9.6 DAIRY DEVELOPMENT

According to the 17th Livestock and Poultry Census (2004) the total white cattle population in Tamil Nadu is 91.41 lakhs and buffalo (black cattle) population is 16.58 lakhs. The cattle population, which was 105.72 lakhs in 1974, has reduced to 91.41 lakhs in 2004. Similarly, the buffalo population, which was 28.53 lakhs, has reduced to 16.58 lakhs during the same period. However, milk production in Tamil Nadu has increased tremendously over the last two decades. From only 35.24 lakh MT in 1993-94, it has risen to 47.53 lakh MT in 2003-04. This has resulted in increase in per capita availability of milk to 209 gm per day, which is close to the ICMR recommendation of 220 gm per day. This phenomenal increase is purely due to the breeding policy adopted in Tamil Nadu, which has been in tune with the national policy. Cross breed cattle account for 24% of the total white cattle population. Murrah and graded buffaloes account for 82% of buffalo population.

Milk trade has become a cottage industry providing employment opportunity in rural areas, particularly to the women folk thereby supplementing the family income. To eliminate the middlemen and to protect the interest of the producers in the villages, milk producers’ cooperative societies have been formed. This has assured remunerative price and market support to the producers besides catering to the needs of the consumers. Dairy Development Programmes are being implemented through a network of co-operatives designed on the ‘Anand model’ of Gujarat State. Tamil Nadu was one of the States that adopted the Anand pattern of cooperatives for milk production and marketing. The institutional frame has a three-tier structure with 10041 Primary Milk Producers’ Cooperative Societies at the Village level, the Union of Producers’ Co-operative Societies at the District level (17 District Cooperative Milk Producers' Unions) and the Federation of District Co-operative Milk Producers’ Union at the State level.

Dairy Development Department

The State Dairy Development Department was established in 1958. The administrative and statutory control over all the milk cooperatives in the State were transferred to the Dairy Development Department on 1.8.1965. The Commissioner for Milk Production and Dairy Development was made the functional Registrar under the Tamilnadu Cooperative Societies Act. With the advent of 'Anand pattern' in the State of Tamilnadu, Tamilnadu Co-operative Milk Producers' Federation Limited was registered on 1st February 1981. The commercial activities of Department such as Milk Procurement, Processing, packing and sale of milk to the consumers etc., hitherto dealt with by the Tamilnadu Dairy Development Corporation Ltd., were transferred to the newly registered Tamilnadu Co-operative Milk Producers' Federation Ltd. In the wake of liberalization policy, private dairies have entered in the field of dairying and a number of mini and large private milk processing units are coming up in the private sector. Priority has been accorded for improving the performance of Co-operatives by adopting a systematic approach and proper strategy implementation in Milk Co-operatives.

The Milk Producers’ Cooperative Societies are formed and functioning at village level. In these societies only the milk producers are enrolled as members. The animals owned by producer members are provided with animal health cover at the doorsteps of the members by the Veterinary Assistant Surgeons of the Veterinary
9.6 Dairy Development

Units, procurement teams and input wings. Breed improvement through artificial insemination is also carried out at a nominal rate. The milk produced at the village societies is collected by the District Unions after allowing some quantity to be retained at society level itself to meet the local demands.

There are 17 District Cooperative Milk Producers' Unions functioning in the State of Tamilnadu covering 30 Districts. There are 16 Dairies in District Cooperative Milk Producers' Unions with an installed processing capacity of 18.92 lld. There are 39 Chilling Centres in District Co-operative Milk Producers' Unions with installed chilling capacities of 12.83 lld respectively.

