

# Cooperative as a Business Model: A study with reference to Pune Zilha Sahakari Dudh Utpadak Sangh.

Shefali Pardeshi\*

## Cooperative Identity:-

A cooperative is an organized group of people and jointly managed and democratically controlled enterprises. For a cooperative to be successful it needs to work for the benefit of its members and also for the overall development of the community. “Co-operatives are better because they are a business model that puts people at the heart of economic decision making and bring a greater sense of fair play to the global economy. The objective is to develop our external identity”. Therefore, “build the co-operative message and secure the co-operative identity”. A co-operative is an **enterprise**, i.e. a trading organization that produces economic value such as goods and services and focuses on member benefit as well as their socio-economic upliftment.

It may be appropriate to quote the words of Dr. P.R Dubhashi, “The members come together in mutual aid to form a primary society; all these primary societies come together in mutual aid to form a federal organization at the higher tier in order to lend strength to themselves. The higher tier federal organization is intended to provide certain common services which none of the constituent primaries left individually to itself, can organize. United at a higher tier in a federal organization, the constituent units can pool their resources to provide the common services.” The Katraj dairy runs its business on the same principles and acts as a federal organization which helps its members by running a profit oriented cooperative dairy business by doing a value addition to their produce and giving assured benefits to its members. The Pune Zilha Dudh Utpadak Sangh is based on a cooperative identity model wherein on one hand it runs a dairy business and on the other hand it tries achieving member benefit.

## Introduction:-

Pune Zilha Sahakari Dudh Utpadak Sangh Maryadit, popularly known as “Katraj Dairy” and branded as “Katraj” is a district level cooperative organization registered in 1960. The organization is involved in milk collection from the villages and adjoining areas of Pune city, milk processing and its distribution.

The organization has a unique advantage of its strategic location in Pune city which reduces their cost of transport to a large extent. Katraj dairy was incorporated in 1960 with an intention to provide an organized facility of milk collection for the village level farmers situated in Pune district. In the first year the milk collection was 30 litres per day which has now grown up to 1.80 lakhs litres per day in the year 2013.

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\*Postgraduate Scholar, Gokhale Institute of Politics and Economics - Pune (India)

Katraj Dairy has achieved ISO 9001:2000 & HACCP certification from DNV (Det Norskey Veritus) in October 2006 and in 2009 dairy has achieved ISO 9001:2008 and HACCP 2006 Dutch standard.

The dairy has installed 8 chilling plants and 32 BMC's (bulk milk coolers) all over the district depending upon the milk collection of every area and the distance from there to the main processing unit. The main plant at Katraj is well equipped with modern pasteurizer, homogenizer, cream separator, ghee processing, automatic milk and milk products packing, other quality testing devices and well equipped labs. They have an installed processing capacity of around 2 lakhs litres per day.

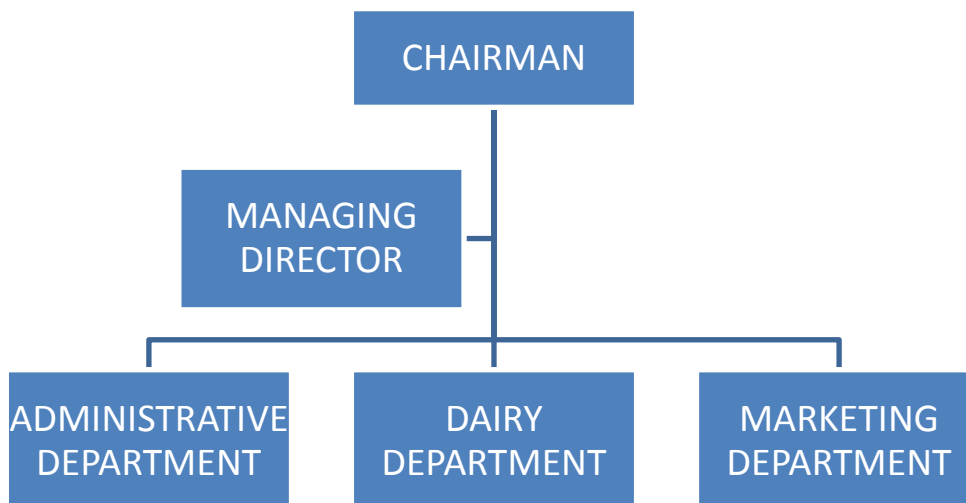
The dairy produces huge range of quality milk products under the brand name "Katraj" which are available in different flavors' and packing sizes. Today 'Katraj' is a symbol of high quality milk and milk products sold at reasonable prices and one of the good examples of a cooperative in Pune district.

