CHAPTER VII
SUMMARY, FINDINGS, RECOMMENDATIONS
AND CONCLUSION
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7.1 SUMMARY:

Agriculture has always been the backbone of the Indian economy. It provides employment to around 60 per cent of the total work force. Agricultural growth has a direct impact on poverty eradication. The change in the agricultural sector, whether positive or negative, will have a multiplier effect on the entire economy. Besides, the allied sectors like horticulture, animal husbandry, dairy and fisheries have an important role in improving the overall economic conditions of rural India. To maintain the ecological balance, there is need for sustainable and balanced development of agriculture and allied sectors. From the India’s first five year plan onwards, planners have been giving priority to the allied sector for the economic development of the rural sector. Dairy farming is described as a small industry which provides gainful employment opportunities to the rural folk. It comprises about six per cent of the national income.

Dairy industry provides not only full time but also regular income to the rural people. The contribution of livestock in income generation in the rural areas is quite substantial. Livestock contributes about 4.22 per cent to the GDP and agriculture contributes about 16.49 per cent in 2005-06. Dairying is a centuries-old traditional profession for millions of Indian rural households; domesticated animals have been an integral part of the farming systems from time immemorial. Milk contributes more to the national economy than any other farm commodity.
In the context of poverty and malnutrition, milk has a special role to play for its many nutritional advantages as well as providing supplementary income to some 70 million farmers in over 500,000 remote villages. More importantly, the farmers earn an average of 27.3 per cent of their income from dairying, with as high as 53 per cent in the case of landless and as low as 19 per cent in the case of large farmers.

The national income is contributed by many sectors and among them dairy industry occupies an important place. In the agriculture sector, the dairy sector plays a vital role. The dairy sector of India has witnessed some major changes over the last two decades. As a result of concerted efforts towards total dairy development, India’s milk production has nearly trebled. Milk has now become the largest single agricultural commodity with dairy industries estimated at more than Rs. 52,000 crores, a figure which is expected to reach Rs. 88,000 crores per annum by the next century. The milk production of India which has stagnated at around twenty million tonnes for the past twenty years (1980 - 2000), began rising from 2000 onwards and crossed over 50 million tonnes mark in 2002.

In 1996, India attained the status of world leader in milk production. The Indian milk production increased from 21.2 million tonnes in 1968 to 97.01 million tonnes in 2005-06 and 100 million tones in 2007-08 and per capita availability of milk is 241 gm/day in 2005-06. The growth rate of milk production is 6.2 per cent which is higher than that of other countries. The dairy co-operatives market milk in all metro and major cities covering more than 800 towns and cities.
The annual value of milk production in India amounted to about Rs.1,050 billion in 2006-07 and livestock contributed about 27 per cent to the GDP from agriculture. Nearly 70 per cent of livestock is in the hands of small, marginal and landless farmers. Day by day, the share of livestock in the GDP and the export is increasing. The credit for this improvement goes to the farmers, more particularly to the small, marginal farmers and landless labourers.

In view of the importance of agricultural sector in the national economy and especially of the role of the animal husbandry in the rural economy of India, the need for increasing the production of milk has received quite a lot of attention through operation Flood I, II, and III. India depends more on cows than on buffaloes for its milk production. Though India has achieved a lot in milk production, its per capita consumption is not up to the world average. The milk yield per animal is also not up to the world standard because about 67 per cent of the animals are owned only by the small and marginal farmers. Besides there is lack of sufficient fodder, insufficient high breeding animals and no proper care and management of milch animals.

India has a unique pattern of production, processing and marketing/consumption of milk. Approximately 70 million rural households (primarily, small and marginal farmers and landless labourers) in the country are engaged in milk production. Over 11 million farmers are organized into about 0.1 million villages Dairy Co-operative Societies (about 110 farmers per Dairy Co-operative Societies) The cumulative milk production handled by the Dairy Co-operative Societies across the country is about 18 million kg of milk per day.
These co-operatives form part of a national milk grid which links the milk producers throughout India with consumers in more than 700 towns and cities bridging the gaps on account of seasonal and regional variations in the availability of milk. In the organized sector, there are 676 dairy plants in the Co-operative, Private and Government sector registered with the Government of India and the state Governments. The Organized sector (both corporative and private dairy plants) handle about 20 per cent of the marketed milk and the balance is handled by the unorganized sectors.

