CHAPTER-VII

CONCLUSIONS, PROBLEMS AND RECOMMENDATIONS
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In the present study dairy farming in Osmanabad district: a geographical study has been completed in the above chapters. Through the above study chapterwise conclusion has been present and problems of PMPCS and milk producer as well as ODMPCU in the development of dairy farming in the district. Recommendation has been suggest for the development of dairy farming in the Osmanabad district.

For the research study in year 1981 to 2001 periods has been selected to present the condition of dairy farming in the district. As well as total collection and distribution of milk and PMPCS and their membership population current data has been taken as per the survey and availability of annual record of dairy development officer and Osmanabad district milk producer co-operative union Osmanabad.

In 1985 total milk production of world are 504 billion tonne and in 2004 it is 612.1 billion tonne. Share of India’s milk production in world milk production was 8.7 percent and in 2004 it is 14 percent. Growth rate of India’s milk production has been continuously increasing.

Share of agriculture and livestock sector in GDP has been continuously decreasing. In 1999-2000 GDP was 1786526 crore and there in share of agriculture and livestock sector 22.93 and 5.30 percent. But in 2007-2008 share of agriculture and livestock sector in GDP are 16.62 percent and 4.40 percent which has been decreased.
During the five year plan the milk production has been increased, as well as primary milk producer co-operative societies and its membership population also increased. Milk supplying network has been development in advance milk chilling and processing centers also increased and dairy farming developed in the above five year plan.

One of the challenging aspects of dairy development in a tropical and subtropical country is the movement of milk over long distances. In operation flood, this has been made possible through the operation of about 140 instated rail milk tankers each with a capacity of 40000 liters. Supplement by another 25 rail tankers of 21000 liter capacity. Approximately 1000 other insulated road milk tankers operate throughout the country as well.

A number of programmer and policies have been played a role in this success certainly the introduction of modern technology both at the farmer level and in the processing of milk and product has been important. It has demonstrated how food aid can be used to enhance domestic production if administered with care. Some of the dairy plants set up by NDDB during the implementation of operation flood are based on latest technology and are comparable to those in advance countries.

Finally most important, operation flood has demonstrated that India’s rural population process enormous energy. Initiative and wisdom all that was needed an opportunity to control the resource that it had created with the talent, resources and experience that emerged.

Osmanabad district can be categorized into three divisions. The greater portion of the district lies on the triangular Balaghat Plateau. This
district is covered with various small hills and offshoots of the Balaghat. Sloping of the district, the South and east forming the water divide between the Godavari and Bhima valleys. Balaghat range and hilly area is not suitable for agricultural activities. It is difficult to carry out the agricultural activities over the hilly area due to the hard topography and absence of fertile soil.

In the Osmanabad district, no systematic work has been carried out.

The agricultural activities are mainly concentrated river basins of Manjara, Terna, Sina, Harni, Bori, Benithora and plateau region, such as Bhum, Kallam, Osmanabad and Tuljapur tahsils. In the region, cropping pattern is generally dependent upon physical factors and socio-economic conditions.

As far as drainage pattern of the district is concerned, it is of ordinary dendrite pattern because rivers and streams have developed a branch like system. Generally, rivers of the area are from North West to South-east and from North to South. Manjara, Terna, Bori, Harni, Sina and Benithora play a crucial role in the development of agriculture region. In summer season, most of the rivers become dry.

As far as climatic condition of the study region is concerned, it is generally dry except during the South-west monsoon. Climate plays an important role in affecting the characteristics of agricultural economy in a region. On some occasions the minimum temperature drops down to about 4°C or 5°C. The period from about the middle of February to the beginning of the South-west monsoon season is one of continuous rise in temperature.
As far as rainfall of the study region is concerned, rainfall is the dominant single weather element influencing the intensity and location of farming systems on the farmer’s choice of enterprises. On an average there are 51 rainy days. July gets the heaviest rainfall in the North-east, while the retreating monsoon in September becomes more important in the east. There is fluctuation year to year in the distribution of monsoon rainfall. The variability of rainfall ranges from 26.98% to 39.58% in the study region. It is above 30% in Kallam, Tuljapur, Bhum and Paranda tahsils hence there is no guarantee of crops in these tahsils.

As far as soil of the study region is concerned, farming is a business and good soil is part of the farmers stock in trade. Soil is very rich in organic matter. Calcium carbonate is very high but it varies from 5.2% to 19.20% in the study region. It is necessary to increase the fertility of soil by using compost fertilizer on large scale.

