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DAIRY DEVELOPMENT DEPARTMENT POLICY NOTE 2016-17

With an objective of ushering in the Second White Revolution and encouraging animal husbandry activity which is a component of agriculture and instrument for improving rural economy and activity to provide self-employment for women.....my Government has given unprecedented importance during the last four years and implemented many schemes for Dairy Development Department and Animal Husbandry Department.

- Hon'ble Chief Minister
(Speech on 23.09.2015)

Introduction

Milk cooperatives have played a key role in the growth of dairy sector in the country. As the milk cooperative movement took roots and spread across the country, India transformed from a milk

deficit nation to the largest producer of milk in the world. During 2014-15, India produced 146.313 Million Tonnes of milk which is 18.5% of the world production.

With a daily production of 190 lakh litres per day, Tamil Nadu ranks among the top ten milk producing states of the country. The state has a very vibrant milk cooperative sector with milk producers' cooperative societies spread across nook and corner of the state. There are 12,105 milk producers' cooperative societies having 23.01 lakh milk farmers as members.

With an objective of ushering in the 'Second White Revolution', Hon'ble Chief Minister has taken various steps like attractive procurement price to milk producers' huge investment in dairy infrastructure at society, district union and state federation level and issue of priceless milch cows to poor families for steady income through dairying.

Over last five years, procurement price for cow milk has been increased by Rs.10 per litre. This has got a tremendous welcome from milk producers of the state thereby increasing milk procurement by District Unions from 20.67 lakh litres per day in 2010-11 to 28.97 lakh litres per day in 2015-16. During the current year 2016-17, for first four months from April to July, average milk procurement stands at 29.32 lakh litres per day. On 27.6.2016, procurement stood at an all time high level of 31.39 lakh litres. With this high level of milk procurement, Aavin stands at fourth position among the state cooperatives across the country.

Over last five years, an investment of Rs.593.65 crore has been made in improving the infrastructure of Aavin. New projects like Tiruvannamalai Dairy cum Powder Plant, Ambattur Ice cream cum Panneer Plant, Hi Tech parlours at various locations, Bulk Milk Coolers in

rural areas, Pudukottai Dairy, Kakkalur Dairy etc. have been completed. In addition, expansion and modernization of many existing dairies has been taken up. As a result, during last five years chilling capacity has increased by 6.97 lakh litres per day, processing capacity has increased by 8.35 lakh litres per day, butter deep freezer capacity has increased by 1,330 Metric Tonnes and Skimmed Milk Powder storage capacity has increased by 1,000 Metric Tonnes. With this improved infrastructure, Aavin has been able to handle the current high levels of milk procurement.

Under the priceless milch cow distribution scheme, 60,000 cows have been distributed to rural poor families over last five years. Aavin in close coordination with Animal Husbandry Department enrolls the beneficiaries as milk society members and procures milk from them, thereby ensuring regular and steady income for them.

2. DAIRY DEVELOPMENT DEPARTMENT

2.1. Objectives of the Dairy Development

Department

- 1) To work towards bringing the un-organized dairy sector into an organized structure.
- 2) To supervise and regulate the activities of dairy Co-operatives.
- 3) To pay remunerative price to the milk producers based on the quality of milk and provide veterinary inputs and health care to increase the milk yield of milch animals.
- 4) To organize dairy cooperative societies in the remote villages to safeguard the milk producers from the exploitation of the private traders.
- 5) To ensure consistent growth of dairying on par with other enterprises.

- 6) To ensure availability of cattle feed and green fodder to milch animals even in drought season.
- 7) To develop infrastructure for storage, processing and selling of milk to handle surplus milk.
- 8) To ensure availability of quality milk to the consumers at reasonable rates.
- 9) To introduce modern technology in various dairy activities.
- 10) To ensure availability of milk and milk products as per prescribed quality specifications.
- 11) Marketing of Milk and Milk Products.

2.2. Strategies adopted to achieve the objectives

To achieve the objectives of the Dairy Development Department the following activities are being undertaken:

1. Hygienic and pure milk and milk products are made available to the consumers.
2. Computerization of dairy activities to ensure transparency in administration.
3. Providing free veterinary health cover, Artificial Insemination service to cattle, insurance of cattle, supply of balanced cattle feed, inputs like fodder seeds and cuttings for fodder cultivation to milk producers in co-operative sector.
4. Strengthening of clean milk production at village level through necessary education and milk testing.
5. Implementation of various State and Central Government Schemes.

6. Strengthening and increasing the handling capacity of Dairies functioning in Dairy Cooperative sector.
7. Opening of new parlours, sales points, new milk routes, consumer societies and sale of milk cards.

2.3. Administrative Structure of the Department

The Dairy Development Department is headed by the Commissioner for Milk Production and Dairy Development (CMPDD) who is also the ex-officio Managing Director of Tamil Nadu Cooperative Milk Producers Federation. The department which was started in the year 1958 is having its administrative headquarters at Madhavaram Milk Colony, Chennai. Commissioner for Milk production and Dairy Development functions as the Functional Registrar of all the Dairy Co-operatives in the State and discharges statutory functions like registration of societies, revival of dormant societies, inspection

of societies, settlement of disputes, conduct of elections, issue of directions to societies in public interest etc. under various provisions of the Tamil Nadu Co-operative Societies Act, 1983 and Tamil Nadu Co-operative Societies Rules, 1988.

There are 29 Deputy Registrars (Dairying) in the districts who are discharging administrative and statutory functions. Of these 29 offices, 5 offices (Tiruppur, Krishnagiri, Ramanathpuram, Karur and Thoothukudi) have been opened over last five years. In line with the functioning of Department of Cooperation, for administrative convenience the posts of Superintendents and Assistants in the Ministerial Service have been converted as Cooperative Sub Registrars and Junior Inspectors in the Subordinate Service. In order to strengthen the functioning of the department, steps were taken to fill up the existing vacancies in the department. Among the direct recruitment posts, for the first time in history of the Department, in one go 137 Senior

Inspector posts were filled up through Tamil Nadu Public Service Commission.

Milk Procurement Teams

Milk procurement work is mainly looked after by the District Milk Unions. To assist the milk procurement work of District Cooperative Milk Producers' Unions in uncovered areas, 8 milk procurement teams are functioning in the department at Dharmapuri, Sankarankoil, Thanjavur, Vellore, Thiruvallur, Karaikudi, Perambalur and Virudhunagar. These milk procurement teams survey the milk potential of villages and feasibility to form new dairy cooperative societies so as to bring more villages under the cooperative ambit.

Mobile Veterinary Units

To assist the milk producers in maintaining the cattle and to provide free veterinary services to the cattle of cooperative milk producer members, 10 mobile veterinary units are functioning at Tirunelveli, Valliyur, Sathankulam, Sankarankoil, Tiruppathur, Karaikudi, Ramnad, Virudhunagar, Chennai and Madurai. These

Veterinary Units visit the milk producers' cooperative societies as per the schedule communicated in advance.

2.4. Elections to Dairy Co-operatives

The CMPDD is functioning as the State Election Officer and the Deputy Registrars are functioning as District Election Officers for the dairy cooperatives. Under the supervision of the State Cooperative Election Commission elections were conducted for the Board of Directors of dairy cooperatives at all the three levels in 2013 and elected boards assumed charge on 09.05.2013 at primary levels, on 11.6.2013 at district level and on 17.07.2013 in the State Federation. On formation of new societies, elections are conducted within a period of six months. Democratic spirit of cooperative movement can be seen from the fact that 1,09,891 board of directors, of which 35,592 are women, are involved in the administration of dairy cooperatives across the state.

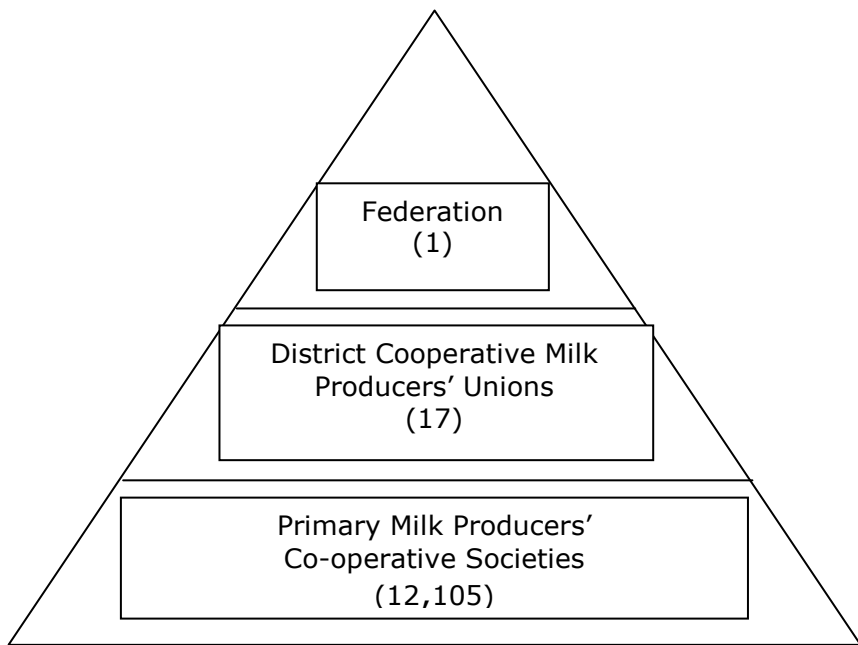
2.5. Quality Control Laboratory

To ensure supply of quality milk and milk products to the consumers, frequent quality tests of milk and milk products are being conducted by this department for which a Quality Control Laboratory is functioning under the control of the Commissioner for Milk Production and Dairy Development at Madhavaram, Chennai. Besides this, a mobile Quality Control laboratory is also being operated in Chennai. A total of 604 samples were tested during the year 2015-16 in the laboratory. Further, Federation and all the District Unions are having quality control units in their dairies which are manned by technically qualified personnel.