### **Methodology:-**

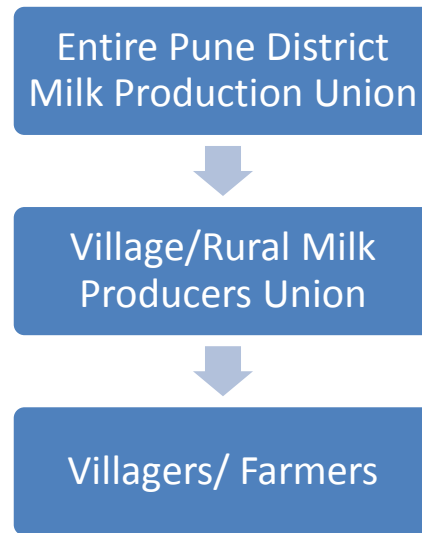
The documents which were reviewed were the sales data, pricing data, annual reports and other related documents were studied. Interactions with Katraj staff through discussions at Katraj processing unit and also with the field team during the field visit. Clarifications were also sought regarding the perception of villagers. Interactions with farmers was done by visiting farms of the beneficiaries from villages of Junnar and Bhore taluka discussing the benefits accrued from the project and the sustainability of the same. To evaluate the benefits to study specific cases field study was done. The field visits were mainly focused on the group discussion with the beneficiaries

### **Organizational structure:-**

#### **Internal Structure of the Katraj Dairy:**



## External Structure of Katraj dairy:-



## Dairy – as a Business Model:-

A **business model** describes the rationale of how an organization creates, delivers, and captures value, in economic, social, cultural or other contents. The core aspects of a business include, business purpose, business process, target customers, offerings, strategies, infrastructure, organizational structures, trading practices, and operational processes and policies.

The Katraj dairy business runs in into three major steps starting from procurement, processing and finally marketing or distribution. **The procurement stage** starts at the village collection centers where the raw milk from the farmers is collected. The centers having milk collection capacity of more than 1500 litres per day have a separate bulk cooler for milk chilling process. The milk is collected from 11 talukas namely Junnar, Velha, Haveli, Maval, Purandar, Ambegoan, Khed, Shirur, Daund, Bhore and Mulshi. There are eight chilling centers installed near the areas which are too long from the Pune city and 32 BMC's (Bulk Milk Coolers) with capacity ranging from 2000 litres to 10000 litres is installed at village collection centers as per the requirement and collection capacity of that particular village. The total per day collection of the dairy today is around 1,90,00 litres out of which 1,03,000 litres is collected from the primary milk societies which are members of Katraj dairy and rest is privately purchased. Out of the total collection only 10,000 litres of milk is buffalo milk remaining is cow's milk. Katraj dairy is mainly into collection and processing of cow's milk and various value added milk products prepared out of the same. There are total 114 pickup vans which transport collected milk to the processing unit at Katraj. Stainless steel cans with capacity of 40 litres of each are used. The tankers which carry milk from the chilling centers are highly insulated ones. From the primary milk collection centers the procured milk is carried to the chilling centers where it is chilled to

the required level and further transported to the processing unit at Katraj. Around Rs. 24 lakhs is the total milk procurement cost incurred per month by the dairy.

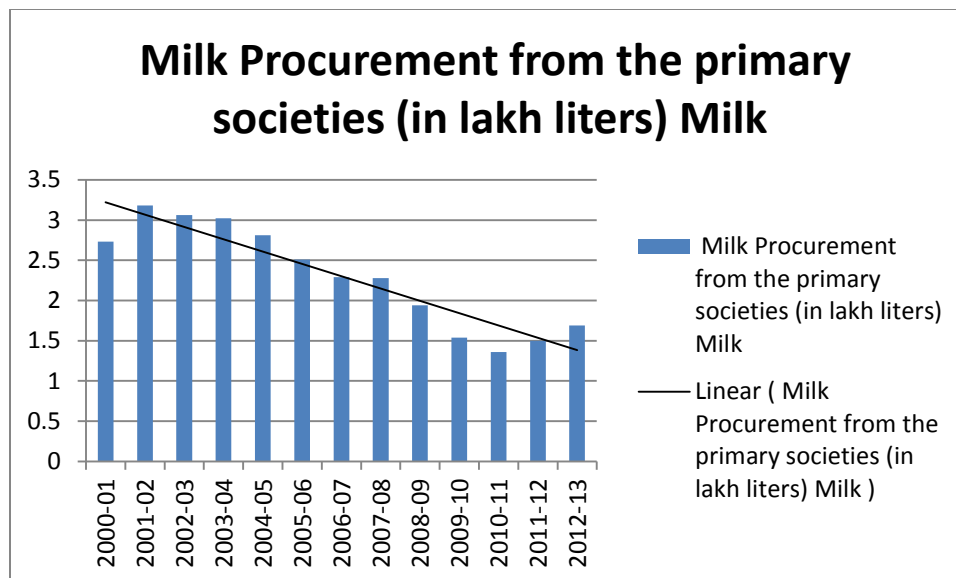
**Table No-1 Milk Procurement from the Primary Societies (in lakh litres)**

