1.1 INTRODUCTION

Livestock contributes much to the agricultural development of India. They have been a source for food, fire and transport. A majority of the Indians are vegetarians. In a vegetarian diet, milk is an important component having nutrient value. Even though mechanization has crept into agriculture in various parts of the country, bullocks had been the chief mode of transport for a majority of farmers. The hides and skins of the livestock are also important and useful in many ways. Dairying is recognized as one of the important sub sectors of agriculture among horticulture, fisheries, poultry and forestry.

Animal Husbandry and Dairying play a prominent role in the rural economy in supplementing the income of the rural households, particularly the landless and poverty stricken farmers. Dairying provides subsidiary occupation in semi-urban areas and more so for people living in hilly, tribal and drought prone areas where crop output may not sustain the family, in addition to its sizable contribution to the gross domestic production of the country.

India accounts for 57 percent of the world’s buffalo population and 15 percent of the cattle population. According to livestock census (2003), the country has 18.5 crore cattle and 9.8 crore buffaloes\textsuperscript{1}. 

\textsuperscript{1} Livestock census (2003)
1.2 ORIGIN AND HISTORICAL BACKGROUND OF DAIRY INDUSTRY

The earliest writings on friezes give evidence for the domestication of animals and the use of milk for food. However, the exact datum on the domestication and use of milk as food is not available.

The archeologists of Libiya in Africa reported the excavation of friezes showing the domesticated cows of 9000 B.C. The pictorial records were found in shallow caves by Dr. Leo Frobenious, noted European archeologist and Douglas, an American archeologist. Sanskrit writings of India in 6000 B.C., explain the value of milk as food.

The records of Egyptians of 4000 B.C. show the use of cattle and the methods of breeding when cows were on common pastures, which indicate the private ownership of cattle even at that time. The early records of Egypt and Mesopotamia indicate the attitude of the people towards their cattle. According to these records, people even worshipped cattle during 4000 B.C.

In Central Asia wealth was, in fact, measured in terms of the number of cattle owned by the people. The Indian Vedic hymns of 3000 B.C. contain folklore stories which portray the life and occupations of mankind. It also explains the fact that milk was drunk and butter was made during those periods.²
There are evidences for the domestication of cattle and use of milk in Old Testament of The Bible. In The Bible there are about 50 references about cows and milk. The importance of milk in the olden days was known through the descriptions in the Old Testament about the promised land to the Israelites by God which was known as “a land flowing with milk and honey”³.

The Greeks are credited with the statement as early as 2000 B.C. that “neither milk nor cheese failed in Libya the year round”. There are historical evidences that cattle were found in many parts of Switzerland, France and Netherlands during Julius Caesar’s invasion of Europe in 1000 B.C.⁴

Hence it is clear from the historical review that the domestication of cattle for milk and meat had been a common feature throughout the world even as early as 9000 B.C. The long history of domestication of cattle had a tremendous impact on the development of cattle with regard to quality and quantity during the 20th century.

1.3 ROLE OF THE DAIRY DEVELOPMENT DEPARTMENT

The Dairy Development Department (DDD) was established in 1-8-1965 by the Government of India with administrative and statutory controls over all the Milk Co-operatives in the States. The main aim of this Department is to assure a remunerative price for the milk produced by the Milk Producers Societies, through a stable, steady and well organized market support and also to distribute quality milk and milk products at a reasonable price to the consumers.
The main functions of the (DDD) are

1. Organization of societies

2. Registration of societies

3. Supervision and control of Milk Producers Co-operative Society (MPCS), District Co-operative Milk Producers Union (DCMPU) and Tamil Nadu Co-operative Milk Producers Federations (TCMPF)

This Department exercises statutory functions like inquiry, inspection, surcharge and supervision, appointment of special officers, liquidation and winding up of dormant societies.

The Commissioner for Milk Production and Dairy Development is the Head of the DDD in Tamil Nadu. He is also the Ex-officio Managing Director of TCMPF Ltd. He exercises all the statutory powers with regard to the registration of societies, supervision, inspection, inquiry, disputes, liquidation of Milk Producers Co-operatives including the DCMPU and TCMPF under the relevant provisions of the Tamil Nadu Co-operative Societies Act 1983 and Tamil Nadu Societies Rules 1988. In discharging the statutory functions of the Commissioner, he is assisted by the Deputy Milk Commissioner [Co-operation] in the range of Joint Registrar of Co-operative Societies and a Deputy Registrar at the headquarters besides 23 Deputy Registrars at the District level by way of conferring the powers of the functional Registrar.
1.4 STATEMENT OF THE PROBLEM

Milk has always been a source of nutrition for every human being. The food habits of the people also require a lot of milk and milk products. Even though substitutes like artificial whiteners have been available in the market, everybody has been striving hard to get quality cattle milk at a reasonable price. This has resulted in the growth and development of MPCS in all districts of the States of India in general, and the state of Tamil Nadu in particular.

