

## CHAPTER - II

### GEOGRAPHICAL AND CLIMATIC CONDITIONS OF AREA AND DEVELOPMENT OF MILK MARKET.

- 2.1 Kolhapur District.
- 2.2 Special Features of the District.
- 2.3 Dairy Industry in Kolhapur District.
- 2.4 Location of the Warana Dairy Project.
- 2.5 The Origin and Functions of Warana Dairy Project.
- 2.6 Performance of the Warana Dairy Project.

:: C H A P T E R - II ::

GEOGRAPHICAL AND CLIMATIC CONDITIONS OF AREA AND DEVELOPMENT OF  
MILK MARKET

2.1 KOLHAPUR DISTRICT :

Kolhapur district is one of the most important districts of the Maharashtra state. This district is leading in agriculture, dairy farming industry and most of the other facts of life including art and education. The location and the factors of physical environment which are directly or indirectly responsible for the development of dairy farming in the district are given below. :

LOCATION :

Kolhapur district is located between 15° to 17° North Latitudes and 73° to 74° East Longitudes. The East-West Width of the district is 107 Kms and North-South length is 154 Kms. The district is bounded by Sangli district at the North, by Belgaum district of Karnataka State at the South and East and by Ratnagari and Sindhudurga district at the West.

The area of the district is 8047 Sq. Kms., its population according to the 1981 census is 2.5 millions. The district comprises of 12 tahsils.

PHYSICAL SETTING :

The main part of the district is traversed by the Sahyadri mountains in the West. It has thrown several spurs in the East of the district and in this range some of the points are as high as 900 metres, above mean sea level. Major portion of the district is 390 to 600 metres above mean sea level.

RIVER VALLEYS :

The main rivers of the district are the Krishna, The Warana, The Panchanganga, The Dudhanganga, The Vedganga and the Hiranyakeshi. The rivers occupy wide valleys, with a good tributary development. The Warana river which has fairly south Eastern trend, serves as the boundary between Kolhapur and Sangli districts. Its approximate length in the district is 130 Kms.

SOIL :

Kolhapur district has three broad Zones, the Western part is covered with lateritious soil, the central part has fertile brownish well drained soil while the eastern zone is covered with alluvial medium the deep black soil.

RAIN FALL :

The rainfall is not evenly distributed in the district and it varies from place to place. The district gets rain from the

South West as well as from the South East monsoon. The main rainy season is from June to October. Ajara, Chandgad, Bavada, Radhanagari, Shahuwadi tahsils come in the heavy rainfall tract. In this tract the normal rainfall ranges from 2096 mm. in Chandgad tahsil to 6232 mm in Bavada tahsil. Bhudargad, Gadhinglaj, Pahhala and Karveer Tahsils have sufficient rainfall, while Kagal tahsil falls in inadequate rainfall tract. The remaining two tahsils Viz. Hatkanangale and Shirol tahsils may be classified under poor rainfall tract. The normal rainfall in both these tahsils is less than 600 mm.

## 2.2 SPECIAL FEATURES OF THE DISTRICT :

1. The Kolhapur district is well known for a sugarcane production. Sugarcane is used for production of quality gur as well as for sugar.  
There are in all 12 co-operative sugar factories registered in this district besides one privately owned factory.
2. Another important industry of export value is Kolhapur 'Chappal'. There are a number of small scale manufacturers and cottage units in the district preparing 'Kapashi' and 'Kolhapuri' chappals which are quite popular not only in India but in some foreign countries also.

3. Kolhapur district is also famous for small scale units manufacturing oil engines, spare parts for oil engines and other allied agricultural implements.
4. Silver and Silver ornaments manufactured in Hupari of Hatkanangala Tahsil are known for artistic value and are exported out of district in fairly large quantity.<sup>1</sup>

### 2.3 DAIRY INDUSTRY IN KOLHAPUR DISTRICT :

Like sugar factories Dairy industry is playing an important role in Kolhapur district. Considering the natural resources, land utilization pattern, availability of irrigation facilities, the distribution of milk animal, veterinary facilities, milk unions and other infrastructural facilities, the situation proves to be conducive for the development of dairy industry in the district. It provides a subsidiary occupation to the farmers and increases employment potential in rural and urban areas.

