

CHAPTER VIII

ESTIMATION OF COST OF SUGARCANE CULTIVATION IN THE SELECTED REGION

CHAPTER VIII
ESTIMATION OF COST OF SUGARCANE CULTIVATION IN THE
SELECTED AREA

The cost of cultivation has been significantly considered in deciding the plantation of sugarcane crop. The cost of cultivation varies from region to region, variety to variety and season of plantation like Adsali, suru and ratoon etc. To understand the cost of sugarcane cultivation, we have a field survey of selected samples belonging to different size group and source of irrigation.

With a view to examine the cost of cultivation of sugarcane a sample of 45 farmers belonging to various size group and various sources of irrigation were selected. The size groups are categorized into:

1. Large farmers: The farmer having land holding above 10 acres are categorised as large farmers.
2. Medium farmers: The farmer having land holding between 5 to 10 acres and
3. Small farmers: The holding in between 1 to 5 acres were categories as small farmers.

These samples were selected from the two sugar factory area, viz., Ugar Sugar & Doodhaganga Krishna.

The farmers were again classified according to sources of irrigation. In the operational area of the Ugar Sugar Works, there are two major sources of irrigation viz.,

1. Co-operative lift irrigation,
2. Well irrigation.

Where as in the operational area of D.K.S.S.K. Chikodi, the sources of irrigation are the private pumpsets installed on the Krishna river.

The 15 sample farmers from each source of irrigation were selected, comprising 5 sample farmers from each size of holding.

The sample are selected from 5 villages; 3 villages form Ugar Sugar factory area and 2 from D.K.S..S.K. Chikodi area for analysing the cost of cultivation under selected 3 sources of irrigation.

The data was collected during the year 1994-95. The farmers while responding to our survey acknowledged various types of information about the cost of sugarcane cultivation. A few farmers have maintained the proper accounts of costing and yield of sugarcane. On the basis of available data different results have been obtained with respect to average production of cane, average expenditure and average surplus per acre in the area under study.

The gross computation of the cost of cultivation is exhibited in table 8.1. The average yield of all samples is little greater than averages of the region. Which was recorded in the respective sugar factory areas. The surplus earned by large farmers is greater than average total. Whereas in the rest of categories the surplus earning is less than the total average.

Table No. 8.1
COST OF SUGARCANE CULTIVATION
 (Based on field survey conducted in 1994-95)
RIVER IRRIGATION (PRIVATE PUMPSETS)

Size of farmers	Average yield of sugarcane per acre (tonnes)	Average income per acre (Rs)	Average Cost per acre (Rs)	Surplus (Rs.)
Large farmers (N = 5)	56.27	41549.4	11966.91	29582.49
Medium (N=5)	45.3	34450.0	11003.37	24446.77
Small (N=5)	36.5	28538.4	11239.73	17298.67
Avg. of RI	36.5	28538.4	11239.73	17298.67

CO-OP. LIFT IRRIGATION

N=15

Large (N=5)	41.43	30062	10,081	19980
Medium (N=5)	39	27720	10197	17522
Small (N=5)	39	28411	10755	18599
Avg. of CLI	39.8	28731	10344	18700

WELL IRRIGATION

(N = 15)

Size of farmers	Average yield of sugarcane per acre (tonnes)	Average income per acre (Rs)	Average Cost per acre (Rs)	Surplus (Rs.)
Large (M=5)	43.56	32333.33	10,209.6	23003.2
Medium (M=5)	34.7	25040	9666.6	15373.3
Small (M=5)	35	25480	10489	14991.87
Avg. of WI	37.7	27618	10122	17789

Table No. 8.2

TOTAL AVERAGE COST OF CULTIVATION

(per acre) (N=45)

Size of Farmers	Average production (Tonnes)	Average Income (Rs)	Average Cost (Rs.)	Net Profit (Rs.)
Large (N=15)	47.08	34648.24	10752.50	24188.56
Medium (N=15)	39.66	29070	10288.99	19114.023
Small (N=15)	36.83	27476.47	10827.91	16963.18
Avg. of Total	41.1	30398	10623	200088

The data in table No. 8.1 reveals the farmerwise and sources of irrigationwise positions of average yield, revenue and costing pattern in

study area. In the category of private pumpsets under rivers irrigation, the large farmers have recorded highest average yield of sugarcane per acre i.e.(56.27 tonnes) . As a results an average income estimated with the help of sugarcane prices during the period as Rs. 41549.4. The average expenses i.e. the cost of cultivation was Rs. 11966.91 so a surplus of Rs. 30560.60 per acre was earned by large farmers.

The weak performance have been registered by the small farmers in respect of average yield and surplus per acre in river irrigation. The medium farmers are earning an average income of Rs. 34450 with net profit of Rs. 24446.77. The big farmers as they have got adequate land for cultivation and resources acn use more important for cultivation as compared to small and marginal farmers.

In the cooperative lift irrigation scheme area, the big farmers were performing better in average production(41.43 MT per acres) as compared to medium and small farmers in the same category. The average income was Rs. 30062 and expenses were of Rs. 10081. The surplus earning was to the tune of Rs. 19980 per acre in CLI (Co-operative lift irrigation) group.