3. Three Tier Structure of Milk Producers' Cooperative societies

| | | |
|-----------------------------|---|---|
| Tier-1- Village level | - | Primary Milk Producers' Cooperatives are being formed at village level on "Anand Model". They form the base level of the 3 tier system which procures milk from the milk producer |
|-----------------------------|---|---|

| | | |
|------------------------------|---|---|
| | | members and supplies the milk to District Union after selling required quantity for local needs. Primary Milk Producers' Cooperative Society has direct contact with milk producer members. |
| Tier-2- District level | - | District Cooperative Milk Producers' Unions (DCMPU) are the Central societies at district level, in which all the village level Primary Milk Producers' Cooperative societies are members. It procures surplus milk from the primary milk producers' cooperative societies, processes it and sells it to milk consumers locally and sends the excess milk to Chennai Metro dairies of Federation. A portion of milk is being converted as by products and as Skimmed Milk Powder. |
| Tier-3- State level | - | The Tamil Nadu Cooperative Milk Producers' Federation (TCMPF) is the apex level society in which all the District Cooperative Milk Producers' Unions are members. Federation is directly selling milk and milk products in Chennai Metro and also arranges for marketing of milk and milk products produced by all DCMPUs in the brand name of "aavin " |



4. TAMIL NADU CO-OPERATIVE MILK PRODUCERS' FEDERATION LIMITED

Tamil Nadu Co-operative Milk Producers' Federation Limited (TCMPF) is the apex level among the 3 tiers of Dairy co-operatives. It was established on 01.02.1981 and took over all the commercial activities such as milk procurement, processing, packing and sale of milk and milk

products to the consumers etc., from the Tamil Nadu Dairy Development Corporation which was till then handling the above functions. Headquarters of the Federation are located at Aavin Illam, Madhavaram Milk Colony, Chennai. Overall management of the Federation vests with the elected Board of Directors of the Federation. The present Board assumed office on 17.7.2013. The day to day administration of the Federation is being looked after by the Managing Director.

The Federation procures milk from various District Unions, processes and supplies liquid milk and various milk products to consumers in Chennai city and its suburbs, besides arranging domestic and international market for the milk products produced by the District Co-operative Milk Producers' Unions under the brand name of 'aavin'.

The Federation while coordinating with the activities of the Unions provides technical expertise also as and when required. Further,

Federation is preparing project proposals also for obtaining funds from Government through Commissioner for Milk Production and Dairy Development. The projects of the District Milk Producers' Unions are also being executed by TCMPF either on its own or through National Dairy Development Board.

Three Liquid Milk Dairies at Madhavaram, Ambattur and Sholinganallur, one Product Dairy at Ambattur and one Dairy cum Powder plant at Tiruvannamalai are functioning under the control of the Federation. The three liquid milk dairies and the product dairy are certified under International Organization for Standardization (ISO) and Hazard Analysis and Critical Control Point (HACCP).

Details of these dairies and other units of Federation are furnished below:

4.1. Madhavaram Dairy

The Madavaram Dairy, the oldest dairy in Aavin family was setup to handle 50,000 litres of milk per day under Colombo Plan in 1962 with the assistance of New Zealand Government. It was expanded in various stages by TCMPF and is now handling 3.5 Lakh Litres per day. This dairy distributes processed milk to consumers in North Chennai through 43 hired route vehicles, 20 Private Agency vehicles and 2 Milk Consumers' Co-operative society milk routes.

During the last five years, many infrastructure improvement works have been taken up in Madhavaram dairy 2.2 lakh litre capacity milk silos, 0.80 lakh litre capacity milk cold room and 30 MT capacity Butter Deep Freezer have been added. One 20 KLPH Pasteurizer, one 20 KLPH Homogenizer, 6 High speed packing machines, one 5 litre pouch filling machine, 2 Tub washing machines and 500 KVA power back-up have been installed.

Further a new energy efficient refrigeration system with latest technology at a cost of Rs.650 Lakh has been completed and trial run is in progress.

4.2. Ambattur Dairy

The Ambattur Dairy with a capacity of 2 lakh litres per day was setup in 1976. Later the capacity of the dairy was increased to 4 LLPD. This dairy distributes milk to consumers in Central Chennai through 42 hired route vehicles, 12 vehicles engaged by Milk consumers' cooperative Societies, and 39 Private Agency vehicles.

During the last five years, infrastructure of Ambattur dairy has been strengthened by adding 1.0 lakh litre milk silo capacity, 1.0 lakh litre capacity milk cold room and 300 MT capacity butter deep freezer. Further, a fully automated double circuit new CIP (Cleaning In Place) system, one 20 KLPH Pasteurizer, one 20 KLPH Homogenizer, 8 High speed packing machines, one 5 litres pouch filling machine, 2 Tub washing machines, 500 KVA power back-up and 1000 KVA

Transformer were installed. Installation of solar water heating system to feed hot water for boilers was also taken up.

Presently, works on energy efficient refrigeration system with latest technology at a cost of Rs.540 Lakh, renovation of existing 300 MT Butter Deep Freezer room at a cost of Rs.192 Lakh and construction of new additional block for packing and storing 1.50 Lakh Litres of milk at a cost of Rs.808 Lakh are under progress.

4.3. Sholinganallur Dairy

The Sholinganallur Dairy, the first automated dairy in South India was set up in 1996 with an installed capacity of 4 LLPD. The plant was initially designed for bulk milk despatch in tankers to the tune of 3.50 LLPD for milk vending booths and 50,000 litres as sachet milk. Subsequently, to cater to the changing market scenario and demand, bulk despatch was switched over to sachet milk in a phased manner and the

dairy is now handling 4.50 lakh litres of milk per day.

The Dairy is operating 32 hired route vehicles, 46 private agency vehicles and 6 Milk Consumers' Cooperative Society routes, for the supply of sachet milk.

During the last five years, infrastructure has been enhanced by installing two lakh litres in milk silos, 64 MT capacity butter deep freezer, 1.50 Lakh litres capacity additional cold room, 1 No. of 20 KLPH Pasteurizer and Homogenizer, 5 Nos. of High speed packing machines & 1 No. bulk packing of 5 litres pouch filling machine and 1 tub washing machine to meet the increased demand for milk. Further installation of Solar concentrator for generating steam of 1000 – 1100 kg/sq cm per day at a cost of Rs.120 Lakh has been installed for replacing usage of furnace oil to the tune of 100 – 110 litres per day with savings of Rs.12 Lakh per annum.

Additional refrigeration equipment of screw compressor, pre-chiller etc., at a cost of Rs.139 Lakh are being installed to increase the milk chilling capacity to 6 Lakh litres per day. Work on a new Ultra High Treatment (UHT) milk processing plant with flexipac filling facilities to pack 1 LLPD at a cost of Rs.3400 Lakh has been taken up in the premises of this dairy.

4.4. Tiruvannamalai Dairy cum Powder Plant

A Dairy cum Powder Plant with a handling capacity of 2 Lakh Litres of milk per day and powder plant capacity of 20 MT per day has been established at Ammapalayam Village in Tiruvannamalai district as a unit of TCMPF at a total cost of Rs.72.60 crore with financial assistance from NABARD.

During 2015-16, 702.15 Lakh litres of raw chilled milk was processed and converted into 5945.64 MT of Skimmed Milk Powder and 3609.21 MT of Butter at this plant.

4.5. Ambattur Product Dairy

The Product Dairy at Ambattur was established in the year 2003 by shifting the earlier Product dairy functioning from 1976 at Ayanavaram. In order to address the increasing demand for Aavin milk products in Chennai, the expansion of the existing product dairy at Ambattur was taken up. This new facility, established at a cost of Rs. 23.46 crore has the capacity to manufacture 15,000 litres of Ice Cream and 1,000 Kgs. of Paneer per day. Of this Rs.23.46 crore, Rs.13 crore has been provided under National Mission for Protein Supplement (NMPS) and remaining Rs. 10.46 crore has been sourced from the Federation's own funds. The new facility was inaugurated by the Hon'ble Chief Minister on 27.2.16

Following products are manufactured at Ambattur Product Dairy:-

Table 1: Range of Aavin Milk Products

| Sweets | Ice cream varieties | Fermented Products | Coagulated products and others |
|--|--|--|---|
| <ul style="list-style-type: none"> • Sugared Khoa • Dates Khoa • Mysorepa • Longlife Gulabjamun • Milk Peda | <ul style="list-style-type: none"> • Ice cream cups • Family packs in bricks • Cassata • Ball Ice cream • Chocobar • Mango Duet • Pineapple Duet • Classic Cone • Kulfi Bar • Ice Candies • Premium variety Ice Cream in cups | <ul style="list-style-type: none"> • Sweetened Yoghurt • Curd in sachets • Spl.Curd in cups • Lassi sachets • Probiotic Curd • Probiotic Lassi • Plain butter milk • Spl.Butter milk | <ul style="list-style-type: none"> • Paneer <p>Others</p> <ul style="list-style-type: none"> • Unsugared Khoa • Flavoured milk • Nutties Chocolate • Milk Chocolate |

Milk products produced in product dairy are being despatched through PUF insulated vehicles in 25 routes (5 refrigerated vehicles exclusively for Ice creams) for sales through retail outlets in Chennai. Ice cream and few other Milk products are being sent through 3 Refrigerated vehicles to all districts in the State.