A large portion of the region is covered by medium black soils. The deep black soils are found along the banks of Manjara, Terna, Bori and Benithora soils have light grey brown to grey brown colour on the surface, clayey texture and blocky structure.

As far as natural vegetation is concerned, it is most important from the view point of rainfall distribution and the fertility of the soil. Osmanabad district has scattered types of trees. There is very little trees cover over Balaghat plateau region.

As far as irrigation facilities in the study region are concerned, there are 4 major projects, 16 medium projects and 62 minor irrigation schemes in the study region. Above 3351 hectares and about 38887 land comes
under irrigation due to the 4 major and 16 medium projects, sometimes these projects are having very little water in summer season due to the lack of storage of from monsoon water. The major project is not important in the study area, and medium projects have changed agricultural pattern in the area of their jurisdiction.

As far as wells facilities in the study region is concerned, there is great demand for irrigation wells due to the paucity of other irrigation facilities. Irrigation wells increased from 26175 to 36698 during the period of investigation. Out of the total wells, nearly 33563 wells were in use and 3135 wells were not in use. Most of the wells of the study region become dry in summer season. They are not providing water for irrigation in summer season. Therefore, crops are not raised in the study area in summer season except the irrigated tracts.

As far as population of the study region is concerned, the population and growth rate of population of Osmanabad district is increasing day by day; hence it is very essential to increase the agricultural production.

As far as population density of the study region is concerned, Osmanabad district had 170 population densities during the period of 1991. Density of Osmanabad district is increase during the period of 10 years (198). The population density varied from tahsil to tahsil, the highest population density 277 was recorded in Osmanabad tahsil whereas the lowest population density 147 was experienced in Washi tahsil. Population pressure on land is increased in every tahsil during the period of investigation.
As far as literacy rate in the study area is concerned, below 65% literacy was found in Paranda, while 65% to 70% literacy was recovered in Bhum, Washi, Tuljapur, Lohara and Omerga Tahsils, above 70% literacy was experienced in Osmanabad and Kallam tahsils in 2001. Literacy of Osmanabad district is increased in every talasil during the period under study. This indicates good sign for the development of agriculture of the region. But the economic condition of the farmer has not improved to a greater extent in the study region.

As far as cattle and buffaloes are concerned in the study region, the cattle were first in livestock in all tahsil and buffaloes are the second source of milk in the study region. Out of the total livestock below 50% cattle was noticed in Paranda and Tuljapur, whereas 50% to 60% cattle was found in Bhum, Osmanabad, Lohara, Washi, Kallam and Omerga tahsils in 2005-06. And the highest buffaloes 40579 (23.30%) was experienced in Osmanabad tahsil whereas the lowest buffaloes 6348 (6.93%) was recorded in Paranda tahsil in 2005-06.

As far as sheeps and goats in the study region is concerned, role of sheeps in all tahsils in livestock ranges from 2.19% to 8.07% in 2005-06. Environmental condition is quite favorable for sheep rearing in the study area. Sheep rearing can improve the economic condition of the farmers. There is very little scope for woollen textiles in the study region.

Goats are the buffaloes of poor family particularly small farmers, agricultural labourers and landless people as the only source of milk. Goat was ranking second in total livestock after cattle in all tahsil in 2005-06. Goats share in total livestock varies from 18.37 to 46.06 in all tahsils.
As far as Chemical fertilizers in the study region are concerned, they have increased in the study region. Use of chemical fertilizer increased by 02780 M.T. Farmers get relating quick returns on fertilizers and the capital needed is much less than that required for mechanical contraptions and other improved techniques that may be though for raising production. Hence training of farmers and instituting programmes of ‘Laboratory to land’ designed to demonstrate how to use fertilizers and good seed to maximum. Advantage could be strong motivating factors in encouraging other changes perhaps the most effective method of telling farmers the value of fertilizers is by means of a large number of field trials.

As far as Credit and Finance in the study region is concerned, agricultural credit finance has remained vital issues in the adoption of modern agricultural technology. There are 469 primary credit societies in the study region (2005-06) Recovery loan is very poor in the study region. It is essential to increase the recovery amount by increasing the output of the agriculture.

As far as market facilities in the study region is concerned, the marketing is one of the most important factors greatly stimulating agricultural production of an area and a farmer always need on efficient marked where into all his surplus produce. The prices of agricultural commodities have been increased in the period of investigation.

The prices of gram, tur, udid, bajara, groundnut, mug, wheat, jawar increased during the period under study. Farmer’s economical condition is not so good the living standard of the farmer is very poor in the study region. Most of the farmers are facing financial problems. If we considered
the price index, the price of agricultural commodities is not high to fulfill the needs of the farmers.