A research study on a comparative basis may throw light on the cattle milk production and marketing position. Accordingly two Unions have been selected, one functioning in Kanyakumari district known as the Kanyakumari District Co-operative Milk Producers Union (KDCM PU) and the other functioning at the Coimbatore district known as the Coimbatore District Co-operative Milk Producers Union (CDCM PU).

1.5 OBJECTIVES OF THE STUDY

1. To bring out the existing management practices in the Aavin Milk producers union in Kanyakumari District and Coimbatore District of Tamil Nadu.

2. To analyse the process cost details as to the production of milk and its by-products in Kanyakumari and Coimbatore district, on a comparative basis.

3. To analyse in detail the exchange functions relating to the Unions in both the districts.
4. To analyse in detail the physical supply functions relating to the Unions in both the districts.

5. To analyse in detail the facilitating functions relating to the Unions in both the Districts.

6. To have a comparative commercial analysis of Aavin Milk Producers Societies at Kanyakumari and Coimbatore districts of TamilNadu.

7. To bring out the employees’ opinions about the Societies and Unions in Kanyakumari District and Coimbatore district.

8. To offer suggestions based on the study to the societies, to the Unions and to the Government of Tamil Nadu.

1.6 REVIEW OF LITERATURE

Patel (1976)\textsuperscript{5} in his article ‘Milk for Millions’ suggests that the significant increase in milk production could be achieved only if additional feed is made available and a greater percentage of the available feed is reserved for high yielding animals.

Grewal and Rangi (1980)\textsuperscript{6} in their article “Economics and employment of Dairying in Punjab” pointed out that the total milk production in the state of Punjab was 21.03 lakh tonnes in 1970-71 which increased to 29.26 lakh tonnes in 1978-79. The per capita production of milk had increased from 437gm per day to 511gm in the same period. This was done by replacement of low yielding indigenous cows with high yielding buffaloes and cross breed cows.
Velappan and Chidambaranathan (1982)\textsuperscript{7} in their book ‘Agricultural Economics’ says that measures, both preventive as well as curative, should be undertaken on a large scale to tackle various cattle diseases. Proper nutritive fodder, sound breeding and healthy surroundings would help the prevention of diseases and surely increase milk production.

Singh and Tewari (1986)\textsuperscript{8} in their article. “An Economic Analysis of Inter State Disparities of Milk Production and Institutional Facilities in India” pointed out that the institutional encouragement for co-operative societies, might greatly help in increasing the production of milk in backward areas of India.

Muniraj (1987)\textsuperscript{9} in his book “Farm Finance for Development” indicated that increasing milk production depended on meeting the fodder and concentrate feed requirements adequately during lactation and dry period. Feeding the animals with balanced diet gave better milk yield.

Punjab Singh and Majumdar (1992)\textsuperscript{10} in their article, “Current status of Feed and Forage in management of livestock in India” stated that the proper feeding and management could substantially increase milk production. This required regular supply of dry and green fodder. Available production technologies and land could maintain supply of fodder at optimum level but required a massive production drive to increase the production.

Shine Charen Mathus (1993)\textsuperscript{11} in his article “Livestock Development vital for Animal Energy in Rajasthan state” Suggested that pasture development programme had to be taken in a big way and resources would have to be diverted for the success of livestock development programme. Production of ordinary and
leguminous fodder, financial assistance to individual farmers for the development of indigenous pasture, afforestation and growing of fodder in irrigated areas had to be taken up in a big way. This was very much essential for increasing milk production in the backward areas of Rajasthan.

Sandip K. Bhatt (1994)\textsuperscript{12} in his article ‘Issue of Co-operative Dairying in India’ stated that milk production increased by upgrading cows and buffaloes through artificial insemination. Also a conscious attempt should be made to alter the relative ratio between buffaloes and cows in favour of the latter to reduce fluctuations in milk production between the summer and winter seasons.

