Anand. Impressed by the socio-economic changes brought about by the milk co-operatives, he expressed the desire for a national level organisation to replicate Anand model dairy co-operatives throughout the country and to make available multi-disciplinary, professional dairy expertise to dairies in the public and Co-operative sectors. Thus, the Ministry of Agriculture constituted a National Dairy Development Board (NDDB) on 26th September 1965 to organize and execute dairy development programmes in the country. Consistent with its model and mandate, NDDB headquarters was established at Anand. In 1969-70, NDDB developed an ambitious integrated scheme for development of the dairy industry and marketing of milk, which is commonly known as 'Operation Flood'.

1.5. Operation Flood

The strategy for organized dairy development in India was conceived in the late 1960s, within a few years after the National Dairy Development Board was founded in 1965. It rested on the Operation Flood Programme, which was conceived by the NDDB and endorsed by the government. Operation Flood is a unique approach to dairy development. During the 1970s, dairy commodity
surpluses were building up in Europe, and Verghese Kurien, the founding chairman of NDDB, saw in those surpluses both a threat and an opportunity. The threat was massive exports of low-cost dairy products, which, had it occurred, would have tolled the death-knell for India's staggering dairy industry. The large quantity that India was already importing had eroded domestic markets to the point where dairying was not viable. The opportunity, on the other hand, was built into the Operation Flood strategy. Designed basically as a marketing project, Operation Flood recognized the potential of the European surpluses as an investment in the modernization of India's dairy industry.

The first phase of Operation Flood was launched in 1970 following an agreement with the World Food Programme, which undertook to provide as aid 126000 tonnes of skim milk powder and 42000 tonnes of butter oil to finance the programme.

The programme involved organizing dairy co-operatives at the village level, creating the physical and institutional infrastructure for milk procurement, processing, marketing and production enhancement services at the union level, and establishing dairies in India's metropolitan centres. The main thrust was to set up dairy co-operatives in India's best milk sheds, linking them with the four main cities of Bombay, Calcutta, Delhi and Madras, in which a commanding share of the milk market was to be captured.

In achieving that goal, the first phase of Operation Flood laid the foundation for India's modern dairy industry, an industry that would ultimately meet the country's need for milk and milk products.
The second phase of the programme was implemented between 1981 and 1985. Designed to build on the foundation laid in the first phase, it integrated the Indian Dairy Association assisted dairy development projects being implemented in some Indian states into the overall programme. About US$150 million was provided by the World Bank, with the balance of project financing obtained in the form of commodity assistance from the EEC.

The third phase of Operation Flood aims at ensuring that the Co-operative institutions become self-sustaining. With an investment of US$360 million from the World Bank, commodity and cash assistance from the EEC and NDDB’s own internal resources, the programme envisages substantial expansion of the dairy processing and marketing facilities, an extended milk procurement infrastructure, increased outreach of production enhancement activities and professionalization of management in the dairy institutions.

1.6. Evolution of Indian Dairy Industry

The history of dairy development movement in India is of recent origin. It dates back to the pre-independence period when its activities were confined to some pockets of Calcutta, Madras, Gujarat and Bangalore.

1.6.1. Pre-Independence Period

The earliest attempts at dairy development can be traced back to British rule, when the Defence Department established military dairy farms to ensure the supply of milk and butter to the colonial army. The first of these farms was set up in Allahabad in 1913. The subsequent facilities were established in Bangalore,
Ootacamund and Karnal. These farms were well maintained and, even in the early stages, improved milch animals were raised. As animals were reared under farm conditions, some herd improvement was made using artificial insemination. This approach did not have any impact on the supply of milk to urban consumers, which was of major concern to civilian authorities but less important to the military. With the advent of the 19th century, the condition was getting changed and in real sense, the people of India adopted dairy industry professionally.

To fulfill the need of the dairy, the cattle breeding centers were started during the English rule. The first cattle breeding center was established at Allahabad in 1891. Later on, such cattle breeding centers were started at Bangalore, Poona, Kurnal and Hissar. In 1923, expert services of Imperial Dairy was started by the British Government. Then after, the Bangalore centre was converted into Imperial Dairy Research Institute in the year 1941. After the First World War, such cattle breeding centers were handed over to central government and after that they were put under the control of concerned state governments. In these centers, cattle's breeding was done on a scientific basis and item like paneer was also started to be made. There were only some isolated efforts towards forming the co-operatives made in 1930s and 1940.

