CHAPTER VII

SUMMARY AND CONCLUSIONS
Dairying occupies an important place in India's rural economy in view of its substantial contribution to the national income. Dairying has a good potential to generate additional income and employment opportunities in rural areas, particularly to the weaker sections, and thereby facilitates the achievement of overall rural development. The success of the Kaira District Cooperative Milk Producers' Union Ltd., in Gujarat state, popularly known as AMUL, which adopted an integrated approach to dairy development simultaneously benefiting the rural milk producers and the urban consumers received a wide acclaim and led the Government of India to launch Operation Flood in 1970 with a view to replicating the Anand pattern dairy cooperatives in all the major milksheds of the country. In Andhra Pradesh, the process of cooperativising the dairy industry started in a modest way with the establishment of the Sangam dairy in Guntur district in 1977 on the Anand pattern. Presently, as many as 16 out of 23 districts in the state of Andhra Pradesh are covered under Operation Flood. The success of Operation Flood depends, in the ultimate analysis, on the impact it has had on various aspects of dairy farming at the farm level. The working of the village level dairy cooperatives and the nature and extent of benefits accrued through them to different categories of the rural milk producers assume great significance in this context.
While there are a number of studies relating to the economics of dairy farming in general, not many studies are concerned with the dairy cooperatives in particular. Further, most of the studies on dairy cooperatives are confined to some specific regions of the country, particularly Gujarat. More so, the available evidence regarding the impact of dairy cooperatives on rural development is quite contradictory which preclude definite conclusions for policy formulations and modifications. Besides, comprehensive studies concerning different aspects of dairy cooperatives are rather limited, particularly in the state of Andhra Pradesh. The present study seeks to examine the working of the village level dairy cooperatives and study their impact on various aspects of dairy farming at the micro level in terms of different benefits derived by various categories of rural milk producers.

OBJECTIVES:

The main objectives of the study are to:

(1) study the working of the sample dairy cooperatives and their relationship with the milk producer members;

(2) examine the impact of dairy cooperatives on milk production, marketing and consumption;

(3) estimate the impact of dairy cooperatives on the costs and returns of dairying for different categories of milk producers;
(4) assess the impact of dairy cooperatives on generation of additional employment for different categories of milk producers; and

(5) suggest some measures for promoting dairying as a self-sustaining enterprise.

HYPOTHESES:

The following constitute the major hypotheses of the study that will be tested for their correctness and validity:

1. While all the categories of milk producers enjoy more or less equal benefits from their dairy cooperatives, the participation of the Scheduled Castes will only be marginal or negligible in the management of the dairy cooperatives at the village level.

2. The dairy cooperatives will have considerable impact on milk production at the household level in terms of changes in the size and composition of milch herd and productivity of milch animals.

3. The dairy cooperatives will help increase the marketed surplus of milk, more so in the case of the landless, marginal and small farmer producers than the others.

4. The dairy cooperatives will not have any adverse effect on consumption of milk and milk products in rural areas.
METHODOLOGY:

The present study was conducted in four villages in two taluks of Guntur district in Andhra Pradesh. Out of these four villages, two villages have each a milk producers' cooperative society of Anand pattern and are referred to as the 'Cooperative Villages', while the other two villages are without such societies or milk collection centres and are referred to as the 'Control Villages'. All the households in these four sample villages constitute the universe of the study which were enumerated on the basis of census survey. The households in each sample village were divided into two broad categories, viz., milk producers and non-milk producers. In the cooperative villages, the milk producers were further sub-divided into members and non-members of the dairy cooperatives. About 40 per cent milk producer households and about 20 per cent non-milk producer households were finally selected for the study giving proportionate representation to the five landholding size and three caste groups in each sample village on the basis of stratified random sampling method. On the whole, 201 milk producer households and 162 non-milk producer households were covered in the study.

The primary data were collected from the sample households by administering a well-designed interview schedule, the reference period being the agricultural year
The primary data were processed with the help of a computer and suitable statistical tools and techniques were applied.