As far as transport facilities in the study region are concerned, transport plays an important role in the development of modern agriculture. Transport facilities are the links between the producer and the consumer. The total length was 6534.04 km as on 31st March 2006. Out of the length 2139.8 kms was village roads. It means that road system is excellent in the study area and definitely, it will support to the agricultural development.

As far as communication facilities are concerned, there were 289 post offices and about 46388 telephone connections in the study region. It means that communication facilities are also sufficient for the development of small scale units.

As far as electricity facilities are concerned, it is one of the important part of infrastructure facilities and there is adequate supply of electricity in most of the region. During 2005-06 about thousand kilowatt hours electricity was used in entire study region.

Out of the total consumption of electricity 69.44% was used for agriculture in the period under study (2005-06). The electricity condition is not good, hence all farmers are facing electricity load shedding problem.

As far as general landuse in the study region is concerned, due to the location and physical setting, the general landuse pattern of the region under study differs from tahsil to tahsil. The existing pattern of landuse have been resulted from a process of land exploitation within the frame of physical socio-economic complex and modified by the expansion of
irrigation and the growth of population. There is a change in geographical factors in the entire study region. Physiography, soil types, rainfall and geology all these factors played an important role in determining the agricultural practices.

Osmanabad District Breeds of milch animals are important as view of milk production and pulling work. In the district after the observation various types of milch animal has been seen and these cows are Devani, Khillar, Dangi, Gawalr, Krushnakatbi, Gir, Tharparkar, and Nagpuri, Pandharpuri, and murha buffalos has been generally found in the district. As well as in crossbreed cows, Jersy, cows are mostly finding all other crossbreed cows. In all indigenous cows lalsindhi give the 5450 Litre milk in milking period. As well as Holeistein frezian gives the 6150 liter milk in milking period, and in buffalos Murha a buffalo gives the 3000 to 4500 liters milk in milking period.

In 1956 Growth rate of cattle was 2.18 percent, Buffalos growth rate was 3.16 percent and total bovine growth rate was 2.46 percent, sheep, goat, and pig growth rate was 0.5, 15.57, 33.33 and 11.36 percent. But males and donkeys growth rate decreased by 10, and 15.38 percent so all over growth rate of total livestock was 4.71 in 1956.

In 1961 growth in percent of cow, 10.64 Buffalos percent are 14.03 and total bovines growth rate are 11.03 percent cattle’s growth rate are 8.46 percentage. Buffalos 10.34 percent and total bovines growth rate are 11.03 cattle’s growth rate are 8.46 percent, buffalos 10.34 percent, and total bovines growth in percent has been increased by 8.93 percent sheep, goats, camels pigs growth rate in percent has been increased 2.29, 9.92,
12.5, 6.12. But compare to 1956 livestock census we find us sheep’s growth rate increased by 1.79 percent, goats, camels & pigs growth rate decrease by 7.45, 20.83, 5.24. Horse and ponies share are negative -13.13, donkeys and male growth in percent are zero, and total livestock growth rate are 9.39 percent this growth rate 4.6 more than compare to 1956 livestock census.

In 1966 growth rate in percent of cow, buffalos and total bovines are 0.34, 3.51, and 1.05. But compare to 1961 growth rate in percent of cow, buffalo and total bovines has been decreased by 10.3 percent, 10.52 percent, and 10.34 percent and the growth rate of sheep, goats, camel are 4.97, 6.07 & 11.11 percent. But compare to 1961 livestock census sheep growth rate in percent has been increased by 2.68 and goats growth rate in percent has been decreased by 3.85 percent and camels growth rate has been decreased by 1.39. As well as Horse and Ponies, pig growth rate are negative -15.38, -3.84, and growth rate mule and donkey are 0, in this way total livestock growth rate in percent 2.59 but decreased by 6.8 compare to 1961 livestock census.

Growth rate in percent of cattle’s and buffalo’s and total bovines are 1.19, 8.30, 2.84. But compare to 1966 cattle’s, buffalo’s and total bovines growth rate has been increased 0.85, 4.79, 1.78 percent as well as sheep growth rate has been decreased negative -2.84 and goat growth rate in percent are 4.48, goats growth has been decreased by 1.59 compare to 1966. Horse and ponies growth rate has been decreased that is -18.18 but pig growth rate are pig which has been increased by 38 percent. Donkey
growth rate decreased by -9.0 and total livestock growth rate 2.76 percent which has been increased by 0.17 last livestock census.