Table 2: Products Marketing in Chennai Metro

| Sale of Products for the year 2015-16 | | | | |
|---------------------------------------|--------------------------------|------------|----------|--------------------|
| S. No. | Name of Product | Unit | Total | |
| | | | Quantity | Value (Rs.in Lakh) |
| I | <u>Ambattur Products:</u> | | | |
| 1 | Ice Cream | Ltrs. | 487471 | 1129.19 |
| 2 | Long life Gulabjamun | Kgs. | 28165 | 104.14 |
| 3 | Khoa | MT | 287 | 1135.30 |
| 4 | Milk Peda | MT | 15 | 59.83 |
| 5 | Paneer | MT | 34 | 103.12 |
| 6 | Butter Milk | Lakh Ltrs. | 5.5 | 142.54 |
| 7 | Mysore Pa | MT | 44 | 195.18 |
| 8 | Yoghurt | Nos. | 75294 | 12.88 |
| 9 | Lassi | Lakh Ltrs | 2.18 | 215.07 |
| 10 | Curd 200 MI | Lakh Ltrs. | 4.0 | 280.84 |
| 11 | Hot Milk | Lakh Ltrs. | 5.9 | 334.11 |
| 12 | FM "N" Rich Bottle | Lakh Nos. | 4.19 | 79.59 |
| 13 | Milk Shakes | Nos. | 11055 | 6.89 |
| 14 | FM - Badam / Chocolate / Pista | Lts. | 6125 | 6.13 |
| 15 | Pizza / Sandwich | Nos. | 74000 | 25.71 |

| | | | | |
|----|---|-----------|-------|-----------------|
| 16 | Milk Bread | Nos. | 7600 | 1.52 |
| 17 | Milk Chocolates | Lakh Nos. | 1.27 | 35.76 |
| 18 | Special Sweets | MT | 5.6 | 37.58 |
| | Sub-Total (I) | | | 3905.37 |
| II | <u>Union Products:</u> | | | |
| 1 | Butter (Cooking) | MT | 756 | 2577.75 |
| 2 | Butter (Table) | MT | 20 | 70.40 |
| 3 | Ghee | MT | 1368 | 4918.41 |
| 4 | Standardized Milk (Tetra pack)- 1000 MI | Nos. | 11520 | 6.70 |
| 5 | Flavoured Milk 200 MI | Lakh Nos. | 11.24 | 208.13 |
| 6 | Maavin 200ml | Lakh Nos. | 1.15 | 16.28 |
| 7 | Milk Shakes in Tetra pack | Lakh Nos | 17.87 | 329.00 |
| 8 | Aavin Delite (T.Fino) | Lts | 53000 | 26.70 |
| 9 | Skimmed Milk Powder | MT | 34 | 98.76 |
| 10 | Badam Mix Powder | MT | 72 | 276.81 |
| 11 | Butter Milk in Tetra Pack | Lakh Nos | 2.32 | 32.55 |
| 12 | Ooty Tea | MT | 2 | 2.24 |
| | Sub-Total (II) | | | 8568.65 |
| | Grand Total (I)+(II) | | | 12474.02 |

4.6. Nucleus Jersey and Stud Farm (NJ&SF), Udhagamandalam

The Nucleus Jersey and Stud Farm of Federation was established in 1973. It consists of two divisions viz. Bull Mother Farm and Stud Farm. Stud Farm is located in an area of 37.725 acres of land leased from the Forest Department, while Bull Mother Farm is located in an extent of 46.33 acres of Revenue land.

- **Bull Mother Farm** - maintains high pedigreed Cows of Jersey breed, to produce genetically superior Jersey breeding bulls for production of quality frozen semen for breeding purposes. In the same location in Kakkathope, cultivation of Oats, Maize & Kikuyue grass is also undertaken for fodder requirement of the farms.
- **Stud Farm** - maintains Pure Jersey, Crossbred Jersey, Pure Holstein Friesian and Cross Bred Holstein Friesian bulls for frozen semen production. Frozen semen is supplied to all the District Cooperative Milk Producers' Unions

(DCMPU) in the State which in turn distribute it to the Artificial Insemination Centres under their control for artificial insemination of the cows belonging to the members of the Milk Producers' Cooperative Societies. Presently, there are around 100 bulls at the Stud Farm, of which 76 are under collection. Four imported bulls viz. two pure Jersey and two pure HF are also being maintained in the farm. The farm produces around 18.00 Lakh doses of frozen semen straws per year on an average.

4.7. Buffalo Frozen Semen Station (BFSS), Erode

- This unit undertakes the task of distribution of Frozen Semen Straws (white cattle) produced at NJ&SF, Ooty to all milk unions based on their requirement. The present off take by unions is around 1.65 lakh per month.
- This Unit also distributes around 10,000 Nos. of Buffalo Frozen Semen Straws per month,

procured from Animal Husbandry Department, to unions.

- Rearing of breeding bull calves produced through Progeny Testing Programme (PTP) is also being carried out in this Unit.

4.8. Dairy Herd Improvement Programme Actions (DIPA), Erode

DIPA unit is also functioning at Erode. The activities of DIPA unit are:

Progeny Testing Programme (PTP)

In order to select superior cross bred bulls for breeding milch animals, progeny testing programme is being implemented by the Federation with the financial assistance of the Government of India in Salem, Erode, Dharmapuri, Coimbatore, Trichy, Madurai and Tirunelveli DCMPUs.

Field Performance Recording Programme (FPRP)

Under Field Performance Recording Programme, the milk yield of the Jersey crossbred cows are recorded and elite cows are mated with proven bull semen to produce superior cross bred bull calves.

FPRP is being implemented by the Federation in 7 District Unions viz. Salem, Dharmapuri, Erode, Coimbatore, Trichy, Madurai and Tirunelveli with the financial assistance of the Government of India.

Under the Field Performance Recording Programme for Crossbred Jersey, so far 319 bull calves have been provided for frozen semen production to the four frozen semen stations under Cooperative sector and Animal Husbandry Department.

4.9. Milk Sales

On an average, 11.22 lakh litres of milk is being marketed per day in Chennai Metro. Of this, around 51,000 litres of milk is sold in 1 litre packets and most of the remaining milk is sold in half litre packets. Recently, 5 litre packet has been introduced for sale to the institutions, caterers and for functions. Presently, around 8,000 litres is being sold in this format.

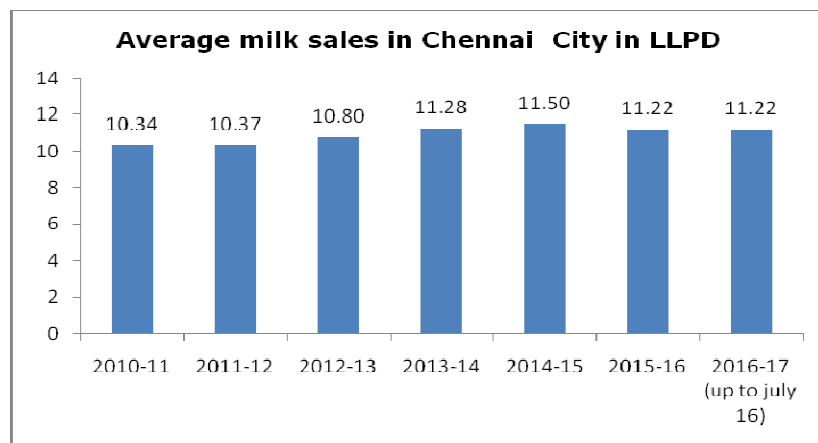


Table 3: Selling Price of Milk

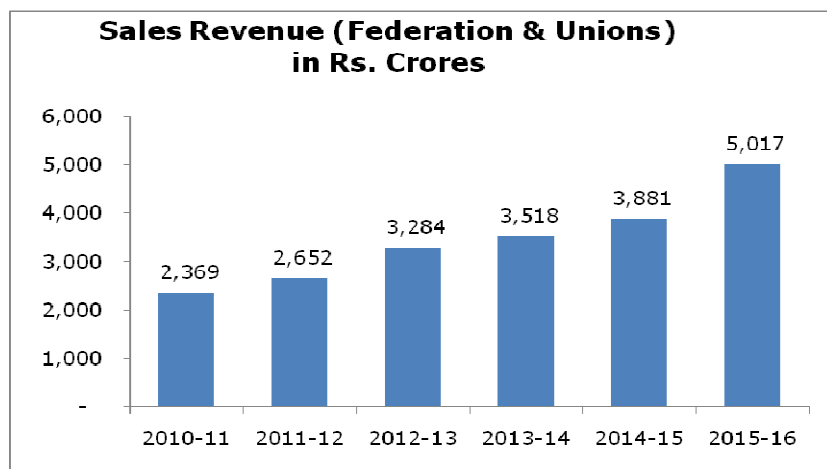
| Sl. No | Type of Milk | Sachet colour | Specification | | (Rate per 500 ml pack – in Rs.) | |
|--------|-------------------|---------------|---------------|-------|---------------------------------|-------------------|
| | | | FAT % | SNF % | Card | Max. retail price |
| 1 | Double Toned Milk | Magenta | 1.5 | 9.0 | 16.50 | 17.00 |
| 2 | Toned Milk | Blue | 3.0 | 8.5 | 17.00 | 18.50 |
| 3 | Standardized Milk | Green | 4.5 | 8.5 | 19.50 | 20.50 |
| 4 | Full Cream Milk | Orange | 6.0 | 9.0 | 21.50 | 22.50 |

Table 4: Infrastructure available for Marketing in Metro:

| S. No. | Infrastructure | 2013-14 | 2014-15 | 2015-16 |
|--------|--|---------|---------|---------|
| 1 | Distribution Routes | 113 | 117 | 119 |
| 2 | Zonal Offices | 16 | 16 | 16 |
| 3 | Milk Depots | 470 | 470 | 433 |
| 4 | Delivery Points | 311 | 311 | 361 |
| 5 | Parlours | 93 | 93 | 114 |
| 6 | Milk Whole Sale Distributors | 47 | 71 | 71 |
| 7 | Milk Consumers' Cooperative Societies | 49 | 49 | 49 |
| 8 | Franchise Retail Outlets | 184 | 202 | 451 |
| 9 | Milk and Milk Products Selling Centres | 215 | 215 | 245 |
| 10 | Products Distribution Routes | 14 | 16 | 25 |

4.10. Sales Revenue (Federation and Unions)

The Turnover for the year 2015-16 of the Federation is Rs. 1650.45 crore and the District Unions is Rs. 3366.84 crore. Total turnover of the Federation and the District Unions during 2015-16 is Rs. 5017.29 crore.



4.11. Consumer care and support cell

In order to get consumer feedback promptly and provide easy point of access to consumers, a **24 hour 'Consumer Care and Support Cell'** equipped with a **Toll Free No.1800-425-3300** is

functioning at the Marketing Office, Nandanam from 4.09.2003. During 2015 - 16, totally 647 complaints were received and rectified.

5. District cooperative milk producers' Unions

There are 17 District Cooperative Milk Producers' Unions in Tamil Nadu covering all the revenue districts. The management of District Cooperative Milk Producers' Union is vested with an elected Board, headed by its President. These District Unions procure milk from member Primary Milk Producers' Cooperative Societies and transport it through milk collection route vehicles to the nearest Bulk Milk Cooler (BMC) / Chilling Centre / Dairy for further process. The District Unions also help the Deputy Registrars (Dairying), in organizing village level societies.