LIMITATIONS OF THE STUDY:

There are two major limitations in the present study. First, published data on certain precise indicators such as the number of milch animals and milk production and baseline data or longer time series in the villages are not available. In view of this, only two broad indicators, viz., similarity in agro-climatic conditions and size of the village population, were used to ensure comparability between the cooperative and the control villages. Therefore, the cooperative and the control villages are not strictly comparable in all respects. However, in the absence of a better alternative, this method was adopted in this study to measure the impact of the dairy cooperatives. Secondly, the primary data were collected by way of personal interview from the heads of the sample households. Most of these persons are illiterate and hence the data provided by them on costs and returns of dairying, household income and expenditure and other quantitative aspects can only be termed as approximate but not accurate. These limitations may be kept in mind while evaluating the results of the study.
DAIRY DEVELOPMENT UNDER OPERATION FLOOD:

Dairy development has made significant strides in India under Operation Flood through dairy cooperatives. Further, Operation Flood has been rightly acclaimed as the usherer of white revolution in the country. In Andhra Pradesh, dairy development has registered a remarkable progress under Operation Flood as evidenced by a spurt in milk procurement and milk sales in the state, as also by an increase in the number of the village level milk producers' cooperative societies (MPCGs) formed and the number of milk producer families benefited.

However, regarding the implications of Operation Flood for the rural economy in general and dairy development in particular the available evidence has been quite contradictory. It may be mentioned here that most of the studies concerning Operation flood suffer from lack of empirical and convincing evidence. Hence, there is a need for more systematic and comprehensive studies both at the macro level and at the micro level in order to arrive at definite conclusions in this regard.

COOPERATIVE Dairying in Guntur District:

An analysis of the land utilization pattern and the cropping pattern in Guntur district showed that the district, with a relatively higher proportion of net irrigated area when compared to the state as a whole, and
with a large area under the cereals and millets and pulses (which yield fodder as a byproduct) and cotton and oil seeds, offer favourable conditions for the promotion of dairy development. Further, the predominance of buffaloes in the bovine population of Guntur district coupled with a higher lactating efficiency of she-buffaloes as compared to cows provide ideal conditions for dairy development. Besides, the district is better endowed in terms of the availability of livestock and veterinary services when compared to the state as a whole. Thus, it appears that Guntur district has rightly been selected first in the state for replicating the Anand pattern under Operation Flood.

The establishment of Sangam dairy has signified the dawn of a new era in the field of dairying in Guntur district. This dairy, under the management of the Guntur District Cooperative Milk Producers' Union Ltd., made rapid progress as evidenced by a four-fold increase in the number of MPCSs formed, a nine-fold increase in the number of milk producer members in these societies, a four-fold increase in the quantity of milk procured and a two-fold increase in the quantity of milk sold locally within the district between 1978-79 and 1985-86. Further, the Union has been involved in the manufacture of various milk products and supply of milk to the urban consumers in Hyderabad and
Secunderabad. The Union also supplies milk to Mother Dairy, Calcutta in order to fulfil the requirements of the National Milk Grid. More so, the Union continues to make profits throughout. Besides, the union has been incurring huge costs on the provision of various facilities/services under its Technical Inputs Programme with a view to improving the breeding, feeding and management aspects of dairying. As a result, the milk producers are given a chance to improve their knowledge and awareness regarding scientific aspects of dairying.

The contribution of Sangam dairy to the economy of Guntur district has indeed been great. The most important contribution of the dairy has been the provision of an assured and regular market for milk. Because of this, every year the milk producers in the district are earning huge amount of money for their milk. Thus, the establishment of Sangam dairy resulted in an increased cash flow in the district. Further, the dairy provided direct employment to about 1000 persons out of which 729 were regular employees and others were working on dairy wages. Also, more than 2000 persons got employment in the village level dairy cooperatives. In addition to this, the dairy provided indirect employment to about 200 persons engaged in the transportation of milk. Besides, as a result of an increase in the milk production activities at the farm
LEVELS OF LIVING OF THE SAMPLE HOUSEHOLDS:

The levels of living of the milk producers were substantially better as compared to the non-milk producers both in the cooperative and the control villages. Further, while the milk producers in the cooperative villages were generally leading a higher standard of living as compared to their counterparts in the control villages, the levels of living of the non-milk producers were more or less similar both in the cooperative and the control villages. The expenditure pattern of the sample households revealed that the total consumption expenditure, expenditure on milk and milk products, expenditure on all the food items and expenditure on non-food items were all higher for the milk producers as compared to the non-milk producers both in the cooperative and the control villages.

WORKING OF THE SAMPLE DAIRY COOPERATIVES:

Regarding the working of the sample dairy cooperative societies, it was found that both these societies made considerable progress in terms of an increase in membership, milk procurement and payments made to the milk producers over a period of time in their respective villages. While the Chivalur society could save about Rs.40,000 and construct its own building at a cost of Rs.80,000 in 1986 under the Telugu Grameena Kranthi Patham of the Government.
level, a sizeable number of unemployed and underemployed persons in rural areas were enabled to gainfully employ themselves in various activities connected with dairying. Therefore, it may be observed that Sangam dairy has made a significant and all-round progress and has been said to have emerged as Anand for South India.