Growth rate in percent of cattle and buffalo’s are 0.95 and 8.01 total bovines growth rate is 2.67 percent, in 1977. But compare to 1972 cattle growth rate are generally 2.5 and 12.0. Sheep population has been increased by 7.52 and pig in percent 10.14. But pig growth rate are decreased by 27.9 compare to 1972. Horse and ponies, camels, mules, donkey growth rate are zero and total livestock growth rate are 4.35 which has been increased by 1.59 compare to 1972.

Growth rate in percent of cattle and buffalo are 6.94 and 12.58 so total bovines growth rate is 8.42. But cattle, buffalos and total bovines growth rate has been increased by 5.99, 4.57 and 5.75 compare to 1977 census. As well as sheep’s, goats, and pigs growth rate are 19.02, 26.05, and 32.89 percent and this growth rate has been increased by 7.91, 5.57 and 22.75 compare to 1977 census. Horse and ponies, camels, clues, and donkey growth rate are 0 and most growth rate of the pig and then goat in 1982 census. Total livestock growth rate are 13.71 which has been increased by 9.36 percent compare to 1977 census.

Growth rate in percent of cattle and buffalos are 3.74, and 8.88 in accordance with that growth rate of total bovines are 5.10 but compare to growth rate of 1982, cattle and buffalos total bovines has been decreased by 3.2, 3.7 percent and 3.22 percent goats, pigs, and mules growth rate are 15.63, 4.95 and to 100 compare to growth rate of 1982 goats, pigs and growth rate has been decreased by 10.63 and 27.94 percent and mule population was 0.02 in 1982 and now it is 0.04 in 1987. In 1987 livestock...
Census mule population increased more than all other animals, as well as growth rate of sheep, horse and ponies and camels are negative that is -6.3, 11.11, and -9.0 percent. The population of above three animals has been decreased compared to 1982 census so the growth rate are negative. Total livestock growth rate are 6.12 which has been decreased by 7.6 percent compared to 1982 livestock census.

Growth rate in percent of cattle, buffalos and total bovines are 2.45, 10.78 and 4.78 but compared to 1987 livestock census cattle percent has been decreased by 1.29 and buffalos percent has been increased by 1.9 and total bovines has been decreased by 0.32. As well as sheep and goat growth rate are 11.15 and 4.62 percent. Sheep percent has been increased by 4.85 and goat percent has been decreased by 11.01 compared to 1987. Horse, camel, pigs, mules, donkeys growth rate are 0, 0, 20.75, 0, 0 compared to 1987 (0) and total livestock growth rate are 5.74 percent which has been decreased 0.38 compared to last livestock census.

Growth rate in percent of cattle, buffalos and total bovines are 2.83, 6.76, 0 but compared to total livestock population to 1992 cattle percent has been increased by 0.38 and buffalo’s percent has been decreased by 4.02 but total bovines has been not increased, sheep and goat growth rate in percent are 13.18 and 6.41, so sheep percent has been increased by 2.4 and goat increased by 1.79 percent. Horse, camels, pigs, mules, donkey growth rate are 0, -10, 3.90, 0, -10 percent. But compared to 1992 livestock census pigs has been decreased by 16.85, donkeys by -10, and other growth rate are 0 percent, in this way all over livestock growth rate in 1997 are 3.07 which has been decreased by 2.67 compared to last census.
After the data analysis we find that share of cows in all India cow Bihar is first rank and its percentages are 12.36 and very less percentage are Mizoram state it is only 0.02 share of highest buffalo’s to total buffalo’s of India’s. Uttar Pradesh is the first rank and its percentages are 21.13 and very less percent are Sikkim state and its percentage are negligible.

After the interpretation of the data we have been clearly shows that the cow percent were 58.85 percent in 1961 but in 1997 it had been only 45.95 percent and which has been decreased by 13.26 percent in 36 years, and it seems that the cow’s male and female percent has been decreasing per yearly. Buffalo’s percent were 11.85 as per 1961 livestock census. But now in 1997 it is 15.32 percent, and its percent has been increased by 3.47 percent between 1961 to 1997. As well as sheep’s and goats percentage were 27.92 in 1961 to 1997 it is 37.34 percent and its percent has been increased by 9.42 percent between 1961 to 1997.

In all over Maharashtra state highest veterinary facilities centers are available in Pune district and lowest veterinary facilities centers are available in Pune district and lowest veterinary facilities centers in Mumbai. Generally between 0 to 1 percent is only 1 district, between 2 to 3 percent are 10 district and between 3 to 4 percentage between 12 district and between 4 to 5 percent are 5 districts and finally above 5 percent are only 2 district in Maharashtra state.