The functions of, and the thrust areas for, the Department are as follows:

- Formation of new milk routes to collect milk produced by the members of the societies
- Collection of milk from societies, processing and packing in modern dairy plants by maintaining quality standards
- Supply of quality milk to Chennai Metro under hygienic conditions. Fixation of procurement and selling price of Milk
- Increase of liquid milk sales by introducing innovative sales promotional activities
- Supply of inputs to the members of the societies. Rendering Veterinary Health Service and emergency service to the cattle of members of primaries
- Impart training on First aid and on Artificial insemination to the staff of member societies
- Extending Artificial insemination services to the cattle owned by the members of Milk Cooperative Societies
- Providing milk cans, milk 'O' testers and LN2 containers

Salem, Erode, Madurai and Dharmapuri Unions are the Feeder Balancing Dairies. Surplus milk in the District Unions, after meeting their local sales is diverted to the nearest Feeder Balancing Dairies for conversion into milk products, such as Skim Milk Powder, Butter and Ghee. The three Cattle Feed Plants at Madhavaram, Erode and Kappalur are run by the Kancheepuram -Tiruvallur Union, Erode Union, Madurai Union respectively. The production capacity of these cattle feed plants is 100 MT per day each. The balanced cattle feed produced in the form of pellets and mash are supplied to the members of the Milk Co-operatives, livestock farms managed by the Animal Husbandry Department and to various local bodies including the Corporation of Chennai.
### General Statistics pertaining to Dairy Development Sector

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Items</th>
<th>As on 2004-05</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>No. of Primary Milk Cooperative Societies</td>
<td>9012</td>
</tr>
<tr>
<td>a</td>
<td>Milk Producers Cooperative Societies</td>
<td>8945</td>
</tr>
<tr>
<td>b</td>
<td>Milk supply Cooperative Society</td>
<td>1</td>
</tr>
<tr>
<td>c</td>
<td>Dairy Cooperative Farm</td>
<td>1</td>
</tr>
<tr>
<td>d</td>
<td>Milk Consumers’ Cooperative Societies</td>
<td>60</td>
</tr>
<tr>
<td>e</td>
<td>Cooperative Milk Supply Union</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Total number of functional societies</td>
<td>7431</td>
</tr>
<tr>
<td>3.</td>
<td>Total number of Members in Primary Milk Cooperative Societies</td>
<td>22.60 (In Lakhs)</td>
</tr>
<tr>
<td>4.</td>
<td>Milk Production (by societies)</td>
<td>23.86 LLPD</td>
</tr>
<tr>
<td>5.</td>
<td>No. of District Unions</td>
<td>17</td>
</tr>
<tr>
<td>6.</td>
<td>State Level Federation</td>
<td>1</td>
</tr>
<tr>
<td>7.</td>
<td>Milk Procurement (by Unions)</td>
<td>20.63 LLPD</td>
</tr>
<tr>
<td>8.</td>
<td>Milk Marketing in Chennai City</td>
<td>7.54 (LLPD)</td>
</tr>
<tr>
<td>9.</td>
<td>Milk Marketing in District Cooperative Milk Producers’ Unions</td>
<td>7.88 (LLPD)</td>
</tr>
<tr>
<td>10.</td>
<td>Number of Union Dairies</td>
<td>15</td>
</tr>
<tr>
<td>11.</td>
<td>No. of Federation dairies</td>
<td>4</td>
</tr>
<tr>
<td>12.</td>
<td>Handling Capacity Union Dairies (LLPD)</td>
<td>19.42</td>
</tr>
<tr>
<td>13.</td>
<td>Handling Capacity Fedn. Dairies (LLPD)</td>
<td>10.00</td>
</tr>
<tr>
<td>14.</td>
<td>Number of Chilling Centres</td>
<td>40</td>
</tr>
<tr>
<td>15.</td>
<td>Handling Capacity of Chilling Centres</td>
<td>13.03 (LLPD)</td>
</tr>
<tr>
<td>16.</td>
<td>Automatic Vending Machine Units</td>
<td>218</td>
</tr>
</tbody>
</table>