5.1 The district unions, after meeting their local demand, send milk to Federation dairies for process and sale in Chennai. The surplus milk is being sent to Feeder Balancing Dairies (FBDs) at

Madurai, Erode, Salem, Krishangiri and Tiruvannamalai for conversion into Butter and Skimmed Milk Powder. During the year 2015-16, 13,657 MTs of Butter and 21,950 MTs of SMP was produced by these FBDs from the surplus milk.

**Table 5:
Union wise milk handling capacity (in Litres Per Day)**

| S.No. | Name of the Union | Processing capacity of Dairies | | Chilling capacity | | | | Total |
|-------|---------------------------|--------------------------------|------------------|-------------------|------------------|------------|------------------|------------------|
| | | No | Capacity | Chilling Centre | | BMC | | |
| | | | | No | Capacity | No | Capacity | |
| 1 | Kancheepuram -Thiruvallur | 1 | 50,000 | 2 | 60,000 | 11 | 45,000 | 1,05,000 |
| 2 | Villupuram | 1 | 1,00,000 | 2 | 1,40,000 | 19 | 78,000 | 2,18,000 |
| 3 | Vellore | 1 | 1,50,000 | 4 | 2,30,000 | 38 | 1,76,000 | 4,06,000 |
| 4 | Dharmapuri | 1 | 2,00,000 | 2 | 60,000 | 16 | 68,000 | 1,28,000 |
| 5 | Salem | 1 | 3,00,000 | 3 | 2,10,000 | 50 | 1,99,000 | 4,19,000 |
| 6 | Erode | 1 | 3,00,000 | 3 | 1,35,000 | 30 | 1,44,000 | 2,79,000 |
| 7 | Coimbatore | 1 | 5,00,000 | 4 | 1,30,000 | 24 | 1,14,000 | 2,44,000 |
| 8 | Nilgiris | 1 | 50,000 | 1 | 10,000 | 6 | 11,000 | 21,000 |
| 9 | Madurai | 1 | 3,00,000 | 1 | 1,00,000 | 14 | 58,000 | 1,58,000 |
| 10 | Dindigul | 1 | 30,000 | 2 | 40,000 | 12 | 50,000 | 90,000 |
| 11 | Tiruchirapalli | 1 | 1,50,000 | 3 | 2,30,000 | 42 | 2,00,000 | 4,30,000 |
| 12 | Thanjavur | 1 | 26,000 | 1 | 10,000 | 13 | 51,000 | 61,000 |
| 13 | Pudukkottai | 1 | 35,000 | - | - | 0 | 0 | 0 |
| 14 | Sivagangai | 1 | 50,000 | 2 | 20,000 | 12 | 52,000 | 72,000 |
| 15 | Virudhunagar | 1 | 50,000 | 1 | 10,000 | 0 | 0 | 10,000 |
| 16 | Tirunelveli | 1 | 1,00,000 | 4 | 90,000 | 12 | 58,000 | 1,48,000 |
| 17 | Kanyakumari | 1 | 16,000 | - | - | 0 | 0 | 0 |
| | Total | 17 | 24,07,000 | 35 | 14,75,000 | 299 | 13,04,000 | 27,79,000 |

5.2. Milk procurement in District Cooperative Milk Producers Unions

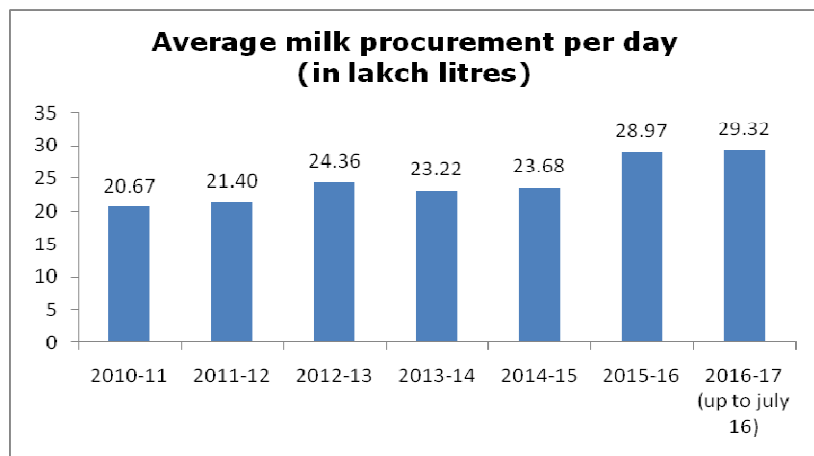
The milk procurement during 2015-16 was 28.97 LLPD on an average as against 23.68 LLPD in 2014-15 (an increase of 22.34 %). An all time high procurement of 31.39 LLPD was achieved on 27.06.2016.

Milk Procurement during the current year 2016-17 (up to July'16) is 29.32 LLPD.

The details of milk procurement over last few years are as follows:

Table 6: Milk Procurement by DCMPUs

| Sl.No. | Year | Average milk procurement per day (in lakh litres) |
|--------|---------------------------|--|
| 1 | 2010-2011 | 20.67 |
| 2 | 2011-2012 | 21.40 |
| 3 | 2012-2013 | 24.36 |
| 4 | 2013-2014 | 23.22 |
| 5 | 2014-2015 | 23.68 |
| 6 | 2015-2016 | 28.97 |
| 7 | 2016-2017 (up to July'16) | 29.32 |



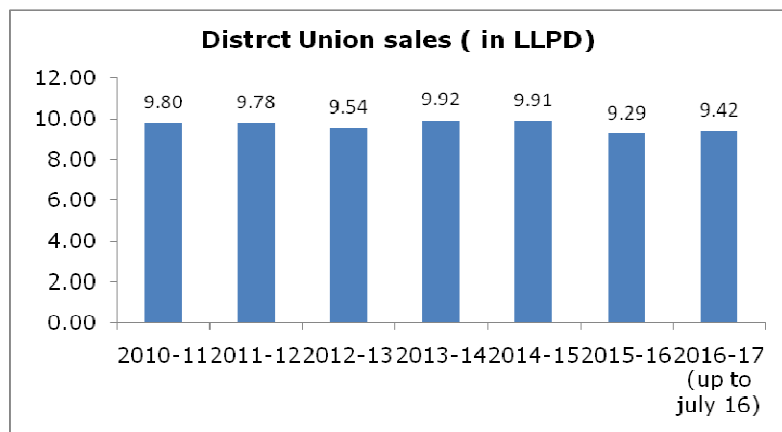
**Table 7:
District Union wise Milk procurement (average litres per day)**

| No | Name of the Union | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 (up to July) |
|----|----------------------------|----------|----------|---------|---------|---------|---------|----------------------|
| 1 | Kancheepuram - Thiruvallur | 49,349 | 56,000 | 75391 | 81598 | 103083 | 126688 | 93973 |
| 2 | Villupuram | 1,43,143 | 1,52,000 | 179514 | 172545 | 170793 | 196861 | 207864 |
| 3 | Vellore | 2,45,417 | 2,52,000 | 297743 | 281123 | 284965 | 306169 | 305314 |
| 4 | Dharmapuri | 1,28,048 | 1,09,000 | 145698 | 128230 | 121778 | 173079 | 185096 |
| 5 | Salem | 3,99,851 | 4,24,000 | 467218 | 449553 | 456480 | 511652 | 520768 |
| 6 | Erode | 2,17,756 | 2,31,000 | 249478 | 234053 | 232371 | 307112 | 321654 |
| 7 | Coimbatore | 2,25,894 | 2,30,000 | 238545 | 233918 | 218175 | 281468 | 281735 |
| 8 | The Nilgiris | 18,668 | 17,000 | 17617 | 15722 | 15045 | 15828 | 14451 |
| 9 | Madurai | 1,74,351 | 1,68,000 | 193177 | 176140 | 193988 | 268765 | 261762 |
| 10 | Dindigul | 40,103 | 40,000 | 46052 | 41011 | 46091 | 63651 | 65464 |
| 11 | Tiruchirapalli | 2,75,298 | 2,94,000 | 314746 | 304085 | 312077 | 394829 | 423862 |
| 12 | Thanjavur | 32,079 | 42,000 | 54165 | 51170 | 50352 | 53769 | 53371 |
| 13 | Pudukottai | 12,584 | 14,000 | 18177 | 15112 | 29473 | 42718 | 42702 |
| 14 | Sivagangai | 28,225 | 33,000 | 43923 | 47313 | 49040 | 56645 | 60794 |

| | | | | | | | | |
|----|--------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| 15 | Virudhunagar | 8,628 | 12,000 | 16414 | 15443 | 16552 | 15964 | 15737 |
| 16 | Tirunelveli | 61,996 | 58,000 | 68935 | 66954 | 58798 | 73167 | 68976 |
| 17 | Kanyakumari | 5,390 | 9,000 | 9561 | 7890 | 9250 | 9097 | 8605 |
| | Total | 20,66,780 | 21,40,000 | 24,36,353 | 23,21,860 | 23,68,311 | 28,97,463 | 29,32,129 |

