Chapter No. 03

Working of Cooperative Dairy Federation, Dairy Societies and Private Milk producers

- Introduction.
- Indian Dairy Association.
- Milk Producers.
- Milk Producers Union.
- Milk Sales.
- Milk Purchases.
- Dairy organization.
- Dairy Co-operative In India: an Overview.
- Cooperative Dairy Sector in Maharashtra.
- Primary Dairy Societies.
- Other Livestock Societies.
- Commissioner Dairy Development.
- Regional Level.
- District Level.
- Dairy Setup.
- Chilling Centers Set up.
- Farm Level Set up.
• Decision making process.
• Registration of Primary Dairy Cooperative Societies at village level.
• Taluka/District Cooperative Milk Union at Taluka/District level.
• Milk Federation at State level.
• Practices and Problems Faced by Co-operatives.
• Strategic Planning for Dairy Co-operative.
• Private Milk collection System.
• Contract collection.
**Introduction:**

There are so many problems in dairy sectors. Most of the problems are concerned with the developing countries. However, milk and milk product is very popular product in the world. Dairy products today are tailored to the changing social and dietary habits of people in different parts of the world. Recent research reveals that milk is indeed a treasure chest of some 2,000 ingredients. International trades represent about 5-6 per cent of the global milk production. The major products, which are traded internationally, are skimmed powder, whole milk powder, butter, cheddar, and cheese. European Union dominated the world trade with about 37 per cent of world dairy exports of milk powders, butter and cheese, followed by New Zealand (21.8%) and Australia (11.6%) during 1995-98. But the share of European Union in the world dairy exports declined (36.6%) in the – URA period (1995-98) as compared to pre-URA period (41.5%).¹ In contrast, the share of New Zealand and Australia increased from 18.2 and 8.9 per cent in 1991-94 to 21.8 and 11.6 per cent in 1995-98, respectively. These data suggest that EU, currently the world’s largest exporter of dairy products, will pose market share to non-subsidizing countries like New Zealand and Australia. On import side, Russian Federation, Mexico and Brazil are the largest importers of dairy products.² One study result showed (*Hendrickson et. al 2001*), in 1988, the largest four firms (Borden, Dean Foods, Labatt Foods and Kroger) had about 26 per cent of the fluid milk sales in the USA. Although there remained over 200 operating dairy co-operatives, that number was down considerably from 1,000 operating 50 years earlier. A study
showed (*Ludhiana city*) that (*Khattra and Kaur 1995*); break-even number of animals per dairy farm portrayed direct relationship with herd-size and was inversely related to the distance from the urban area. Dairy farming is mainly based on private investment by individual entrepreneurs who are primarily motivated by the considerations of relative profitability for allocation funds to the business.

**Indian Dairy Association (IDA):**

Indian Dairy Association (IDA) established in 1948. Indian Dairy Association is the apex body of the dairy industry in India. The members are from the cooperatives, MNCs, corporate bodies, private institutions, educational institutions, government and public sector units. IDA functions very closely with the dairy producers, professionals & planners, scientists & educationists, institutions and organizations associated with the development of dairying in India. The IDA since has a history of around six decades now, it has had the privilege of being headed by several presidents and some of them were of national and international fame. IDA has been providing a common forum to knit the dairy fraternity together and thus, over the years, it has emerged as the reigning arena of information. The Association is managed by an apex policy making body called the Central Executive Committee (CEC). The CEC is headed by President and supported by two Vice-Presidents and 19 Executive Committee Members. IDA has emerged as a platform for assimilation and dissemination of knowledge, as an important tool for policy making in the dairy sector, in India! Besides, the IDA, in the recent time, has also succeeded to focus itself at the national and
international fore. The IDA organizes seminars, symposia and exhibitions on a wide range of topics catering to various segments of professionals, scientists, institutions and organizations associated with the development of dairying in India. The IDA’s Head Quarter is in Delhi and the zonal branches are in Bangalore, Kolkata, Mumbai and Delhi. It has State Chapters at Gujarat (Anand), Kerala (Thrissur) and Rajasthan (Jaipur).

**Role and Objectives of IDA:**

Transmission of technical/scientific information to the members both to individual as well as institutions. This is achieved through publication of *Indian Dairyman* and *Indian Journal of Dairy Science*. Indian Dairyman, a monthly periodical, is a mouthpiece of the dairy industry, which besides publishing technical, scientific and trade-related articles, updates its members with latest information in dairy industry, including status in regard to domestic market prices. Indian Journal of Dairy Science is a bi-monthly journal, which primarily covers research articles. The objectives of IDA are:

- To organize periodic Conferences, Seminars and Workshops on subjects of current interest.
- To maintain an inventory of dairy scientists, research workers and dairy planners and professionals employed in the different sphere of the dairy industry including consultants in the field.
• To undertake consultancy projects both overseas as well as in the country whenever such a request is received from any central ministry of the Government of India.

• IDA being a representative body of the Indian dairy sector does time-to-time intervenes on the policy issues like presentation of pre-budget memorandum, addressing issues arising out of the tariff rates, import/export, sanitary standards including PFA issues etc. It has also been trying to address the issues arising out of WTO/SPS etc.

IDA has got a fairly well equipped Library and maintains a Data Bank, which stores information on Indian Dairy Industry as well as International Dairy Industry.

**Milk Producers:**

The bargaining power of individual milk producers is low. They are scattered, small, and weak. Liquid milk is a perishable and seasonal commodity, and its transportation and bulk handling are complex tasks. Small, individual producers are in no position to pursue efficiently other alternatives; they have to sell liquid milk. Their only hope is a cooperative union which unites small producers to develop and exploit better alternatives. Most milk producers owned no land or were small or marginal farmers. It was found that 17 per cent of milk suppliers in Gujarat and 10 per cent of milk suppliers in Maharashtra owned no land. Small and marginal farmers constituted 61 per cent of
all suppliers in Maharashtra and 39 per cent in Gujarat. Small suppliers *(supplying less than 5 liters per day)* accounted for 38 per cent of suppliers in Gujarat and 52 per cent in Maharashtra. The small supplier in the selected Maharashtra villages produced much less milk, only 1,052 liters, but also sold less, two-thirds of production. The actual quantity retained for consumption was roughly the same in both Gujarat and Maharashtra. The medium suppliers, along with the small suppliers, constituted 70 per cent of the suppliers in the villages selected in the states. They accounted for 50 per cent of all milk collected by the Gujarat unions and 60 per cent by the Maharashtra unions in their respective villages.

**Milk Producers Union:**

The role of producers' unions lies in aggregating and articulating the interests of widely scattered small producers. A union can manage the produce and production process more efficiently than individual or groups of small producers can do by themselves. The issues involved are complex. The economies of the district, state, or urban centers may not be able to absorb all the milk produced. The low level of management, inadequate investment resources, shortage of green fodder, and low productivity of the dairy farmers pose difficult problems for dairy managers and policy makers. Obtaining higher prices, therefore, cannot be the only way to serve producers' interests as the unions that supply most of their liquid milk to government dairies in urban centers appear to think. Members' interests are best served if
unions gain some autonomy from the vagaries of governmental decision-making processes and ensure participation in the politico-bureaucratic processes of decision making. The superior performance of the unions can be explained in terms of a more effective cooperative structure which enables the producers to participate in the decision making at all levels, specialization and integration in operations, and a more economic size of the union.