<b>Years</b>	<b>Milk</b>
<b>2000-01</b>	<b>2.73</b>
<b>2001-02</b>	<b>3.18</b>
<b>2002-03</b>	<b>3.06</b>
<b>2003-04</b>	<b>3.02</b>
<b>2004-05</b>	<b>2.81</b>
<b>2005-06</b>	<b>2.51</b>
<b>2006-07</b>	<b>2.29</b>
<b>2007-08</b>	<b>2.28</b>
<b>2008-09</b>	<b>1.94</b>
<b>2009-10</b>	<b>1.54</b>
<b>2010-11</b>	<b>1.36</b>
<b>2011-12</b>	<b>1.5</b>
<b>2012-13</b>	<b>1.69</b>

Table:1 gives the milk procurement year wise data during the period 2000-01 to 2012-13. The total per day milk collection showed a rising trend since the year 2000-01 till 2003-04 and later started declining drastically from 3.02 lakh litres to 1.5 lakh litres in 2011-12 which is almost a half of the production in the year 2003-04.

The reasons behind the decrease in the milk procurement in recent years are as follows:-

- Major privatization in dairy sector.
- Difference of milk rates between union and private.
- Due to record keeping and auditing.
- In private sector they pay at the time of collection only whereas in cooperatives the payment is made every 15 days.
- Low control of government on private sector.
- There are no rules and regulations for private sector.



**Processing stage** starts at the Katraj milk processing plant. The procured and chilled milk once brought to the processing plant is first tested by taking a sample from each tanker. Each sample taken is tested for its quality, fat level, bacteria levels and for other nutrient content in the technologically advanced laboratories by the lab experts who are experienced doctors in this particular field. The tested milk reports comes within half an hour and then as per the quality aspects further processing begins by transferring the milk into large ‘silos’(huge containers). Here the pasteurization process takes place and further the milk is processed as per the product requirement. The milk is processed to form toned milk, milk powder, creamed milk and other milk products. The processed milk is then packed into different packing sizes. During milk processing all the hygiene and safety measures are properly. All the quality aspects are well controlled by the technical engineers who are on duty for 24 hours all seven days of week. There is a separate department named input purchasing department which looks after the purchase of packing material as well raw material required in production of value added products. The material includes polythene bags of different sizes, boxes, ice-cream cups, milk cans, crates, plastic jars, different additives like sugar, salt, dry fruits, added flavors etc. and office and plant machinery as well as stationery items. Here also before the purchase samples are tested for the quality and then ordered. Two registers namely one for purchase and other for stock are maintained and after the proper entry the material is distributed to the respective departments or stored in the godowns. The purchasing depends upon the demand and available stock.

