

## CHAPTER - IV

### PROBLEMS OF AGRICULTURE IN SANGOLA TALUKA

- I) Problem of irregularity and variability of rainfall.
- II) Problem of artificial water supply system.
- III) Problems of low income from traditional agricultural crops
- IV) Need of adoption of new farming type (Horticulture farming)

## CHAPTER IV

### PROBLEMS OF AGRICULTURE IN SANGOLA TALUKA

Sangola is an industrially backward taluka in Solapur district. It is mainly inhabited by small farmers and agricultural labours. The farmers here have mainly engaged in traditional activities for generations. However, the farmers tend to display a lack of initiative here and also preference for adherence to the age old farming practices. Large scale prevalence of these attitudes helps to reduce the impact of whatever developmental efforts that are made in the area during the various plan periods, particularly by creating economic bottlenecks. The following are the major agricultural problems of Sangola Taluka.

#### (I) PROBLEM OF IRREGULARITY AND VARIABILITY OF RAINFALL :

Water is indispensable to agricultural production and hence low agricultural - production. The entire Solapur district is situated in the Deccan Trap Region and falls in the drought prone area of Maharashtra, and the Sangola Taluka is one of the major talukas falling in drought prone area of Solapur district. The average annual rainfall is about 538 mm in Sangola taluka. With 37 rainy days in the months of June to October, each month having 6 (June-August) to 9 (sept) rainy days (see tables 2.1 and 2.2). The nature of rainfall is not continuous but it is scanty, irregular and uncertain throughout the year.

Sangola taluka often faces many major famines going long was back. The years 1396 to 1408 are famous as a famine of Durgadevi. 1396 to 1878-79 occurrence of famines had been common in the Solapur district, though their frequency and extent of severity may vary from taluka to taluka. In the Solapur district famines are largely confined to the Western region, comprising Sangola, Karmala, and Malshirus talukas. The following periods 1896-97, 1899-1900, 1902-1903, 1905-1906, 1923-24, 1936-37, 1939 to 1942, 1945-46, 1953 to 1955, 1965-66 and 1970 to 1973 are famines periods in the history of these talukas. The recent famine of 1971-73 is known to all. In that period, there was the highest gap in rainfall i.e. in 1972 there were two big breaks, one was of 6 weeks and another of 9 weeks took place.

Due to the lack of continuous and adequate rainfall, the agricultural sector, since long back, was considered as traditional sector. In Sangola taluka in the progress of agriculture sector the inadequacy of the rainfall is one of the major bottlenecks.

(II) PROBLEM OF ARTIFICIAL WATER SUPPLY SYSTEM :

It is noted that in Sangola taluka the average rainfall is low and it is uncertain. For the development of agriculture in the region, therefore, the artificial water supply systems should be developed. With the assurance of the availability of water supply through the development of a system for

irrigation the drawbacks of irregularity and uncertainty of rainfall can be overcome.

There are mainly three types of artificial water supply systems. Among them a major source is well water. At the end of 1987 there were 9095 wells out of which, 300 were not in use. The water level in this source is not quite satisfactory. The problem is exacerbated by increased use of water and lower replevishment rates due to low rainfall. The number of tubewells is also negligible.

The second source of irrigation is tanks. There are two types of tanks. One is, minor tanks, which are constructed under the employment guarantee scheme, since the last 20 years. The Government of Maharashtra has constructed nearly 250 percolation tanks. These tanks will help indirectly to increase the water levels in wells. But due to lack of adequate rainfall, for many years these percolation tanks have failed in their objective, i.e. to increase the water level of wells through percolation.

Another source of water is storage tanks. In Sangola taluka there are 7 such tanks, namely Budhehal, Chincholi, Junoni, Achakdani, Javale, Gherdi and Hangirge. The water is applied to the farmers through a canal system. But this too does not constitute a major source of water for agriculture in Sangola taluka. The water storage capacity of these tanks is low, and the average annual rainfall is also low. Generally

these tanks 'help' the farmers in the rainy season and for major part of the year, they are dry. The table below shows clearly the nature of and the total water storage capacity of these tanks and the actual irrigated land under this source.

TABLE 4.1  
TANK IRRIGATION FACILITIES IN SANGOLA TALUKA  
1985

No. of Tanks	Culti-vable command area (Hect)	Irri-gated command area (Hect)	Actual irrigated land (Hect)		
			1982-83	1983-84	1984-85
7	10,407	8,001	1762 (22.02)	1336 (16.69)	1576 (19.69)

Source : Irrigation Department, Sangola.

The cultivable command area of these 7 tanks is 10,407 hectares, whereas they have the capacity to provide water to 8,001 hectares of land. But in actual practice these tanks are not able to provide water to more than 25 percent of the total irrigated command area. In 1982-83 these tanks had provided water to 1762 hectares of land (i.e. 22.02 percent), in 1983-84 to 1,336 hectare of land (16.69 percent), and in 1984-85 to 1,576 hectare (19.69 percent). It seem that the tanks are not a major source of supply of assured water to the agriculture, because they mainly depend upon the level of rainfall each season.