**Better Management Practices for Milk Producers:**

Some of the major norms and practices are as follows.

**Animal Housing:**

- Construct shed on dry, properly raised ground.
- Avoid water-logging, marshy and heavy rainfall areas.
- The walls of the shade should be 1.5 to 2 mts high.
- The walls should be plastered to make them damp proof.
- The cattle shade should be well ventilated.
- The floor should be hard, even non-slippery impervious, well sloped and properly drained to remain dry and clean.
- Provide 0.25 meter broad, pucca drain at the rear of the standing space.
- Provide 5-10 sq. meter loaf space for each animal.
- Provide proper shade and cool drinking water in summer.
- In winter keep animals indoor during night and rain.
• Provide individual bedding daily.
• Maintain sanitary condition around shed.
• Give adequate space for the animals.

**Selection of Animal:**

• Purchase the stock from a reliable breeder or from nearest livestock market.
• Select healthy, high yielding animals with the help of bank’s technical officer, veterinary/animal husbandry officer.
• Vaccinate the newly purchased animal against disease.
• Keep the newly purchased animal under observation for a period of about two weeks and then mix with the general herd.
• Follow judicious culling and replacement of animals in a herd.
• Cull the old animals after 6-7 lactation.

**Feeding Of Milch Animals:**

• Feed the animals with best feeds and fodders.
• Cut the fodder at the right stage of their growth.
• Chaff roughage before feeding.
• Moisten the concentrate mixture before feeding.
• To estimate the daily feed requirement remembers that the animals consume about 2.5 to 3.0 per cent of their body weight on dry matter basis.
Milking Animals:

- Milk the animals two to three times a day.
- Wash the udder and teat with antiseptic lotions. Luke-warm water and dry before milking.
- Milker should be free from any contagious diseases and should wash his hands with antiseptic lotion before each milking.

Protection Against Diseases:

- Be on the alert for signs of illness such as reduced feed intake, fever, abnormal discharge or unusual behavior.
- In case of outbreak of contagious disease, immediately segregate the sick, in-contact and the healthy animals and take necessary disease control measures.

Breeding Care:

- Observe the animal closely and keep specific record of its coming in heat, duration of heat, insemination, conception and calving.
- Breed the animals in time.

Care of Calves:

- Take care of new born calf.
- Treat/disinfect the navel cord with tincture of iodine as soon as it is cut with a sharp knife.
- Keep the calf separately from birth till two months of age in a dry clean and well-ventilated place.
• Dehorn the calves around 4 to 5 days of age for easy management when they grow.

**Essential Sections Of A Milk Processing Plant:**

The milk processing plant shall have the following essential facilities.

• **Raw milk Reception Dock** (RMRD) – consisting of can conveyor, can washer, weighing balance, dump tank etc.

• **Processing hall** – cream separator, chiller, homogenize, pasteurizes and other related machinery are installed.

• **Storage area** - for milk storage tanks.

• **Products manufacturing area**-depends upon the type of products and the quantity of milk handled, the required equipment needs to be installed.

• **Packing area**-for packing of liquid milk and other products.

• **Cold storage** – for keeping the milk and milk products before sending to market.

• **Quality control laboratory** – for testing the; quality of milk and milk products.

• **Utilities area** – for installing boiler, generator set, water treatment plant, maintenance and store area for spaces.

• **Waste water treatment plant area** – for treating the dairy effluents before releasing to the fields.

• **Quarters and office area** – for all the essential staff.

• **Vehicle parking area**- both for the milk procurement and distribution vehicles.
• **Input supply area** – for providing veterinary service, supply of feed, fodder seeds, etc.

**Milk Sales:**

Unadulterated & Wholesome Milk is sold to the urban & rural people at the reasonable rates. Government has its own dairies for processing of milk. At present Government has 33 dairies & about 7.5 lac liters of milk is sold. Milk selling rates are fixed by the Government from time to time. The interest of customers & the distributors is taken care of by the government while fixing the selling prices, which are always low as compared to the market. At present following are the selling prices:
Table No. 3.01: Milk Selling Prices in Mumbai and rest of Maharashtra from 1.4.2010:

<table>
<thead>
<tr>
<th>Scheme</th>
<th>Type of Milk</th>
<th>Consumer Price for 1 Ltr (Rs.)</th>
<th>Consumer Price for 1/2 Ltr(Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mumbai &amp; Gove-Bhiwandi area</td>
<td>1. Cow Milk</td>
<td>25.00</td>
<td>12.50</td>
</tr>
<tr>
<td></td>
<td>2. Aarey Spl.</td>
<td>31.00</td>
<td>15.50</td>
</tr>
<tr>
<td></td>
<td>3. Toned Milk</td>
<td>24.00</td>
<td>12.00</td>
</tr>
<tr>
<td></td>
<td>4. Buffalo Milk</td>
<td>31.00</td>
<td>15.50</td>
</tr>
<tr>
<td>Rest of Maharashtra</td>
<td>1. Cow Milk</td>
<td>24.00</td>
<td>12.00</td>
</tr>
<tr>
<td></td>
<td>2. Aarey Spl.</td>
<td>30.00</td>
<td>15.00</td>
</tr>
<tr>
<td></td>
<td>3. Toned Milk</td>
<td>23.00</td>
<td>11.50</td>
</tr>
<tr>
<td></td>
<td>4. Buffalo Milk</td>
<td>30.00</td>
<td>15.00</td>
</tr>
</tbody>
</table>

(Source: http://www.dairymaharashtra.com)

Milk is sold in the pouches of 500 ml & 1,000 ml. Some time back the milk was sold in glass bottles of 500 ml. The loss factor of glass bottles forced the government to look at poly-film packaging & this proved to be the right decision. Also the adulteration factor was minimized in pouch filling.
Milk Purchases:

On the basis of production cost of the producer the Government fixes the milk purchasing rates.