Of late, a very significant development in rural areas has been the growth of the modern dairy. It is playing an important role in promoting improvement in the quality of rural life by generating additional income for a very large number of farmers, most of whom are small or marginal, as well as by supplying a nutritious item of food to the people, both in rural and urban areas. By now, modern dairy development covers about 22 States and the Union Territories in India and is poised to extend to the remaining few of these in the country.

The dairy industry in India provides regular employment to 9.9 million people in the principal status and 8.8 million people in subsidiary status, which together comprises 5.5 per cent of the total workforce. It now accounts for 25 per cent of the Agriculture output. India possesses over 16 per cent of world cattle population. Among the milch animals some 57 per cent of buffalo population accounts for only 14.20 per cent of world milk production. The profit from dairy farming is very important from the employment and national income point of view. The profit from it is based on the cost and returns of milk production.
Milk production is based on the type of the milch animal. Buffaloes yield more milk than the cows and the returns on investment are very high because of their high yield and lactation period. The returns from the buffaloes are greater than the returns from the cows.

Dairy farming and agriculture have been inseparable parts of man’s life in rural Tamil Nadu. Dairying therefore, generates additional income to the rural people. The cow or buffalo is fed with the low grade surplus by-products of the farm and about 50% of the income of the village is from milk. In Tamil Nadu, the per capita availability of milk has increased from 164 gm/day during the year 1997-98 to 232 gm/day during 2007-08 which constitutes nearly 140 per cent. Tamil Nadu stands at 4th position in India in the milk procurement through cooperatives. There is ample scope for increasing production of milk in Tamil Nadu. Efforts are also being made to improve infrastructure facilities in the state to handle more milk to be procured through Cooperative societies.

With the increasing pressure on land, agriculture alone cannot provide gainful employment to all in the rural areas in Tamil Nadu. Therefore allied activities like animal husbandry and dairying have to be viewed as effective instruments of social change for supplementing the income and providing employment to weaker sections of people in rural areas.

As the state of Tamil Nadu is characterized by considerable heterogeneity in agro climate, resource endowments and economic performance, the production function is here carried out at the district level. Of all the districts in Tamil Nadu, Madurai district is one of the frontline districts in the production of milk. Therefore, Madurai district has been selected for the study.
Madurai district is basically agro based and agriculture is the main occupation of the people. It is situated on the banks of the River Vagai. It offers vast scope for dairy farming, which is spearheaded by the Madurai District Co-operative Milk Producers’ Union Ltd, which is popularly known as Madurai Aavin one of the largest dairies in the southern part of Tamilnadu.

There are several studies relating to production and marketing of milk. But no single study has made a comparative analysis of cows and buffaloes in terms of cost and returns of milk production. It is necessary to study the comparative economics of milk production of cows and buffaloes so as to increase milk production.

Hence, the present study is undertaken to analyze and compare the cost and returns of milk production and the constraints faced by the producer and the marketer of milk in Madurai district.

The specific objectives of the study are; to examine the growth and development of Indian dairy industry, to review the structure and functions of the Madurai District Co-operative Milk Producers’ Union Ltd, to estimate the cost and returns structure of milk production between the cows and buffaloes, to analyze the existing distribution and marketing system of Madurai District Co-operative Milk Producers’ Union Ltd, to study the constraints faced by the milk producers and the Madurai District Co-operative Milk Producers’ Union Ltd, and to offer suitable solutions to overcome the identified problems.

The secondary data were collected from the union for a period of five years from 2004-05 to 2008-09. The primary data from the sample members of the sample societies were collected in the year 2008 – 09.
The data were collected from both primary and secondary sources. The primary data were collected from the farmer members, the milk societies and the milk union with the help of a structured Interview Schedule.

The objectives of the study were clearly explained to the respondents in order to solicit their responses and co-operation. The data relating to number of animals, the lactation period, details of yield, value of yield, cost structure of milk production, procurement price, constraints in production, and channels of distribution were collected from the sample respondents.

The data relating to the milk societies and union were collected directly from the officials of Madurai Milk Producers’ Union. A comprehensive, pre-tested schedule was used to collect primary data through the personal interview method.