## The Processing Structure:

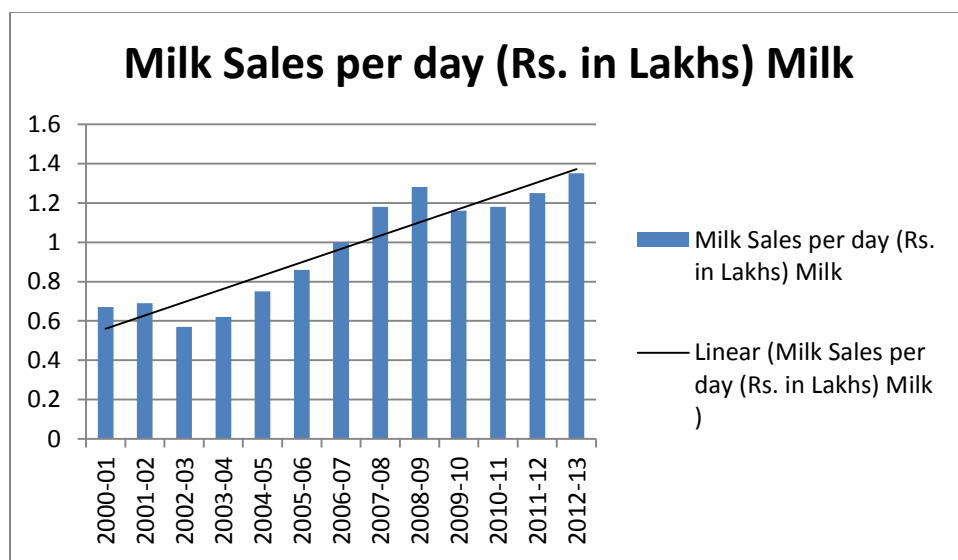


**Marketing** is the third stage and one of the most important stage which plays a crucial role in increasing the sales as well as meeting the customer demands. Under marketing the entire Pune district is divided into 17 different divisions with one distributor each. These distributors are authorized distributors of Katraj dairy and have Rs. 4.5 lakhs as a deposit with the Katraj dairy. These distributors have 10 years signed contract with the dairy. These distributors collect the large quantity of milk from the processing unit after midnight and further distribute it to the retailers. Every distributor has around 25-50 retailers depending upon their area of operation. These retailers have Rs. 5000 each as a deposit with the Katraj dairy which makes them the legal and authorized retailers of Katraj milk products. The marketing strategies used by the dairy for increasing the sales include newspaper advertisement, wall paintings, distribution of pamphlets, organizing exhibitions, advertisements on radio and local TV channels. Due to constant production of value added products and quality improvements; the dairy business is showing a rising trend since 2004 with some minor fluctuations.

**Table No: - 2 Milk Sales per day (In Lakhs Litres)**

Years	Milk
2000-01	0.67
2001-02	0.69
2002-03	0.57
2003-04	0.62
2004-05	0.75
2005-06	0.86
2006-07	1
2007-08	1.18
2008-09	1.28
2009-10	1.16
2010-11	1.18
2011-12	1.25
2012-13	1.35

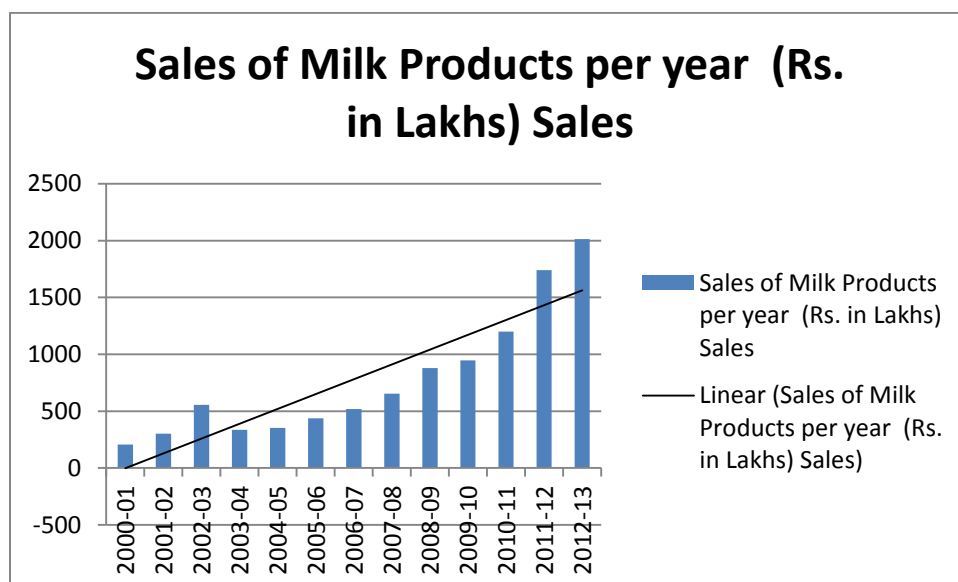
Table: 2 presents the sales of milk per day for the period 2000-01 to 2012-13. Due to the rising population and demand for milk the sales data is showing a constant rise with more or less fluctuations and a minor decrease in the year 2002-03. Today, i.e. in the year 2012-13 the sale of the milk is almost doubled as compared to the sale in the year 2000-01. Looking at the sales data we can conclude that the marketing strategies are effectively planned and efficiently implemented so that the overall sale of milk increases.