Table No. 3.02:

Milk Purchases Prices in (2010) (Cow):

<table>
<thead>
<tr>
<th>Quality</th>
<th>Flush Season Rate Rs/ Litre</th>
<th>Lean Season Rate Rs/ Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5/8.5</td>
<td>14.00</td>
<td>14.00</td>
</tr>
<tr>
<td>3.6/8.5</td>
<td>14.15</td>
<td>14.15</td>
</tr>
<tr>
<td>3.7/8.5</td>
<td>14.30</td>
<td>14.30</td>
</tr>
<tr>
<td>3.8/8.5</td>
<td>14.45</td>
<td>14.45</td>
</tr>
<tr>
<td>3.9/8.5</td>
<td>14.60</td>
<td>14.60</td>
</tr>
<tr>
<td>4.0/8.5</td>
<td>14.75</td>
<td>14.75</td>
</tr>
<tr>
<td>4.1/8.5</td>
<td>14.90</td>
<td>14.90</td>
</tr>
<tr>
<td>4.2/8.5</td>
<td>15.05</td>
<td>15.05</td>
</tr>
<tr>
<td>4.3/8.5</td>
<td>15.20</td>
<td>15.20</td>
</tr>
<tr>
<td>4.4/8.5</td>
<td>15.35</td>
<td>15.35</td>
</tr>
<tr>
<td>4.5/8.5</td>
<td>15.50</td>
<td>15.50</td>
</tr>
</tbody>
</table>

(Source: http://www.dairymaharashtra.com)
Table No. 3.03:

Milk Purchases Prices in (2010) (Buffalo):

<table>
<thead>
<tr>
<th>Quality</th>
<th>Flush Season Rate Rs/ Litre</th>
<th>Lean Season Rate Rs/ Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.0/90</td>
<td>20.50</td>
<td>20.50</td>
</tr>
<tr>
<td>6.1/90</td>
<td>20.80</td>
<td>20.80</td>
</tr>
<tr>
<td>6.2/90</td>
<td>21.10</td>
<td>21.10</td>
</tr>
<tr>
<td>6.3/90</td>
<td>21.40</td>
<td>21.40</td>
</tr>
<tr>
<td>6.4/90</td>
<td>21.70</td>
<td>21.70</td>
</tr>
<tr>
<td>6.5/90</td>
<td>22.00</td>
<td>22.00</td>
</tr>
<tr>
<td>6.6/90</td>
<td>22.30</td>
<td>22.30</td>
</tr>
<tr>
<td>6.7/90</td>
<td>22.60</td>
<td>22.60</td>
</tr>
<tr>
<td>6.8/90</td>
<td>22.90</td>
<td>22.90</td>
</tr>
<tr>
<td>6.9/90</td>
<td>23.20</td>
<td>23.20</td>
</tr>
<tr>
<td>7.0/9.0</td>
<td>23.50</td>
<td>23.50</td>
</tr>
</tbody>
</table>

(Source: http://www.dairymaharashtra.com)
Table No. 3.04: Milk Commission:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>DETAILS</th>
<th>RATE Rs/Ltr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Internal transport</td>
<td>0.95</td>
</tr>
<tr>
<td>2</td>
<td>Can expenditure</td>
<td>0.05</td>
</tr>
<tr>
<td>3</td>
<td>Management expenditure</td>
<td>0.40</td>
</tr>
<tr>
<td>4</td>
<td>Chilling expenditure</td>
<td>0.25</td>
</tr>
<tr>
<td>5</td>
<td>Total Commission to Sangh(1+2+3+4)</td>
<td>1.65</td>
</tr>
<tr>
<td>6</td>
<td>Commission to Society</td>
<td>0.75</td>
</tr>
<tr>
<td>7</td>
<td>Total Commission (5+6)</td>
<td>2.40</td>
</tr>
</tbody>
</table>

(Source: https://www.dairymaharashtra.com)

Though milk production in Maharashtra over last decade has increased by leaps and bounds, only 25 per cent of the milk co-operatives are economically viable in the state. Differential price structure and mismanagement of co-operatives has led to poor procurement of milk resulting in vast regional imbalances in terms of milk production. For the smooth functioning of the milk co-operatives, it is not enough to give remunerative prices to the producers, but the co-operatives themselves should take over the onerous task of ensuring necessary inputs so as to improve productivity and overall genetic stock of milch animals.
Table No. 3.05:

**Primary Dairy Cooperative Societies, Taluka/District Unions in Maharashtra**

<table>
<thead>
<tr>
<th>Region</th>
<th>Primary Coop. Societies</th>
<th>TalukaSangs</th>
<th>District Milk Unions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Func-</td>
<td>Closed</td>
<td>Temporarily</td>
</tr>
<tr>
<td></td>
<td>tioning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NewMumbai</td>
<td>304</td>
<td>262</td>
<td>214</td>
</tr>
<tr>
<td>Pune</td>
<td>11478</td>
<td>1623</td>
<td>1677</td>
</tr>
<tr>
<td>Nashik</td>
<td>2583</td>
<td>2583</td>
<td>563</td>
</tr>
<tr>
<td>Aurangabad</td>
<td>3326</td>
<td>2331</td>
<td>502</td>
</tr>
<tr>
<td>Amaravati</td>
<td>236</td>
<td>961</td>
<td>550</td>
</tr>
<tr>
<td>Nagpur</td>
<td>762</td>
<td>428</td>
<td>341</td>
</tr>
<tr>
<td>Total</td>
<td>18689</td>
<td>8188</td>
<td>3847</td>
</tr>
</tbody>
</table>

(Source: http://www.dairymaharashtra.com)

Table No. 3.06: Daily Average Of Milk Procurement Of Regions:

*(Milk procurement of regions in year 2008 (fig.in 1000 Ltrs)*

<table>
<thead>
<tr>
<th>Region</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pune</td>
<td>12</td>
<td>20</td>
<td>20</td>
<td>19</td>
<td>24</td>
<td>38</td>
<td>48</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>24</td>
<td>90</td>
</tr>
<tr>
<td>Nashik</td>
<td>207</td>
<td>219</td>
<td>217</td>
<td>218</td>
<td>231</td>
<td>212</td>
<td>160</td>
<td>93</td>
<td>130</td>
<td>160</td>
<td>246</td>
<td>240</td>
</tr>
<tr>
<td>Aurangabad</td>
<td>160</td>
<td>166</td>
<td>173</td>
<td>168</td>
<td>173</td>
<td>146</td>
<td>123</td>
<td>104</td>
<td>128</td>
<td>123</td>
<td>149</td>
<td>152</td>
</tr>
<tr>
<td>Konkan</td>
<td>13</td>
<td>11</td>
<td>9</td>
<td>7</td>
<td>6</td>
<td>7</td>
<td>9</td>
<td>19</td>
<td>15</td>
<td>20</td>
<td>18</td>
<td>13</td>
</tr>
<tr>
<td>Amravati</td>
<td>49</td>
<td>55</td>
<td>48</td>
<td>41</td>
<td>38</td>
<td>28</td>
<td>19</td>
<td>18</td>
<td>21</td>
<td>23</td>
<td>29</td>
<td>33</td>
</tr>
<tr>
<td>Nagpur</td>
<td>70</td>
<td>74</td>
<td>50</td>
<td>61</td>
<td>51</td>
<td>46</td>
<td>47</td>
<td>29</td>
<td>30</td>
<td>37</td>
<td>48</td>
<td>52</td>
</tr>
<tr>
<td>Total</td>
<td>510</td>
<td>544</td>
<td>516</td>
<td>514</td>
<td>523</td>
<td>478</td>
<td>406</td>
<td>272</td>
<td>334</td>
<td>374</td>
<td>514</td>
<td>578</td>
</tr>
</tbody>
</table>

(Source: http://www.dairymaharashtra.com)
Table No. 3.07: Daily average of Milk procurement of regions:

