

CHAPTER NO. 3

IRRIGATION PROFILE OF WARANA AREA

3.1 Introduction

In this chapter we will briefly discuss irrigation profile of Warana area as also the irrigation profile of the selected villages. The statistical data presented here are taken from the District Statistical Abstract of Kolhapur and Sangli districts for the year 1981. The District Statistical Abstract gives information about irrigated area and unirrigated area under cultivation. Information in respect of irrigated area is again further classified by source of irrigation, i.e., well irrigation, river irrigation, weir irrigation and irrigation by other sources.

3.2 Irrigation Profile of Warana Area

In Table No. 3.1 on the next page we give information regarding area irrigated by source and unirrigated area. Similarly, the information is aggregated for the number of villages belonging to a taluka, which, at the same time, are included in the Warana area as defined earlier. On the basis of the data given in Table No. 3.1 we can make the following observations:

TABLE NO. 3.1

Irrigation profile of Warana area (acres)

No. of Villages.	Taluka	District	Irrigated area (by source)				Total	Unirrigated	Total cultivated area
			Well	River	Weir	Other			
1	2	3	4	5	6	7	8	9	10
6	Shirala	Sangli	746.27 (6.51)	1,492.54 (13.03)	-	-	2,238.81 (19.54)	9,217.20 (80.46)	11,456.00 (100)
18	Walwa	ditto	1,469.69 (6.14)	2,185.09 (9.13)	1,186.13 (4.96)	24.71 (0.10)	4,865.62 (20.33)	19,071.65 (79.67)	23,937.27 (100)
4	Karveer	Kolhapur	-	1,693.59 (44.07)	77.72 (2.02)	-	1,771.31 (46.09)	2,071.72 (53.91)	3,843.03 (100)
20	Hatkan- angale	ditto	2,871.42 (8.37)	2,972.73 (8.67)	-	333.60 (0.97)	6,177.75 (18.02)	28,113.71 (81.98)	34,291.46 (100)
16	Panhala	ditto	1,132.08 (5.37)	947.05 (4.49)	-	-	2,079.13 (9.86)	19,004.37 (90.14)	21,083.5 (100)
64	-	-	6,219.46 (6.57)	9,291.01 (9.82)	1,263.84 (1.37)	358.31 (0.38)	17,132.62 (18.11)	77,478.65 (81.89)	94,611.27 (100)

Note: Figures in brackets indicate percentage.

(1) In the 66 villages in the Warana area the total cultivated area is 94,611.27 acres, of which 81.90 per cent is unirrigated, which means that the irrigation ratio for villages in Warana area as a whole is 18.11. If we take into consideration the talukawise picture, it is seen that

- (1) In case of Shirala taluka of Sangli district, the irrigated area is 19.54 per cent.
- (2) In case of Walwa taluka of Sangli district, the proportion of irrigated area to total cultivated area is 20.23.
- (3) In case of Karveer taluka of Kolhapur District the proportion of irrigated area to total cultivated area is 46.09 per cent.
- (4) In case of Hatkanangale taluka of Kolhapur district the proportion of irrigated area to total cultivated area is 18.02 per cent.
- (5) In case of Panhala taluka of Kolhapur district the proportion of irrigated area to total cultivated area is only 9.86 per cent.

On the whole the proportion of irrigated area to total cultivated area in 66 villages of Warana area is 18.11 per cent.

3.3 The Structure of Irrigation in Warana Area

By structure of irrigation we mean the percentage share of land under irrigation by different sources. The information available in this regard gives four types of sources of irrigation, viz., well irrigation, river irrigation (Lift irrigation), weir irrigation and other types of irrigation, which mainly covers canal irrigation. In Table No. 3.1 the information under the column irrigated area by source gives us the structure of irrigation. It is seen that area as a whole the irrigation ratio is 18.11 per cent of the total cultivated area comprising -

6.5 per cent - well irrigation,

, 9.82 per cent - river irrigation by lift,

1.34 per cent - by weir irrigation,

0.38 per cent - irrigation by other sources.

We, therefore, can say that Lift Irrigation constitutes the major source of irrigation followed by well irrigation.

3.4 Irrigation Profile of Sample Villages

In Table No. 3.2 on page 31 we give information regarding irrigation in the sample villages. It is seen that for all the five villages together the irrigation ratio is 20.57 per cent of the total cultivated area of 9,984.18

TABLE NO. 3.2

Irrigation profile of sample villages (acres)

Name of village	Taluka	District	Irrigated area by source			Total	Unirrigated	Total cultivated area
			Well	River	Total			
1	2	3	4	5	6	7	8	
Pargaon	Hatkanangale	Kolhapur	182.86 (5.96)	289.12 (9.43)	471.98 (15.39)	2,594.66 (84.60)	3,066.64 (100)	
Ghunaki	ditto	ditto	308.89 (11.02)	303.95 (10.85)	612.84 (21.87)	2,189.39 (78.13)	2,802.23 (100)	
Kini	ditto	ditto	205.10 (8.70)	259.47 (11.00)	464.57 (19.70)	1,892.86 (80.29)	2,357.43 (100)	
Kakhe	Panhala	ditto	-	183.00 (24.81)	183.00 (24.81)	554.61 (75.19)	737.61 (100)	
Tandulwadi	Walwa	<i>Sangli</i>	42.00 (4.12)	279.23 (27.37)	321.23 (31.48)	699.04 (68.52)	1,020.27 (100)	
Total:	-	-	738.85 (7.40)	1,314.77 (13.17)	2,053.62 (20.57)	7,930.56 (79.43)	9,984.18 (100)	

Note: Figures in parentheses indicate percentage.

acres. If we consider the villages separately, it is seen that village Tandulwadi of Walwa taluka of Sangli district has the highest irrigation ratio (31.48 per cent) and village Pargaon of Hatkanangale taluka of Kolhapur district has the lowest irrigation ratio of 15.39 per cent; other villages (Ghunaki, Kini and Kakhe) have irrigation ratios of 20.87 per cent, 19.70 per cent and 24.81 per cent respectively. On the whole, the sample villages have somewhat greater irrigation ratio than that of the Warana area as a whole.