The secondary data were collected from the Madurai District Co-operative Milk Producers’ Union Ltd,. The source of data from the union includes records from different sections and audited annual reports. Apart from these, necessary information has been collected from various books, journals, published articles and the World Wide Web.

The multi-stage random sampling technique was adopted. The operational areas covered by the Madurai District Co-operative Milk Producers’ Union Ltd, are Madurai and Theni district. The total number of the Milk Producer Co-operative Societies functioning in Madurai district are 484 and in Theni district 369. Of which, five societies of Madurai district namely Melur, Alanganallur, Palamedu, Usilampatti and Sedapatti and five societies of Theni district namely Andipatti, Bodi, Versanadu, Periyakulam, and Thandamanur were selected for the sample study on the basis of the highest volume of milk procurement.
The next stage was the selection of the members from the sample dairy cooperative societies. For the sampling purpose, only those who supplied milk to the society at the time of the study were alone considered.

The number of members registered with the sample societies in Madurai district are 54 in Melur, 72 in Alanganallur, 92 in Palameu, 112 in Usilampatti, 84 in Sedapatti, and the number of members in the sample societies in Theni district are 51 in Andipatti, 57 in Bodi, 64 in Versanadu, 83 in Periyakulam, 48 in Thandamanur.

Out of the 717 registered members of the societies, 30 per cent of the respondents were selected from each societies with the total members being 215. The simple average, Trend value, compound annual growth rate, Chi-Square test, t-test, and the Garrett Ranking Technique were the statistical techniques used in the study to analyze the data.

This study is arranged and presented logically in seven chapters. Chapter I describes the empirical aspects of the study, including the objectives, the methodology used to collect data, the sample parameters and limitations. Chapter II gives the review of the earlier studies relating to production and marketing of milk. Chapter III presents a brief profile of the Indian Dairy Scenario and the growth and development of the Indian dairy industry. Chapter IV analyzes the cost and returns structure of the cows and buffaloes of the dairy farming and the break-even output of dairy farming for cow and buffaloes. Chapter V discusses the existing channels of distribution and marketing system of the study unit. Chapter VI analyzes the constraints faced by the milk producers and the milk co-operative societies and the Union. Chapter VII presents the summary of the findings along with the conclusion and suggestions.
7.2 FINDINGS:

The study reveals that among 351 cows and buffaloes in milk, nearly 255 i.e 72.65 per cent of the cows and buffaloes are in the I, II, and III order of lactation. Only 11 (03.13 per cent) animals are in the VII order of lactation. This shows how the respondents are particular in maintaining the milk yield throughout the year. The percentage in IV, V, VI and VII order of lactation keeps declining in cows and buffaloes. It means that the respondents want to retain cows and buffaloes upto III lactation order. After that the rate of yield starts declining very fast. The percentage recorded after this stage is very meager. It is 10.83, 07.41, 05.98 and 03.13 per cent in IV, V, VI, VII lactations respectively.

The study indicates that the average milk yield per day during the lactation varies from 5.35 litres in cows to 6.10 litres in buffaloes. This variation is because of the lactation period and the quantum of milk yield. The average lactation period for buffaloes is higher than that of cows. The average milk yield is higher in buffaloes which constitutes 1979.53 litres whereas it is lower in cows which constitutes only 1397.14 litres in lactation.

The milk production per day in lactation and in the intercalving periods shows a similar trend. But the milk production per day in intercalving period is less, that is 2.91 litres than the milk production per day 5.05 litres in lactation period due to the dry stage in the intercalving period. The dry stage is found to be minimum of 67 days in the case of buffaloes while it is maximum that is 219 days in the case of cows.
The required mandays for the maintenance of buffalo are higher, that is 95 than cow, which is only 73 mandays. Generally, buffaloes require more mandays than cows. It is because buffaloes require more attention in the maintenance especially feeding, watering, washing and cleaning. It could be deduced from the analysis that more female family labourers and female hired labourers were engaged than male family labourers and hired labourers to take care of cows and buffaloes.