### Tamil Nadu Cooperative Milk Producers’ Federation Ltd.

The Tamilnadu Co-operative Milk Producers' Federation Limited is an apex body of 17 District Cooperative Milk Producers' Unions. The Federation has four dairy plants in Chennai, one at Ambattur with a capacity of 4.00 lakh litres per day, another at Madhavaram with a capacity of 2.00 lakh litres per day and the third dairy at Sholinganallur with a capacity of 4.00 lakh litres per day. These dairies collect milk from District Unions process and pack in sachets and send for sale to the consumers in and around Chennai City. The fourth dairy at Ambattur is engaged in the manufacture of milk products such as Yoghurt, ice cream, khova, Gulab jamoon, buttermilk, curd and mysore pag. New products such as 'Aavin' Delite, Curd in cup, Lassi, Flavoured Milk in bottles and SMP in retail pack have been introduced during year 2004.

The sales of milk in sachets is being carried out through 24 zones, 517 depots, 390 distribution points, 40 whole sale milk distributors, 88 milk retailers and 50 Milk Consumers' Co-operative Societies. The sale of milk product is being carried out through 42 parlours, 154 Franchise Retail Outlets (FROs), 12 Wholesale dealers, and 2900 Retailers. The Federation also caters to the needs for functions like...
marriages by booking Special Orders. Standardised milk, Buffalo milk and double
toned milk are being sold through 218 Automatic Vending Machines and 165 FRPs to
the city consumers. Milk products are also sold in certain AVM Units.

**Artificial Insemination And Animal Health Activities**

The Artificial Insemination facilities are made available in 2392 Dairy
Cooperative Societies. The village level workers in the Milk Producers Cooperative
Societies are being imparted with training in artificial insemination technology.
During the year 2004-2005, 11.52 lakh milch cattle were inseminated with frozen
semen and 2.99 lakh calves of superior germ plasm were born out of which 1.40 lakh
calves are females. District Co-operative Milk Producers' Unions are operating mobile
veterinary units with qualified veterinary doctors. 5214 Dairy Cooperative Societies
are covered under animal health programme. During the year 2004-2005, 65
regular veterinary units and 21 emergency units were functioning under the control
of District Co-operative Milk Producers' Unions.

**Milk Procurement**

The average milk procurement in the DCMPUs has increased from 15.79 Llpd
to 17.26 Llpd, which shows an annual growth of 9.31 percent. In order to ensure
better price to members' level and procurement of quality milk, the system of testing
of milk is introduced at primary level. The steps taken to improve the quality of milk
has yielded good results. The Government of Tamil Nadu announced to raise the
procurement price of the cow's milk from Rs.9.50 to Rs.10.50 per litre and that to
the buffalo's milk from Rs.11.44 to Rs.12.50 with effect from 1.6.2004. Because of
the above increase in procurement price, milk producer members are getting amount
of Rs.7.16 crores per month . While increasing the procurement price , the selling
price of milk has not been enhanced.

Compared to the average milk procurement of 17.26 Lakh litres per day
during the year 2003-04 the average milk procurement during the year 2004-05 has
been 20.53 lakh litres per day.

**The Procurement And Distribution Of Milk.**

in Lakh Litres per day

<table>
<thead>
<tr>
<th>Sno</th>
<th>Particulars</th>
<th>2002-03</th>
<th>2003-04</th>
<th>2004-05</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Milk Procurement</td>
<td>15.79</td>
<td>17.26</td>
<td>20.56</td>
</tr>
<tr>
<td>2</td>
<td>Milk marketing by unions</td>
<td>5.87</td>
<td>6.69</td>
<td>8.00</td>
</tr>
<tr>
<td>3</td>
<td>Milk Marketing in Chennai city</td>
<td>6.54</td>
<td>6.69</td>
<td>7.61</td>
</tr>
</tbody>
</table>

