CHAPTER NO. 8

SUMMARY AND CONCLUSIONS

8.1 Introduction

In this chapter we summarise our main findings and state the overall conclusions of the present study.

8.2 General Findings

(A) The average population of the villages selected for the study is 4,540. The sex ratio is 949.34. The literacy among main population is 65.40 per cent and among female population it is 34.60 per cent. The average number of households of these villages is 808.

(B) So far as the sample villages are concerned, the average availability of land per village is 2,392 acres. The ratio of forst land to total land of the sample villages is 0.80 per cent. The proportion of culturable waste is 11.17 per cent. Similarly, the proportion of area not available for cultidvation is 4.13 per cent.

(C) The cropping pattern of the Warana area belonging

Kolhapur disdtrict is as given below:

(1) Jowar or paddy,
(2) Sugarcane,
(3) Nachani,
(4) Groundnut,
(5) Pulses.

Similarly, the cropping pattern for Warana area belonging to Sangli district is given below:

(1) Jowar and rice,
(2) Groundnut,
(3) Sugarcane,
(4) Tobacco,
(5) Hybrid jowear,
(6) Pulses.

(D) **Irrigation Background**

In Warana area the overall irrigation ratio is 18.11 per cent complrising:

6.57 per cent well irrigation,
9.82 per cent river irrigation by lift,
1.34 per cent by weir irrigation,
0.38 per cent irrigation byother sources (canal).

So far assample villages are concerned, it is seen

that the overall irrigation ratio is 20.57 per cent comprising 7.40 per cent by well irrigation, and 13.17 per cent by Lift Irrigation and no weir irrigation. It is also to be noted that more than 50 per cent of irrigation is used for sugarcane cultivation.

8.3 Capital Expenditure of Lift Irrigation Schemes

If we calculate the per H.P. per acre capital expenditure of different types of LIS, the composition is given in Tabdle No. 4.5. It becomes clear that the proportion of expenditure on pipeline, channels and valves and booths constitutes the single largest factor irrespective of the type of LIS. However, relatively speaking, the individual LIS and partnership LIS spend considerably larger amounts for the factor than the cooperative LIS and the factory-sponsored LIS. On the other hand the cooperative LIS and factory-sponsored LIS spend relatively larger proportion of amounts on pumpsetting and shed than individual LIS and partnership LIS. It is also important to note that the proportions of incidental capital expenditure and power connection are marginal and more or less the same, irrespective of type of LIS.

8.4 Financing of Capital Expenditure

If we compare the composition of the financing of

investment expenditure of different types of LIS we can conclude that in the case of individual LIS and partnership LIS there are three major sources of finance, viz.,

1 Land Development Bank,

2 Other cooperative agencies,

3 Own savings,

in a descending order of importance.

In the case of cooperative LIS and factory-sponsored or managed LIS again a somewhat similar pttern of the sources of finance emerges. It is seen that in both cases the contribution of Government assistance and cooperative agencies todgether is significantly high. The contribution of share capital in both cases is almost identical percentage-wise. It is important to note that it is only the factory-sponsored or managed LIS that have obtained subsidy from Small Farmers' Development Agency, or large loans from Nationalized banks like State Bank of India and Bank of India.

In the case of cooperative LIS and factory-sponsored LIS share capital can be considered as own savings. However, assuming this, it becomes clear that the contribution of own savings in the case of individual LIS and partnership LIS is more than almost two times larger than in the case of cooperative LIS and factory-sponsored LIS.

8.5 Per H.P. Per Acre Current Expenditure

It is seen that the per H.P. per acre current expenditure of partnership LIS is only 1/4 of individual LIS expenditure. However, if we take into consideration the per H.P. per acre current expenditure of cooperative LIS it is less than even 1/10 of the individual LIS expenditure. Similarly, the per H.P. per acre current expenditure of factory-sponsored or managed LIS is found to be as low as 7 per cent of the current expenditure of individual LIS. We, therefore, conclude that with increasing average size of LIS (indicated by Horsepower capacity and acreage under irrigation) the per H.P. per acre current expenditure decreases by large jumps.

So far as the composition of current expenditure is concerned, it is clearly seen that depreciation, salaries, bills and repairs and water charges account for a little more than 83 per cent of the total current expenditure.

8.6 Per H.P. Per Acre Revenue

So far as the structure of per H.P. per acre revenue of different types of LIS under study is concernded, it is to be noted that we could not get structural information in respect of individual and partnership LIS. However, the same information was obtained in respect of cooperative

and factory-sponsored LIS. On the whole, it is seen that the most important source of revenue for both cooperative LIS and factory-sponsored LIS is water charges, accounting for almost 84 per cent and 90 per cent respectively. The per H.P. per acre revenue in the case of individual LIS and partnership LIS is significantly larger than in the case of cooperative LIS and factory-sponsored LIS.

8.7 Major Conclusion

It isseen that -

(A) Per H.P. per acre fixed cost of cooperative and factory-sponsored LIS is considerably smaller than in the case of individual and partnership LISs.

(B) Similarly, per H.P. per acre current expenditure of cooperative and factory-sponsored LIS is much smaller than in the case of individual and partnership LIS.

(C) However, the per H.P. er acre revenue of individual LIS and partnership LIS are significantly largerthan in the case of cooperative and factory-sponsored LIS.

Table No. 8.1 on the next page gives together the

TABLE NO. 8.1

Per H.P. per acre cost and revenue.

Sr.No.	Item	Per H.P. per acre fixed cost	Per H.P. per acre current cost	Per H.P. per acre total cost	Per H.P. per acre revenue	Per H.P. per acre surplus or difference (+)(-)
1	2	3	4	5	6	7
		Rs.	Rs.	Rs.	Rs.	Rs.
1	Individual LIS	13.08	21.25	34.33	4.20	-30.13
2	Partnership LIS	4.50	5.28	9.78	16.74	+6.96
3	Cooperat-ive LIS	0.54	2.07	2.61	2.97	+0.36
4	Factory-sponsored LIS	0.55	1.50	2.05	1.63	-0.42

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data in these respects for various types of LIS. From this table it is clear that it is only the partnership LIS and cooperative LIS that show net surplus per H.P. per acre. Between them the net surplus in case of partnership LIS is much larger. However, the individual LISs show a large amount of per H.P. per acre loss.

On the whole it can be concluded that from cost point of view as well as revenue point of view large partnership LISs or cooperative LISs are more suitable and profitable for irrigation purposes.

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