**DISTRIBUTION OF LAND AND MILCH ANIMALS IN THE SAMPLE VILLAGES:**

With regard to the ownership of land and milch animals in the sample villages, it was found that as compared to land, milch animals were more equitably distributed among different caste groups in all the four sample villages. A positive relationship could be noticed between the percentage of milk producer households and landholding size, perhaps due to complementarity between crop farming and dairy farming. Further, the landless and the marginal farmers accounted for a greater proportion of milch animals as compared to the other landholding size groups in all the sample villages. The percentage of milch animals owned by these two groups was, however, lesser in the cooperative villages (53% in Krishnayapalem and 63% in Chivalur) as compared to the control villages (65% in Borupalem and 92% in Godavarru). Thus, as compared to land, milch animals were more equitably distributed among the different landholding size groups, particularly the landless and the marginal farmers, and this was more pronounced in the control villages than in the cooperative villages.
of Andhra Pradesh (the latter contributing 50 per cent of the total cost), the Krishnayapalem society could save about Rs. 12,000 by 1986 which was kept in fixed deposit with the Sangam dairy.

The composition of membership of the sample dairy cooperatives revealed an exclusive bias in favour of the other (forward) castes. While Reddys (OC) accounted for 70 per cent of the total members in the Chivalur society, Kammas (OC) accounted for 80 per cent of the total members in the Krishnayapalem society. On the whole, 55 per cent of the milk producer households were having membership with the dairy cooperative in Chivalur, the corresponding figure being 65 per cent in Krishnayapalem. However, not even one out of 39 S.C. milk producer households had membership with the Chivalur dairy cooperative, while only two out of 21 S.C. milk producer households had membership with the Krishnayapalem dairy cooperative. Further, as many as 95 per cent and 45 per cent sample non-members in Chivalur and Krishnayapalem respectively were found to be supplying milk to the dairy cooperative in their villages. Besides, about 50 per cent of the non-members in the Chivalur society and 25 per cent in the Krishnayapalem society derived certain benefits like free veterinary aid, free medicines, etc. While lack of awareness about the importance of membership and the procedure to become a member and indifference on
their part were the main reasons advanced by a majority of the non-members for not joining the dairy cooperative in Chivalur, their counterparts in Krishnayapalem did not become members due to lack of surplus milk and milch animals throughout the year. Further, while about 70 per cent non-members in Chivalur expressed their willingness to join the dairy cooperative, as many as 95 per cent non-members in Krishnayapalem were not willing to join the dairy cooperative because they were not in a position to maintain milch animals regularly.

Thus, even though there was economic participation by a majority of non-members, particularly in the Chivalur dairy cooperative, they did not enjoy any say in the management of the society. It is important to note that majority of these non-members belonged to the lower castes in the society, particularly the Scheduled Castes. It appears that while these non-members were given a free hand in supplying milk to the sample dairy cooperatives along with the members, the leadership of the concerned societies did not evince much interest in enrolling them as full-fledged members, perhaps due to fear of losing control over the management of the societies. Thus, the hypothesis that 'while all the categories of milk producers enjoy more or less equal benefits from their dairy cooperative, the participation of
the Scheduled Castes will only be marginal or negligible in the management of the dairy cooperative at the village level' holds good in respect of both the sample dairy cooperatives.

While nearly two-thirds of the members joined their dairy cooperatives on their own, the leadership of the societies persuaded about 28 per cent of the members to join the dairy cooperatives. However, only less than half of the members in the Chivalur society were aware of the basic principles of cooperation, the corresponding figure being slightly higher at 75 per cent in the Krishnayapalem society. Further, elections are not held so far in both the societies and the Board of Directors are elected unanimously. Hence, the leadership of the dairy cooperatives is monopolised by certain influential persons. More so, only 32 per cent members in Chivalur and 49 per cent in Krishnayapalem have ever attended the General Body meeting of their dairy cooperative. Besides, only about 12 per cent members have ever participated in the discussions at the General Body meetings. It was learnt that even the General Body meetings are not held regularly.