**Table 8:
District Union wise Milk Sales**

| Sl. No. | Name of the District Union | Avg. Milk Sales Litres Per Day | | | | | | 2016-17 (up to July) |
|---------|----------------------------|--------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------------|
| | | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | |
| 1 | Kancheepuram - Thiruvallur | 697 | 7,560 | 6,103 | 6,161 | 9,987 | 9022 | 11169 |
| 2 | Villupuram | 35,092 | 30,086 | 26,435 | 24,718 | 22,982 | 19790 | 21254 |
| 3 | Vellore | 77,511 | 87,847 | 79,164 | 79,896 | 81,563 | 69609 | 68409 |
| 4 | Dharmapuri | 18,811 | 21,690 | 20,888 | 25,060 | 27,806 | 23588 | 23943 |
| 5 | Salem | 1,56,356 | 1,76,854 | 1,75,746 | 1,86,777 | 1,88,094 | 184667 | 188441 |
| 6 | Erode | 72,408 | 79,371 | 72,483 | 71,867 | 72,533 | 66276 | 65868 |
| 7 | Coimbatore | 1,62,928 | 1,58,175 | 1,48,606 | 1,49,880 | 1,49,010 | 137578 | 140943 |
| 8 | Nilgiris | 16,836 | 16,543 | 16,226 | 17,955 | 17,315 | 16501 | 16583 |
| 9 | Madurai | 1,89,162 | 1,46,605 | 1,57,789 | 1,64,767 | 1,60,159 | 153843 | 155051 |
| 10 | Dindigul | 13,938 | 15,155 | 13,668 | 14,756 | 13,707 | 11117 | 10172 |
| 11 | Tiruchirapalli | 1,12,151 | 1,11,284 | 1,12,991 | 1,20,382 | 1,18,974 | 116436 | 117304 |
| 12 | Thanjavur | 18,581 | 19,529 | 18,766 | 20,556 | 22,329 | 20114 | 20912 |
| 13 | Pudukottai | 6,932 | 6,830 | 6,819 | 8,336 | 10,941 | 10789 | 11590 |
| 14 | Sivagangai | 30,972 | 27,605 | 27,807 | 30,274 | 31,967 | 28713 | 28435 |
| 15 | Virudunagar | 6,132 | 10,623 | 8,768 | 7,378 | 6,012 | 4118 | 4846 |
| 16 | Tirunelveli | 59,150 | 48,818 | 47,508 | 47,063 | 42,910 | 41546 | 41724 |
| 17 | Kanyakumari | 17,537 | 13,825 | 14,576 | 16,068 | 14,939 | 15399 | 15387 |
| | TOTAL | 9,79,708 | 9,78,400 | 9,54,343 | 9,91,894 | 9,91,228 | 9,29,105 | 9,42,031 |



5.3. Feeder Balancing Dairies (FBDs)

Apart from the Tiruvannamalai Dairy cum Powder plant owned by Federation, there are four FBDs functioning under the control of Dharmapuri, Salem, Erode and Madurai District Cooperative Milk Producers' Unions. Surplus milk procured is converted into Skimmed Milk Powder (SMP) and Butter.

Table 9: FBD Capacity

| Sl. No. | FBD Location | Capacity | |
|---------|----------------|---------------|----------------------------|
| | | Dairy in LLPD | Powder plant in MT per day |
| 1 | Krishnagiri | 2.00 | 10 |
| 2 | Salem | 3.00 | 10 |
| 3 | Erode | 3.00 | 40 |
| 4 | Madurai | 3.00 | 10 |
| 5 | Tiruvannamalai | 2.00 | 20 |
| | Total | 13.00 | 90 |

5.4. Erode Cattle Feed Plant

Erode Milk Union is operating a cattle feed plant since 1982. This plant has a production capacity of 100 MT per day. Various types of feeds are produced here which are supplied to District Unions and Animal Husbandry Department. During 2013-14, the storage capacity of raw material and finished products was increased from 3350 MT to 6000 MT with an investment of Rs.3.50 Crore. 18,766 MTs of

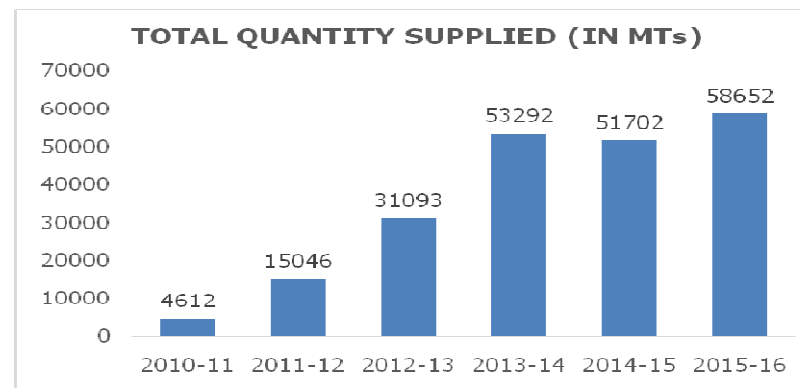
balanced cattle feed was produced by this plant during the year 2015-16.

Nutrition plays a key role in animal productivity and fertility. Over last five years, through provision of subsidy and training of milk producers, thrust has been given to usage of cattle feed by cooperative milk producers. As a result, off take of cattle feed supplied through Aavin has increased 12 times over last five years. Presently, excess requirement of cattle feed over and above that produced by Erode Cattle Feed Plant, is being met from TANFED and APMARKFED. As a long term measure, the production capacity of cattle feed plant is being enhanced from 100 MT per day to 250 MT per day at a total cost of Rs.20.36 Crore for which the work is under progress and is expected to be completed by Dec'16.

Table- 10

CATTLE FEED SUPPLY DETAILS (in MTs)

| YEAR | TOTAL QUANTITY SUPPLIED (IN MTs) |
|-----------|----------------------------------|
| 2010-11 | 4612 |
| 2011 - 12 | 15046 |
| 2012 - 13 | 31093 |
| 2013 - 14 | 53292 |
| 2014 - 15 | 51702 |
| 2015 - 16 | 58652 |



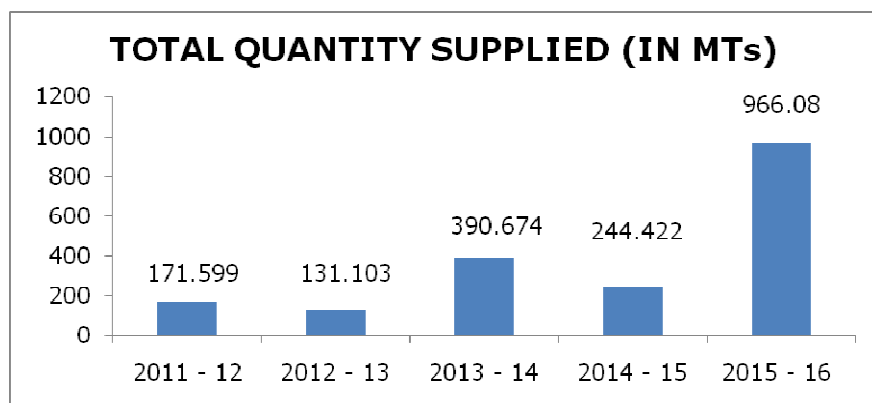
5.5. Mineral Mixture Plant

Four mineral mixture plants are functioning at Villupuram, Tiruchirapalli, Tirunelveli and Erode District Co-operative Milk Producers' Unions. Each plant has a production capacity of 12 MT per day.

Table 11:

**MINERAL MIXTURE SUPPLY DETAILS
2011 - 16 (in MTs)**

| YEAR | TOTAL QUANTITY SUPPLIED (IN MTs) |
|-----------|-------------------------------------|
| 2011 - 12 | 171.599 |
| 2012 - 13 | 131.103 |
| 2013 - 14 | 390.674 |
| 2014 - 15 | 244.422 |
| 2015 - 16 | 966.080 |



6. Primary Milk Co-operative Societies

At the village level, 12,105 Milk Producers' Co-operative Societies including 1,793 Women

Milk Producers' Co-operative Societies are functioning in the State.

There are 62 Milk Consumer Co-operative Societies functioning to cater the needs of the milk consumers.

The Primary milk Producers' Cooperative societies are procuring milk from the farmers twice a day throughout the year, for which, the producers are being paid a remunerative price based on the quality of milk. The procurement price for cow milk and buffalo milk is Rs.28/- and Rs.35/- per litre respectively w.e.f. 01.11.2014. Whenever the societies earn profit, the milk pouring members are being paid dividend, incentive and additional purchase price.

In order to bring milk producers in the cooperative sector, priority has been given over last five years for forming new milk producers societies. During the period 4,443 new Milk Producers Co-operative Societies were registered.

**Table 12:
Number of new societies registered**

| S.No | Year | No. of new societies registered |
|------|--------------|---------------------------------|
| 1 | 2011 - 12 | 867 |
| 2 | 2012 - 13 | 1,491 |
| 3 | 2013 - 14 | 977 |
| 4 | 2014 - 15 | 842 |
| 5 | 2015 - 16 | 266 |
| | Total | 4,443 |



6.1. Primary Milk Producers' Cooperative Societies

The village level milk co-operative societies procure around 36 lakh litres per day. After selling locally around 4.5 LLPD, the balance is being sent to District Unions.

a) Artificial Insemination

Timely Artificial Insemination is essential for yielding one calf per year. Hence for the benefit of Milk producers Artificial Insemination is carried out to the milch animals at the door step of the producers through Union Veterinarians and trained Village Level Workers. During the year 2015-16, 20.43 lakh Artificial Inseminations were carried out.

b) Foot and Mouth Disease (FMD) Vaccination

FMD vaccination is carried out twice a year (March and September) in coordination with Animal Husbandry Department covering around 17.00 lakh animals under cooperative ambit.

6.2. Primary Milk Consumers' Cooperative Societies

In order to ensure prompt and regular supply of quality milk and milk products at reasonable rates to the consumers, Milk Consumer Cooperative Societies are receiving milk in sachets from Federation / District Cooperative Milk Producers' Unions and distribute it to consumers at the rates fixed by the Government.

In Chennai City and suburban areas alone, 49 Milk Consumers Cooperative societies are selling nearly 3.40 Lakh Litres of milk per day.

7. SCHEMES

7.1. National Programme for Dairy Development

The erstwhile schemes of Strengthening Infrastructure for Quality and Clean Milk Production (SIQ&CMP), Intensive Dairy Development Programme (IDDP), and Assistance to Cooperatives (ACS) – Rehabilitation of Unions

were merged to form National Programme for Dairy Development (NPDD) from 2014-15 onwards.

However, the earlier on-going projects such as SIQ & CMP, IDDP, and ACS sanctioned prior to 2014-15 will be continued till completion.

Objectives of NPDD:-

1. To create infrastructure for production of quality milk
2. To create and strengthen infrastructure for procurement, processing and marketing of milk
3. To provide training for dairy farmers.
4. To strengthen dairy cooperative Societies at village level.
5. To increase milk production by providing technical input services and cattle feed, mineral mixture etc.
6. To assist in rehabilitation of loss incurring milk unions.

Under NPDD (National Programme for Dairy Development), a sum of Rs.40.16 crore has been sanctioned for 3 projects in the Federation and the District Unions of Trichy and Madurai. Out of above total sanctioned amount, Rs.18.08 crore is the Central Government assistance and balance Rs.22.08 crore to be met by the End Implementing Agency (EIA). The duration of the scheme is 3 - 5 years, starting from 2014 - 15.