*(Milk procurement of regions in year 2009 (fig.in 1000 ltrs)*

<table>
<thead>
<tr>
<th>Region</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pune</td>
<td>174</td>
<td>155</td>
<td>64</td>
<td>38</td>
<td>29</td>
<td>18</td>
<td>15</td>
<td>16</td>
<td>15</td>
<td>41</td>
<td>24</td>
<td>23</td>
</tr>
<tr>
<td>Nashik</td>
<td>313</td>
<td>320</td>
<td>294</td>
<td>259</td>
<td>212</td>
<td>86</td>
<td>80</td>
<td>122</td>
<td>133</td>
<td>169</td>
<td>134</td>
<td>92</td>
</tr>
<tr>
<td>A,bad</td>
<td>168</td>
<td>178</td>
<td>175</td>
<td>172</td>
<td>148</td>
<td>103</td>
<td>90</td>
<td>89</td>
<td>88</td>
<td>89</td>
<td>88</td>
<td>89</td>
</tr>
<tr>
<td>Konkan</td>
<td>11</td>
<td>9</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>9</td>
<td>14</td>
<td>18</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Amravati</td>
<td>40</td>
<td>39</td>
<td>35</td>
<td>25</td>
<td>16</td>
<td>11</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Nagpur</td>
<td>60</td>
<td>58</td>
<td>55</td>
<td>38</td>
<td>23</td>
<td>18</td>
<td>17</td>
<td>21</td>
<td>17</td>
<td>32</td>
<td>32</td>
<td>44</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>767</td>
<td>759</td>
<td>631</td>
<td>539</td>
<td>432</td>
<td>241</td>
<td>217</td>
<td>262</td>
<td>280</td>
<td>361</td>
<td>306</td>
<td>277</td>
</tr>
</tbody>
</table>

(Source: http://www.dairymaharashtra.com)

**Dairy organization:**

Dairy is an important source of subsidiary income to small/marginal farmers and agricultural labours. The manures from animals provide a good source of organic matter for improving soil fertility and crop yields. The *gober-gas* from the dung is used as a fuel for domestic purposes as also for running engines for drawing water from well. The surplus fodder and agricultural by products are gainfully utilized for feeding the animals. Almost all draught power for farm operations and transportation is supplied by bullocks. Since agriculture is mostly seasonal, there is a possibility of finding the employment throughout the year for many persons through dairy farming. A farmer can earn a gross surplus of about Rs.12,000 per year from a unit consisting of 2 milking buffaloes. The capital investment required for purchase of a buffalo is Rs.18,000 to 20,000.
Dairy Co-operative In India: an Overview:

In India dairy co-operatives were formed after 1912 but the real beginning was made only after the Second World War. The Kaira District Co-operative Milk Union which is popularly known as AMUL was the first producer oriented union organized in 1946. Now-a-days, in India more than 1,01,427 primary milk co-operatives with 10 million milk producers are covered under the dairy co-operative and 176 milk unions are collecting daily about 1.58 corers of liters of milk, which give income to the rural community. Gujarat Co-operative Milk Marketing Federation Ltd (GCMMF) play vital role for milk marketing in Gujarat. Kaira District Co-operative Milk Producers’ Union Limited is the foundation of GCMMF. Need for development of suitable manpower for various activities related to dairying was realized since the early years of organized dairying in India. For fulfillment of such purpose Imperial Institute of Animal Husbandry and Dairying was established in 1923 in Bangalore. The cooperative education network comprises 10 dairy Science Colleges, 31 Veterinary Colleges and over 80 Agricultural Colleges and Research Institutions affiliated to 25 State Agricultural Universities.

In 1954, Kaira District Co-operative Milk producers’ Union built a plant to convert surplus milk produced in the cold seasons into milk powder and butter. In 1958, a plant to manufacture cheese and one to produce baby food were added. Subsequent years saw the addition of more plants to produce different products. In 1973, the milk
societies/district level unions decided to set up a marketing agency to market their products. This agency was the GCMMF. It was registered as a co-operative society in July 1973. It had, as its members, the district level milk unions. No individual could become a shareholder in GCMMF. There are different types of organization structure. Different countries adapt different types of organization structure. Anand Pattern of co-operative organization structure is popular all over India. GCMMF is the state level federation for Gujarat.\textsuperscript{10} At the top level of structure has state marketing federation, which consists of district level milk unions (and certain other milk unions from other states) as members. The state level organization is called the Federation. The Board of Directors of the Federation consisted of the Chairpersons of the district level co-operatives as the members, and in addition, the following ex-officio members:

1. The Registrar of co-operative of the State concerned.
2. A representative from the National Dairy Development Board (NDDB),
3. One nominated technical expert.
4. The Managing Director (CEO) of the State level federation.

The following diagram highlights the pattern of Anand Dairy structure for dairy farmers/producers.
The Anand Pattern
(State Marketing Federation)

All dairies in a state
(GCMMF in Gujarat)

District Milk Processing Unions
(Every District in the state)
(12 district unions in Gujarat)
(170 unions all over India)

Village Co-operative Societies
(All villages in a district)
(72,774 villages in India)

Milk Producers
Cooperative Dairy Sector in Maharashtra:

Co-operative Movement has been recognized as an effective instrument for the economic development of the rural masses and for improvement in the socio-economic condition of the underprivileged. Since majority of the population of Maharashtra lives in the rural areas and is involved in agricultural activity, the co-operative movement here assumes greater significance. Today we find that co-operatives are found in almost all the pockets of Maharashtra and have been vastly successful in the overall improvement of the quality of life in the rural areas. This is a success of not only the people of Maharashtra but also of the co-operative movement itself.

The co-operative movement in Maharashtra has not only improved the lives of the people here but has made significant contribution to the economy of the State itself. Today Maharashtra is considered as the land of opportunities as it is one of the most developed states not only economically but also in terms of infrastructure. Without doubt a major credit goes to the co-operative sector which has not only promoted and developed rural leadership, which can certainly be termed as the leadership of the masses but also has been involved in promoting the development of infrastructure in the State.\textsuperscript{11}
Dairy co-operatives are found everywhere in both developed and developing countries. In developing countries, it is one of the income sources of their rural economy whereas in developed countries it takes as a sustainable business. These countries face different types of problems. Developing countries focus on increase in production volume of milk and milk product, and developed countries do on enhancement of milk product, brand, and merger of dairy co-operatives. Dairy cooperatives have been getting various opportunities as well as facing different challenges. They are going to formulate different types of strategic planning to cope with these challenges and to get success. Strategic plans of dairy cooperatives in developing countries are, generally to increase production volume of buffalo milk, bring about the internal improvement in cooperative societies, reduce cost of production, and provide quality service to consumer through skill, trained and educated manpower, and e-commerce. Strategic plan of developed countries is quite different from that of developing countries. Their strategic plans are to merge different dairy cooperative societies / institutions into a dairy cooperative, and compete in the global market with quality of products.¹²