After the deeply study we clearly seems that veterinary centers are less than compare to bovine’s population and it is must to increase the bovine’s population and veterinary centers for the development of Dairy farming.
In 1982, Osmanabad district total bovines are 154585 and therein cows percentage are 29.52 and buffalo’s percentage are 20.99. In this period highest total bovines are found in Tuljapur tahsil (8175) and therein cows percentage are 37.49 and buffalo’s percentage are 31.44.

In the period of 1987, Osmanabad district total bovines are 136398 and therein cows percentage are 8.21 and buffalo’s percentage are 26.97. In this period highest total bovines are found in Osmanabad tahsil (8893) and therein cows percentage are 4.84 and buffalo’s percentage are 35.51.

In 1997 total bovines are 151506 which have been increased by 102974 and therein cows percentage are 32.03 and buffalo’s percentage are 34.83. In this period highest total bovines are found in Omerga tahsil (28943) and therein cows percentage are 40.17 and buffalo’s percentage are 43.46.

In Osmanabad tahsil total milch crossbreed cows are 330,1226 and 3558 in 1982, 1987 and 1997 their percentage are 17.27, 10.78 and 14.66 percent respectively to total district. As well as in 1982, 1987 and 1997 the total population of milch indigenous cows are 9669, 10668 and 9146 and their percentage to total indigenous cow in district are 20.71, 20.37 and 18.84 respectively. Whereas buffalo’s total population are 8893, 8934 and 11057 and their percentages to total in district are 28.88, 24.08 and 20.95 respectively. Milch crossbreed cow are increased by 04 percent during 1987 to 1997 whereas indigenous cow has been decreased by 1.53 percent and buffalo’s has been decreased by 3.13 percent during 1987 to 1997. In these tahsil we have been seen that the percentage of crossbreed cows has been
increasing and indigenous and buffalo's cows a percentage has been decreasing.

The analysis of milking animals we have seen that the average growth in percent of milking animal in Tuljapur highest in all of tahsil. In this tahsil milch animal population has been increased by 52599 in between 1982 to 1997 and in Omerga tahsil growth rate of milking animal is very less in the district.

In 1982 total milch animals are 312203 and in 1997 it is 151219. In Osmanabad district with its average density of milch animal in 1982 are 41.55 and in 1997 it is 23.90 which is decreased by 17.65 milch animals only per sq.km in two decades.

We have seen that there is only one hospital in Osmanabad district. In 1987, 1992 and 1997 total dispensaries are particularly 17, 17 and 40 which has been increased by 23 between 1992 to 1997. As well as total AID centres are 47 and 44 in 1992 to 1997 which has been decreased by 3 centres. Total AI centres are 95 in 1997 which has been not found in 1987 and 1992 in Osmanabad district.

As well as we found that tahsilwise dispensaries are highest in Omerga tahsil and lowest in Paranda tahsil. AI centres are highest in two tahsil i.e. Omerga and Tuljapur in 1997.

1995 total demand of green and dry fodder are 947 and 547 million tonne and actually supply is only 379.3 and 421 million tonne. This year 59.99 percent deficit of green fodder and 19.95 percent deficit of dry fodder. And in 2010 total demand of green and dry fodder has been 1061 and 589 million tonne and actually supply is only 395.2 and 451. This year
62.76 percent deficit of green fodder and 23.46 percent deficit of dry fodder. In future in the year 2015 total demand will be of demand of green and dry fodder will been 1097 and 609 million tonne and actually supply will be only 400.6 and 466.

Generally common livestock feed resources are crop reduces (Straw, stoves, haulms etc.), grass land, alpine, sub-alpine, pasture land, community lands, common property resources, wasteland, cultivated fodder, forest lands, cut and carry grasses, novel unconventional feeds, top feeds, famine feeds, coarse grain, oil mills, cereal bran, hulls, husks, agro products, fish mills, bone mills.

In 1981, 1991 and 2001 percentage of total geographical area of Osmanabad tahsil i.e. 30, 31 and 31.32 and the percentage of permanent pasture land are 2.51, 2.33 and 2.36 percent respectively. In 1981 to 2001 total geographical area has been increased by 1.48 percent and total permanent pasture land has been decreased by 0.15 percent.

Total geographical area of Kalamb tahsil in 1981 (1227 hectare) there percentage 16.69, in 1991 (1227 hectare) there percentage 16.40 and in 2001 (1227) there percentage 31.32, there was percentage to permanent pasture land i.e. 4.64, 4.80 and 4.73 respectively. During the period 1991 to 2001 total geographical area has been similarly found and permanent pasture land also increased by 0.09 percent. It is increasing very slowly.