**Milk product sale performance**

From 1996-2001 the average sale of Ghee per year was only 3411 M. T.
Similarly the average sale of Skim Milk Powder was 2647 M.T per year. The
Federation and Unions have increased the average sales of Ghee to 6044 M.T in the
year 2004-2005. Similarly the average sale of Skimmed Milk Powder has increased
to 11201 M.T, a four-fold increase. Efforts were taken and orders have been
obtained from Mother Dairy, New Delhi for continuous supply of SMP and butter
during this year. Recently, Federation obtained a prestigious order for the supply of
1200 MT ghee to Tirupathi Tirumala Devasdanam for a period of six months.
Milk Product Sale Performance

(Sales in MTs)

<table>
<thead>
<tr>
<th>Milk Products</th>
<th>2001-02</th>
<th>2002-03</th>
<th>2003-04</th>
<th>2004-05 upto Jan.'05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skim milk powder</td>
<td>9938</td>
<td>8340</td>
<td>9632</td>
<td>11201</td>
</tr>
<tr>
<td>Butter</td>
<td>2255</td>
<td>1904</td>
<td>2121</td>
<td>1231</td>
</tr>
<tr>
<td>Ghee</td>
<td>6847</td>
<td>6729</td>
<td>6231</td>
<td>6044</td>
</tr>
</tbody>
</table>

Rehabilitation of Unions - Central Sector Plan Scheme - Assistance to Co-Operatives

The Government of India formulated a scheme called ‘Assistance to co-operatives’ to rehabilitate the loss making District co-operative Milk unions and Federation to offset the losses and make them viable through a suitable rehabilitation plan. The plan envisages 50 percent grant from Government of India and 50 percent grant from state Government to wipe out cash loss in District Co-operative Milk Producers' Unions and make them viable with a suitable rehabilitation plan subject to certain conditions laid down on this issue.

National Dairy Development Board after their preliminary assessment has selected two District Unions namely Erode and Villupuram. Under this scheme Government of Tamilnadu and Govt. of India have released their equal share of Rs. 2.00 Crore and Rs.4.50 Crore for Villupuram and Erode Union respectively. Both the Unions have utilised the amount to settle the milk cost dues to the producers and started earning profit from the first year of the implementation.

During the current year, National Dairy Development Board has selected Dharmapuri Co-operative Milk Producers’ Union for availing assistance under rehabilitation plan. NDDB has prepared the proposal submitted to Government of India. It is learnt from them that the assistance required would be around Rs.9.71 Crore.

Introduction of Insulated Puf Vehicles

The sachet milk distribution from all the three Metro Dairies is being done through the insulated PUF vehicles. The PUF vehicle maintains the temperature throughout the distribution and ensures that the consumers get milk afresh through this cold chain. The distribution through PUF vehicle has enhanced the shelf life of the milk and strengthened the consumer confidence in the Aavin brand milk. The spoilage of milk at consumer end has sharply decreased.

Customer Care

24 Hours customer care and support cell has been established to serve the consumers for the compliance of complaints with regard to quality of milk and service. The cell is provided with toll free number 1600443300 and a 24 hours uninterrupted manpower is available to attend to the complaints of the consumers. Complaints are also received through website (www.aavin.net) and E-mail.
Clean Milk Production

During the last two years, the Federation has been concentrating more on procurement of high quality milk from the Co-operatives. Measures have been taken to improve the quality of raw milk procured at the village level milk Co-operative societies and also to enforce clean milk practices at the society level so as to enhance quality of raw milk at the initial stage itself. This will in turn lead to the production of high quality milk and milk products.

The clean milk production programme includes not only the production of good quality milk but also to improve animal management, feed and fodder, artificial insemination, training to farmers and society personnel, installation of bulk coolers, maintaining milking yard free from flies, dirt, etc., usages of SS Vessels to maintain minimum level of bacterial load.

In dairy co-operatives the following measures are being taken under “Clean Milk Production”:

- The milk procurement staff are given Trainers’ training in Clean Milk Production at NDDB Training centre.
- The milk producers are educated by our trained procurement staff for hygienic management of animals, milking methods and handling of milk.
- Milk society staff is being imparted training on clean milk production and the Aluminium milk cans and milk collection gadgets are replaced with S.S. Materials.
- Milk producers are provided with SS pails, antiseptic solution like Saff Kit for udder cleaning on pre and post milking.
- Clean Milk Production posters are exhibited in the society premises.
- Booklets in Tamil about clean milk production are circulated among the producers for creating awareness.