The primary village societies in Maharashtra were specialized milk cooperatives dedicated to the interests of producers. They were engaged in milk collection and distribution of cattle feed. The village societies kept accounts, paid according to milk quality, and helped standardize practices. The price of milk was based on fat content. Each
The village cooperative society was part of a statewide cooperative structure and controlled its own activities through its elected members. Village societies had formed a district-level union. Societies had representation on the boards of directors of the district union of cooperatives. The various district level unions had federated themselves into a state-level apex federation, and the chairmen of the district unions were directors on the board of the federation. The objectives of the federation were to market the products of member unions, ensure an assured outlet for milk and a fair return to producers, and an adequate return to the member-unions through development of their processing and product manufacturing facilities. The federation's marketing policies were of prime concern to unions. The unions were subject to the norms and standards established by the federation. A programme committee of the federation determined the member-union’s product mix, and thus their capacity utilization, and prices as well as inter-district and interstate movements. The products of the unions were subject to quality control standards and the federation’s marketing and distribution requirements. The federation received a mark-up and small cess on the quantity of milk procured by the unions. The federation had to lift all milk supplies of its member-unions. It promoted inter-union cooperation rather than competition and acted as a centralized purchase division for items such as cartons, tins, chemicals, and vitamins for its member-unions. Coordinating the unions and the federation objectives was a difficult task.
Dairying and cooperation being state subjects, the state government had considerable control and influence over the cooperative system. The Maharashtra federation and its unions had acquired a degree of autonomy from the government. The cooperative structure had evolved in Maharashtra to a sophisticated level enabling it to handle complex issues while pursuing producers’ interests at the village, district, and state levels. In contrast, the Krishna Khore and the Shree Hanuman Unions in Maharashtra were primarily engaged in collecting milk. They did not have processing facilities. They supplied milk to the processing plants of Miraj or Kolhapur unions as per the directives of the Maharashtra Government’s Milk Commissioner. The Miraj and Kolhapur unions, in turn, acted as feeder units to Government dairies in the Bombay milk supply scheme. The Milk Commissioner fixed margins for the unions and prices to be paid to the producers. The Shree Warana Union supplied 90 per cent of the milk it collected from adjoining areas to the Kolhapur district union. It converted the remaining quantity into milk products such as peda, shrikhand, and gulabjamun for local sale. It had not developed a marketing system of its own, nor had it linked up with the marketing and distribution network of other unions for selling its products.

**Primary Dairy Societies:**

It is organized at the village level for collection of milk from members owning milch cattle. There should be at least fifty members in the society. A prior permission for collection of milk from the members
is required. This permission is granted by the District Dairy Development Officer.

**Other Livestock Societies:**

These societies are formed to promote poultry, piggery etc. Minimum fifty members should be participating in the activity. They should be able to certify availability of feed, medical facilities and conducive atmosphere for the livestock. The project report should be certified by the District Animal Husbandry Officer.

**Commissioner Dairy Development:**

Dairy Development Commissioner is over all In-charge of the Dairy Development Department. He is assisted by the following Officers in different matters.

- Dy. Dairy Development Commissioner (Administration) in administrative matter.
- Dy. Dairy Development Commissioner in Production and Procurement.
- Dy. Dairy Development Commissioner in Processing and Distribution.
Dy. Dairy development Commissioner (Financial Adviser) in financial matter.

Asst. Dairy Development Commissioner,

Jt. Registrar Cooperative Societies (Dairy) in functioning of Cooperative Dairy Societies/Taluka Sanghs/District Sanghs. He is assisted by Dy. Registrar Cooperative Societies (Dairy).

Public Relation Officer is a Liaison Officer for public grievances.

In addition supervision over all Officers of Dairy Development Department. Appointing authority for Class III and Class-IV employees. Advising Government about policy matters regarding Dairy. The following officers are assisting the Dairy Development Commissioner

a) **Asst. Dairy Development Commissioner (Material):** To assist Additional Dairy Development Commissioner in purchasing dairy material etc.

b) **Personal Assistant:** To assist the Dairy Development Commissioner by keeping up to date information of Procurement, Distribution, Conversion and other information related to milk processing. Keeping up-to-date record of Visitors and collect information required by Dairy Development Commissioner.
c) **Dy. Dairy Development Commissioner (Administration):** To assist Dairy Development Commissioner in all administrative matters. To handle all court cases, Departmental Enquiries, Service matters of Officers/employees, Seniority Lists, Confidential Reports, to prepare proposals for continuation of temporary posts. To keep overall control on the Staff working in the Dairy Development Commissioner’s office. To assist the Dy. Dairy Development Commissioner (Administration) following posts are created:

i) **Asst. Dairy Development Commissioner (Admin.):** To assist the Dy. Dairy Development Commissioner (Admin.) in all administrative matters. To maintain service record of Officers, Class-III and Class-IV Staff,

ii) **Asst. Dairy Development Commissioner (General):** To assist Dy. Dairy Development Commissioner (Administration) in administration matters especially to control Registry branch, purchase of material i.e. stationery etc., to control Inward-outward work in the section, to keep record of Dead Stock Registers i.e. Computers, tables, chairs, and other Office material. To have control on Class-IV employees.

**d) Dy. Dairy Development Commissioner (Financial Adviser):** Responsible for Budget matters. Keeping watch over expenditure, to prepare 4/8 monthly and annual budget proposals. To assist the
Dy. Dairy Development Commissioner (Financial Adviser) following posts are created:

i) **Asst. Dairy Development Commissioner (Internal Audit):** To look after all the work of Audit. He is conducting and supervising Internal Audit Wing.

ii) **Accounts Officer:** To assist Asset. Dairy Development Commissioner (Internal Audit). To look after all the audit work of Mumbai Region.

iii) **Budget Officer:** He is responsible for preparation of annual budget and to assist Financial Adviser in budgetary matters.

iv) **Asst. Dairy Development Commissioner (Accounts):** To prepare Pay bills of Officers and staff members working in Dairy Development Commissioner’s office. To maintain Service Books of Officers and employees in Dairy Development Commissioner’s office.

v) **Reconciliation Officer:** To assist Budget Officer in the budgetary matter. To look after reconciliation work of Dairy Development Commissioner's office.

e) **Dy. Dairy Development Commissioner (Production and Procurement):** He is responsible for planning matters regarding processing of milk and its disposal. Keeping liaison with procurement section for ensuring additional quantity for processing, preparing proposals for fixing procurement price of
milk from time to time. To look into the grievances of Societies, Sanghs. To examine proposals for handing over Dairy/chilling centers to Sanghs. To assist the Dy. Dairy Development Commissioner (P and P) the following posts are created

i) **Dairy Manager (Head Quarter):** To prepare proposals for new schemes and submit it to Dairy Development Commissioner through Dy. Dairy Development Commissioner (P & P), To prepare KFA report, to look all the work relating to Cooperative Societies, Sanghs and their grievances, To look after the work of IDDP programmes, and other new schemes sanctioned by the Central and State Governments i.e. Clean Milk Production etc. To prepare Five Year Plan proposals.

ii) **Land Survey Officer:** To assist the Dy. Dairy Development Commissioner (P& P) in giving the up-to-date information of Land. To look after all the work pertaining to land in the Dairy Development Department. To keep up to date record of Land and to survey the land and submit the report to Dy. Dairy Development Commissioner (P& P) for necessary action.

f) **Dy. Dairy Development Commissioner (Processing & Distribution)** He is responsible for planning of distribution of milk and milk products. Preparing proposals for fixing sale price of milk and milk products from time to time. Keeping liaison with the Dairies and Powder Plants. Deal with Transport matters, dispute arising of the transport contractors. To prepare the proposals for
disposal of surplus milk only bulk sale, conversion of milk into skimmed milk powder and shite butter and its sale. To take steps to control adulteration of milk. To give surprise visits to Government Milk Booths, Aarey Saritas etc. and to look after all the working related to milk distribution. To assist the Dy. Dairy Development Commissioner (P & D) the following posts are created.