The Central Government has released the first and second year amount of Rs.15.36 Crore.

Main Components

Tamil Nadu Cooperative Milk Producers Federation Ltd, Chennai.

1. Two PUF insulated refrigerated container vehicles
2. Two Crate Washers for cleaning milk sachet tubs.
3. Expansion of Effluent Treatment Plant (ETP)

4. 10 Road milk tankers of 9 KL capacity and 5 Road milk tankers of 15 KL capacity.
5. Laboratory equipments

Madurai Union

1. 10,000 LPD capacity curd processing plant.
2. 3000 litres capacity automated Cleaning In Place facility, Cream separator, milk condensing plant and Boiler.
3. Renovation of Training centre building.
4. 100 Chaff cutters
5. Fodder seed mini kits for 300 acres
6. One Cattle feed transport lorry of 7 MT capacity
7. Training to 450 Cooperative Milk Producers

Trichy Union

1. 1 LLPD capacity New Dairy with 50,000 litres capacity of milk cold storage and 50 MTs capacity of butter deep freezer.

2. Construction of a Milk Cooperative society building
3. 1500 Milk cans
4. 50 Chaff cutters
5. Fodder seed mini kits for 500 acres.
6. Cattle feed storage Godown
7. Training to 450 Cooperative Milk Producers
8. Training to 70 persons from the Management committee and Board of Directors of the Union.

Presently Strengthening Infrastructure for Quality and Clean Milk Production (SIQ&CMP) in Erode, IDDP in Thanjavur, Pudukottai and Virudhunagar and ACS in Thanjavur and Kancheepuram – Tiruvallur which were sanctioned prior to 2014 -15 are being continued under NPDD.

a) SIQ&CMP

This scheme is being implemented in Erode. Out of Rs.499.94 Lakh, so far Rs.327.91 Lakh has been released. The balance amount of Rs.172.03

Lakh is awaited. All major components like BMC installation, supply of chemicals, utensils, milking machines and strengthening of laboratories, etc. have been completed.

b) IDDP

Thanjavur, Pudukottai and Virudhunagar Unions have received their total final installment of Rs.262.08 Lakh towards improving milk procurement, infrastructure for milk processing & marketing and development of human resources. The related works are expected to be completed by Sep'2016.

c) ACS

It is being implemented in Kancheepuram – Tiruvallur Union and Thanjavur Unions. The scheme supports the payment of dues to milk producers, settlement of gratuity dues to employees and payment due to other Unions. The entire fund for Kancheepuram – Tiruvallur Union has been received while the final fund of Rs.62.07 Lakh for Thanjavur Union is awaited from Govt. of India.

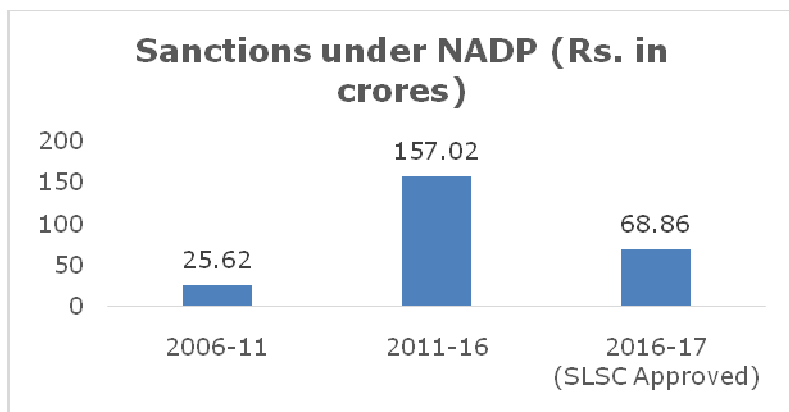
7.2. National Agriculture Development Programme (NADP)

Major thrust has been given to the Dairy Sector under NADP and till 2015-16, Rs.182.63 crore was sanctioned for the sector under this scheme. The projects taken up cover a wide range of activities including improvement of livestock health, establishment of cold storages, enhancement of milk production, strengthening of procurement infrastructure, milk cold rooms and marketing infrastructure etc. Some of the major projects taken up during the last five years are:

- Doorstep delivery of veterinary service to milk producers through 155 mobile units.
- 31 Bulk Milk Coolers (BMCs)
- Restarting of Kakkalur Dairy
- Purchase of two refrigerated vehicles and three insulated vans
- Milk Cold room facility for storing three lakh litres of milk
- Butter Deep Freezer facility of 894 MT capacity.

- Formation of 3,000 new milk producers' cooperative societies
- 25 high speed and 11 normal speed packing machines.
- Imported retail butter packing machine to pack butter in 100, 200 and 500 gram packs at Erode dairy
- New product dairy at Ambattur for manufacturing 15,000 litres of Ice Cream and 1,000 Kg. of Paneer per day.
- Sterilizer and 200 ml packing machine for UHT Plant at Salem
- 46 Road Milk Tankers
- 99 Thermal printers
- 10 Tub washing machines
- Strengthening of Registration System, processing and storage facilities at Madhavaram Dairy

For the year 2016-17, projects have been approved by the State Level Sanctioning Committee for an amount of Rs.68.86 crore.



7.3. Schemes under financial assistance of NABARD

With an objective of strengthening dairy infrastructure for the benefit of rural milk producers, over last three years the State Government is providing grant assistance to the cooperative sector under NABARD Rural Infrastructure Development Fund (RIDF). During 2014-15 and 2015-16, a sum of Rs.145.67 crore was sanctioned. Some of the important works executed with these funds are as follows:

- 5 lakh litres per day water supply from Sathanur dam to Tiruvanamalai powder plant.

- Increasing Production capacity from 100 MT to 250 MT per day in Erode cattle feed plant.
- Modernization and expansion of Coimbatore Dairy from 2 LLPD to 5 LLPD.
- UASB (Up flow Anaerobic Sludge Blanket) Digestion technology for treatment of Dairy effluent in Salem Dairy.
- Automated pet jar ghee filling machine in Salem Dairy.
- 20 KLPH pasteurizer, 20 KLPH Cream separator, high speed packing machine, crate washer, solar water heater in Erode Dairy.
- 10 KLPH pasteurizer, 10 KLPH cream separator, milk storage tank, can & tub washing machine, cleaning-in-place auto system, in Villupuram Dairy.
- One lakh litre milk packing and cold room in Vellore Dairy.
- Hi-tech Parlours in Tirunelveli, Kanyakumari & Dharmapuri.

Projects under progress:

- Manufacturing and packing of fermented products in Ice cream cum Paneer Plant premises, Product Dairy, Ambattur.
- UHT milk plant with Aseptic packing unit in Sholinganalur Dairy.
- 42 Bulk Milk Coolers (BMCs) with 2.1 lakh litre capacity per day in Erode (36), Dharmapuri (5) & Virudhunagar (1)
- 1120 MT Butter storage capacity in the dairies of Tirunelveli (100), Madurai (700), Tiruvannamalai (220) and Trichy (100) at a cost of Rs.10.51 crore.
- 1725 MT Milk Powder storage capacity in the dairies of Madurai (600), Tiruvannamalai (425), Trichy (100) and Coimbatore (600)
- Expansion of milk processing capacity from 0.50 to 1.0 lakh litres per day in Kakkalur Dairy, Tiruvallur.

- 100 MT Cattle feed storage facility in Tirunelveli.

7.4. National Mission on Food Processing (NMFP)

A sum of Rs.18.42 crore was sanctioned under this scheme for strengthening of refrigeration and cold room infrastructure facilities at Tiruchirapalli, Salem and Madurai Dairies and for the three metro dairies of Ambattur, Madhavaram and Sholinganalur. Out of the allocation, a sum of Rs.8.70 crore was provided as grant under this Government of India scheme but only Rs.3.65 Crore was released. Hence entire remaining amount of Rs.14.77 crore has been contributed from own funds of Federation/ District Unions. Under this scheme, milk cold room capacity of 5.3 lakh litres has been created in Sholinganalur, Madurai, Salem & Trichy dairies and 100 MT Butter deep freezer capacity has been created in Trichy dairy. Work on new packing block with 1.5 lakh litre capacity milk cold room is

under progress in Ambattur dairy and is expected to be completed by August-2016.

8. Major projects under execution

8.1. New Dairy at Perambalur

The Hon'ble Chief Minister had announced that a new dairy will be established in Perambalur district to cater to the needs of the milk producers of Perambalur and Ariyalur districts. Accordingly, action has been taken for establishing a dairy with a capacity to process 1 Lakh Litres of milk per day at a cost of Rs.36.28 crore. Out of this, a sum of Rs.18.14 crore has been provided by the State Government as an interest free loan to Tiruchirapalli District Union, Rs.9.08 crore has been sanctioned under National Programme for Dairy Development (NPDD) scheme and Rs.9.06 crore from district union's own funds. This dairy is being established in 23.62 acres at Padalur (East) Village in Alathur Taluk of Perambalur district. Work has been entrusted to National Dairy Development Board (NDDB) on turnkey basis. Hon'ble Chief Minister of Tamil

Nadu laid the foundation stone for this project on 15.07.2015. Work is in advanced stage of completion and is expected to be completed by September 2016.

8.2. Expansion of Madurai Dairy

Expansion of Madurai Dairy is being carried out at a cost of Rs.37.54 crore. Under this various infrastructure facilities like plate chiller, Homogenizer, Cream pasteurizer, Cream storage tank, High speed pouch packing machines, Generator, energy efficient centralized refrigeration system, etc. are being provided. Milk cold room capacity of 2 lakh litres, butter deep freezer capacity of 700 MT and SMP storage capacity of 600 MT are being added. With these works milk handling capacity of Madurai dairy will increase from 3 LLPD to 5 LLPD and it will be able to produce and pack 10,000 litres of curd per day. Apart from this modernization of Theni Chilling Centre has also been taken up.

8.3 .Ultra Heat Treatment (UHT) Processing Plant in Sholinganallur Dairy

As announced by Hon'ble Chief Minister, a new UHT milk plant with Aseptic packing unit to process and pack 1.0 lakh litres of milk per day in 3/5 layer LDPE aseptic pouches of 200ml/500ml/1000 ml sizes having a shelf life of 30-90 days at normal room temperature is being established in Sholinganallur Dairy at a cost of Rs.34 Crore. The Work has been entrusted to National Dairy Development Board (NDDB) on turnkey basis.