The people in Kolhapur district have already adopted the co-operative way of life for socio-economic development. There is wide scope for production and marketing of milk through co-operatives.

There are 940 primary co-operati-ve milk societies at the end of June 1985 and 3 milk unions in the district viz.

- a) Shirol Taluka Sahakari Dudh Utpadak Sangh, Ltd. Jaysingpur.
- b) Kolhapur district co-operative milk producers union  
Kolhapur and
- c) Shree Warana Sahakari Dudh Utpadak, Prakriya Sangh, Ltd,  
Amrutnagar.<sup>2</sup>

As per the livestock census 1982. The livestock population in the district is 1,72,8549 which comprises 1,02,401 cows and 3,31,338 she Buffaloes.<sup>3</sup> As per 1982 livestock census 3.4 lakhs cross breed cattle are available in Maharashtra were as 25,689 crossbreed cattle are available in Kolhapur district.<sup>4</sup>

#### 2.4 LOCATION OF THE WARANA DAIRY PROJECT :

The Warana Dairy Project, Amrutnagar, is located at the North side of Kolhapur district in Warana basin. This project has been set up on the lines of Amul Dairy at Anand in Gujrat State. Initially State Government sanctioned 66 villages as area of operation which is the area of Warana sugar factory. From Hatkanangale, Panhala taluka of Kolhapur district and Walva and Shirala taluka of Sangli district. However, when this comprehensive project was sanctioned, National Dairy Development Board recommended this as a separate Warana milk District having 300 villages and accordingly Maharashtra State Government has approved it by its G.R. No. D.D.S. 1073/89684 dt. 9-10-74.

Subsequently sangh requested to amend its byelaws for extension of area of operation to utilise this plant to its fullest capacity. However, till today Govt. has not approved the amendment in our Bye-laws and we are not permitted to collect milk from our total Warana Milk dist. of 300 villages on the contrary the original area of operation of the sangh comprises 19 Villages of Walva taluka and 6 from Shirala taluka of Sangli district. State Govt. has permitted Walva and Shirala taluka milk Unions to collect Milk from the above villages. This has affected the total collection of Milk considerably.

#### 2.5 THE ORIGIN AND FUNCTIONS OF WARANA DAIRY PROJECT :

The natural resources, land utilisation pattern, availability of irrigation facilities, and other infrastructural facilities of Warana river area have proved to be conducive for the healthy development of dairy farming. With the establishment of the sugar factory in 1959, in Warana river area, the economic condition of irrigated farmers ~~were~~ improved. However, the proportion of such farmers accounted for hardly 15%, 20% even in the irrigated tract itself. Naturally such situation could not help the majority of farmers. In fact, it accentuated the gulf between irrigated farmers on the one hand, and dry land farmers, small holders and landless labourers on the other hand. Therefore, in order to ameliorate the economic conditions

of weaker sections in the Warana river area, Shri Warana Sahakari Dudh Utpadak, Prakriya Sangh Ltd. Amrutnagar has been established in the year 1968.

The Warana Dairy project has become guranted<sup>e</sup> market for the milk produced in Warana river area. It actually started collecting milk from January 1970.

FUNCTIONS OF THE WARANA DAIRY PROJECT :

The Warana Dairy Project performs following functions :

1. It acts as an intermediary between ultimate milk suppliers and ultimate milk buyers. Thus, it has become an important guranted milk market for milk producers in the area. It provides year round guranted market for the milk produced from distance remote villages of the area, to procure it though organised sector, transport it to the central dairy, process and market milk and its products in competative markets.
2. It provides veterinary aid and artificial insemination to the milk producers. It has started its own veterinary services with a chief veterinary officers, 4 veterinary surgeons and 2 Live stock supervisors. Veterinary aid can take various forms :



- a) Mobile veterinary services for animal treatment round the clock.
- b) Upgrading of local buffaloes using semen of improved breeds.
- c) Cross-breeding in cows by artificial insemination.
- d) Frozen Semen facility.
- e) Pregonancy Dignosis examinations.
- f) Post martem.
- g) Group cattle insurance.