In 1981, 1991 and 2001 the percentage of total geographical area of Omerga tahsil to total geographical area of district and the percentage are 19.93, 19.57 and 19.57 and therein percentage of permanent pasture land
are 1.43, 0.06 and 1.25. During the period of investigation percentage of total geographical area and permanent pasture land has been decreased.

In 1981, 1991 and 2001 the percentage of total geographical area of Tuljapur tahsil to total geographical area of district and the percentage are 20.73, 20.36 and 20.36 and therein percentage of permanent pasture land are 2.09, 2.88 and 2.87. During the period of investigation percentage of total geographical area has been decreased by 0.13 percent and permanent pasture land has been increased by 0.78 percent.

Total geographical area of Paranda tahsil in 1981 (1055 hectare) there percentage 14.35, in 1991 (1055 hectare) there percentage 14.10 and in 2001 (1055.32) there percentage 14.10, there was percentage to permanent pasture land i.e. 1.32, 0.94 and 0.10 respectively. Permanent pasture land has been decreased by 1.22 percent.

In 1981, 1991 and 2001 the percentage of total geographical area of Bhum tahsil to total geographical area of district and the percentage are 12.06, 11.85 and 11.85 and therein percentage of permanent pasture land are 2.48, 2.59 and 2.64. During the period of investigation percentage of total geographical area has been decreased by 0.21 percent and permanent pasture land has been increased by 0.16 percent.

Generally all milk producers use the agriculture waste as a fodder for the milch animal. Maximum milk producer are small farmer and landless labourer and the sent their milch animal in forest grazing. In summer the most difficult seasons for the milk producer because of shortage feed and fodder and water create in this season. Permanent pastureland has been continuously decreasing in the district.

We have seen that share of milk production in all India’s milk production. Uttar Pradesh state is the first rank and second is the Andhra Pradesh state. As well as lowest milk production are Arunachal Pradesh and Mizoram states its only 0.02 percent and Daman and Div, Dadara and Nagar Haveli and Lakshadweep these union territories share in all India milk production are zero. It is must to concentrate for the growing milk production in all union territories and North eastern states by implementing effectively dairy development programme.

Some district from Maharashtra total milk production higher than other district in Maharashtra and their share of percentage are more than five percent. These districts are Nashik, Jalgaon, Ahmadnagar, Pune, Satara, Sangli, Solapur and Kolhapur and its percent are 5.52, 6.10, 9.25, 9.20, 6.59, 6.05, 5.08 and 8.83. In this group Ahmadnagar share in all state milk production highest than all other districts and union territories in Maharashtra.

It is clearly seems that from the above analysis the most population number of PMPCS are in Uttar Pradesh these are 16.88 percent to total PMPCS of India, and the less PMPCS are in Assam State their percentage...
are 0.05 to total PMPCS of India. The most membership population of PMPCS are in Gujarat and their percentage are 19.85 to total member of PMPCS are in Assam, Nagaland and Tripura. Their percentages are only below 0.03, the most per day milk collected from Gujarat state and their milk collection percentage are 29 to total milk collection of all India and less milk collected in Assam state their percentage are only 0.01 to total milk collection of all India.

In this way Uttar Pradesh is first rank in PMPCS but not in membership and per day milk collection. As well as Gujarat state is first rank in membership population their percentage are 19.85, as well as highest per day milk collected in Gujarat state.

In the state total taluka milk union are 77 and therein 71.43 percent are working 4 percent are closed and 23.38 percent are temporary closed highest taluka unions are functioning Pune, Nashik, Aurangabad and Nagpur division. It is 100, 67.86, 56.52 and 100 percent respectively. In Mumbai division 100 percent taluka milk union has been closed, as well as temporary closed taluka unions are in Amravati, Aurangabad and Nashik division it is 50, 43.48 and 25 percent respectively. In the state total district milk unions are 29 and therein 72.41 percent are functioning, 17.24 percent are closed and 10.34 percent are temporary closed.

In the total Maharashtra states are 123 milk chilling centres. Therein 6 centres are in Konkan division and their capacity is 0.47 lakh liters. In Nashik are 6.12 lakh liters. In Pune division total milk chilling centres are 32 and their capacity is 9.08 lakhs liter. In Amravati division total milk chilling centres are 12 and their capacities are 0.77 lakhs liters. In Nagpur division
total milk chilling centres are 14 and their capacity is 1.3 lakhs liters. In Aurangabad division total milk chilling centres are 32 and their capacities are only 2.11 lakhs liters.