**Table No: - 3 Sales of Milk Products per year (Rs. in Lakhs)**

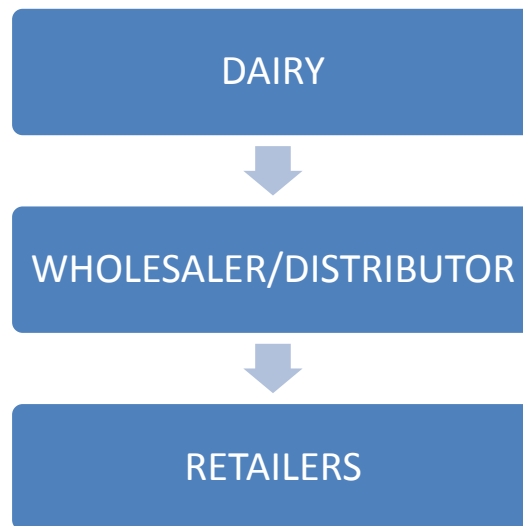
Years	Sales
2000-01	206
2001-02	301
2002-03	556
2003-04	335
2004-05	353
2005-06	438
2006-07	518
2007-08	653
2008-09	878
2009-10	947
2010-11	1199
2011-12	1740
2012-13	2012

Table: 3 depicts the sales of milk products from the year 2000 till 2013. From the given data we can infer that the sales of milk products are showing a drastic increase from Rs. 206 lakhs in the year 2000 to Rs. 2012 lakhs in the year 2013. The main reason behind this rise is the rising inflation and the prices of raw material required in the milk products. There is almost ten times rise in the revenue collected from the sales of milk products in the year 2013 as compared to year 2000.





## **Katraj Milk Distribution Channel:-**



## **Different Aspects of Dairy Business:-**

Today the Katraj dairy has a market share of 18 to 20 percent in cow's milk and 20 to 22 percent in milk products. The dairy mainly faces competition from private players like Chitale milk, Parag Dynamics, other District and taluka level Cooperative, State Federation's Mahanand Dairy and Government of Maharashtra's Array Milk and Milk Products. There are around 80 to 85 brands in Pune in milk and 30 to 35 brands in milk products. Among all the competitors Amul has the largest share being an international brand whereas Danone's share is higher in curd and yoghurt.

### **Problems Faced by the Dairy:-**

There are two problems faced by the dairy department of the Union, one is in procurement and other is marketing. The problem faced by the cooperatives in procurement stage is that according to the government's initial rule cooperatives were allowed to collect the milk only from the primary milk societies so due to this rule the cooperatives could not make any private contacts so even today if the rule doesn't exist still they face problems in private procurement. Marketing problem is faced due to large private players in this field.

### **Strategies:-**

The first strategy to sustain completion is the pricing policy strategy. The dairy tries to maintain constant prices for all the products until huge fluctuations in milk prices happen. This strategy is achieved by selling products at the dairy parlor which is in the processing unit and also the products are marketed only in Pune district which saves a lot of transport cost which is incurred by the other players in the market. Another strategy is reducing the dry period of the

livestock by increasing the feed, giving them proper medication and proper care of livestock is taken so that the milk production remains constant and no shortage is faced in future. There are also a few other strategies which are taken up to increase the sale so that consumption increases and that leads to more demand and ultimately increase in production.

### **Risk Management:-**

Before 1991 the production of milk was more than the demand which led to wastage. However due to privatization after 1991 the risk is in managing the production to meet the existing demands. The basic risk of dairy business is that the milk is a perishable commodity so a well efficient transport system is the basic need so that the raw milk is efficiently and quickly transported to the processing unit. Milk management is one of the essential aspects of this business.

### **Other Factors:-**

**Market:** - The entire market of Katraj dairy is in Pune District only and even the processing unit is in the heart of the city which gives them the location benefit and which also reduces the transport cost and leads the dairy to achieve cost effectiveness.

**Customers:** - Customers of Katraj dairy are fixed because their distributors and their retailers are fixed.

**Capital and ownership:** - All the primary milk societies have their shares invested to build up the startup capital and all the ownership rights are with the members of the Katraj dairy cooperative.

**Facilities:-** The dairy has a location benefit as all the activities right from the processing, packing and distribution as well as selling is done at one place only. Also the processing plant is well equipped with all the recent technology and well skilled man power.