Kulandaisamy (1991)\textsuperscript{13} studied the “Women participation in Dairy co-operatives in Tamil Nadu”. The study concluded that the livestock and dairy had been one of the sectors in India where female work force participation had been high. Poor rural women performed a large part of the work relating to the maintenance of Dairy cattle, milk production and processing. The women’s welfare department had agreed to give 20 percent margin money for purchase of milch cattle by women cooperative members.

Raja Mohan (1996)\textsuperscript{14} in his article, ‘Problems Facing Dairy Cooperatives in Uselampatty Taluk in Madurai District of Tamil Nadu” states that the unsatisfactory marketing facilities compels the milk producers to convert their surplus milk into milk products like butter, curd and ghee and force some others to sell it to the private vendors or middlemen at lower prices. The staff members of the societies are not trained properly and they are not sincere in the testing and dispatching of milk. They have failed to keep and maintain profit and loss
accounts. This would lead to wrong calculation of income of the milk producers and finally affect their income.

Madanna and MV Srinivasa Gowda (1994) stated that for a long period dairying in India was characterized by the dominance of small and marginal farmers, scattered production, inadequate marketing channels, lack of modern inputs and facilities for products transportation. Milk marketing was represented by unorganized private traders who turned milk trading into an exploitative market. Nowadays for marketing of milk - a highly perishable commodity, it has been felt that a well conceived and organized network of dairy co-operatives right from the village level would be essential for the speedy growth of dairy industry in the country.

Ramanujam K.N. (2003) studied the ‘Role of Co-operatives in Milk Marketing venture’ as Indian middle class consumers have a craze for milk and its products. As they have good purchasing power, there exists high demand for milk and milk products. As a result, India is emerging as one of the largest and fastest growing consumer market for milk and value added milk products in the world and the ever increasing demand for milk products is a testimony for this. Therefore, only by having an effective and sound system of distribution of milk and milk products, will India emerge as the world’s leading dairy nation.

Sunil Kulkarni (2004) in his article the “Role of Logistics in Dairy Industry as a dairy” unit felt the need for strong logistic system which will primarily maintain the equilibrium of milk collection, processing and distribution.
It will increase the productivity of the dairies and maintain an optimum supply for the consumers.

Sathya Sundram (2005)\textsuperscript{18} in his article “Rural Poverty and Dairy Development” said that milk production increased from 17 million tonnes in 1950-51 to 88.1 million tonnes in 2003-2004. The quantum of additional employment generation in dairy industry depends on various factors like number and type of animals possessed, size of households and feeding practices.

Suriyamurthi S. and Ramachandran S (2003)\textsuperscript{19} in their article “Problems and prospects of Co-operative milk producers union in Tamil Nadu” say that the rural farmers joined together with production managers to make the country self sufficient in milk. The aim of Co-operative society is not to maximize the return on capital employed but to render service to its members effectively and efficiently.

Periyasami N. (2006)\textsuperscript{20} in his article “Milk production in India” through which it is established that the cost of production per litre of milk in India worked out to be the lowest in the world. Thus there will be competitive advantage to increase India’s global share of export in the dairy sector. Since Indian dairy sector is one of the least subsidized sectors in the world, it can therefore, afford to take an aggressive stand in its position in world milk production. India became the world leader in milk production in 2001 with a production of 84 million tonnes.

Antony Reegan M (2004)\textsuperscript{21} in his report, ‘A financial Analysis of KDCMPU’, explains its financial performance. He found that the Kanyakumari Union is one of the 17 profit earning unions. The milk produced in the union is
sold through their own parlors, to the shops in the societies and also to other
districts. He gave some suggestions to encourage the MPCS by way of giving
more awards and prizes as well as ideas to improve milk production.

Jebasiya. C (2002)\textsuperscript{22} in her report ‘Human Resource Development and
Climate survey in KDCMPU Ltd’ explains the labour recruitment, remuneration
and other welfare measures. She found that the KDCMPU Ltd., has a well
structured human resource development system.

Rajaprabhaker P. (2005)\textsuperscript{23} in his study ‘A study on consumer preference of
Aavin Full cream Milk in Kanyakumari District at Nagercoil Aavin Dairy’, explained the products of KDCMPU and the methods of preparation, particularly
the full cream Milk. He found that more than 58% of the people prefer the full
Cream Milk, and so the production increases year after year.