**i) Asst. Dairy Development Commissioner (Quality Control)**: To deal with matters relating to adulteration of milk. To check the milk for quality i.e. fat and SNF. To look after all the work of Milk & Milk Products Order 1992. To prepare proposals for taking action against the Societies, Sanghs registered under MMPO 1992. To give suggestions for improving the quality and quantity of milk, new schemes for increasing sale of milk and milk products.

**g) Dy. Dairy Development Commissioner (Dairy Engineering)**: He is responsible for maintenance of plant and machineries in various dairies, chilling centers. To attend to work relating to maintenance of plants and machinery at the State level. To give technical advice to Addl. Dairy Development Commissioner and Dairy Development Commissioner in the matters relating to procurement of Plants and Machinery, energy saving devices etc. To assist the Dy. Dairy Development Commissioner (Dairying Engineering) following posts are created:

**i) Dairy Engineer**: To prepare the proposals for technical matters. To maintain the machinery in the Dairy and allied
dairies, chilling centers etc. To prepare proposals for purchase of new Machinery in the Dairy.

**ii) Dy. Engineer:** To assist the Dairy Engineer in technical matters. To prepare proposals of repairs and maintenance of plants and machineries and submit it to Dairy Engineer.

**h) Public Relation Officer:** He is like a spokesman of the Department. He has to entertain the queries for seeking information about the working of the Department. He is also working as information officer under Right to Information Act. Work relating to public grievances is also handled by him.

**i) Chief Vigilance Officer:** He is responsible for matters relating to security in the various Units of the Department especially in the Units handling milk. He has to investigate into the allegations against the Officers/staff members of the Department and submit report to Dairy Development Commissioner. To have proper control over security personnel and also working of the units. Surprise visits are undertaken by him. To assist the Chief Vigilance Officer following posts are created.

**i) Dy. Vigilance Officer:** To inquire into the complaints received from the Staff, Corruption cases etc. and submit the report to Chief Vigilance Officer. To give surprise visit to Dairy Units handling the milk and investigate the matter and submit the report. To check the Milk Vehicles, surprise visit to Milk Centers,
j) **Joint Registrar Cooperative Societies (Dairy):** To supervise, guide and control the working of Cooperative Dairy Societies. To undertake visits and inspections of Dairy cooperatives. To enquire into the complaints about their working. To consider their financial requirements and recommend their cases to the Financing agencies. To prepare proposal for Financial Assistance to the societies as per budget provision under the Plan Schemes. To issue policy directions for the effective and smooth functioning and working of Co-op Society. To arrange for their timely audit. To assist the Joint Registrar Cooperative Societies (Dairy) the following posts are created.

k) **Dy. Registrar Cooperative Societies:** To assist the Joint Registrar in issuing policy directions, investigating the complaints of Dairy Cooperative Societies, to arrange their timely audit and other related work of Cooperative Societies.

**Regional Level:**

Regional Dairy Development Officer is over all responsible for the day-to-day work of the Region. He is Competent Authority for service matter of Class-III and Class-IV staff in the Region. He has also been delegated Financial Powers as Regional Head. Who is assisted by Dairy Engineer, Asst. Dairy Development Officer, Dy. Registrar Cooperative Societies (Dairy), Accounts Officer, Internal Audit Officer, Senior Administrative Officer for smooth working of all Schemes and Offices in
the Region. He submits proposals to Dairy Development Department for sanction which are beyond his financial/administrative powers. As a head of the Region, he has to keep close supervision over procurement, disposal and distribution of milk in the Region. Assuring timely payment to the Milk Producers. Over all control on the working of Offices & Dairy Units in the Region. To assist the Regional Dairy Development Officer, the following posts are created.

1) **Regional Dairy Engineer:** To assist the Regional Dairy Development Officer in technical matters, to keep close watch on the work of maintenance and repairs of machineries in the dairies and chilling centers in the region.

2) **Dy. Engineer:** To assist the Dairy Engineer in technical matters. To prepare proposals of repairs and maintenance of plants and machineries and submit it to Dairy Engineer.

3) **Senior Administrative Officer:** To assist the Regional Dairy Development Officer in all administrative matters. To prepare proposals of Departmental Enquiries, promotion cases, transfers of the staff, to look all the administration work of Region.

4) **Asst. Dairy Development Officer:** To assist the Regional Dairy Development Officer in Processing, Distribution of milk. To pay to visit the various dairies and chilling centers for supply of milk to consumers if good quality. Submit the report to Regional Dairy Development Officer for necessary action.
v) **Dy. Registrar:** To assist the Regional Dairy Development Officer in issuing policy directions, investigating the complaints of Dairy Cooperative Societies, to arrange their timely audit and other related work of Cooperative Societies.

vi) **Accounts Officer:** To prepare Pay bills of Officers and staff members working in Regional Dairy Development Officer's office. To maintain Service Books of Officers and employees in Regional Dairy Development Officer’s office.

vii) **Accounts Officer (Internal Audit):** To look after all the work of Audit paras. He is conducting and supervising Internal Audit of the Region.

**District Level:**

To register the Primary Cooperative Societies, keep liaison with Cooperative Societies for insuring procurement, distribution, payment to societies etc. To conduct inspection of the Units which are registered under Milk and Milk Products Order 1992. To assist the District Dairy Development Officer, following posts are created.

i) **Asst. Dairy Development Officer:** To assist the District Dairy Development Officer in inspection of the Societies, their procurement, distribution, payments etc.

ii) **Asst. Registrar:** To attend work relating to registration of Dairy Co-op Society. To assist the Dy. Registrar in issuing policy directions, investigating the complaints of Dairy Cooperative Societies, to
arrange their timely audit and other related work of Cooperative Societies.

**Dairy Setup:**

Dairy Manager is over all responsible for day-to-day functioning of the Dairy. There are different sections i.e. Procurement, Processing, Distribution, Conversion, Engineering, Transport etc. are functioning and Sectional Heads are responsible for their concerned Sections. In the Dairy milk processed and distributed through Milk Centers, Aarey Saritas etc. The Dairy Manager reports to Regional Dairy Development Officer. The proposals of Chilling Centre are examined by Regional Dairy Development Officer and sent to Dairy Development Commissioner Office.