The first dairy Co-operative was made in Allahabad in 1913. Then, many co-operatives came up in Erode district of Tamil Nadu, in Surat district of Gujarat and in several areas of Maharashtra. But because of inadequate organization and management, it could not get the expected progress.
1.6.2. AMUL

Amul is an Indian dairy cooperative based at Anand in the state of Gujarat, India. The cooperative was initially referred to as Anand Milk Federation Ltd., hence, the name AMUL. In 1946, with the birth of 'Amul Dairy' the Co-operative movement was started in India with a better impact and it comes into their original tempo. In the beginning, Amul Dairy was procuring just only 250 litres of milk per day for Mumbai and today, it procures around 20 Lakh litres of milk per day. It is one of the biggest dairies of Asia which has brought a tremendous revolution and has been providing its excellent services throughout India and also in the world. Amul spurred India’s White Revolution which made the country the world’s largest milk and milk product producer. After the "Amul Revolution", Poison Dairy started a butter factory in Khagol, near Patna and then many private traders like Nestle in Moga, Glaxo in Aligad, Horlicks in Nabha, Hindustan Lever in Atta, etc. were started. Amul became the largest food brand in India and ventured in to oversees market. Amul is also the largest Exporter of dairy products in India. Amul is exporting a wide variety of milk and milk products to more than 40 countries around the world. The major markets are USA, West Indies, African Countries, Gulf region and Japan. Amul is ranked 7th in the list of India’s most trusted food and beverages brands.

1.6.3. Under Five Year Plans

Planning is intended to “promote a rapid rise in the standard of living of the people by efficient exploitation of the resources of the country, increasing production and offering opportunities to all for development in the service of the
community.\(^3\) Thus, the planning in India is aimed at setting up the tempo of economic activity in general and industrial development in particular. The basic goal is to improve the standard of living of the people, through various welfare and socialistic measures.\(^4\) More than 70 per cent of the Indian population who live in villages depend on agriculture and allied sector for their livelihood. Therefore, the planners have been keeping this factor as primary in their consideration for planned economic growth. In fixing the priorities in the plan outlays, agriculture and animal husbandry are necessarily through or by the planners. The post-independence period is significant because of the gradual recognition given to the dairy development by launching.

First Five Year Plan

With the initiation of India's First Five-Year Plan in 1951, modernization of the dairy industry became a priority for the government. The goal was to provide hygienic milk to the country's growing urban population. To stimulate milk production, the government implemented the Integrated Cattle Development Project and the Key Village Scheme, among other similar programmes. In the absence of a stable and remunerative market for milk producers, however, milk production remained more or less stagnant. Work on dairy development was undertaken in the state of Andhra Pradesh, Bihar, Madhya Pradesh, Orissa, Tamil Nadu and Uttar Pradesh. Establishment of the 146 key village blocks with artificial insemination centres, 650 veterinary hospitals and 25 Gosadans also took place. The milk supply schemes in Bombay and Calcutta were also taken up. The total milk output in country was 18 millions MT during this Plan. The share of total spending going to animal husbandry and dairy activities was 1.21 per cent.

---

Second Five Year Plan

The Second Five Year Plan (1956-61) laid down certain specific objectives relating to the production, marketing and consumption of milk. Firstly, emphasis was laid on quality control. Secondly, it stressed on paying remunerative price to milk producers and a reasonable price to the consumers. Thirdly, it favoured the organization of village level milk producers’ Co-operatives to supply milk to the city dairies, creameries and milk dairying plants. During the 1960s, various state governments tried out different strategies to develop dairying, including establishing dairies run by their own departments, setting up cattle colonies in urban areas and organizing milk schemes. Almost invariably, dairy processing plants were built in cities rather than in the milk-sheds where milk was produced. This urban orientation to milk production led to the establishment of cattle colonies in Bombay, Calcutta and Madras. These government projects had extreme difficulties in organizing rural milk procurement and running milk schemes economically, yet none concentrated on creating an organized system for procurement of milk, which was left to contractors and middlemen. This left government-run dairy plants to use large quantities of relatively cheap, commercially imported milk powder. High fat buffalo milk was extended with imported milk powder to bring down the milk price, which resulted in a decline in domestic milk production. As the government dairies were meeting barely one-third of the urban demand, the queues of consumers became longer while the rural milk producer was left in the clutches of the trader and the moneylender.
All these factors combined left Indian dairying in the most unsatisfactory low-level equilibrium. During this Plan, establishment of milk cattle in metropolitan cities on the Aarey (Bombay) pattern was also thought of. The dairy development programme envisaged establishment of a dairy factory at Anand, 36 liquid plants, expansion of existing 114 blocks with 670 artificial insemination centres, 34 new Gosadans, 248 Goshalas, 1900 veterinary hospital promoting 3 private entrepreneurs namely Glaxo, Levers and Nestle for establishing milk product factories. The Plan also included the expansion of NDRI, Southern Regional Station at Bangalore. By 1959, there were 2257 Co-operative milk supply societies and 77 milk supply unions in the country with a membership of 211131 which owned funds of ₹183 lakhs and sold milk and milk products worth ₹11.32 crores.