8.4. Expansion of Cattle Feed Plant, Erode

The production capacity of Erode Cattle Feed plant is being expanded from 100 MT per day to 250 MT per day at a cost of Rs.20.36 crore. The work has been entrusted to National Dairy Development Board (NDDB) on turnkey basis. Civil work has been completed and

machinery erection work is in progress. The work is scheduled to be completed by December 2016.

8.5. Enhancement of storage facilities for Butter and Milk Powder

Over last five years Aavin has added 1000 MT storage capacity for Skimmed Milk Powder and 1330 MT Deep Freezer capacity for butter. With increased levels of milk procurement, Aavin has taken further steps to add SMP and Butter storage capacity. Accordingly, 1120 MT Butter storage capacity is under construction in the dairies of Tirunelveli, Madurai, Tiruvannamalai and Trichy at a cost of Rs.10.51 crore. 1725 MT Milk Powder storage capacity is under construction in the dairies of Madurai, Tiruvannamalai, Trichy and Coimbatore at a cost of Rs.4.74 crore. The entire work is likely to be completed by February 2017.

8.6. Construction of new fermented milk products manufacturing and packing plant at Ambattur

In order to cater to the increased demand for Aavin ice cream and paneer new plant has been set up at Ambattur at a cost of Rs. 23.46 crore, which was inaugurated by Hon'ble Chief Minister on 27.2.2016. In the same premises, a facility of 40,000 litre capacity to manufacture and pack fermented products like curd, butter milk, lassi, etc. is being set up at a cost of Rs.9.18 crore. The work of machinery supply, erection and commissioning is being carried out by NDDB. The entire project is expected to be completed by September 2016.

8.7. Customer facilitation center cum corporate office building at Nandanam

As announced on the floor of the assembly by the Hon'ble Minister in 2013-14, work on construction of Customer facilitation center cum corporate office building has been taken up at Nandanam at a cost of Rs.31.29 crore. Foundation

stone for the building was laid by Hon'ble Chief Minister on 15.7.2015. The building will consist of stilt plus nine floors with a total plinth area of 1,13,000 square feet. Work has been entrusted to Tamil Nadu Police Housing Corporation and presently construction work up to five floors has been completed. The entire work is expected to be completed by August 2017.

8.8. Hi-Tech Parlours

Hon'ble Chief Minister had announced under Rule 110 that 16 Hi-Tech parlours will be constructed in Chennai Metro at a cost of Rs.10 crore. Accordingly, 5 Hi Tech parlours at a cost of Rs.4.10 crore have been completed and inaugurated by Hon'ble Chief Minister. Work on remaining 11 Hi Tech parlours is under progress and is in different stages of completion.

8.9. Usage of non-conventional energy in Dairies

Aavin has taken steps to promote use of non-conventional energy in dairying activities. In this direction, 8 dairies, 4 chilling centers and 100 bulk milk coolers have been provided with solar water heating systems with a total capacity to produce 1.11 lakh litres of hot water (80°C) per day. This hot water is either fed to boiler for steam generation or directly used for cleaning of milk storage tanks / cans. **One Concentrate Solar Thermal (CST)** (set of two) has been installed at Salem Dairy. It generates steam which is directly used for milk processing. This installation received the Govt. of India 'CST and Solar Cooker Excellence Award 2016' on 29.4.2016. One more such CST (set of two) has been installed at Sholinganallur dairy and is under trial run now.

Further, USAB (Up flow Anaerobic Sludge Blanket) Digestion technology for treatment of Dairy effluent is being used in the Effluent Treatment Plants at Salem and Tiruvannamalai. In

Salem, the Methane gas being produced in the Bio Digester is being used as fuel in the dairy canteen. Similar system is being put in Ambattur and Coimbatore dairies and work is under progress. The works are expected to be completed by December 2016.

8.10. National Dairy Plan-I (NDP)

8.10.1. Progeny Testing Programme

Under National Dairy Plan, Progeny Testing Programme is being implemented in Crossbred Jersey Cows, at a total outlay of Rs.39.28 crore.

The scheme is implemented from 2012-13 in five District Unions, viz. Vellore, Villupuram, Erode, Salem and Trichy and it is envisaged to produce 247 High Genetic Merit (HGM) bulls under the scheme by 2017-18.

Based on the performance of the daughters on various parameters like milk yield, milk quality, lactation period etc. the bulls are ranked,

thereby producing proven semen for increased milk production.

8.10.2. Strengthening of Semen Station, NJ&SF, Ooty

Under National Dairy Plan, Semen Station at Nucleus Jersey and Stud Farm, Ooty is being strengthened with a grant of Rs.1434.74 lakh. Under this project, there is a provision for construction of Quarantine station at Erode, Rearing Station at Pudukudi and civil works for strengthening of NJ&SF, Ooty apart from compound wall provision at Pre-quarantine station, Attur. In addition, various lab items, farm equipments and ICT items have also been procured under the scheme.

8.10.3. Village Based Milk Procurement System (VBMPS)

Under National Dairy Plan, Village Based Milk Procurement System (VBMPS) programme is being implemented in six milk unions viz., Salem,

Coimbatore, Erode, Vellore, Trichy and Kancheepuram-Tiruvallur.

This scheme provides for supply of Bulk Milk Coolers (BMCs), Automatic Milk Collection Units (AMCUs) and Cans. Training to society staff, society board members and milk producers is also being undertaken. The total project outlay is Rs.1255.37 lakh and the project is for three years from 2014-15 to 2016-17.

Through implementation of this project, in addition to clean milk production there will also be an increase in quality of raw milk.

8.10.4. Ration Balancing Programme (RBP)

Under National Dairy Plan, Ration Balancing Programme (RBP) is being implemented in seven milk unions viz., Salem, Coimbatore, Erode, Villupuram, Vellore, Trichy and Madurai at a total project cost of Rs.1467.60 lakh for three years from 2014-15 to 2016-17.

The programme is aimed at reducing the feeding cost and increasing milk production per animal by adopting scientific practices.

8.11. Integrated Dairy Management System (IDMS)

To improve the operational efficiency and to ensure timely service delivery to Milk Producers, Consumers and Suppliers etc., the operations of Tamil Nadu Co-operative Milk Producers' Federation, District Co-operative Milk Producers' Unions and Primary Co-operative Milk Producers' Societies are being integrated through information technology at a cost of Rs.46.55 crore including operational and maintenance for 5 years. For this project Government of India sanctioned a sum of Rs.18.34 crore as 100% grant-in-aid and balance project cost of Rs.28.21 crore is being sourced from Federation and Union funds.

In the first phase, this project is being implemented in Tamil Nadu Co-operative Milk Producers' Federation, four feeder balancing

dairies of Salem, Erode, Dharmapuri and Madurai District Co-operative Milk Producers' Unions and 2800 Primary Co-operative Milk Producers' Societies. To implement this project, M/s Price Waterhouse Coopers Private Limited, Chennai has been appointed as Consultant and M/s CMS Computers Limited, Chennai has been appointed as the System Integrator and the Application Development work is in progress. This project is expected to be completed by March 2017.

9. SPECIAL SERVICES TO MILK PRODUCERS

The primary objective of the dairy cooperative societies is furthering the interest of the milk producers.

9.1. Enhancement of milk procurement Price

In order to ensure remunerative prices to milk producers, Government **increased the milk procurement price from Rs.23/- to 28/- per litre for cow milk and Rs.31/- to Rs.35/- for buffalo milk with effect from 01.11.2014**

which is the highest ever single increase in milk procurement price.

Thus, over the last five years, milk procurement price has been increased by Rs.10/- per litre for cow milk and Rs.9/- per litre for buffalo milk. As a result, an additional sum of Rs.1,100 crore is being paid to the milk producers annually.

9.2. Supply of subsidized Cattle Feed and Mineral mixture

District Cooperative Milk Producers' Unions are giving cattle feed and Mineral Mixture subsidy of Rs.2 to 4 per Kg and Rs.20 to 25 per kg respectively with their own funds. Cattle Feed subsidy is being provided by 13 District Unions and Mineral Mixture subsidy by 8 District Unions. This subsidy has helped in increasing off take of cattle feed supplied through Aavin by 12 times over last five years.

9.3. The Restructured Peraringnar Anna Co-operative Milk Producers' Welfare Fund

To increase the loyalty of the producers to the societies and to assist the milk producers in times of distress, The Restructured Peraringnar Anna Co-operative Milk Producers' Welfare Fund has been created.

While Re.1/- is contributed by the producer per month from his milk cost payment, the concerned District Union and society contribute 50 paise each per month per producer towards their share to the above Fund.

To avail the benefits under this Welfare fund, the milk pouring member should have poured a minimum of 120 litres of milk in 180 days in the preceding one year, prior to the date of accident.

Table 18 Benefits under the fund:

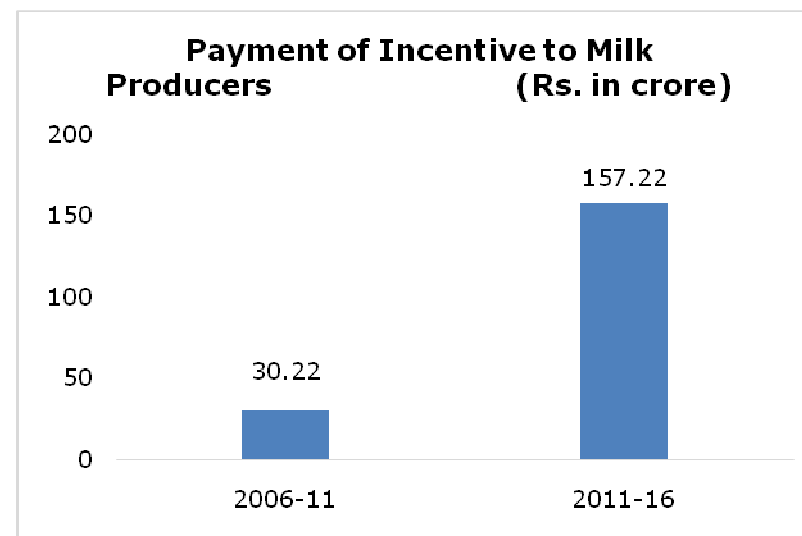
| S. No. | Assistance | Amount |
|--------|--|--------------|
| 1 | Death due to fatal accident | Rs.1.75 lakh |
| 2 | Loss of more than one organ in accident | Rs.1.75 lakh |
| 3 | Loss of any one organ in accident | Rs.75,000/- |
| 4(a) | In addition to the financial assistance mentioned Sl. No.(1) or (2) or (3), Education assistance to legal heir-two Children below 21 years | Rs.10,000/- |
| 4(b) | In addition to the financial assistance mentioned Sl. No.(1) or (2) or (3), Marriage assistance to legal heir-one female child of legally permitted marriageable age | Rs.10,000/- |

From this fund, a sum of Rs.1.20 crore has been sanctioned to 68 beneficiaries up to July 2016. The scheme was inaugurated by the Hon'ble Chief Minister of Tamil Nadu on 15.07.2015.

