1.1 Introduction:

The Sindhudurg district is rich in horticulture and coastal resources but poor in agriculture and livestock resources. The local milk production is not sufficient to meet local needs. Due to the forest and horticulture area, the grazing land is limited and the fertility of grazing land is very poor. Due to lack of quality fodder the milk production per unit is very low. The geographical area limitation of this study is limited to Sindhudurg district and this study is concerned with milk production in Sindhudurg district. In this situation Sindhudurg district is lagging behind in milk production. Therefore, this is an attempt of researcher to study this problem and to find out the remedial measures.

In the total milk production of world the contribution of India is 13.6%. Out of the total milk production in India, 90% milk is produced only in 11 states. Within the milk producing states, Maharashtra ranks on the 6th steps. The yearly milk production of Maharashtra is 3.39 lakh tones. Uttar Pradesh ranks on the first step and milk production is 10.20 lakh tones. Out of the total milk production of Maharashtra 85% milk is produced in the 5 districts of Western Maharashtra. Remaining 15% production is coming from Marathwada, Vidarbha and Konkan.

There is total milk production of Rs. 200 crores in Maharashtra every year. Within the total production 46% milk is used for home consumption. The growth rate of milk production is 4.5% to 5% in India. In the total milk production 85% milk is cow milk, 11% is buffalo milk, 2% from goats and 2% from sheeps. According to the nutrition science there must be 200 ml milk in the daily consumption per head. The national average is higher than this but the state average of Maharashtra is 181 Gms per head. There is a higher scope for milk production in the remaining part of the Maharashtra e.g. Konkan, Vidarbha and Marathwada.

1.2 Research Methodology:

a) Objectives of the Study:

i) To assess the daily requirement of milk in Sindhudurg district.

ii) To assess the daily milk production in Sindhudurg district.

iii) To assess the gap between daily local milk production and daily requirement.

iv) To study the present position of milk production in Sindhudurg district.

v) To assess the daily incoming quantity of milk from other districts in Sindhudurg.

vi) To find out the causes of shortage of milk in Sindhudurg district.

vii) To suggest measures to increase local milk production.

b) Sources of Data Collection:

i) Primary Data: The researcher has collected primary data from 13 dairy co-operatives in Sindhudurg district and from the office of DDR and from the offices of Warana, Gokul, Ambai, Morana, Krishna and Nandini, wellknown brands of dairy co-operatives supplying milk in Sindhudurg.
district. By this primary data the researcher has assessed month and yearwise local milk production and incoming quantity of milk.

To find out the reasons behind low local production, the researcher has interviewed 40 milk producers from various villages of 8 talukas in Sindhudurg.

II) Secondary Data:

The secondary data has collected by visiting the following agencies:

i) The Office of Dairy Development Officer, Dist. Sindhudurg.


iii) The Department of Live Stock and Dairy, Konkan Krishi Vidyapeeth, Dapoli.


v) Krishi Vidnyan Kendra, Kirlos, Tal. Malvan.

vi) The District Livestock Polyclinic, Kankavli Dist. Sindhudurg.

C) Tools of the Analysis:

After the collection of Primary and Secondary Data the researcher has classified it and then tabulated. For the purpose of analysis of statistical tools like average, percentage, ratio and frequency distribution has used after tabulation.

D) Limitations of the Study:

The geographical limitation of the study is limited to Sindhudurg district. The economic activity limitation of the study is dairy. The study is limited to milk production activity.

1.3 Present Situation of Milk Protection in India and Maharashtra:

In the total milk production of world the contribution of India is 13.6%. Out of the total milk production in India, 90% milk is produced only in 11 states. Within the milk producing state Maharashtra ranks on the 6th step. The yearly milk production of Maharashtra is 3.39 lakh tones. Uttar Pradesh ranks on the first step and milk production is 10.20 lakh tones. Out of the total milk production of Maharashtra 85% milk is produced in the 5 districts of Western Maharashtra. Remaining 15% production coming from Marathwada, Vidarbha and Konkan. There is total milk production of Rs. 200 crores in Maharashtra every year.

Within the total milk production 46% milk is used for home consumption. The growth rate of milk production is 4.5% to 5% in India. In the total milk production 85% milk is cow milk. 11% is buffalo milk, 2% from goats and 2% from sheep. According to the nutrition science there must be 200 ml. milk in the daily consumption per head. The national average is higher than this but the state average of Maharashtra is 181 Gms. per head. There is a higher scope for the milk production in the remaining part of the Maharashtra. E.g. Konkan, Vidarbha and Marathwada.

1.4 Present Situation of Milk Production in Sindhudurg District:-

The milk production in the district is around 1.42 lacs ltrs. per day during 2010. The district accounted for only 0.82% of total milk production in the State, the indigenous spouse and buffaloes accounted for 24.6%, 12.2% and 59.7% respectively of total district production. Actually, the milk requirement, based on National Advisory Committee recommendations is 1030.56 lacs kgs. for 2010. Therefore, there is much scope for increasing milk production by supporting animal husbandry programmes. The Govt. has been making efforts to improve milk supply in the district. The special programme like, watershed are development programme, Western Ghat Development Scheme and
other schemes of self-employment will increase the milk animals and thereby milk supply is estimated to reach 20,000 ltrs. per day.

There are 139 registered milk societies in the district with 13526 members as on 31st March 2005. Out of these 103 is functioning. A new dairy processing unit under integrated dairy development project is set up at Kankavli. It has milk processing capacity of 20,000 ltrs. per day. But today it is in close position the milk chilling plant having capacity of 5 tonnes is working at Kolgaon, near Sawantwadi. One more chilling plant under National Dairy Development Project is also working at Kudal. They provide ‘Mahananda’ brand of milk.