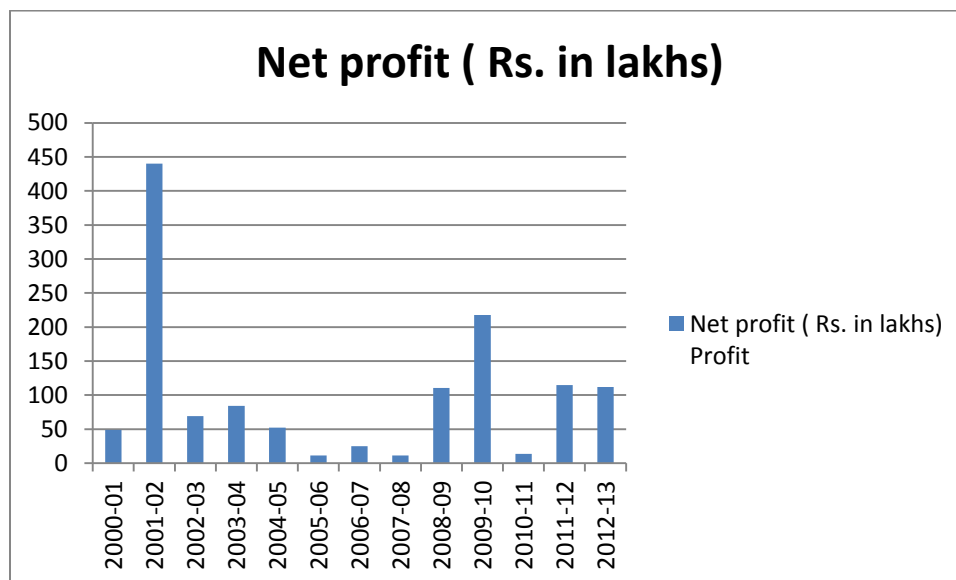
**Costing and Pricing:** - The costing includes all the over head charges, employees' salaries, maintenance cost, management cost, raw material cost, processing cost, transportation and other related expenses. All the charges are calculated and divided by total milk quantity for getting the per liter production cost. The dairy department manager mentioned that the per liter production cost is around Rs 33 and MRP is Rs 37. The commission to the distributor and retailers is Rs.4 per liter.

Having seen the operations of dairy as a business enterprise we propose to analyze from the farmer's perspective.

**Table No. 4: Net profit (Rs. in lakhs)**

Years	Profit
2000-01	48.87
2001-02	440.01
2002-03	69.05
2003-04	83.98
2004-05	52.18
2005-06	11.39
2006-07	25
2007-08	11.25
2008-09	110.49
2009-10	217.47
2010-11	13.38
2011-12	114.59
2012-13	111.83

Table: 4 depicts the net profit during the period 2000-01 to 2012-13. From the table we can infer that the dairy as a business is running into profit since past 13 years. The trend is fluctuating to a large extent with highest net profit earned in 2001-02 was Rs.440.01 lakhs and lowest in 2008-09 with only Rs. 11.25 lakhs.



## **Farmers Perspective:-**

For the study 50 farmers were interviewed in person from the villages of Junnar and Bhordol taluka during the field visits to the mentioned area. The farmers mentioned the milk business is the secondary business for them and agriculture as always remains the main occupation. Every village has a group of farmers which together form a primary milk cooperative society. One of the societies which were covered in the field visit was Yashwant primary milk cooperative society. In this society there are total 190 members out of which 90 members actually supply milk. This society was started in 1985 with the milk capacity of 210 litres and today it has reached up to 1750 litres of daily collection. The quantity starts from minimum 1 liter of milk per farmer and there is no upper limit for the collection. Every day the quality and quantity is tested at the collection center and noted in the register and as per the same payments are made every fifteen days.

Every farmer on an average has 4-5 milching animals and around 20 to 50 litres of milk is supplied by each member depending upon the production, type of breed and number of animals they have. The farmer's income increased and this rise was around 25 percent of their total income which led to increased savings. The members have a positive approach towards the society and readily cooperate with the Katraj staff in all possible ways. Out of their total milk production some milk is kept for home consumption and rest all is given to the primary milk society. Today these farmers are incurring more production cost than the price which they get behind per liter. The per liter production cost is around Rs 26-27 whereas per liter price received is Rs. 22-23. Efforts are being taken by the staff of Katraj dairy to reduce the cost of production incurred by farmers by giving them proper training, by providing machines and other required material at subsidized cost etc.