The feeding schedule shows that the buffaloes consume 1687.69 kg (66.85 per cent) of roughages and 836.76 (33.15 per cent) kgs of concentrates respectively. The cows consume 1124.52 (68.66 per cent) kgs of roughages and 513.37 (31.34 per cent) of concentrates. The roughage consumption is more than the consumption of concentrates irrespective of the cows and buffaloes due to higher cost of concentrates. It was observed that the sample respondents rely more on green fodder than concentrates to reduce feeding cost.

The study indicates that the variable costs constitute 80.69 per cent and 83.92 per cent of total cost for the cows and buffaloes respectively during the lactation period. It is found that buffalo has the higher variable cost than that of cow. The difference is due to the fact that the buffaloes require more feeds than cows. The feed cost percentage of buffalo is 60.60 per cent while it is 55.33 per cent in the case of cows. But there is no significant variation in proportion of variable cost to the total cost between cows and buffaloes. Hence, the totals fixed and the variable costs have been increasing in the same proportion for buffaloes as for the cows.
Labour cost is the second major cost, which comes under the variable cost. The labour cost was worked out at 23.63 per cent and 21.59 per cent of the respective total costs for cows and buffaloes.

Among the labour cost, the family labour dominates with 14.86 per cent in the case of cows and 13.78 per cent in the case of buffaloes. It has been observed that in many sample households, dairying is a subsidiary occupation to agriculture. So the households mainly engage their family members for dairy operations and only where it is necessary, they engage hired labour.

The depreciation on animals, on fixed capital and on cattle shed and dairy equipments occupy the first, the second and the third places to the total fixed cost irrespective of the animal. Even though the net cost of production of milk in the case of buffalo is Rs. 21319.65 and the cost per litre was worked out at Rs. 10.77, the net cost of production of milk in the case of cow is Rs. 12264.53 and the cost per litre was Rs.8.78. the cost of milk production per litre is high in the case of buffalo than that of cow both in lactation period and in the inclusion of dry period. When the dry period is also included in the calculation of cost of milk production, the net cost of production per litre for cows and buffaloes increases from Rs. 8.78 to Rs. 10.21 and buffaloes from Rs. 10.77 to Rs. 10.82.

It is observed that the respective cost of one litre of milk of cows and buffaloes was Rs. 8.78 and Rs. 10.83 during the lactation period and with the inclusion of dry period, it was 10.21 for cows and Rs. 10.91 for buffaloes respectively.
During lactation period, the feed costs per litre were Rs. 5.19 and Rs. 6.83 for cows and buffaloes respectively. The next major cost component is labour which is Rs. 2.22 and Rs. 2.43 per litre for cows and buffaloes respectively. The depreciation on cows and buffaloes gets the third rank in the cost at Rs. 0.94 and 0.82 per litre for cows and buffaloes respectively.

When the lactation period and dry period are put together, the average net cost of production per litre is found to be greater for buffaloes than for the cows. This is due to the fact that yield of buffaloes is higher than that of cows.

The study reveals that the average cow milk yield and various component of variable cost such as green fodder cost, dry fodder cost, concentrates, family labour cost and hired labour cost are found to be statistically significant at 5 per cent and 1 per cent level. It indicates that an increase in the use of inputs increases the yield of cow milk and vice versa.

The average buffalo milk yield and various component of variable cost such as green fodder cost, dry fodder cost, concentrates, family labour cost and hired labour cost are found to be statistically significant at 5 per cent and 1 per cent level. It also indicates that the difference in the use of inputs increases the yield of buffalo milk.

The cost of production per litre of milk was high in the case of buffalo than in the case of cow. The cost per litre for cows and buffaloes are varying from Rs. 7.04 for cows to Rs. 8.90 for buffaloes respectively. The cost of production per litre of milk in buffaloes is greater than that of cows because the mandays requirement per animal in the case of buffaloes is found to be higher than in the case of cows.
The cost of production per litre of milk for cows and buffaloes by including the dry period along with lactation period varies significantly. The cost per litre is generally higher with reference to intercalving period than that of the lactation period. On the basis of cost C, the cost per litre of milk is higher at Rs. 10.55 for buffaloes while it is lower at Rs. 9.86 per litre of milk in the case of cows. With reference to all the three cost bases A, B and C, the cost per litre is higher in the case of buffaloes compared to cows. It is due to higher variable cost in the case of buffaloes than in the case of cows.