All above facilities are provided free of cost to the milk producers in the area of operation consisting of 66 villages.

3. The Warana Dairy Project grants loan facilities with the help of Bank of India to the farmers for the purchase of milk animals.
4. It supplies better milk animals suited to local condition to milk producers at the reasonable price. It has started central cattle farm with a view to maintaining and multiplying better milk animals. From this farm, milk animals are sold to the farmers.
5. It produces and supplies of cattle feed to the farmers at reasonable rates. The supply of own cattle feed has created more attachment of the farmers with the Warana

Dairy Project. In order to produce cattle feed, it has started cattle feed plant on July, 21, 1985. Owing to this function, the tendency for the use of cattle feed is increasing in the farmers.

6. It encourages the farmers to grow green perenial fodders such as lucern, hydrid napier, subanbhul, N.B. 21, Gajraj etc. For this purpose, it provides lucern seeds and roots stodes of other fodders. This function is of great signi- ficance as it reduces cost of milk production and stabilize milk production during summer which drop down due to non- availability of green fodder.

#### 2.6 PERFORMANCE OF THE WARANA DAIRY PROJECT :

The performance of the Warana Dairy Project is evaluated on the basis of following indicators :

1. Level of annual milk collection.
2. Membership.
3. Share Capital.
4. Supply of various facilities to the milk producers.

#### 1. LEVEL OF ANNUAL MILK COLLECTION :

Annual milk collection exhibited, by and large, an upward trend (Table 2.1 ). Annual milk collection of the Warana Dairy Projects increased from 2309 thousand **l**ts. to 26792 thousand

lts. During the period 1970-71 to 1984-85. Its growth index rose by 11.6 times from 100 to 1160-33 during the same period (Table 2.1 ) moreover table reveals that probability of annual milk collection to increase is around 80% during the same period This implies that performance of the Warana Dairy Project in regard to milk collection is fairly satisfactory.

TABLE NO. 2.1  
TRENDS IN ANNUAL MILK COLLECTION

Year	Total milk in 1000 Lts.	Growth Index
1969-70	725	100.00
1970-71	2309	100.00
1971-72	3453	149.54
1972-73	4063	175.96
1973-74	5055	218.92
1974-75	6580	284.97
1975-76	7360	318.75
1976-77	8418	365.57
1977-78	14941	647.07
1978-79	14139	612.34
1979-80	19023	823.86
1980-81	17878	774.27
1981-82	18620	806.41
1982-83	21401	926.25
1983-84	20464	886.27
1984-85	26792	1160.33

Source : Report of Warana Dairy Project April, 1986.

2. The performance of the Warana Dairy Project in the case of membership coverage is also fairly satisfactory in as much as individual producer members as well as society members persistently increased respectively from 1684 in 1970-71 to 5090 in 1984-85 by more than 3 times and from 22 in 1970-71 to 78 in 1984-85 by more than 3 times.
3. The share capital of the Warana Dairy Project also exhibited a continuous upward trend in that it increased from Rs.835 thousand to Rs. 2946 thousand by more than 3 times during the period 1970-71 to 1984-85.
4. Activities undertaken under dairy extension programme such as loans to the farmers for the purchase of milk animals, central cattle farm, green fodder development programme, supply of cattle feed, mobile veterinary services, free supply of testing chemicals to the societies, free veterinary medical aid, Artificial insemination with frozen semen, vaccination programme against contingency diseases etc. have been increasing and thereby helping milk producers not only to increase milk production but also to minimise cost of producing milk.

Thus the performance of the Warana Dairy project in respects of milk collection, membership coverage, share capital, and provision of various facilities is, by and large, fairly satisfactory.

:  R E F E R E N C E S  :

1. Socio-Economic Review and District Stastical Abstract  
Kolhapur District 1981-82.
2. Records of "District Deputy Registrar Co-operative Societies  
Kolhapur.
3. Records of the District Animal Husbandry Office, Z.P.  
Kolhapur.
4. Performance Budget 1985-86 Agriculture and Co-operative  
Department Animal Husbandry P. 475.