The another source of irrigation in Sangola is Nira Right Bank Canal No.3. It covers 3 to 4 villages in respect of supplying water. Thus for the agricultural sector of the Sangola taluka, the role of N.R.B.C. No.3 as a source of water supply is negligible.

Another source of water is liftirrigation. There are totally 159 liftirrigation schemes. Out of these, 102 are on the banks of Man river and the remaining 57 are tanks. It is possible to provide water to 121 hectare of land through this type of irrigation system, but, in reality, only 83 hectares of land come under this type of irrigation. The major cause of limited irrigation facilities of this type is that, the range of the river is low and the annual rainfall in the basin of the Man river is also decreasing day by day.

In a nutshell, the artificial source of water supply is not in required quantity. Consequently the major portion of the cultivable land depends upon rainfall. There is a need to increase the sources of assured water supply on which the success of agriculture depends. The Irrigation Commission, Government of India, 1972, says that whenever, 30 percent of cultivable land is under assured water supply, there is no chance for the failure of the agricultural sector. But in Sangola taluka only 12 percent of such land is under assured irrigation facilities, therefore, it indicates the urgent need for development of various. irrigation facilities.

(III) PROBLEMS OF LOW INCOME FROM TRADITIONAL AGRICULTURAL CROPS :

Jawar and Bajra are the main crops in Sangola taluka with wheat, groundnut etc. constituting subsidiary crops. The percentage of irrigated land in total agricultural land is very small. Some fertile land is found on the banks of the Man river, but the remaining soil in taluka is of light quality which is less fertile.

The income of the agricultural sector mainly depends upon the productivity of land, and the productivity of land depends on its fertility, availability of water, climate, use of seeds and fertilisers etc. For growing jawar and bajra and other subsidiary crops, people mainly use the traditional types of seeds. The high yielding variety (H.Y.V.) of seeds are not so popular, mainly due to lack of water supply. This also entails limited use of fertilisers and pesticides.

Due to the limited availability of water, during the monsoon season, the major crop is the rabbi crop, which accounts for 75 percent of the total agricultural output in the Sangola Taluka. The rest of the output is available in the kharif season. The latter's share is small due to the major gaps in the rainy days i.e. breaks in weeks.

Tables 2.9 and 2.10 show that the per hectare yield of major crops is low in Sangola taluka, compared to the all India Performance. People are mostly engaged in traditional crops rather than cash crops. Therefore, the income level of

the peasant society in the taluka is low. The low yield per hectare is adversely affected by lack of water facilities, limited use of fertiliser and pesticides, traditional agricultural technique and practices, traditional view towards agriculture etc.

Thus in Sangola taluka, the uncertain and uneven rainfall, lack of artificial water supply systems, low yield of major crops, use of traditional seeds and lack of modern view towards agricultural development are the major problems of the agricultural sector.

(IV) NEED OF ADOPTION OF NEW FARMING TYPE  
(HORTICULTURE FARMING)

The available conditions in Sangola Taluka are not in favour of transformation of subsistence agricultural sector into a profitable sector. But how long can people continue in this situation, in the Taluka ?

Agriculturists, especially in various agricultural universities, have been constantly attempting to devise ways and means to achieve higher productivity from all types of land. Agricultural universities have played a key role in respect of finding a major solution over all these problems. One of the plausible solutions is the development of horticulture. The Mahatma Fule Agriculture University, Rahuri has taken an initiative in the development of techniques of dryland fruit crops in these regions. For example in a dry



area with low rainfall these universities have shown that pomegranate, ber, tamarind, custard apple, and other fruit crops can be grown. According to Barve Committee with all efforts it is possible to increase the irrigated land from 12 percent to 25 percent in Maharashtra.<sup>30</sup> Therefore, a substitute to that is an easy way to develop horticultural sector in a drought prone areas. The drought prone area review committee in Maharashtra, under the Chairmanship of Dr. V. Subramnian, has also given due weightage for development of such fruit crops.<sup>31</sup>

As a remedy for the drought prone areas, the era of development of horticultural sector has been started. Agriculturists and universities like Mahatma Fule Agriculture University, Rahuri, have shown with their research that development of fruit crops is profitable business in given conditions. They prove that growing of pomegranate, ber, tamarind, custard-apple etc. in this area is profitable. The yield of such crops is 10 to 12 tonne per hectare and will give Rs. 20 to 25 thousand as an income per hectare.

In the given situation of Sangola taluka, the development of horticulture (dry land fruit crops) is one of the best remedy to overcome all agricultural problems. This will also help to transfer agricultural sector from subsistence sector to a profitable sector.