**General Manager:** In a Dairy handling more than 50,000 liters of milk per day, post of General Manager is created. To assist the General Manager, following posts are created.

1) **Dairy Manager:** Dairy handling up to 50,000 liters of milk per day, post of Dairy Manager is created. To keep a close watch on working of the Dairy, to guide the officers who are working in the dairy, to give surprise visit to Milk Distribution Centers, Aarey Sarita Centres, to supervise the working of the technical staff, keep the Dairy in good condition, to ensure supply of good quality milk to the consumers, to watch the tankers arrived from the other places.
ii) **Dy. Dairy Manager**: To assist the Dairy Manager in Milk procurement, Distribution, Disposal of surplus milk, conversion and other related work of Dairy.

iii) **Milk Procurement & Distribution Officer**: To assist the Dairy Manager in Milk Distribution, and also the Milk & Milk Products sale on various Milk Distribution Centers, Aarey Saritas, Institutions etc. To give surprise visits to Milk Centers, Aarey Saritas etc. for smooth functioning the milk distribution.

**Chilling Centers Set up:**

Chilling In charge (Class-III) is over all responsible for day to day functioning of the chilling center. Milk received from Cooperative Societies at the Chilling Centre is being checked by Dairy Chemist for Fat, SNF and adulteration etc. The Dairy Supervisor maintains all records pertaining to milk arrival and dispatched to concerned Government Milk Scheme. The Chilling Centre In-charge reports to Dairy Manager.

- **Centre In charge**: To keep a close watch on working of the Centre, to guide the staff working in the Centre, to supply the good quality milk to the processing dairies, to watch the tankers arrived from the Societies.

- **Asst. Quality Control Officer**: He is responsible for quality of milk which is accepted and sends the same to other places.
• **Dairy Supervisor:** To keep close watch on the working of Chilling Centre.

• **Dairy Chemist:** He has to check the milk quantity accepted in Chilling Centre in quality and quantity and report to Chilling Centre In-charge.

**Farm Level Set up:**

**Project Officer:** The management is looked after by Senior Officer who is called Project Officer. As an In charge of the Project he has to keep close watch on the working of the Project. Following Officers are assisting him.

i) **Agriculture Officers:** To keep supervision on the workers working in the field. To give surprise visit to various farms and report to Project Officer. Prepare plan for disposal of Grass plantation of trees etc.

ii) **Accounts Officer:** To prepare Pay bills of Officers and staff members working in Farm. To maintain Service Books of Officers and employees in Farms.

iii) **Farm Supervisor:** To supervise the working of the Farm and report to Manager.
Decision making process:

Being a Government undertaking all the procedures and rules and regulations of the Government are applicable. However, the decision making as follows:

The following is Set up and procedure in different offices/units of Department. Dairy procedure is as follows -

Acceptance of Milk, Production and Distribution of milk and milk products, Procurement, Processing, Purchase of material, manufacturing of Dairy Products, Salary & wages, maintenance, complaints, Plant and machinery maintenance. In the Dairy; the channels of supervision are as - The Dairy has different Sections, Sectional Head Supervises work of skilled and unskilled workers. They report to Dairy Manager. These officers report to Dairy Development Commissioner and decisions are taken.

Registration of Primary Dairy Cooperative Societies at village level:

Individual Milk Producer of a village can become a member of Primary Dairy Cooperative Society. Society collects milk from its members and supply to the same to the Taluka/District Milk Union.
Primary Dairy Cooperative Society can become a member of Taluka/District Milk Union.

**Taluka/District Cooperative Milk Union at Taluka/District level:**

Taluka/District Milk Union can become a member of Apex Federation i.e. Maharashtra Rajya Sahakari DoodhMahasangh. Taluka/District Milk Union should supply the milk collected by them to the Maharashtra Rajya Sahakari doodh Mahasangh i.e. Mahanand and Government Milk Scheme as per their requirement. By doing the dairy business it is encouraging the small and marginal farmers and also agricultural workers. This is an occupation which does not demand much of time and therefore they can do this business as a side business and earn to supplement their income.

**Milk Federation at State level (Apex):**

The milk collected by the State Federation and Government Milk Scheme are fulfilling the requirement of milk to the needy people of Maharashtra State. Government is also supplying the milk to the outside State after fulfilling the requirement of the State. Surplus milk is also used for by-product such as Energy, Cheese, Masala Milk, Ghee, Paneer, Shrikhand, Amrakhand, Skimmed Milk Powder, Pedha, White butter etc. Government’s responsibility in the Dairy business is to purchase all the milk supplied by the farmers to the Taluka and District Milk Union at a guaranteed price. The guaranteed price depend upon the quality of the milk i.e. Fat and S.N.F. Private traders can also do the
dairy business after obtaining the necessary License. However, License under Milk and Milk Product Order 1992 for business is required to be taken if the business is more than 10,000 liters per day. M.M.P.O. 92 License is also required for the Cooperative Dairy Societies/Unions those who are collecting the milk 10,000 liters or more per day.14

**Practices and Problems Faced by Co-operatives:**

Milk is an essential liquid for humankind. It needs to human from birthday to old ages.15 It has so many ingredients which we can use for making other edible items as well as use in some types of medicines. It has great demand in market but production and marketing of milk products are not easy task. Milk producers as well as marketers have been faced so many problems and challenges. Different states have different types of problems. The result showed that milk production from indigenous cattle in Beed district found a highly unprofitable business. Net return over total cost on an overall average basis was found to be negative for all the three seasons. Some pertinent constraints to successful dairying were identified. The major factors, which contributed to unprofitable milk production, were high cost of feeds and fodder and non-remunerative prices of milk paid by the dairy co-operatives.

The managers of Indian dairy co-operative have always been facing the problems of procurement pricing. The problem is complex because milk contains two valuable nutrients: fat as well as proteins
and other micro-nutrients clubbed as solids-non-fat (SNF). The early dairy co-operatives in Maharashtra simplified this complex decision by paying for milk only based on fat tests, which were quite easy and cost effective to conduct through the Gerber method. But pricing of milk is not easy task. Because fat is not only factors which is used to determine the price of cow and buffalo milk. Cow milk has less fat rather than in buffalo milk. Cow farmers have always suffering from low pricing. Some problems come from external environment. Due to a change in economic system of the world, dairy co-operatives have been facing new challenges. Economic liberalization, open market, globalization, WTO, etc. are the major factors that create such problems. After introducing the policy of economic liberalization and globalization, co-operative organizations faced different types of challenges. In Indian context, liberalized economic policies have posed threats due to the removal of protectionism. Co-operative organizations are facing other threats also. They may not able to compete with the international low cost and high standards goods. Limited resources, lacks of skilled and trained manpower are others challenges of the co-operative organizations. High establishment cost and low margin, absence of professional management, prevalent administrative inefficiency, illiteracy etc. are other weakness of the co-operative organizations in India.