Third Five Year Plan

The policy of the Third Five Year Plan (1961-66) was to develop dairy projects with emphasis on milk production in rural area linked with plants for marketing surplus milk to urban centres. The plan aimed at the establishment of 55 milk supply schemes for cities and industrial townships, 8 rural creameries, 6 milk product factories, 2 cheese factories, 4 cattle feed compounding factories besides the completion of spill over schemes of the Second Five Year Plan. During the Plan period, Madras Milk Supply Scheme was taken up and 23 liquid milk plants and 27 pilot milk schemes were in operation and the daily average output of milk in the organized sector was 13 lakh litres. 4 milk product factories and 3 creameries were also commissioned and work on the establishment of another 37 liquid milk plants was initiated. During this period, the National Dairy Development Board was established at Anand.
Fourth Five Year Plan

The physical targets under Fourth Five Year Plan (1969-74) envisaged setting up of 49 milk supply schemes, 11 milk product factories and 43 rural dairy centres of these; 6 milk supply schemes, 2 milk product factories and 32 rural dairy centres were commissioned. The gross breeding in cattle with exotic dairy breeds was taken up on a large scale during the Plan by establishment of frozen semen stations. The project “Operation Flood” was conceived and formulated by the NDDB in this period. But the NDDB, being a programme launching body, was not authorized to transact any financial and commercial activities. The Union Government set up the Indian Dairy Corporation in 1970 at Baroda to execute this project with a financial grant of 95 crores. The IDC acted as canalizing agent for the import of cattle and buffaloes for breeding purpose.

Fifth Five Year Plan

Towards the end of the year 1974, 100 dairy plants and 62 pilot dairy schemes were set up under government and Co-operative sectors. Of these 100 dairy plants, 94 were managed by government either department or through newly created State Dairy Development Corporations. The dairy plants in the government sector and two out of the six dairy plants in the Co-operative sector were concerned only with milk procurement, processing and sales. These dairies did not take up the responsibility of providing the inputs like feed, fodder, technical know-how, etc. to other sister units. By 1975, work on expansion of the capacities of the dairy plants in the four cities was completed and two large new plants were commissioned in Delhi and Bombay. Besides these large urban dairy plants, establishment of 13 new plants and expansion of the capacity of 7 existing rural
dairy plants were also planned. An integrated project on cattle breeding, farm forestry and food for work programme was taken up to benefit the weaker sections of farmers in the states of Gujarat, Maharashtra, Uttar Pradesh and Orissa.

**Sixth Five Year Plan**

During this Plan attention was given to feed and fodder production. Necessary steps were taken to make available reliable and timely livestock statistics to facilitate taking decisions on perspective planning besides their implementation, monitoring and evaluation of project of animal husbandry and dairying. Three integrated cattle cum dairy development projects were started in the states of Rajasthan, Madhya Pradesh and Karnataka. It was aimed to bring 10 million cows under cross-breeding programme against the coverage of about 3 million cows up to 1978-79 with the launching of project Operation Flood II. Taking into account the impact of this project, the level of milk production is anticipated to reach the level of 38 million tonnes implying a growth rate at 4.80 per cent by the end of the Sixth Plan.

**Seventh Five Year Plan**

The Seventh Plan observed that the co-operatives were playing an important role in dairy development. Under this Plan it was proposed to develop national milk grid to the milk requirement of four metropolitan and other cities of India. The performance of Co-operative dairy sector is remarkable which has given a new direction to dairy development in India. The stimulus given to the development of dairy industry by the dairy Co-operative organization has been one of the most important landmarks in the history of dairy development in India.
Annual Plans (1990-91 and 1991-92)

A sum of ₹985.30 lakh and ₹1140.90 lakh was spent on animal husbandry during two annual plans, 1990-91 and 1991-92, respectively. As far as dairy development was concerned, the outlay was ₹304 lakh and ₹375 lakh in 1990-91 and 1991-92 respectively. However, the actual expenditure on dairy development during these two years was ₹280 lakh and ₹350 lakh respectively. During these annual plans, milk procurement rose to 7.02 lakh metric tonnes, 15365 persons were trained and 104053 million tonnes of cattle feed was sold.

Eighth Five Year Plan

During the Eighth Five Year Plan ₹230 lakh was provided for the development of the dairy industries, which was ₹103 lakh more than what was provided in the 7th Plan. In addition, the target for the installed capacity of the dairies at the end of the Eighth Five Year Plan was set at 41 lakh liters per day, which was 30 lakh liters per day in the earlier Plan.

Ninth Five Year Plan

The realities of the post-GATT are reflected in the report of the Working Group on Animal Husbandry and Dairying for the formulation of the Ninth Plan. Animal health takes the place of pride and for good reasons too. The Ninth Plan has a very large programme for controlling major livestock diseases. Simultaneously, the focus of dairy development was shifted from its role as a source of supplementary income to a more positive one as a viable enterprise to improve the quality of life of some 70 million farm households with little or no land. The proposed outlay of the Ninth Plan on animal husbandry and dairying was ₹19650 million, of which ₹4850 million would be allocated for dairy development.
**Tenth Five Year Plan**

The Indian dairy industry acquired substantial growth from the Eighth Plan onwards, achieving an annual output of over 104.80 million tonnes of milk at the end of 2007-08. India's milk output has not only placed the industry first in world, but also represents sustained growth in the availability of milk and milk products. Intensive Dairy Development Programme on the basis of the recommendation of the evaluation studies was launched during the Eighth Plan period and is being continued during the Tenth Plan. A sum of ₹373.82 crore had been released to various state governments upto 31st March, 2009 and 207 districts were covered. Dairy Venture Capital Fund was initiated in the Tenth Five Year Plan. The assistance under the scheme is provided to the rural/urban beneficiaries under a schematic proposal through bankable projects with 50 per cent interest free loan component. The scheme is implemented through NABARD and the funds released by Government of India to NABARD are kept as revolving fund. Under the scheme the entrepreneur has to contribute 10 per cent and arrange 40 per cent loan from local bank. Government of India provides 50 per cent interest free loan through NABARD. Government of India also subsidizes the interest component payable by the farmer's agricultural activities to the extent of 50 per cent only in case of regular/timely repayment. This scheme was approved in December 2004 with a total outlay of ₹25 crore.