1.5 Problems in the Development of Milk Production in Sindhudurg:

i) **Lack of Grazing Land:** The area for grazing land in this district is 83970 hectares. It is not sufficient.

ii) **Negligence Towards Improvement in Local Varieties:** There is very less response due to negligence among the farmers. In this district there is not the practice of sterilisation of bulls.

iii) **Inferior Local Varieties:** Due to lack of quality fodder and feed the local varieties are under nourished. The per capita milk production of local varieties is very low near by one or two litres.

iv) **Adverse Climate:** The climate of the Sindhudurg district is not favourable to milk industry.

v) **Lack of Green Fodder:** The land which is under irrigation is not under fodder crops.

vi) **Lack of Irrigated Land:** Unless and until enhancement of irrigation facilities we can not think about white revolution of Sindhudurg district.

vii) **Lack of Protein Feed:** The protein feed deficiency highly affects on the milk production capacity of milch animals and health of these animals.

ix) **Scarcity of Drinking Water in the Summer Season:** There is an acute shortage and deficiency of clean and pure drinking water to the milch animals in the summer season.

x) **Negative Psychology of the Farmers:** Due to lack of psychology of hard work dairy business is under developed in Sindhudurg district.

xii) **Low Land Holding:** The maximum land holders are holding 0.25 hectares of land holding, they do not think about independent dairy activity.

xiii) **Lack of Scientific Management:** There is lack of scientific management of dairy activities among the farmers.

xiv) **Lack of Stallfed Rearing:** There is not practice of stallfed rearing in the Sindhudurg district.

Lack of stallfed rearing is one of the main obstacles in the dairy development.

**Conclusion:**

i) There are 8 milk collection routes in Sindhudurg district. The average per day milk collection is 2100 Ltrs.

ii) The month of July to December is better period for milk production due to naturally available green fodder. It becomes good result in milk production.
iii) The per day average milk collection is highest in Kudal taluka due to high irrigated area. It is followed by Kankavli and Vaibhavwadi Taluka.

iv) There is lowest milk collection in Sawantwadi taluka and it is followed by Devgad and Malvan. There is nil collection in Dodamarg taluka.

v) The trend of milk quantity demanded by Govt. is indicating increasing trend. Due to shortfall in milk production it leads to suffering in loss.

vi) As per the population, the daily total milk requirement of Sindhudurg district is 1,75,000 Ltrs. but there is a gap of 1,50,000 Ltrs.

vii) Due to shortage of local milk production it is borrowed by Govt. dairy from Miraj and Ratnagiri. The rest of 60,000 Ltrs. milk is provided by co-operative and private brands from Western Maharashtra.

viii) Within the private and co.op. supply the contributors are Mahananda 32000 Ltrs.; Krishna 14,000 Ltrs.; Warana 1000 Ltrs.; Sahyadri 10000 Ltrs.; Koyana 1800 Ltrs.; and Samruddhi 10000 Ltrs.

ix) The average annual turnover of Govt. Milk Scheme Kankavli is of Rs. 2,68,59,176/- The average annual expenditure was of Rs. 2,05,81,747/- The trading loss per year was Rs. 65,15,600/-. The average net loss per year was of Rs. 1,39,08,670/- in the year 2010. This is due to under utilisation of Govt. dairy processing plant. At present the milk scheme of Govt. at Kankavli is in the closed stage.

x) The daily processing capacity of Govt. dairy is 20,000/- ltrs. Out of which only 1200 Ltrs. is used.

Suggestions:

i) Stalfed Rearing: Due to stallfed rearing we can give balanced feed and fodder as well as drinking water to the milk animals. We protect them from hot summer. It will make positive effect on milk production.

ii) Reducing the Population of Unviable Cattle Units: If the population of such cattle units has reduced, automatically there pressure on feed and fodder will be reduced. The limited number of economically viable units will increase milk production.

iii) Use of Improved Varieties for Milk Production: The improved varieties of cow are jurcy, holstin frizion, brown swiss, and red den. Out of these varieties the jurcy has properly suited to the agro climatic condition of the Konkan region.

iv) Improvement in Irrigation Facilities: The area which is under irrigation has been used for horticultural crops. It should be diverted towards fodder crops. With the Govt. projects and private efforts the area under irrigation must have to go up to 75%. The maximum area should be used for green fodder production. If the green fodder has been available throughout the year then milk production will increase.

v) Protein Feed Crops: The pulses production and oil cake, milk feed will increase the milk production. Instead of inferior quality grass and paddy husk farmers have to attempt high yield varieties of fodder crops.

vi) Proper Care of Drinking Water: If the irrigation facilities have to be developed automatically the safe drinking water will be available.

vii) To Develop Commercial Approach: If the farmer has to realise that there is a high rate of return in this activity, then the dairy industry in Sindhudurg district will accelerate its growth.
viii) Change in Attitude and Awareness: If the farmers realised that, this is the most profitable activity then they will invest their efforts in maximise milk production.

Scientific Management:

To create awareness missing the use of scientific management the training programmes for farmers should be conducted. Through these efforts the farmers will be psychologically well prepared for more milk production.

Self Opinion:

After considering the above mentioned information we conclude that, toward dairy project in Sindhudurg, there is an adverse situation. But the farmers in Sindhudurg district should have to change their psychology and become positive minded. If the farmers, Dairy Project Officers and employees and the local representatives take commonly efforts for dairy development. The farmers should get training with practical demonstrations and arrange a trip to successful units e.g. Warananagar, Kolhapur, Sangli, Satara and Pune etc. The young generation should concentrate their mind on farming, cottage industries in general and dairy development in particular. The Govt. has to give proper support to the farmers and built-up their confidance, then we will find better position in milk production in Sindhudurg district.

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