The failures in dairy company performance over the last ten years are simply a side effect of the process of industry evolution under the increasing pressures of supermarket buying power and the exit of
dairy farmers from the industry. If dairy companies neglect to watch product innovation, added value products, good accounting, quality control, entrepreneurial spirit and managing risk, then they will also have difficulty in surviving. Developing countries like India have been facing other major problem like economic impact of WTO agreement on the dairy sector. Some major economic problems are the impact of provision requiring reduction in domestic support; impact of tariff and minimum access requirements; impact of provisions requiring lower export subsidies, and impact of sanitary and phyto-sanitary measure. Problems of dairy sector are not only concern with the developing countries, but also concern with developed country. The farmers have been suffering from different types of problems. They have been demanding for lower taxation, less paperwork, lower interest rate on bank loan, and equality. They have wanted to take more benefits through resources management act. Workers who are involved in co-operative sector also faced various types of problems. There is no good relationship between workers and their clients. To solve such problems and reduced dependency on outside agencies is, for co-operatives, to develop a wider membership. A multi-stakeholder co-operative is a business, which is owned and controlled by more than one group.

**Strategic Planning for Dairy Co-operative:**

Strategic planning is a detail planning which facilitates to achieve organization goals in effective as well as efficient way. Nowadays, this concept is widely used in business fields. The concepts of strategy and strategic planning are also widely used in dairy co-operative sector. In
global market, WTO has been playing a vital role. It creates opportunities and challenges to business especially in developing countries. Liberalized economic policy and globalization has created larger markets for co-operatives. It is great opportunity to co-operative. The dairy sector is economically important not only in developing countries but also in industrialized countries. Two-third of milk production is concentrated in the developed countries. As having different in nature of the problems in dairy co-operatives so strategic planning on these sectors also different in between developed countries and developing countries.

Developing country like India must give emphasis on dairy education and training. The expanding dairy industry, privatization of enterprises and globalization of the economy will result in increased demand for people training in specific areas of dairying. Production experts conversant with modern bio-technology will be required to deliver results at field level and make dairying a profitable enterprise. In developing countries like India, dairy co-operative plays a vital role to alleviate poverty. Warana Milk Co-operative Union plays a vital role to alleviate poverty in 220 villages from Kolhapur and Sangali district in Maharashtra. The Warana milk is famous for its taste and quite popular in Pune and Bombay. To cope with the challenges and problems of dairy, dairy co-operatives should formulate strategic planning. It may be different in term of nature of the countries. Problems of dairy co-operative of developing countries may differ with the problems of developed countries. Therefore, separate
strategic planning will be formulated for these countries. For developing country like India, separate strategic planning may be formulated. In the context of economic liberalization and globalization, effort must be made to either revitalize or liquidate the existing weak cooperative societies and encourage only viable and profitable ones. Outsourcing can be utilized wherever possible by the co-operative organization; share capital assistance by government must be reduced. It must reduce government interference in co-operative societies. On the other hand, fulfillment of customers’ aspirations and expectations is the paramount factor in any business. In order to attain this objective, the Total Quality Management is of vital importance. In order to boost milk sales, these suggestions are made: i) expansion of the retail network, ii) extensive use of hoardings, iii) display through neon signs, wall posters and bill boards, iv) testing quality on demand by consumers, and cash incentive schemes. India is one of the countries who produce highest volume buffalo milk in the world. However, it has low productivity ratio. Strategic planning such as replacement of low yielding and inefficient local with high yielding and efficient developed milch breeds, arrangement of quality feeds and fodders, control over disease, fixation of optimum herd size, financial assistance to farmers, organization of adequate training program, and the improvement of housing condition of the milch animals can be adapted to increase production volume of milk. Problems regarding milk pricing may be solved by alternative ways. It is essentially a technological problem; and therefore, productive application of two axis pricing must wait until the discovery of cost
effective ways of conducting rapid and accurate SNF tests at the village level. Such application must be accompanied with the tighter and more comprehensive means to contain dilution of milk supplied to the co-operatives.

In corporate level, different types of strategy can be adopted. Corporate strategy in Indian organization in the coming decade is “Being honest + being world class + India focus, Being honest + Being world class + India diversified, and Being honest + Being world class + Global focused, takes the dairy sector in the USA as case study in the restructuring of the retailing and processing sectors. To take competitive advantage from agro-food different types of strategies also formulate in the different countries. Some strategies are also formulate such as the establishment of competitive to local agro-food producers and processors; the enhancement of premium products; and the assurance that processing activity occurs locally, benefiting the local economy. In the view point of logistics in relation to strategy in dairying, some other factors are also considered. Co-operatives were forced to better measure their own costs, which in turn, facilitated better tracking and management of the same. The information on cost was up date regularly, which has been deemed important if total cost decisions are to be made successfully. The value of the cost models as a benchmarking mechanism was widely accepted by the industry. The co-operative ownership of the dairy companies would appear to be a double-edged sword with regard to the implementation of the total cost concept.
Private Milk collection System:

There are two types of milk collection systems namely self-collection and contract collection. A system in which purchases and preserves raw milk that meets its quality standards through their staff members and delivers at is known as self-collection. It may include the following:

i. Milk Collection through Village Milk Collection Centre (VMCC).

Village Milk Collection Centre (VMCC) is a place where the farmers of an area come and give milk and a person appointed by the company collects milk after testing it. The person who collects milk there from the farmers is known as VMCC agent. It is provided by all the essential utilities for the milk collection such as collection tub, testing chemicals, ice and the rent of the place as well as the electricity bill. At VMCC the agent keeps the record of all the farmers who supply milk at VMCC and takes samples from the milk. The samples are tested and receipt is given to the farmer and a copy is kept at the VMCC for record. The mode of payment at VMCC is weekly i.e., after a week, farmers go to bank and receive their cash of all the week from their account.

ii. Direct from Farmers (DF).

As the name indicates, it is a collection directly from the farmers. The collection vehicle, when goes to an area for the milk collection, there are some farmers who don’t supply milk at the VMCC. They are
aware of the timings of the collection vehicle, so they supply milk directly to the people in the vehicle.

iii. Progressive Farmers:

Progressive farmers are those farmers who supply milk directly to the collection vehicle like direct farmers but the difference is that these people are progressive farmers and they provide higher quantities of milk.

Contract collection:

It is the system in which deals with the different private milk collecting persons and enters into a contract with them to provide milk to the company. They may include the following:

- **Mini Contractors**: Mini contractors are those who provide milk about 1000 liter of milk per day. They collect milk on their own. In this type of collection, the company identifies personnel who are willing to work and are of good repute with fair dealings. The contract is mainly verbal and no written type of contract was observed during our survey. The mini contractor collects milk from the farmers of the area as well as from the other areas. Milkmen from different areas also supply milk at mini contractor’s place. A company vehicle collects milk from these mini contactors. The MOT with that vehicle tests the milk according to their quality standards. If it passes the tests, it is accepted and rejected otherwise.
• **Sub-Contractors:** Sub-Contractors are almost the same as that of mini contractors but the main difference is that milk is collected from the mini contractor’s place but sub-contractor has to transport milk to the PHE of the company.

References:

11. http://www.mah.nic.in/sahakaar/Nirmaan.htm