The gross returns are higher in the case of buffaloes than in the case of cows. This difference is due to the variation in the quantum of milk yield. Since dairy farming is a subsidiary occupation, the sample households are very keen to observe and compare the variable costs with the returns. They try to increase the yield of milk so as to cover at least the variable cost. The result of net returns over variable cost, total cost excluding family labour and net returns over the total cost reveals the same trend as found in gross returns. It is inferred from the results of net returns over total cost that the buffaloes are found to be the most remunerative milch animals compared to cows.

The rate of returns per rupee in all respects shows a better result for the buffaloes than for the cows. Higher cost incurred in the maintenance of buffaloes is found to be the reasons for low rate of return for buffaloes when compared to cows in lactation period. Gross rate of returns recorded is 1.93 rupees in the case of cows whereas it is 1.85 in the case of buffaloes. The cost and returns per milch cow and buffalo by including the dry period, is better in the case of buffalo than that of cow per rupee.
The gross returns are recorded high in the case of buffaloes than in the case of cows. Regarding net returns of cows and buffaloes, and the rate of returns of cows and buffaloes, buffaloes are better than that of cows. It was recorded as Rs. 1.85 in the case of buffalo and Rs. 1.62 in the case of cow.

The break-even output of milk is the lowest in the case of cows which constitutes 393.51 litres while it is found to be the highest in the case of buffaloes which constitutes 548.46 litres during lactation period. Thus, it is observed from the analysis that the safety margin of yield in buffalo is the highest at 72.29 per cent of actual yield while the percentage for cow is 71.83 per cent respectively. It implies that there is no significant variation between safety margin of cow and buffalo milk yield.

The margin of safety in the inclusion of dry period is higher in the case of buffalo than cow. Buffaloes have higher safety margin of 70.76 per cent while it is lower in the case of cows which constitutes only 63.74 per cent. The decline in the safety margin for both cows and buffaloes in the inclusion of dry period is mainly due to the increase in the variable costs per litre both in the case of cows and buffaloes.

The first reason for selling milk to the society by the respondents is the disbursement of payment regularly and the second reason is the possibility of availing loan facility. The third and fourth reasons for selecting milk societies are regular uptake and conventional practice. Problems with the milk vendors, absence of other milk agencies and better price are the fifth, sixth and seventh reasons for the selection of milk societies by the milk producers in the study area.

There is no significant difference between perception of the respondents about reasons of regular payment, for selecting a milk society and Age, Marital status, Educational status, Herd strength, Landholding pattern except Family size and Income of the respondents.
There is no significant difference between perception of the respondents about the reasons of better price, regular uptake and absence of other milk agencies for selecting milk society and age, marital status, family size, educational status, income, herd strength and landholding pattern of the respondents.

There is a significant difference between perception of the respondents about the reasons of conventional practice for selecting milk society and Age, Marital status, and Family size. However there is no significant difference between the perception and Educational status, Income, Herd strength and Landholding pattern of the respondents

There is no significant difference between perception of the respondents about the reasons of Problem with milk vendors for selecting milk society and age, marital status, family size, income, herd strength and landholding pattern except educational status of the respondents.

There is a significant difference between perception of the respondents about the reasons Loan facility offered by the milk societies for selecting milk society and Age, Marital status, and Family size, Educational status, Income, Herd strength and Landholding pattern of the respondents.

The procurement price forms the major components of the charges borne by the co-operative society and it constitutes 65.96 per cent of the consumer’ price followed by Staff overhead charges of 01.23 per cent, Room rent 0.89 per cent, electricity charges 0.51 per cent, Stationery charges 0.64 per cent, and Miscellaneous charges 0.43 per cent of the consumer’ price. The average total cost borne by the milk producer’s society is 69.66 per cent of the average consumer price. The price paid by the milk producer’s union to the milk producer’s society is Rs. 16.66 per liter. The net margin of profit to the society is Rs. 0.29 per litre.
Among the various marketing cost incurred, administration cost is found to be high which constitutes Rs. 0.79 per litre followed by packing cost Rs. 0.70 per litre and skimming cost Rs. 0.10 per litre, processing cost Rs. 0.31 per litre, Tanker transport cost Rs. 0.27 per litre, Input cost Rs. 0.19 per litre Chilling cost Rs. 0.16 per litre and procurement cost Rs. 0.08 per litre respectively. Hence the cost of milk in the channel comes to Rs. 19.93, that is 84.81 per cent of the consumer’s price. The cost of milk at the producer’s union plus profit by removing fat and margin of the milk producer’s union result in the consumer’s price of Rs. 23.50 per litre in this channel.