Because of these reasons, the true spirit of starting the dairy cooperatives does not seem to have been realised to a considerable extent in the sample villages. The sample dairy cooperatives tend to serve merely as collection
centres for milk and channels for input supply. Even though a majority of the members were found to have derived certain benefits like free veterinary aid, free medicines, supply of balanced cattle feed, A.I. facility, supply of fodder seeds at subsidised prices, etc., from their dairy cooperatives, they were not participating effectively in the management of their societies because of their indifferent attitude and lack of commitment arising out of their ignorance about various aspects of the dairy cooperatives.

Therefore, concerted efforts must be made to educate the members about different aspects of their dairy cooperatives to facilitate their active and meaningful participation. Besides, all the milk producers in the villages, particularly those belonging to the lower castes, must be enrolled as full-fledged members of the dairy cooperatives. Only when a majority of the members remain committed, the true spirit of starting the dairy cooperatives can be realised.

**IMPACT ON MILK PRODUCTION:**

The establishment of MPCSs in the cooperative villages appears to have resulted in a spurt in milk production activity as revealed by a higher percentage of the milk producer households in the cooperative villages (50.4% and 39.6% in Chivalur and Krishnayapalem respectively) when
compared to the control villages (21.9% and 37.7% in Godavarru and Borupalem respectively). However, the percentage of milk producer households among the SCs and STs was more in the case of the control villages as compared to the cooperative villages. Further, the number of milch animals and animals-in-milk were also found to be more in the case of the cooperative villages as compared to the control villages.

The establishment of the dairy cooperatives appears to have had a positive impact on the milk production at the household level as reflected by the fact that the number of milch animals, the number of animals-in-milk and the proportion of animals-in-milk to total milch animals as also the milk production per household were all higher for the sample households in the cooperative villages as compared to their counterparts in the control villages. Besides, while about 80 per cent of the milch animals maintained by the sample households were non-descript both in the cooperative and the control villages, the quality of milch animals was found to be relatively better in the cooperative villages as compared to the control villages. Further, while a positive relationship could be established between the landholding size, social status of caste and the herd size on the one hand and the milk production per household on the other, no definite relationship could be established in respect of the above variables and the productivity of milch animals. This
shows that the productivity of milch animals appears to be neutral to the economies of scale. However, even the productivity of milch animals was higher by about 39 per cent in the cooperative villages than in the control villages. Thus, the hypotheses that 'the dairy cooperatives will have considerable impact on milk production at the household level in terms of changes in the size and composition of milch herd and productivity of milch animals' holds good in the sample villages.

IMPACT ON MILK MARKETING:

Regarding the impact of the sample dairy cooperatives on milk marketing, it was found that the marketed surplus of milk per household both in terms of the quantity and as a proportion of total milk production was higher in the cooperative villages as compared to the control villages. Further, as much as 91 per cent of milk in the cooperative villages was marketed through the dairy cooperatives. While the marketed surplus of milk was positively related to the landholding size, social status of caste and the herd size, a negative relationship could be established between the proportion of the marketed surplus to total milk production on the one hand and the landholding size, social status of caste and herd size on the other. These findings lend support to the hypothesis that 'the dairy cooperatives will help increase the marketed surplus of milk, more so in the
case of the landless, marginal and small farmer producers than the others'.

The price realised per litre of milk sold by the milk producers was higher by 11 per cent in the cooperative villages than in the control villages. Further, the gross revenue per household from the sale of milk and milk products was higher by 139 per cent in the cooperative villages than in the control villages. The marginal farmers benefited most in terms of the gross revenue per household from milk and milk products which was more than three times higher in the cooperative villages as compared to the control villages.

**IMPACT ON THE CONSUMPTION OF MILK AND MILK PRODUCTS:**

Regarding the impact of the dairy cooperatives on the consumption of milk, it was found that the quantity of milk retained for self consumption was higher by about 18 per cent in the cooperative villages than in the control villages. However, the quantity of milk retained for self consumption was lesser in the case of the landless households in the cooperative villages than their counterparts in the control villages. Further, in terms of the proportion to the total milk produced, it was higher by about 15 per cent in the control villages than in the cooperative villages. Thus, in the cooperative villages, the milk producers were retaining a higher quantity of milk for their consumption and at the same time maintaining a higher marketed surplus of milk as compared
to their counterparts in the control villages. This may be perhaps due to an increase in the scale of milk production in the cooperative villages because of the availability of assured market for milk.