K.A. Sheeba (2006)\textsuperscript{24} in her study “A study on production and Marketing
of milk in Agesteeswaram Taluk”, found out that more milk producers societies
have been functioning in the Taluk. Further she gave some valuable suggestions
to improve the economical production and marketing of milk.

1.7 PERIOD OF STUDY

The study covers the KDCMPU and the CDCMPU from 1990-1991 to
2005-06 a period of sixteen years. However the women societies in both districts
cover 9 years from 1997-1998 to 2005-2006, because these societies came into
existence only in the year 1997-1998.
1.8 METHODOLOGY

The study is based on both primary data as well as secondary data. The secondary data has been collected from the various records of milk producers Union at Kanyakumari, and at Coimbatore and the three types of Co-operative Societies, namely, General Society, Women Society and Harijan Society in Coimbatore and Kanyakumari districts. The other secondary data required for this study has been collected from various books, journals and pamphlets. Further, primary data has also been collected from the workers at the DCMPU and the MPCS in both the districts.

1.9 SAMPLE DESIGN

For conducting the study, the researcher has selected two DCMPU in Tamil Nadu namely Kanyakumari and Coimbatore. In addition to this three societies of different nature have also been selected from the two districts. The researcher utilised simple random sampling. The primary data has been collected from 602 employees in Kanyakumari and CDCMPUs and MPCS.
1.10 HYPOTHESES

1. There is no significant relationship between the production of milk in KDCMPU and the CDCMPU.

2. There is no significant relationship between the sales of milk in KDCMPU and the CDCMPU.

3. There is no significant relationship between the profit in KDCMPU and the CDCMPU.

4. There is no significant relationship between the production of milk in general type of Co-operative Societies in Kanyakumari District and Coimbatore District.

5. There is no significant relationship between the sales of milk in general type of Co-operative Societies in Kanyakumari District and Coimbatore District.

6. There is no significant relationship between the profit in general type of Co-operative Societies in Kanyakumari District and Coimbatore District.

7. There is no significant relationship between production of milk in Women Co-operative Society in Kanyakumari District and Coimbatore District.
8. There is no significant relationship between the sales of milk in Women Co-operative Society in Kanyakumari District and Coimbatore District.

9. There is no significant relationship between profit of Women Co-operative Society in Kanyakumari District and Coimbatore District.

10. There is no significant relationship between the production of milk in HMPCS in Coimbatore and Kanyakumari District.

11. There is no significant relationship between the sales of milk in HMPCS in Coimbatore and Kanyakumari District.

12. There is no significant relationship between the profit of HMPCS in Coimbatore and Kanyakumari District.

1.11 CHAPTER SCHEME

CHAPTER I “Introduction” deals with the origin and historical background of dairying industry, role of dairy development Departments, statement of the problem, objectives of the study, Review of literature, period of study, methodology, chapter scheme, Sample design, Hypotheses and limitations of the study.

CHAPTER II deals with the profile of the KDCMPU and CDCMPU - origin, management and organization, and outstanding features.
CHAPTER III deals with the processing and product cost of KDCMPU and CDCMPU. It also deals with the cost details relating to the by-products of milk at the unions under study.

CHAPTER IV deals with the purchases made by the unions, mode of payments, milk purchase routes, calculation of quality based price and procurement reports. In addition sales details relating to milk and milk by-products in the two unions also from part of the chapter.

CHAPTER V deals with the physical distribution functions including transportation channels of distribution, storage and warehousing at both the unions under study.

Facilitating functions at the two unions have been dealt with in CHAPTER VI. It includes Financing and risk taking functions.

CHAPTER VII deals with the introduction, essential nutrients, benefits of milk, composition of milk, physical properties of milk and Milk products, and also the perception of the employees about the unions on various grounds.

Comparative study of Milk Producers Co-operative Societies in Coimbatore and Kanyakumari District, is the subject matter of CHAPTER VIII.

The CHAPTER IX gives the summary of conclusions, the findings of the study and suggestions for the development of the Milk Producers Unions and Milk Producers Societies.
1.12 LIMITATIONS OF THE STUDY.

This study is purely based on the information supplied by the milk Co-operative societies, and milk producers co-operative unions.

The study is a comparative study in relation to the two unions at, namely Kanyakumari and Coimbatore districts only.

The study covers only a period of sixteen years, from 1990 – 91 to 2005 – 06.
End Notes

1. HTTP:/www.NDDB.ORG/

2. Olson, T.M. *Elements of Dairying* P.3 & 4.