The study revealed a sum of Rs.8.00 per litre of price spread that is difference between producer price and consumer price. The marketing margin of the milk producer’s union is Rs.3.15 per litre and the average total marketing cost is Rs. 3.98 per litre of milk. It is observed from the study that milk producers got only 65.96 per cent of share in the consumer price, but their profit was only Rs. 3.49 per litre that is 14.85 per cent of consumer price in the marketing of milk.

The main problem faced by the respondents in the marketing of milk to society is the low procurement price with a mean score of 74.49 followed by non availability of loan facilities with mean score of 68.26. High fodder cost and improper treatment (health care) of the milch animal are the third and fourth problems of the respondents.
Non availability of labour and inadequate basic infrastructure facilities are the fifth and sixth problems with a mean score of 59.98 and 59.14 respectively. The seventh, eighth and ninth problems are the low productivity of milk, Lack of cross Breed animals and Delay in Payments, with a mean score of 59.00, 57.69 and 47.65 respectively. It can be inferred from the study that all the respondents are highly dissatisfied with the procurement price given by the society. However it is noteworthy to mention that the respondents opined delay in payment is the last problem of marketing of milk. Therefore, it indicates that most of the respondents are satisfied with the timely payment of procurement price by the society.

There is no significant difference between perception of the respondents about the problems of Low procurement price of milk, Non availability of labour, and Lack of cross Breed animals and individual demographic variables such as age, marital status, family size, educational status, income, herd strength and landholding pattern of the respondents.

There is no significant difference between age, marital status, family size, educational status and income and perception of the respondents about the problems of High fodder cost. However there is a significant difference between herd strength and landholding pattern of the respondents and the perception of the respondents about the problems of High fodder cost.

There is a significant difference between marital status, Family size, Educational status, Income and Herd strength and there is no significant difference between Age and Landholding pattern and perception of the respondents about the problems of delay in payment.
There is no significant difference between age, marital status, Educational status, Herd strength and Landholding pattern and there is significant difference between Family size and Income and perception of the respondents about the problems of low productivity.

There is no significant difference between the perception of the respondents about the problems of lack of sufficient veterinary facilities for milch animal and individual demographic variables such as age, marital status, family size, income, herd strength and landholding pattern except educational status of the respondents.

There is no significant difference between perception of the respondents about the problems of inadequate basic infrastructure facilities and individual demographic variables such as age, marital status, family size, educational status, and landholding pattern except income, herd strength of the respondents.

There is no significant difference between perception of the respondents about the problems of non availability of loan facilities in time and individual demographic variables such as age, marital status, family size, and landholding pattern except income, educational status and herd strength of respondents.

It could be observed from the study that lack of cold storage facilities was the major problem in the collection of milk as reported by all the selected producer’s milk co-operative societies in the area, followed by lack of all weather roads (40%), private trading (30%) and local politics (30%).
7.3 SUGGESTIONS

The researcher recommends the following suggestions on the basis of the analysis of the present study and experience gained during the survey.

It is suggested that better results could be obtained if arrangements are made by the government for the regular supply of green fodder and concentrates at cheaper rates. It is desirable and will be helpful if the government distributes animal feeds and fodder at subsidized rate to milk producers through the Milk producer’s society.

The government should also take necessary steps to reserve adequate acreage of suitable land for raising fodder, in order to arrest the rise in prices.

It is suggested that the government should instruct the banks to give more loans at appropriate time on par with agricultural loan and rate of interest to the people who are involved in dairy development activities especially for the purchase of milk animals.

The milk producer’s union through its milk producer society should provide adequate veterinary care services to milk animals in the study area for enhancing higher level of milk output.

The government should introduce a special scheme for milk producers to construct animal shelters and the cost of shelters should be shared by both the government and milk producers equally, which is necessary to protect the health of the milk animals.