In the case of the milk producers, the per household and the per capita expenditure on milk and milk products were higher by 36 per cent and 49 per cent respectively in the cooperative villages than in the control villages. Even in the case of the non-milk producer households, the per household and the per capita expenditure on milk and milk products were higher by 37 per cent and 33 per cent respectively in the cooperative villages than in the control villages. Further, while the expenditure on milk and milk products formed about 14.3 per cent and 8.4 per cent of the total consumption expenditure in the case of the milk producers and the non-milk producers respectively in the cooperative villages, the corresponding figures were lower at 13.4 per cent and 5.9 per cent respectively in the control villages. These findings convincingly prove the hypothesis that 'the dairy cooperatives will not have any adverse effect on the consumption of milk and milk products in rural areas'.

The results of the multiple regression analysis showed that the per capita consumption expenditure was the single most significant factor affecting the consumption of milk and milk products in respect of the milk producers as well as the
non-milk producers both in the cooperative and the control villages. While milk production per household was also found to be significant affecting the consumption of milk and milk products in the case of the milk producer households in the cooperative villages, the landholding size was found to be having a significant negative impact in the case of the milk producers in the control villages. In the case of the non-milk producers, apart from the per capita consumption expenditure, the social status of the caste and the landholding size were also found to be having a significant positive impact on the consumption of milk and milk products. Thus, while the landholding size and the social status of the caste did not have any positive impact on the consumption of milk and milk products in the case of the milk producers, these two factors were found to have exercised a significant positive impact on the consumption of milk and milk products in the case of the non-milk producers in the sample villages.

IMPACT ON COSTS AND RETURNS OF DAIRYING:

Regarding the costs and returns of dairying, it was found that the maintenance cost (excluding family labour) of dairying per household as also per milch animal were higher by about 58 per cent and 38 per cent respectively in the cooperative villages than in the control villages. The maintenance cost of dairying was substantially higher in
respect of all the landholding size, caste and milch animal holding groups in the cooperative villages as compared to their counterparts in the control villages. Further, the net returns (excluding family labour) from dairying per household as also per milch animal were also higher by 261 per cent and 217 per cent in the cooperative villages than in the control villages. More so, the net returns (excluding family labour) from dairying per milch animal per annum were higher for the landless, marginal and small farmers (Rs.317, Rs.780 and Rs.527 respectively) as compared to the medium and big farmers (Rs.204 and Rs.98 respectively) in the cooperative villages. In the control villages also the landless, marginal and small farmers derived higher net returns per milch animal per annum as compared to big farmers. Even the maintenance cost per milch animal was also found to be lesser for the landless, marginal and small farmers as compared to other farmers both in the cooperative and the control villages. Thus, the landless, marginal and small farmers were not less efficient in dairying as compared to others in terms of costs and returns per milch animal.

The net returns from dairying per household were higher for all the landholding size, caste and the milch animal holding groups in the cooperative villages as compared to their counterparts in the control villages. The net returns
from dairying per milch animal were also higher in respect of the marginal, small and big farmers, all the caste groups and all but the lowest milch animal holding group in the cooperative villages as compared to their counterparts in the control villages. Thus, the dairy cooperatives seem to have provided the necessary impetus for the milk producers in the cooperative villages to maintain a higher number and better quality of milch animals which resulted in an increased investment in dairy enterprise and enabled them to increase their incomes.

As regards the factors affecting the returns from dairying, the multiple regression analysis showed that the cost of green fodder and the cost of the concentrate feeds had a significant positive impact both in the cooperative and the control villages, while the number of animals-in-milk also had a significant positive impact affecting the returns from dairying in the cooperative villages.

The economics of milk production were analysed by taking into account four production factors, viz., size of milch stock, level of milk production, feed efficiency and labour efficiency. It was revealed that the percentage of milk producers rated efficient in all the four production factors was substantially higher in the cooperative villages (18%) as compared to the control villages (6%). However, the percentage of milk producers not efficient in any of the production factors was slightly higher in the cooperative
villages (23%) as compared to the control villages (20%). It was also revealed that the net cost of dairying per litre of milk produced showed a declining trend with an increase in the rating of the milk producers as efficient both in the cooperative and the control villages. Further, the average size of milch stock, the level of production and the net returns from dairying per household increased with an increase in the rating of the milk producers as efficient both in the cooperative and the control villages. More so, the milk producers in the cooperative villages were found to be producing milk at a lesser cost and deriving higher returns from dairying as compared to their counterparts in the control villages.