9.4 Payment of Incentive to Milk Producers by Unions

The District Unions are sharing the surplus income over their expenditure earned by them with the milk producers by providing incentives. This incentive amount normally ranges from 60

paise per litre to Rs.1.60 per litre depending on the surplus generated by the particular district union. A total sum of Rs.157.22 crore has been paid as incentive to 3,48,019 milk producers during 2011-16, as compared to Rs.30.22 crore paid during 2006-11.



9.5. Payment of bonus to Milk Producers by Primary dairy cooperative societies

As provided for in the by-laws of Milk Producers' Cooperative Societies (MPCS), 50% of profit is 'ploughed back' to the member milk

producers. Whenever the society earns profits, the member producers are paid dividend on share capital, patronage rebate and 50% of the profit as bonus for the value of milk supplied by them to the society.

During the last 5 years, a sum of Rs. 69.16 crore has been paid as bonus, dividend and patronage rebate benefiting 1.20 lakh members.

9.6. Installation of Bulk Milk Coolers

To maintain the initial quality and improve the shelf life of milk and facilitate access at any time for the milk producers, Bulk Milk Coolers (BMC) of 2000 litre, 3000 litre and 5000 litre capacity have been established.

Bulk Milk Coolers are established based on the following criteria:

1. The average total milk procurement of the society (or) cluster societies should be more than 2,000 litres per day.
2. Cluster societies should function within a radius of 10 Kms.

3. Bulk Milk Cooler shall be installed only if the required land and building facilities are available in the society.

So far, 299 BMCs with chilling capacity of 13.04 lakh litres per day have been installed.

10. STAFF WELFARE MEASURES

- 1) Productivity linked incentives are being paid to the employees of Federation and District Unions during Pongal festival.
- 2) Bonus and ex-gratia being paid to the employees of Federation and District Unions during Deepavali festival.
- 3) Milk products are distributed to the employees of the Federation and District Unions as gift during Pongal and Deepavali festivals.
- 4) Rectification of defects pointed out in Audit: Many employees of the Federation and District Unions could not get their retirement benefits for many years due to audit objections pending against them. By

conducting periodical Audit Review (Accounts) Committee meetings, a large no. of audit objections have been settled. This made it possible for retired employees to get their retirement benefits. This measure has also helped in clearing the balance sheets of District Unions by releasing non statutory reserves.

- 5) Promotion was given to 42 Dairy Development Department employees, 172 District Cooperative Milk Producers' Union employees and 74 Tamil Nadu Cooperative Milk Producers' Federation employees during the year 2015-16.
- 6) During the year 2015-16, through direct recruitment, 154 new appointments were made in Dairy Development Department, 243 in District Cooperative Milk Producers' Unions and 190 in Tamil Nadu Cooperative Milk Producers' Federation
- 7) To encourage the employees of Primary Milk Cooperatives, additional remuneration of

Rs.300/- to Rs. 1,000/- per month, based on their service seniority was given to them with effect from 01.10.2015.

- 8) In line with the functioning of Department of Cooperation, for administrative convenience, the posts of Superintendents and Assistants in the Ministerial Service have been converted as Cooperative Sub Registrars and Junior Inspectors in the Subordinate Services

11. Department of Audit for Milk Co-operatives

The Department of Audit for Milk Co-operatives was created as a separate Department from 1-10-1987 exclusively to conduct statutory Audit of Milk Cooperatives in the three tier system. The department conducts audit in the following categories of Milk Cooperatives.

- 1) Tamil Nadu Cooperative Milk Producers' Federation Ltd., at the State level.

- 2) Cooperative Milk Producers' Unions at the District level.
- 3) Milk Producers/Consumer Cooperative Societies at the Primary level.

To conduct statutory Audit, 335 posts were sanctioned to the Department vide G.O.Ms.No.20 Animal Husbandry, Dairying and Fisheries Department dated 27-1-2014. Out of which 307 posts are drawn from the Cooperative Department, Treasuries and Accounts Department and the remaining 28 posts from the Department of Audit for Milk Cooperatives.

Statutory Audit for the year 2014-15 in respect of Tamil Nadu Cooperative Milk Producers' Federation has been completed and Certificate was issued. Half yearly Audit for the first half year of 2015-16 was completed and report issued. Final Audit for the year 2015-16 is being undertaken.

Statutory Audit of all 17 District Cooperative Milk Producers Unions for the year 2014-15 has been completed and Certificates were issued. Further for the first time, Half yearly Audit for the first Half year of 2015-16 has been conducted for all the District Cooperative Milk Producers Unions and reports were issued. Statutory Audit of Pudukottai District Cooperative Milk Producers' Union for the year 2015-16 has been completed and Audit Certificate was issued on 29-04-2016. For the remaining District Cooperative Milk Producers Unions, Audit is being undertaken.

For the year 2014-15, Statutory Audit of all eligible Primary Milk Producers' Cooperatives and Consumer Cooperative Societies have been completed and Audit reports were issued. As on 30-6-2016, Audit for the year 2015-16 have been completed and Audit certificates were issued for 1137 Milk Producers and Consumers Cooperative Societies.

Audit fees and Fundamental Rule Cost

For the period from 1-4-2015 to 31-03-2016, a sum of Rs. 66.08 Lakh was collected towards Audit Fees for undertaking statutory Audit in Milk Cooperative Societies and remitted into Government Account.

A sum of Rs.83.42 Lakh was collected towards Fundamental Rule 127 cost for undertaking concurrent audit in Milk Cooperative Societies and Milk Unions and remitted in to Government Account.

Audit Review (Accounts) Committee Meeting

Audit Review (Accounts) Committee Meetings were conducted regularly to monitor and approve rectification of Audit defects. During 2015-2016 , 180 Audit defects in respect of District Cooperative Milk Producers' Unions and 1808 Audit defects in respect of Primary Milk Producers'/Consumer Cooperative Societies, were rectified.

12. Conclusion

Aavin is a part of everyday life for lakhs of milk producers and milk consumers. Rural milk producers of more than 12,000 villages of Tamil Nadu daily visit their milk Society collection centers twice for pouring milk which provides them a steady source of income throughout the year. For many rural households dairying is an important secondary source of income, while for some of them it is the main source of livelihood. Working towards achieving the vision of Hon'ble Chief Minister of strengthening and promoting Dairying in the State, everyday aavin milk societies are purchasing milk worth more than Rs.10 crore from its member milk producers. This money which in most of the cases is paid to the woman member of the family, plays a key role in improving their economic and social status. With continuous improvement in procurement infrastructure, aavin is striving to serve them still better.

For serving its lakhs of consumers in a better manner, aavin has been investing heavily in augmenting its processing facilities, developing production facilities for new milk products and expanding its distribution network. While some improvement works have been taken up from own funds, Government of Tamil Nadu has given very good financial support over last five years not only for strengthening existing infrastructure, but for also taking up expansion work and several Greenfield projects. This critical support of Government of Tamil Nadu has ensured that Aavin is able to provide a wide range of products of excellent quality to its consumers at very reasonable prices.

Under the guidance of our Hon'ble Chief Minister, Dairy Development Department will take all efforts to serve milk producers and consumers better and better and ensure that dairying sector of Tamil Nadu scales new heights.

S.P.SHUNMUGANATHAN
Minister for Milk and
Dairy Development

Milk Cooperative Sector at a glance

| S. No | Items | |
|-------|--|----------|
| 1 | Total number of Milk Producers' Coop. Societies | 12,105 |
| 2 | Milk Producers' Co-operative Societies formed during 2015-16 (in Nos.) | 266 |
| 3 | Total Number of members in Milk Producers' Cooperative Societies (In Lakh) | 23.01 |
| 4 | Number of milk pouring members (In lakh) | 4.60 |
| 5 | Milk Production by societies (In LLPD) | 31 to 36 |
| 6 | Number of District Cooperative Milk Producers Union | 17 |
| 7 | State Level Federation | 1 |
| 8 | Milk Procurement by Unions (In LLPD) | 26 to 31 |
| 9 | Milk marketing in Chennai City (In LLPD) | 11.22 |
| 10 | Milk marketing in District Unions (In LLPD) | 9.29 |
| 11 | Number of Union Dairies | 17 |
| 12 | Number of Federation Dairies | 5 |
| 13 | Handling Capacity of Union Dairies (In LLPD) | 24.07 |
| 14 | Handling Capacity of Federation Dairies (In LLPD) | 13.75 |
| 15 | Number of Chilling Centres | 35 |
| 16 | Handling Capacity of Chilling Centres (In LLPD) | 14.75 |

| | | |
|----|---|-------|
| 17 | Number of Bulk Milk Cooler Units | 299 |
| 18 | Chilling Capacity of Bulk Milk Cooler units (In LLPD) | 13.04 |
| 19 | Number of rural milk collection routes | 530 |
| 20 | Number of milk distribution routes at the level of District Unions | 266 |
| 21 | Number of milk distribution routes in Chennai Metro | 119 |
| 22 | Number of Powder plants (Erode, Salem, Madurai Dharmapuri District Unions and Federation) | 5 |
| 23 | Capacity of powder plants for drying Milk (MT/day) | 90 |
| 24 | Butter storage capacity (in MT) | 2,834 |