**Eleventh Five Year Plan**

In 2010, India’s milk production crossed the 110 million tonnes mark, meaning that India had more than trebled its production in the last three decades. Over this period, annual demand for milk had grown from 38 kg to 65 kg per capita.
The central sector scheme, "Dairy Entrepreneurship Development Scheme" was implemented during the Eleventh Plan. The main objectives of the scheme are setting up modern dairy farms for production of clean milk, encourage heifer calf rearing for conservation and development of good breeding stock, bring structural changes in unorganized, up-gradation of traditional technology, generate self-employment and provide infrastructure mainly for unorganized dairy sector.

1.7. World Milk Production

Milk has certain features that distinguish it from other agricultural products and shape its production, processing and trade. Milk is a bulky and heavy commodity which requires high-cost storage and transportation as it gets spoiled quickly without cooling. Due to this fact even the largest dairy farms cannot supply adequate quantities to a processing plant. Each single dairy farm supplies only a small share of the total milk processed. The dairy industries in many countries are organized along Co-operative lines. Milk producing co-operatives bundle the interest and supply of a large number of dairy farmers and strengthen their bargaining power towards processors or even run their own processing plants. Many countries which are large producers, consume this internally, while others in particular New Zealand export a large percentage of their production. The world’s largest exporter of dairy products is New Zealand which exports about 95 per cent of its milk production and, with an export volume of about 15 million tons. Japan is the world’s largest importer of dairy products. Two thirds of total world milk is produced by Brazil, India, Pakistan, Poland, the Russian Federation, the USA, and European countries. World cow’s milk production in 2012 stood at 620 million tonnes, with the top ten producing countries accounting for 56.60 per cent of
production. The USA is the largest cow's milk producer in the world accounting for 14.60 per cent of world production, producing nearly 91 million tonnes in 2012, an increase of 2.10 per cent when compared to 2011. India is the largest milk producer and consumer in the world by producing 132.4MT of milk in the year 2011-12 and its per capita availability is 290 gms/day. India is the second largest cow's milk producer, accounting for 8.70 per cent of world production and producing 54 million tonnes in 2012. The UK is the 10th largest producer in the world producing nearly 14 million tonnes in 2012 and accounting for 2.20 per cent of world cow's milk production. Of the top ten largest milk producing countries, New Zealand and Turkey showed the largest percentage growth from 2011 to 2012 at 12.10 per cent and 15.80 per cent respectively.

**TABLE 1.1**

**Estimates of Milk Production - State Wise**

<table>
<thead>
<tr>
<th>State</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
<th>2011-12</th>
<th>2012-13</th>
</tr>
</thead>
<tbody>
<tr>
<td>All India</td>
<td>112183</td>
<td>116425</td>
<td>121848</td>
<td>127904</td>
<td>132431</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>9570</td>
<td>10429</td>
<td>11203</td>
<td>12088</td>
<td>12762</td>
</tr>
<tr>
<td>Bihar</td>
<td>5934</td>
<td>6124</td>
<td>6517</td>
<td>6643</td>
<td>6845</td>
</tr>
<tr>
<td>Gujarat</td>
<td>8386</td>
<td>8844</td>
<td>9321</td>
<td>9817</td>
<td>10315</td>
</tr>
<tr>
<td>Haryana</td>
<td>5745</td>
<td>6006</td>
<td>6267</td>
<td>6661</td>
<td>7040</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>6855</td>
<td>7167</td>
<td>7514</td>
<td>8149</td>
<td>8838</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>7455</td>
<td>7679</td>
<td>8044</td>
<td>8469</td>
<td>8734</td>
</tr>
<tr>
<td>Punjab</td>
<td>9387</td>
<td>9389</td>
<td>9423</td>
<td>9551</td>
<td>9714</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>11931</td>
<td>12330</td>
<td>13234</td>
<td>13512</td>
<td>13946</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>6651</td>
<td>6787</td>
<td>6831</td>
<td>6968</td>
<td>7005</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>19537</td>
<td>20203</td>
<td>21031</td>
<td>22556</td>
<td>23330</td>
</tr>
</tbody>
</table>

*Source:* Compiled from the records of Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, Goi.
The above table (1.1) depicts the state-wise milk production in select states in India. As per the records of department of Animal husbandry, Dairying and fisheries, ministry of agriculture, GOI. In 2012-13 Uttar Pradesh stands in the first place, for the last five years from 2008-09 to 2012-13, Rajasthan, Andhra Pradesh, and Gujarat are the followers. Tamil Nadu stands at the ninth place. In 2012-13 by producing 7005 thousand tonnes of milk during the period 2008-09 to 2011-12. It is understood that there is a growth in 2012-13 than the previous years.