Quality Improvement and Strengthening of Infrastructure Facilities

All the three dairies in Chennai City have been certified for ISO 9001:2000 during February 2004. This certification is valid for three years from the date of certification. Efforts are being taken to obtain Hazard Analysis and Critical Control Point (HACCP) by Dairies. Hazard Analysis and Critical Control Point (HACCP) is the quality system, which ensures food safety. Getting HACCP certification for all the three dairies is more relevant as the consumers are becoming more and more aware of quality product and services.

During the year 2005-2006, it has been proposed to strengthen the following additional infrastructure facilities at the District Unions.

- A boiler with a capacity of 5 Ton / Hr at a cost of Rs.25 Lakhs will be purchased and erected at Madurai Dairy.
9.6 Dairy Development

- Action has been initiated to procure a 10000 lph Homogeniser for Tirunelveli Dairy at a cost of Rs. 42 Lakhs.
- Sophisticated Lab. Equipments will be purchased for Ooty union at a cost of Rs. 42 Lakhs.
- Action is being taken to install computer connected weigh scale in 19 Chilling Centres at an estimated cost of Rs.30 lakhs.
- Additional milk reception dock will be provided at Athur Chilling Centre in Salem at the cost of Rs. 81.66 lakhs.
- 5 numbers of Cream separator at Salem, Vellore, Erode, Dharmapuri and Villupuram unions will be installed at the cost of Rs.80 Lakhs.
- A new Dairy with a capacity of 2 LLPD and 20 MT powder plant is proposed to be installed at Tiruvannamalai Distirct at the cost of Rs.28 crores.

Integrated Dairy Development Programme

Government of India has sanctioned around Rs.3.12 Crore under the scheme IDDP to be implemented in Sivagangai and Ramanathapuram Districts.

The scheme is envisaged to increase the Milk Production through formation of DCS, providing input activities to the farmer members training to the milk producers, strengthening the milk processing facilities, marketing activities etc.,

Strengthening Infrastructure for Quality and Clean Milk Production

To improve the quality of milk right from the farmer level upto the point of consumption, the Government of India has approved the proposal to the tune of Rs.5.07 Crore. Initially, this scheme will be implemented in 4 Milk Unions namely Trichy, Villupuram, Dharmapuri and Salem. In this scheme 36 Bulk Milk Coolers will be installed to handle around 1.45 lakh litres of milk per day.

In addition, the farmers will be provided training on Clean Milk Production antiseptic solutions and utensils required to effect Clean Milk Production.

Part II Scheme - 2005-2006

The Government of Tamil Nadu has granted Rs. 99 lakhs (50% Subsidy) under Part II Scheme as detailed below:

(i) 1363 Stainless Steel milk cans will be supplied to 273 Milk Producers Co-operative Society at a total cost of Rs.30 lakhs. The Government of Tamil Nadu will bear the 50% of the cost and balance 50% will be met by the beneficiary societies.
(ii) 235 LN2 Containers with a storage capacity of 3 litres each will be supplied to 235 Milk Producers Co-operative Societies at a total cost of Rs.20 lakhs. The Government of Tamil Nadu will bear the 50% of the cost and balance 50% will be met by the beneficiary societies.
9.6 Dairy Development

(iii) 7 Bulk Milk Coolers of 2000 litre capacity each will be installed at the level of societies through seven District Co-operative Milk Producers Union Ltd., at a total cost of Rs. 49 lakhs. The Government of Tamil Nadu will bear the 50% of the cost and balance 50% will be met by the beneficiary societies.

For Dairy Development Sector an amount of Rs.59.56 lakhs has been provided for the year 2005-06 as against the likely expenditure of Rs.118 lakh for the year 2004-05.