In total Maharashtra state therein 5 dairy farms are in Konkan division and their capacity is 1.10 lakhs liter. In Nashik division total dairy farms are 12 and their capacity is 10.03 lakhs liters. In Pune division 23 dairy farms and their capacity is 20.45 lakhs liters. In Amravati division total dairy farms are only 4 and their capacity is 3 laksh liters. In Nagpur division total dairy farms are 5 and their capacity is 2.50 lakhs liters. In Aurangabad division total dairy farms are 6 and their processing capacity is 4.70 lakhs liters. As well as in Mumbai total dairy farms are 4 and their processing capacities are 15 lakhs liter per day.

In co-operative sector dairy farms are less than Govt. sector and their processing capacity also less than Govt. dairy farms. In total Maharashtra highest dairy farms are in Pune division which is total 23 dairy farms and their capacity is 20.45 lakhs liter per day. In Amravati division only 4 dairy farms and their capacity is only 3 lakhs liters per day.

In the Osmanabad district total milk processing dairy farms and chilling centres are 03 and their capacity are 68 thousands liter. As well as in co-operative sector total dairy farms are 917 and their capacity is 113 thousands liter and 03 dairy farms are in Government sector and their capacity are 68 thousands liter per day.

In Government sector total Osmanabad district therein 3 dairy farms are in Osmanabad, Omerga and Bhum tahsil their capacity is 10, 08, 50 thousands liter respectively.
In co-operative sector dairy farms are more than Govt. sector and their processing capacity also more than Govt. dairy farms. In total Osmanabad district highest dairy farms are in Paranda tahsil which is total 268 dairy farms and their capacity is 25 thousands liter per day. In Bhum tahsil 215 dairy farms and their capacity is only 57 thousands liters per day. Osmanabad tahsil 156 dairy farms and their capacity is 14 thousands liter per day. As well as in Tuljapur tahsil dairy farms are 34 and their processing capacity is only 02 thousands liter per day.

In Osmanabad district total milk collection are 27440 thousand liter in 1991, 44165 thousand liter in 2001 and which is decreased by 19651 thousand liter in 2009. During the 1991 to 2009 in Osmanabad district the milk collection has been decreasing because, maximum PMPCS has been closed, milk producer selling their milk in local place and other private institute.

In briefly we have been seen that the growth in milk production has been continuously increasing. Per day milk collection highest in Gujarat state than all other states. PMPCS are highest in Maharashtra state. At present time total PMPCS are 30724 and tahsil union 77 and district union 29 in the state. As well as in the Osmanabad district total PMPCS are 1323 and their membership population are 72785 and there in functioning PMPCS are very few and all PMPCS are supply the milk to the government milk scheme and Osmanabad district milk producer co-operative union in Osmanabad district.

In the above table highest per day milk collection was found in Saniya Male Saving Block, Asu therein 2816.64 liter per head average and secondly
Jijamata Female Saving Block, Medsinga per day milk collection is 30983 liter and there 2739.27 liter per head average. These two saving block per day milk collection is 61115 liter and total 12 saving blocks milk production is 132564 liter per day it means these two saving blocks are collected milk for 70 percent per day.

We have been seen that comparative study of PMPCS and their per day percentages behind two PMPCS. In 1991 there was 3301 liter per day milk collection difference and in 2001 therein 21882 liter per day milk collection difference. Because, two reasons are shown in the study region, firstly increasing milk collection and secondly many schemes are providing by the Government by the union.

There are 120 respondents have been selected per the study and per tahsil 20 respondents have been selected for the interview. In this interview, researcher was one think statement present in the line ‘all milk producers are very poor and there fully help provide their PMPCS’ because above table clearly seen the major respondents said yes.

In Osmanabad tahsil total 20 respondents for selected interview schedule and 80 percent respondent are satisfy for have you get the co-operative from servant of PMPCS and have you get market security due to PMPCS.

65 milk producer farmers said there milch animal died to diseases and 55 farmers said no. 79 milk producer farmers said take a insurance of milch animal and 41 said no. 74 milk producer farmers go away for the milk sale and 46 said not go for milk sailing.
In the study region 48 milk producer farmers said benefit of sale the milk for Co-operative society and 72 milk producer farmers was benefit for the private sector.