The medium farmers in the CLI group were experiencing lowest surplus of Rs. 17555 with an average yield 39 tonnes and average money income of Rs. 27720 and even lower average cost of Rs. 10197. The yield of small farmers was 39 per acre. The cost of cultivation per acre is more as compared to medium class farmers. Such variations occurred due

to yearwise as well as factory wise difference in the price paid to the sugarcane.

In the group of well irrigation which is also an important source of irrigation in the area, the large farmers are yielding an average sugarcane production of 43.56 tonnes per acre and earning average income of Rs. 32333.33. An average surplus of Rs. 23003.2 per acre was earned by large farmers in well irrigation area.

The medium small farmers have registered the average yield of 34.7 MT and 35 MT per acre, with an average money income of Rs. 25040 and Rs. 25480 respectively where as an average cost was around Rs. 10000 in both cases and the surplus retained with them was around Rs. 15000 per acre.

Going through the averages of size group farmers in different source of irrigations, it seems that the large farmers under the irrigation of private pumpsets have registered better sugarcane yield. Under this source of irrigation there is a sufficient and assured supply of water. Sugarcane being a commercial crop attracted the farmers of this area to invest huge amount in irrigation. Big farmers can afford this investment even with institutional support. Since, credit is linked to marketing there is automatic recovery of the loans: There is no problem of overdue. The creditworthiness of cane farmers have gone up. As a result number of credit agencies rush to lend cane farms. Therefore, there is vertical and horizontal link of verities of agencies helping particularly to cane farmers.

It is observed that there is mismanagement of the irrigation water in the area. Similarly use of fertilizers among these farmers is lavish. Farmers supply excess water to cane farms and use chemical fertilizer lavishly. As a result everything goes worst and wrong. Nearly 90 percent of the area is irrigated and having sufficient water supply. With expectation of high sugarcane yield farmers usually supply water continuously. There is no proper rationale is followed in the cultivation of sugarcane crop. Specific chemical fertilizers are very frequently used irrespective of soil type and climate etc.

As a result, the fertility of soil and yield of sugarcane is deteriorating. More sugarcane yield can be obtained even by adopting scientific method of cultivation in the area. But farmers are reluctant to follow the scientific methods of cane plantation, water supply and use of fertilizer. However, the cultivation of sugarcane varieties like CO-671, CO-7704 are being made in large scale in this area.

Even the cultivation under the cooperative lift irrigation is similar to private pumpsets. However, the frequency of water supply is comparatively lower. So the yield is low as compared to farmers of other irrigation sources because the plantation of early and rich variety is comparatively lower since, these varieties require timely water supply. The performance of such farmers, however is satisfactory.

In the well irrigation area the proportion devoted to sugarcane by each farmers is few because of lack of sufficient water supply. The land in this area is very fertile. So no much of fertilizers are being used by the

farmers. They usually use manures and only a few chemical fertilizers. The supply of water to crops is through vertical furrows & not chain bands as is observed in cooperative lift irrigation and private pumpsets. The large farmers in these areas were able to invest for the digging of wells and few of them have also the shares in the co-operative lift irrigation. The average yield was good under the well irrigation. So far as the cultivation method is concerned, the performance of farmers under well irrigation found satisfactory even we seen the economic use of water and chemical fertilizers was followed by the farmers in the region.

The data exhibited in table No. 8.2 for all samples reveals that the large farmers have recorded higher average yield average income, surplus per acre and minimum cost of cultivation. This is followed by medium farmers. The small farmers have registered the lowest record of average yield, average income & average cost per acre and the surplus they earned.

The large farmers have better access of resources and the capital as where many of small farmers did not have their own bullocks, pumpsets and other inputs. They are required to hire these from others for sugarcane cultivation. The doses of fertilizers, use of manuring , supply of water is comparatively lower among the small farmers. Besides they have to face the problems like inadequate water supply, nonavailability of timely supply of water, plantation of sugarcane on the availability of water supply etc.

As a result the yield remained less. Big farmers can manage the farm activities on their will. They make it convenient to provide all required necessities for better yield of sugarcane.

The sugarcane has become a major cash crop of the farmers in this area. It satisfied the farmers with better earnings. It is observed that the income from sugarcane assumed to be stable and attractive as compared to other remunerative crops, sugarcane cultivation takes a full season of one year. Within which other remunerative crops can be grown up twice with low cost of cultivation. The impact of sugarcane cultivation on the soil is more severe than other crops. In spite of such defaults, the farmers in the area are much attracted to this crop due to the following reasons.

1. The sugarcane being the important cash crop, the returns from the sugarcane is attractive as compared to other crops.
2. There are lot of hindrances in crop protection of other than sugarcane crops due to pigs & other animals.
3. There is availability of adequate amount of irrigation facilities. The yield is naturally more.
4. There is no risk involved as such in the sugarcane cultivation.

It can be concluded that, it is the large farmers who have benefited much in sugarcane cultivation. Which is followed by the medium farmers. The performance of small farmers is comparatively poor. Therefore, there is a need of provision of finance and other incentives to the small farmers in the regions.