1.8. Production and Per Capita Availability of Milk in India

Production and per capita availability of milk in India for a period of 10 years from 2003-04 to 2011-12 is given in Table 1.2.

<table>
<thead>
<tr>
<th>Year</th>
<th>Milk Production (Million Tonnes)</th>
<th>Per Capita Availability (Gms/Day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003 – 04</td>
<td>88.10</td>
<td>231.</td>
</tr>
<tr>
<td>2004 – 05</td>
<td>92.50</td>
<td>233</td>
</tr>
<tr>
<td>2005 – 06</td>
<td>97.10</td>
<td>241</td>
</tr>
<tr>
<td>2006 – 07</td>
<td>102.60</td>
<td>251</td>
</tr>
<tr>
<td>2007 – 08</td>
<td>107.90</td>
<td>260</td>
</tr>
<tr>
<td>2008 – 09</td>
<td>112.20</td>
<td>266</td>
</tr>
<tr>
<td>2009 – 10</td>
<td>116.40</td>
<td>273</td>
</tr>
<tr>
<td>2010 – 11</td>
<td>121.80</td>
<td>281</td>
</tr>
<tr>
<td>2011 – 12</td>
<td>127.90</td>
<td>290</td>
</tr>
</tbody>
</table>

Source: Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, Government of India
Table 1.2 indicates the production and per capita availability of milk in India from 2003-04 to 2012-13. Production of milk shows an increasing trend over the period. The lowest milk production (88.10 million tonnes) was registered in the year 2003-04 and the highest was (127.90 million tonnes) in the year 2011-12. Likewise an increasing trend is found in the per capita availability of milk over the period. The lowest per capita availability of milk (231 gms per day) was in the year 2003-04 and the highest was (290 gms per day) in the year 2011-12.

1.9. Production and Per Capita Availability of Milk in Tamil Nadu

Production and per capita availability of milk in Tamil Nadu for a period of 10 years from 2002-03 to 2011-12 is given in Table 1.3.

**TABLE 1.3**

Production and Per Capita Availability of Milk in Tamil Nadu

<table>
<thead>
<tr>
<th>Year</th>
<th>Milk Production (llpd)</th>
<th>Per Capita Availability (Gms/Day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002–03</td>
<td>15.79</td>
<td>198</td>
</tr>
<tr>
<td>2003–04</td>
<td>17.26</td>
<td>198</td>
</tr>
<tr>
<td>2004–05</td>
<td>20.56</td>
<td>204</td>
</tr>
<tr>
<td>2005–06</td>
<td>21.59</td>
<td>231</td>
</tr>
<tr>
<td>2006–07</td>
<td>22.10</td>
<td>263</td>
</tr>
<tr>
<td>2007–08</td>
<td>21.64</td>
<td>272</td>
</tr>
<tr>
<td>2008–09</td>
<td>22.00</td>
<td>274</td>
</tr>
<tr>
<td>2009–10</td>
<td>22.30</td>
<td>278</td>
</tr>
<tr>
<td>2010–11</td>
<td>20.66</td>
<td>278</td>
</tr>
<tr>
<td>2011–12</td>
<td>21.40</td>
<td>265</td>
</tr>
</tbody>
</table>

*Source:* Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, Government of India
Table 1.3 shows the production and per capita availability of milk in Tamil Nadu from 2002-03 to 2011-12. Production of milk shows an increasing trend over the period. The lowest milk production (15.79 l/lpd) was registered in the year 2002-03 and the highest was (21.40 l/lpd) in the year 2011-12. Similarly an increasing trend is found in the per capita availability of milk over the period. The lowest per capita availability of milk (198 gms per day) was registered in the year 2002-03 and the highest was (278 gms per day) registered in the years 2009-10 and 2010-11. However, the per capita availability of milk was reduced to 265 gms per day in the year 2011-12.

1.10. Dairy Co-operatives in Tamil Nadu

Tamil Nadu is one of the leading states in milk production. The milk production in Tamil Nadu per day is 145.88 lakh litres. "Aavin" is the apex body for the Tamil Nadu Co-operative milk producers. It was established in the year 1958. It has 17 District Co-operative Milk Producers' Unions. The federation has four dairy plants in Chennai, one at Ambattur with a capacity of 4 lakh litres per day, another at Madhavaram with a capacity of 2 lakh litres per day and the third dairy at Sholinganallur with a capacity of 4 lakh litres per day. These dairies collect milk from district unions to process and pack in sachets and send for sale to the consumers in and around Chennai city. The fourth product dairy at Ambattur is engaged in the manufacture of milk products such as yogurt, ice cream, khova, kulab jamoon, buttermilk, curd Mysore pa and chocolate. The commercial activities of the department such as milk procurement, processing, chilling, packing, sale of milk to the consumers, etc. hitherto dealt with by the Tamil Nadu
Dairy Development Corporation Limited. In the wake of liberalization policy, private dairies have also entered into the field of dairying. There are 17 District Co-operative Milk Producers’ Unions functioning in the State of Tamil Nadu covering 32 districts with an installed processing capacity of 19.42 lpd. There are 36 chilling centres in District Co-operative Milk Producers’ Unions with installed chilling capacities of 13.55 lpd.