## **Member Benefit:-**

Following are the benefits which the members of the primary societies receive:-

- Rise in total income levels.
- Supplementary occupation along with agriculture.
- Improvement in infrastructure and other required set up.
- Due to establishment of collection centre at village level, the problems of travelling long distance for selling their produce reduce to a large extent.
- Every year there are two training sessions held in the villages on different aspects like livestock management, livestock medication as well as on other basic needs.
- The members receive feed, fodder, machinery and other equipments at subsidized rates from the dairy cooperative.
- Medical facilities and livestock vaccination is easily accessible and provided by Katraj dairy on regular basis.
- Due to constant training and facilities there is a huge increase in the quantity and quality of the milk.

- The farmers receive stable prices all round the year.
- There is a transparency in the business and no corruption takes place.
- Banking facilities are made available to the farmers and every member has a bank account.

The socio-economic conditions of the farmers have improved to a large extent. Due to various interventions and hard work put in by the villagers the economic conditions of the people in the village has improved a lot. People have now started living in well built houses, few of them own two wheelers, some of them have improved the quality of their land, all the children in the village have started going to schools etc. Due to rise in income level the villagers are now capable of making new changes in their field, improving their lifestyle, funding their children's education and other needs of the family. Every family in the village has a monthly or yearly saving account in the nationalized banks. People have now started getting the importance of saving the money to meet some future needs or to meet some urgent needs. There is a rise in literacy level among the people. Some youths of the village are well educated and now are working with different institutions, some work as teachers in schools; some are doing their graduation while few others have opted for engineering.

Table No. 5 Provides the data related to the Number of milch animals, average land holding and milk production per day. It presents the primary data collected from 50 dairy farmers.

**Table-5: No of Milch Animals, Average Land Holding and Milk Production**

<b>Number of Milch Animals</b>	<b>Number of Farmers</b>	<b>Average Land Holding (in acres)</b>	<b>Average Milk Production in (litres per day)</b>
<b>0 - 3</b>	<b>4</b>	<b>0.6</b>	<b>19</b>
<b>3 - 6</b>	<b>21</b>	<b>2</b>	<b>22</b>
<b>6 - 9</b>	<b>21</b>	<b>3.5</b>	<b>30</b>
<b>above 9</b>	<b>4</b>	<b>6</b>	<b>66</b>
<b>Total</b>	<b>50</b>		

It is clear from the table that the farmers who have large land holdings have more number of milch animals and the milk production. Most of the farmers only have cows and calves only few have buffaloes. The production of milk is fluctuating and is dependent on number of animals as the farmers who have more number of animals have more milk production whereas the farmers having less numbers of milching animals produce less milk. Looking at the table we can say that the milk production has a direct relationship with the land holding and number of animals. However, the milk production mostly depends upon the quality of the breed. If the feed given to

the livestock is proper as well as the surroundings are clean and suitable for the animals then the milk production is high and can be increased by providing more better facilities to the livestock.

## **Conclusion:-**

The Pune Zihla Dudh Utpadak Sangh is a federal cooperative institution which works for supporting its member society by doing genuine value-addition to the raw milk through marketing & technological innovations. It's the Farmer's cooperative, for the farmers and by the farmers. The Katraj dairy cooperative ensures that their farmers get 80 to 85 percent of Consumers Rupee spent on Milk & Milk Products. Today the Dairy Cooperative provides different facilities to its members for getting a better and quality yield, the dairy is also taking steps towards the economic independence and social stability of the rural women in Pune District. Thus, the Katraj dairy is one of the ideal examples of a cooperative institution which runs on the basis of cooperative identity.

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[The author expresses her gratitude to Dr. T.Paranjothi, professor VAMNICOM, Pune for giving such a wonderful opportunity and being the guiding force throughout the entire paper work and for his constant inspiration and motivation. Sincere thanks to Dr. Vivek Shirsagar, MD, Pune Zihla Dudh Utpadak Sangh, Dr. Madhuri Dhamale, Mr. Ashok Dhumbre, Mr. Kondhalkar (P.I.T Department) Mr. Kalekar( Head of dairy department) , Mr. Modak ( Head administrative department) and the entire Katraj Dairy Staff for their support during the study period and lastly I extend my sincere thanks to ICA for giving me such a great platform to present my paper.]

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