Regarding the profitability of dairy farming, it was found that the percentage of milk producers realising profits was markedly higher in the cooperative villages (81%) as compared to the control villages (68%). Thus, about 32 per cent milk producers in the control villages and 19 per cent in the cooperative villages were incurring losses in dairy enterprise. The main reasons for the losses incurred by these producers could be traced to higher cost of milk production as compared to market price of milk on account of inefficient management of feed and labour, lower proportion of animals-in-milk to total stock and lower levels of milk production. Besides, the margin of profits earned by the 'profit group' of milk producers were also not
high enough to make them self-sufficient through dairying, especially when the imputed cost of family labour is taken into account. Dairying can be economical only if the cost of production can be reduced. In order to achieve this, there is need to encourage the milk producers to step up their levels of production by way of supplying concentrate feeds at subsidised prices, helping them to upgrade their stock and, providing remunerative prices for their milk. Also, the milk producers should devote more attention to the management practices which can add to the performance of their milch animals. Some efforts have already been initiated by the dairy cooperatives in this direction which need to be intensified for achieving better results.

IMPACT ON EMPLOYMENT GENERATION IN DAIRYING:

Regarding the impact of the dairy cooperatives on employment generation at the farm level, it was found that the employment generated in dairying in terms of mandays per household and per milch animal were markedly higher in the cooperative villages (178.80 mandays/annum and 93.38 mandays/annum respectively) as compared to the control villages (139.44 mandays/annum and 83.68 mandays/annum respectively). Further, the family labour contribution was as much as 87 per cent of the total labour employment in dairying in the cooperative villages, the corresponding figure being still higher at 92.5 per cent in the control
villages. Thus, the dairy cooperatives were found to have contributed to the commercialization of dairy enterprise in the cooperative villages as evidenced by the higher employment of hired labour in dairying in the cooperative villages when compared to the control villages.

However, in respect of the landless and the marginal farmers, the employment in dairying was accounted for by the family labour alone both in the cooperative and the control villages. Further, the participation of the economically active family members, both males and females, in dairying was higher in the cooperative villages as compared to the control villages. More so, the participation of females was particularly higher in respect of the landless labourers, marginal and small farmers as compared to their counterparts in the control villages. Thus, the sample dairy cooperatives were helpful in generating additional employment for the milk producers, particularly the family labour, and more so in respect of marginal farmers and landless agricultural labourers as compared to others.

Regarding the factors affecting employment generation in dairying, the multiple regression analysis revealed that the total dairy assets per farm in the cooperative villages and the number of animal units per household and the average expenses on feeds, fodder and medicines per milch animal in the control villages were found to be significant affecting the employment in dairying.
APPLICATION OF THE DISCRIMINANT FUNCTION:

The discriminant function analysis, taking into account five most important variables, viz., size of milch stock, milk production per household, net returns from dairying, employment in dairying and proportion of animals-in-milk to total stock, conclusively proved that not only the milk producers in the cooperative villages were significantly different from the milk producers in the control villages but the members of the dairy cooperatives were also significantly different from the non-members within the cooperative villages. Thus, the sample dairy cooperatives appeared to have had a significant positive impact on different aspects of dairy farming benefiting the milk producers in general and the members of the dairy cooperatives in particular in the villages covered by them.

POLICY IMPLICATIONS:

In the light of the findings of the empirical study, the following policy implications may be drawn in regard to the promotion of dairy development in India in general and in the state of Andhra Pradesh in particular.

1. The present policy of the formation of the dairy cooperatives on the Anand pattern appears to be most relevant in view of the positive contributions made by the sample dairy cooperatives for
the promotion of dairy development at the village level.

2. The working of the dairy cooperatives should be specifically oriented towards building up proper awareness and confidence of the members regarding the basic tenets of cooperation, which would facilitate their effective and meaningful participation in the management of their societies.

3. Member education campaigns through demonstration methods, regular flow of information from the leadership to the members regarding the affairs of their societies and proper supervision over the paid secretaries of the dairy cooperatives by the leadership appear to be the pre-requisites for ensuring successful and effective functioning of the dairy cooperatives at the village level.

4. The milk producers need to be imparted with the necessary training in scientific aspects of dairying, viz., breeding, feeding and management in order to improve their efficiency in milk production.

5. There is an urgent need to step up the efforts such as supplying balanced cattle feed at subsidised prices to the milk producers, providing remunerative prices for their milk and helping them to improve
their levels of production by upgrading their stock, already initiated by the dairy cooperatives, in order to make the dairy farming a self-sustaining and profitable enterprise.