1.11. Summary

Milk industry has occupied an important place in the overall development of the Indian economy. India occupies second place in the dairy industry in the world. The Indian dairy sector contributes a large share of the agricultural gross domestic product. Dairy co-operativization is the development of Co-operative dairy industry on the lines of Anand pattern, that is, a three-tier dairy Co-operative structure. The Operation Flood Programme, which was conceived by the NDDB and endorsed by the government. Operation Flood is a unique approach to dairy development in India. The history of dairy development movement in India is of recent origin. It dates back to the pre-independence period when its activities were confined to some pockets of Calcutta, Madras, Gujarat and Bangalore. Tamil Nadu is one of the leading states in milk production. The milk production in Tamil Nadu per day is 145.88 lakh litres. There are 17 District Co-operative Milk Producers’ Unions functioning in the State of Tamil Nadu covering 32 districts with an installed processing capacity of 19.42 lpd.
DESIGN OF THE STUDY

1.12. Introduction

Co-operatives play a vital role in the development of the dairy sector in India. They are engaged in milk procurement, processing and marketing. Operation Flood also termed as white revolution has modernized India's dairy sector, flooding metro cities with milk. India's white revolution owes much to the Anand Pattern of Co-operative dairying. The institutional frame has a three-tier structure with primary milk producers' Co-operative societies at the village level, the union of producers' Co-operative societies at the district level and the federation of district Co-operative milk producers' union at the state level. These co-operatives are part of national milk grid, which link producers with consumers in over 700 towns and cities bridging seasonal and regional variations in milk availability. The institutional infrastructure set up at the village, district and state level has progressively eliminated middlemen, enabling direct interface of producers with processors. The milk co-operatives have powerful impact on the rural economic and technological transformation. Due to primary dairy co-operatives, the farmer is getting regular income, subsidized cattle feed, artificial insemination, cattle-health services, subsidy for construction of dairy building, milco tester and training on scientific feeding, breeding, which again ensures the income and employment of rural areas.

Dairy co-operatives have multiple linkages in the development of agriculture, employment, income, health and sanitary conditions, nutrition and education level in rural India. The primary aim of Co-operative dairying is to improve the socio-economic status of the poor milk producers. The policy makers consider dairying
as basically an activity subsidiary to agriculture. Cooperative dairying is found to be the root cause for dairy development in India. Hence, it is identified as a factor of vital importance in determining the growth of an economy. Dairy farming is now evolving from just an agrarian way of life to a professionally managed industry. With these positive signals, there is hope that the sector may eventually march towards another white revolution.

1.13. Statement of the Problem

Like other major dairying countries of the world, the Indian Co-operatives are expected to play a predominant role in the dairy industry in future as well. However, India is in the mean time, attaining its past glory and is once again becoming Doodh Ka Sagar. But, what percentage of this sagar is handled by the co-operatives is just a little over 7 per cent. Since liberalization of the dairy sector in 1991, a very large number of private sector firms have, despite MMPO, established dairy factories in the country. The share of the total milk processing capacity by private sector is 44 per cent of total installed capacity of 73 million litres per day in the country. Therefore, the total share of the organized sector, both co-operatives and the private sector is barely 12 per cent. What is, therefore, disquieting is that as much as 88 per cent share of the total milk production is commanded by the unorganized sector, who specializes in selling sub-standard, unpasteurised milk more often than not adulterated with harmful chemicals.

Dairy activities have traditionally been integral to India’s rural economy. The country is the world’s largest producer of dairy products and also their largest consumer. Despite being the world’s largest producer, the dairy sector is by and large in the primitive stage of development and modernization. Though India may
boast of a 200 million cattle population, the average output of an Indian cow is only one seventh of its American counterpart. Moreover, the sector is plagued with various other impediments like shortage of fodder, its poor quality, dismal transportation facilities and a poorly developed cold chain infrastructure. As a result, the supply side lacks in elasticity that is expected of it. On the demand side, the situation is buoyant. With the sustained growth of the Indian economy and a consequent rise in the purchasing power during the last two decades, more and more people today are able to afford milk and various dairy products. This trend is expected to continue with the sector experiencing a robust growth in demand in the short and medium run. Absence of a rational policy on milk prices, lack of consistent price structure, and existence of hazard controls and subsides on milk prices are the causes inhibiting the growth of the dairy co-operatives.

The weakness in the management of human resources like inadequate consideration paid to human resource planning and development, insufficient attention paid to formulating human resource polices, career opportunities, training of employees, wage and salary administration, fringe benefits, and motivation of employees and external influences on human resource matters exist in dairy co-operatives. Besides, at present there are no arrangements for long-term human resource planning and consequently for employee development. Lack of systematic approach in recruitment of employees, training and placement has been one of the impediments in human resource management of the dairy co-operatives. With the passage of time human resource management in dairy co-operatives has become weak, the result is widespread dissatisfaction of the employees resulting in low rate of growth because of poor image, unsatisfactory working conditions, limited scope for personal growth, and lack of professionalism. In dairy co-operatives, little effort
has been made to formulate and disseminate knowledge and skills of human resource management system. If the impediments in the way of growth and development are left unaddressed, dairy. Co-operatives is likely to face a serious supply-demand mismatch and it may gradually turn into a substantial importer of milk and milk products. In this context, the researcher has made an attempt to study the working of the Villupuram - Cuddalore District, Co-operative Milk Producers’ Union Limited.