3.5 Structure of Irrigation

In Table No. 3.2 under the column irrigated area by source we get the structure of irrigation for the sample villages also. The first thing that strikes us is the total absence of area under weir irrigation and canal irrigation. It is seen that out of 20.57 per cent of the area under irrigation, 13.17 per cent of the area is under river irrigation of lift and 7.40 per cent of the area is under well irrigation. In other words, compared with the Warana area as a whole, the proportion of well irrigation as well as river irrigation by lift is greater in the case of sample villages.

In we consider the sample villages separately, it will be seen that only in the case of Ghunaki village the proportion of well irrigation (11.02 per cent) is greater

than river irrigation by lift (10.85 per cent). In the case of Pargaon and Kini, the proportion of river irrigation of lift is considerably greater than the proportion of well irrigation. It is really surprising to see that in the case of Kakhe village there is total absence of well irrigation.

3.6 General Information Regarding Irrigation in Warana Area

We tried to collect information in respect of irrigation schemes in Warana area as well as in the sample villages. There are at present 67 factory-sponsored or managed cooperative lift irrigation schemes. Out of these 67 schemes we could get information regarding area under irrigation from only about 60 schemes. For the 60 schemes, the total area under irrigation is 3,694.34 acres, of which 1,878.65 acres is under sugarcane cultivation and the remaining area is used for rabbi cultivation. Of the remaining 7 schemes, the total area under irrigation is 1,080 acres. In all the area irrigated by factory-sponsored or managed lift irrigation schemes (67) comes to be 4,774.34 acres.

There are 41 cooperative lift irrigation schemes in the Warana area, which have a total irrigation capacity of 7,581.56 acres, of which 5,406.10 acres are under the cultivation of sugarcane, 2,167.55 acres under rabbi cultivation and 7.91 acres under Khariff cultivation.

There are 685 partnership lift irrigation schemes with a total number of partners of 4,761, which gives an average number of partners = 6.95. We could not get the total area irrigated by partnership lift irrigation schemes.

There are 749 individual lift irrigation schemes (Proprietary). However, it is to be noted that these individual lift irrigation schemes belong to the 34 villages which are on the banks of the Warana and Panchaganga rivers. It was, however, not possible to get information regarding the total area under such individual lift irrigation schemes.

3.7 General Irrigation Background of the Sample Villages

In the 5 sample villages selected, the number of factory-sponsored or managed LIS is 18. The number of cooperative LIS is 10. The number of partnership LIS is 82 and the number of individual LIS is 134. The total area irrigated by factory-sponsored or managed LIS is 1,699.49 acres, of which 62.36 per cent is under sugarcane cultivation. In the case of cooperative LIS (10), the total area under irrigation is 1,162.40 acres, of which 67.54 per cent is under sugarcane cultivation. In the case of partnership LIS (82) the area irrigated is 899.85 acres and the whole of it is under sugarcane cultivation. In the case of individual LIS, though the total number of schemes is 134, we could collect information from 47 individuals only regarding area under irrigation

which was found to be 97.65 acres, the whole of which is under sugarcane cultivation. In the case of factory-sponsored and cooperative LIS the remaining areas are under mainly rabbi cultivation and very marginally under Khariff cultivation (in the case of cooperative LIS).

The average irrigated acreage of the factory-sponsored or managed LIS is 94.42 acres, of cooperative LIS 116.24 acres, of partnership LIS 10.97 acres and of individual LIS 2.07 acres. This information is given in Table No. 3.3.

In short, the consolidated picture of irrigation facilities in the Warana area and in the sample villages can be presented as shown in Table No. 3.4.

TABLE NO. 3.3
Irrigation Profile of Sample Villages.

Sr.No.	Name of the scheme	Total No. of schemes in sample villages	Total area (acres)				Average irrigated acreage
			Sugarcane	Rabbi	Khariff	Total	
			4	5	6	7	
1	Factory-sponsored LIS	18	1,059.82	639.67	-	1,699.49	94.42
2	Cooperative LIS	10	785.2	363.7	13.5	1,162.40	116.24
3	Partnership LIS	82	899.85	-	-	899.85	10.97
4	Individual LIS	134	97.65*	-	-	97.65	2.07
	Total:	244					

Note: This acreage is reported only by 47 individual LIS.

TABLE NO. 3.4

Consolidated irrigation background.

Sr.No.	Item	Marana area (667 villages)	Sample villages (five)		4 as % of 3	4 as % of 2
			Total	Selected for sample		
1	2	3	4	5	6	7
1	Factory-sponsored or managed LIS	67	10	6	31.58	8.96
2	Cooperative LIS	41	10	5	50.00	12.20
3	Partnership LIS	685	82	5	6.10	0.73
4	Individual LIS	749	134	5	3.73	0.67
Total:		1,542	244	21	8.57	1.36