Total milk production in the study region i.e. 2776 liter. In 2427 liter milk use for the sale and 349 liter milk use for family of the study region. Highest milk sale was found in Tuljapur tahsil i.e. 439 liter followed by Bhum (431 liter), Omerga (422 liter), Paranda (420 liter), Osmanabad (372 liter) and Kalamb (343 liter) respectively.

In the interview, 117 farmers own land only 03 labour farmers. The study region is hilly area but sufficient for the dairy farming. 34 farmers was found in 0 to 1 hectare land, 53 farmers has been seen in 01 to 02 hectare land, 19 farmers was noticed in 02 to 04 hectare land and 12 farmers is reported in above 04 hectare land in the study region.

In 120 farmers have got 243 cows in the study region and 393 buffalos in the region total 636 milch animal was found in own land. In the above 120 farmers, 103 farmers got the education and only 17 farmers was not get education.

After the conducting survey following problems of PMPCS members has been found:

There are some problems of PMPCS member in development of dairy farming has been noted bellow.

1. In the Osmanabad district maximum PMPCS member said their milch animal in forest grazing. Shortage of feed and fodder they has been buy the feed and fodder so maximum income has been expended on feed and fodder.
2. All members have been not satisfied about per liter milk price offered by government.

3. In every summer for all milk producer to create shortage of feed and fodder for milch animal and so they cannot buy on hire price.

4. All members have been not received money on proper time, so they neglect to give the milk to the PMPCS regularly.

5. Sometime government milk scheme has been returned the milk to PMPCS so the member to endure this loss.

**Problem of livestock in the district:**

1. In India total livestock of population has been increase but therein share cattle and buffalos have been decreasing as well as growth rate also decreased.

2. There are no correlation between animal husbandry department and dairy development department officer in the district for the animal livestock development.

**Problems of Osmanabad district Government Milk Scheme:**

1. Osmanabad district government milk scheme has been collection very low milk.

2. Milk collection has been decreased in May and June month due to shortage of fodder and water.

3. In Osmanabad district taluka milk producer co-operative union not functioning regularly and its milk collection are so poor.

4. Collection of government milk scheme has been very less compare to milk collection of Osmanabad district milk producer co-operative
union Osmanabad. As well as government milk scheme has been
totally depend on milk union for the milk.

**Recommendation:**

1. Look for good indigenous milch breed of cattle particularly for
semiarid and arid climates, upgrade their breed through recent
techniques as animal husbandry is main activity in such areas.

2. It is must to increase the share and growth rate of milch animal by
implementing government policies for the development of dairy
farming.

3. Adopt intensive and well defined milk stones to achieve growth in
productivity of indigenous breed in such areas.

4. It is must to increase the population of crossbreed cows and buffalos
also developed the new breeds.

5. It is must to increase the milk storage facility and capacity of PMPCS.

6. It is important to increase the member population of PMPCS for
that it is must to implemented new policy for the milk producer as
well as to available loan to buy the milch animal.

7. Government has to provide milk collection centre to PMPCS
permanently in free of cost.

8. To available transportation sources to the PMPCS by government
milk scheme and district milk union.

9. It is must to close the interfere of government worker in PMPCS and
their milk collection.
10. Osmanabad district milk producer co-operative union has appointed permanent staff for the efficient work in union work and PMPCS work.

11. It is must to public awareness for the supply of milk to the PMPCS.

12. It is must to increase commission rate of per liter milk of PMPCS.

13. Government have to increase the per liter milk price for the higher collection.

14. It is must to available amount of milk to the milk producer in proper time. To increase enthusiasm for supplying the milk to PMPCS.

15. Total milk checking right has been given to the PMPCS because scheme has been never returned to the milk producer.

16. PMPCS has been to available milk storage facility to the member and provide various subsidies to buy the milch animal and other things.

17. It is must to established the own milk processing plant with various milk production.

18. It is must to increased the milk collection by establishing by new PMPCS and restarting old PMPCS and to open the own milk collection centres.

19. ODMPCUO (Osmanabad District Milk Producer Co-operative Union Osmanabad) has been to start the feed and fodder production for the milk producer. As well as union to available to loan and subsidies for the development of PMPCS and milk producer.

20. Union has been to extent the operation area all over in Osmanabad district for the higher milk collection.
21. It is must to increase the milk collection and distribution of government milk scheme.

22. Dairy development officer to implement efficiently new policy for the development of dairy farming in the district.

23. It is must to increased public awareness about dairy farming and connects the individual milk producer to the PMPCS.

24. It is must to try the restart the permanently closed PMPCS by giving loan, and subsidies.

25. Government milk scheme to establish the guidance center for milk producer and to available advance technology and information for the milk producer.