1.14. Objectives of the Study

The aim of the study is to make an objective assessment on the working of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited. Besides, the following are the broad objectives of the study:

1. To evaluate the operational performance of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited.

2. To study the perception of employees towards human resource management practices of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited.

3. To elicit the opinion on the working of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited by milk producers.

4. To study the perception of the consumers towards milk and milk products of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited.

5. To offer suitable suggestions for the efficient functioning of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited based on the findings of the study.
1.15. Testing of Hypotheses

The study is based on the formulation of the following null hypotheses:

\( \textbf{H_0}_1: \) There is no significant relationship among the satisfaction levels of the employees belonging to different demographic profiles towards human resource management practices of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited.

\( \textbf{H_0}_2: \) There is no significant relationship among the perception levels of the milk producers belonging to different socio-economic profiles towards working of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited.

\( \textbf{H_0}_3: \) There is no significant relationship among the satisfaction levels of the consumers belonging to different socio-economic profiles towards milk and milk products of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited.

1.16. Operational Definitions of Concepts

\textbf{Satisfaction}

Satisfaction denotes a set of attitudes about a particular thing. The term “satisfaction” for the purpose of the study connotes the attitude of the employees, milk producers and consumers towards working of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited.
**Attitude**

Attitude refers to the feelings, beliefs and opinions of the employees, milk producers and consumers on the working of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited.

**Consumers**

A consumer is an individual who uses the milk and milk products of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited.

**Employees**

Employees are people working in the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited on a permanent basis. They include executives, supervisory staff and workmen.

**Human Resource Management**

Human resource management refers to management of people of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited, which includes a set of policies and practices. The policies and practices of the personnel management are also kept under the purview of human resource management.

**Human Resource Management Policies**

Human resource management policies mean general guidelines on human resource functions for action in Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited.
Human Resource Management Practices

Human resource management practices mean the actual practices covering the service conditions of employees, which are implemented in the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited.

Operational Performance

Operational performance refers to other than financial performance of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited, which denotes progress in the number of functional societies, membership, chilling centers, average daily milk procurement, peak procurement of milk, share capital, sales, purchases, and so on.

Member Society

A member society refers to primary Co-operative milk producers’ society which is affiliated to Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited.

1.17. Sampling Design

The researcher has selected employees, milk producers and consumers of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited for the present study. Thus, the study uses various sampling methods to select the above subjects. The employees working in the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited are considered as total population and they were about 169 as on 31.12.2013. By adopting simple random sampling, 85 respondents i.e. 50 per cent of the population were selected by using lottery method.
There are 757 milk Co-operative societies in operation in Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited as on 31\textsuperscript{st} December 2013. Of them, 523 Societies are located in Villupuram district and 234 societies are belonging to Cuddalore district. Selection of milk producers involves two stages. In the first stage, out of 757 milk Co-operative societies, 75 milk Co-operative societies \textit{i.e.} 10 per cent of the population are selected on simple random basis. In the second stage, 5 milk producers were selected from each societies selected. The selection of milk producers are given in Table 1.4.

\textbf{TABLE 1.4}

\textbf{Selection of Milk Producers}

<table>
<thead>
<tr>
<th>Name of the District</th>
<th>No. of Societies</th>
<th>Samples</th>
<th>Milk Producers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Villupuram</td>
<td>523</td>
<td>52</td>
<td>260</td>
</tr>
<tr>
<td>Cuddalore</td>
<td>234</td>
<td>23</td>
<td>115</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>757</strong></td>
<td><strong>75</strong></td>
<td><strong>375</strong></td>
</tr>
</tbody>
</table>

As on 31.12.2013, there are 35 revenue blocks under the purview of Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited, which consist of 22 blocks of Villupuram district and 13 blocks of Cuddalore district.

The researcher has adopted multi-stage sampling to select consumers. In the first stage, 25 per cent of the blocks \textit{i.e.} 6 blocks of Villupuram district and 3 blocks of Cuddalore district were selected. In the second stage, 50 consumers from each block are selected on the purposive basis. Therefore, the sample size consists of 450 consumers. Table 1.5 shows the selection of consumers.
TABLE 1.5
Selection of Consumers

<table>
<thead>
<tr>
<th>Name of the District</th>
<th>Blocks</th>
<th>Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No. of Blocks</td>
</tr>
<tr>
<td>Villupuram</td>
<td>22</td>
<td>6</td>
</tr>
<tr>
<td>Cuddalore</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>35</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Thus, the study involves the samples of 85 employees, 375 milk producers and 450 consumers.

1.18. Tools for Data Collection

The study is both analytical and empirical in nature with a focus on assessing the working of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited from the point of view of operational performance indicators, as well as the opinion of the employees, milk producers and consumers. The first-hand information for this study was collected from the establishment section of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited. The study encompasses both primary and secondary data.