It is observed from the study that there is a significant association between average milk yield and component of variable costs. Therefore the government should provide adequate working capital loan to milk producers through co-operative banks.
The study reveals that most of the respondents are dissatisfied with the procurement price of milk. Therefore in order to ensure a better price for the milk producers, the price of milk should be periodically revised by taking into account the cost of input. The procurement price of milk should be determined by the government in consultation with milk producers’ associations.

The government through veterinary departments should encourage the milk producers to get high breed milch animal for improving milk production.

It is observed from the study that the all sample milk producer’s opined that they suffered from lack sufficient cold storage facilities. Therefore, the government and the milk producer’s union should arrange for sufficient cold storage facilities to the milk producer’s societies.

As milk is one of the highly perishable products, proper road condition is necessary to collect milk from the producer in time for storage. Hence the government through local administration should make necessary arrangements to improve road in all the milk routes.

The government through milk producer’s union should provide necessary milking equipments to the members of the milk producer’s society. The cost of equipments should be borne by both the society and the union from its profits, which reduces cost of investment in fixed asset made by the milk producers.

The milch animal owners should be given necessary education and training by the government to understand and practise more advanced technique and scientific methods in milk production.

The government and Non Governmental Organizations should organize veterinary medical camps frequently for the benefit of milk producers in rural areas to escape from seasonal and epidemic diseases.
Producers got only 65.96 per cent of share in the consumers price, which can be increased by reducing their cost of milk collection from producers to consumer. Therefore, the milk producer’s societies and milk producer’s union should try to control its marketing cost.

Low price of milk is the most important problem of milk producers followed by non availability of loan facilities in time, high fodder cost, lack of sufficient veterinary facilities, non availability of labour, inadequate basic infrastructure facilities, lack of cross Breed animals and delay in payments. Hence, efforts should be made to solve all the constraints.

Lack of cold storage is another main problem faced by milk producer’s co-operative society followed by lack of all weather roads, private trading and local politics. Hence, efforts should be made to solve all these constraints.

While fixing procurement prices, producers’ interests should be given the utmost priority. The producer’s price should at least cover the long-run average cost of milk production and provide a reasonable mark-up.

Studies on cost of milk production and its financial viability should be initiated by Departments of Animal Husbandry or the Dairy Development Boards/Corporations. Such research needs to be carried out in all the major agro-climatic zones and should be repeated at regular intervals of approximately three years to determine whether milk production is profitable or not, and to furnish an objective basis for fixing the producer’s price of milk. The studies should be entrusted to reputed universities/research organizations operating in the regions selected for the studies.
7.4 CONCLUSION

Despite all the problems it faces, the dairy sector holds high promise as a dependable source of livelihood for the vast majority of the rural poor. Liberalization of world trade in dairy products under the new trade regime of the WTO poses new challenges and has opened up new export opportunities for the dairy industry. The dairy sector in India needs to enhance its competitive economic advantage in dairy products in terms of both quality and cost and its credibility in international markets. The role of government should be to direct, coordinate, and regulate the activities of various organizations engaged in dairy development; to establish and maintain a level playing field for all stakeholders; and to create and maintain a congenial socio-economic, institutional, and political environment for smallholder dairy development. A comprehensive dairy development policy must be formulated. Such policy should be an integral part of national development policy and due consideration should be given to its direct and indirect effects on other sub-sectors of the economy and vice-versa.

All the above mentioned suggestions shall certainly pave the way for more milk production with better returns to milk producers and growth and development of dairy sector all over the nation and the study area in particular.
7.5 SCOPE FOR FUTURE RESEARCH

The following are the areas of further research in milk production.

- A comparative analysis of production and marketing techniques of some leading milk producing countries with India can be done.
- A study of production and marketing of milk by products in other states can also be done.
- A study of milk production of different breeds of milch animals may be conducted.
- A study on dairy development in terms of demand and supply aspects can be done.
- A study on marketed surplus and supply functions may be undertaken.
- A study on the performance of integrated milk co-operatives could be taken.
- A study on women’s participation in dairying may be considered.
- A study on changes in livestock composition and the demand for fodder may be undertaken.
- A study may be conducted on impact on dairying on rural employment and income generation.