As an essential part of the study, the primary data were collected from 85 employees with the help of questionnaire. The primary data were also collected from 375 milk producers. On account of lower level of education, schedule method is employed to collect the primary data from the milk producers. Besides, primary data were also collected from 450 consumers with the help of questionnaire. The primary data were collected for a period of 6 months from January 2014 to June 2014.
The questionnaires and interview schedule used in this study were constructed based on Likert scaling technique. Pre-testing of questionnaires and interview schedule was done during December 2013 involving 10 employees, 25 milk producers and 25 consumers. In the light of the experience gained from the pilot study, few changes were incorporated in the revised interview schedule and questionnaires. The secondary data were extracted from the published annual reports of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited. These reports are the financial statements, books of accounts, minutes, audit reports, annual reports, and circulars. Literature relating to the study was gathered from published and unpublished thesis, published reports, journals, magazines books, related websites.

1.19. Framework of Analysis

For analyzing the working of Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited, different analyses were made on the basis of primary data and secondary data. Firstly, the operational performance of the study union has been analyzed with the help of mean, standard deviation, coefficient of variation and growth rates.

Secondly, in order to examine the perception of the employees towards human resource management practices of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited, student t test, analysis of variance, discriminate function analysis and multiple regression analysis were employed. Analysis of variance and student t test are used to find out the relationship in the satisfaction levels of the respondents belonging to different demographic profiles
towards human resource management practices of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited. Discriminate function analysis was used to study how the managerial employees differ from those who are non-managerial employees in terms of their satisfaction towards human resource management practices. Multiple regression analysis is used to measure the effect of the personal variables on the respondents’ satisfaction towards human resource management practices.

Thirdly, in order to study the perception of the milk producers towards working of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited, student t test, analysis of variance, discriminant function analysis and multiple regression analysis were employed. Analysis of variance and student ‘t’ test were used to find out the relationship in the satisfaction levels of the milk producers towards working of the Villupuram-Cuddalore District Co-operative Milk Producers’ Union Limited. Discriminate function analysis is used to study how the milk producers in Villupuram district differ from those who are the milk producers of the Cuddalore district in terms of their satisfaction towards working of the Union. Multiple regression analysis is used to measure the effect of the personal variables on the respondents’ satisfaction towards working of the Union.

Besides, the researcher has employed student t test, analysis of variance, discriminate function analysis and multiple regression analysis in order to examine the perception of consumers towards milk and milk products of the Union. Analysis of variance and student t test are used to find out the relationship in the satisfaction levels of consumers belonging to different socio-economic profiles
towards milk and milk products of the Union. Multiple regression analysis was used to measure the effect of the personal variables on the respondents’ satisfaction towards and milk products of the Union. To arrive at possible solutions, simple percentage analysis was also employed.

1.20. Scope of the Study

The present study is confined to Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited only. Besides, the study focuses its attention on the operational performance of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited. The operational performance indicators of the study include membership, share capital, sales, purchases, and so on. The scope of the study is delimited to study the perception of the employees, milk producers and consumers towards working of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited.

1.21. Period of Study

The study covers a period of 10 years from 2003-04 to 2012-13. The period is considered sufficient to reveal the short and long-term fluctuations. The primary data for the study were collected during the period from October 2013 to June 2014.

1.22. Limitations of the Study

Dairy industry may be working in private, public or Co-operative sectors, but this study is based solely on the functioning of the dairy industry in Co-operative sector. Moreover, since the study is conducted at Villupuram - Cuddalore District
Co-operative Milk Producers’ Union Limited only, the results obtained from the survey are hard to generalize to the national population, since the survey is limited to 85 employees, 375 milk producers and 450 consumers. Besides, in any study bearing on attitude of the respondents, incomplete and non-responses to some questions could not be avoided. However, considerable care was exercised in making the study as objective and systematic as possible. The study has the limitation of time and resources, usually faced by the researchers.

1.23. Scheme of the Report

The thesis is presented in eight chapters.

The first chapter, “Introduction,” covers introduction, dairy co-operatives, operation flood and evolution of Indian dairy industry. “Design of the Study” focuses on the statement of the problem, objectives of the study, hypotheses, operational definitions of concepts, sampling design, tools for data collection, framework of analysis, scope of the study, period of study, limitations of the study and scheme of the report.

The second chapter “Review of Literature” presents the previous studies related to the objectives of the present study.

The third chapter, “Operational Performance of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited,” gives the profile, elaborates the various dairy activities and analyses the operational performance of the Villupuram- Cuddalore District Co-operative Milk Producers’ Union Limited.

The fifth chapter, “Perception of the Milk Producers towards Working of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited,” examines the perception of the milk producers towards working of the study unit.

The sixth chapter, “Consumers’ Perception towards Milk and Milk Products of the Union,” deals with consumers’ perception towards milk and milk products of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited.

The final chapter presents a summary of findings, suggestions and conclusion.

It offers various suggestions for the efficient functioning of the Villupuram - Cuddalore District Co-operative Milk Producers’ Union Limited.