CHAPTER VI.

MOTIVATION, INCENTIVES, PROBLEMS AND COST STRUCTURE OF SUGARCANE CULTIVATION OF SELECTED SAMPLES.

CHAPTER - VI

Motivation, Incentives, Problems and Cost Structure Of Sugarcane Cultivation of Selected Samples.

6.1 Selection of the samples :-

As stated in our methodology, we with a view to examine why farmers are motivated to cultivate sugarcane, what incentives are being provided to the crop, and what are the problems that the farmers face at various levels to cultivate sugarcane etc. are proposed to study. The cost structure is also analysed at last with the help of information from sample farmers. A sample of 80 farmers belonging to various size groups were selected. The size groups are categorised into, marginal farmers (MF), small farmers (SF),semi-medium farmers (SMF), medium farmers (MDF) and large farmers (LF). These samples of various size groups i.e. 16 each (16 X 5 = 80) were selected from 4 villages. Four samples belonging to each size group (4X5 = 20) were selected from each village (20X 4) = 80. These four villages were Jugul, Mangavati, Shirguppi and Shahapur (See table No. 5.1). These villages belong to Jugul zone. As this zone contribute more number of sugarcane quantity from farmer growers to Ugar Sugar Works. Ugar zone, though contribute highest quantity of sugarcane includes Ugar Sugar Works self sugarcane cultivation

estate. So the Jugul zone has the highest number of cane growers and contribute higher quantity of cane supply to Ugar Sugar Works.

The selection of the samples was according to the size group. First met first interviewed method was adopted according to size of holding and number of interviewers with the help of structured, questionaire. The questionaire is structured with a limited view to understand or examine motivation, incentives problems and cost structure of sugarcane cultivation of farm level. The information that has been collected from farmer samples is analysed as under :

6.2. Identification of Selected Samples :

The selected samples may be identified with few observations relating to population, size of holding, sources of irrigation and cropping pattern etc. Let us, take one by one.

6.2.1. Population Characters :

The population that has been covered in this survey is 704 including 330 males and 374 females. The female population is more than male. That is female population per 1000 male is 1133. As the size of holding goes on increasing the female population in the respective groups goes on increasing (See table 6.2) More number of people is observed in LF group

(i.e. 28.98 %) and less number at MF group (i.e.13.49%) The average size of family goes on increasing,upto SMF group then falls at SMF group and then an increase at LF group is observed.

6.2.2. Educational Status of Samples :-

Education plays a significant role in improving the quality of life. Education makes a man awakened in respect of his traditionality. Moreover it helps to impart the knowledge easily. Now a days education improves the traditional farm management techniques. In our economy, majority of rural population is illiterate. Because of which our agriculture is still practiced in a traditional way, However, in some part of our country, where agriculture is observed developed, there the situation is favourable. The Ugar region, as it is developing, the rate of literacy is also growing.

Table No.6.3 depict the fact that about 13.75 % of the samples were observed illiterate. The percentage of graduate samples is sufficiently higher than the national average. The literate samples upto 5th Std. were in greater number (26.25%). It should specially be noted that the LF group has no illeterates, but as the size of holding goes on increasing illiteracy gees on increasing particularly the SF group has higher

number of illiterates followed by MdF and SMF.(See table No.6.3).

6.2.3. Land Holdings by Selected Samples :

Size of holding indicates the economic position of the farmer community. The farmers of high size of holding experience high standard of living. In our economy about 80 % of land holders belongs to MF and SF groups, who are holding about 2.6 hectares of average size of land, That is why an intensive farming techniques are helpful to our farmers.

The percentage of irrigation in India is about 25 % of the cultivable areas with a growing major and minor irrigation schemes in India. So the sufficient quantity of area is being brought under irrigation.

In connection with our sample farmers about 96.54 % of total land holding belongs to irrigated area. An average size of holding per family is 14 acres and 18 guntas. The drought area among MF and MdF is at higher percentages in comparision with other size groups. Particularly the SMF has no drought area. The average size of holding of LF group is 43 acres and 10 guntas; while the MF group hold an average size of holding to 1 acre and 34 guntas (see table no. 6.5)

6.2.4 Source of Irrigation :

About 91.25 % of total irrigated area is under lift irrigation schemes. The private pumpsets are owned by SMF and MdF groups who share 5% of total irrigated area. No well irrigation is observed among the sample farmers. The MF and SMF size groups are completely dependent on lift irrigation schemes,the SF and MdF size groups have no bore wells (see table 6.4).

6.2.5 Cropping pattern :

Cropping pattern indicates the attitudes of cultivators against crops. Higher percentage of cash crop cultivation indicates the commercial attitude of farmers. Out of the total sample's land area 67.4 % of land area was under sugarcane cultivation during 1988-89 season. Hulga, an animal feed crop and an oil seed comprises about 14.13% of land area (see table no.6.6). A cropped area other than sugarcane belongs to the combined crops or inter-crops; generally after which sugarcane cultivation is undertaken. Hulga and wheat are the rabi crops. The plantation of sugarcane during Kharif season is known as " Adsali " and plantation during Rabi season is called as " Ekasali " (one year). Generally sugar factories begin their functioning during the month of October Or November and chain down during the month of May.

The intensity of crops that is the percentage of gross cropped to net cropped area is 103.97 %. Particularly, the intensity of SMF size is 112.58 %, while the intensity of other size groups is little higher than the normal intensity at 100 (See table no. 6.6).

6.3 Motivation of Sugarcane Cultivators :-

Any economic activity being practiced by a person is expected to be motivated from the experienced person or advices of well wishers. Well wishers are generally belongs friends and relatives etc. A farmer who is illiterate and traditional has to be motivated towards a desirable way. The change in cropping pattern from subsistance crops to commercial crops has been brought in because of motivations and providing the input services to the farmer family.

In connection with our samples farmers weretried to measure the frequency of the causes of (or objectives of) sugarcane cultivation. That is, which condition motivated the farmers ? Who inspired to plant sugarcane ? are the some questions which were asked to the sample farmers. Whatever we received as the answers from the concerned farmers are listed into nine items. Of course, there is an overlapping frequency in the answers that we received from the samples (see table no.6.8).

Table No.6.8 indicates that 97.5 % samples were agreed that they cultivate sugarcane because it yield high income. It is true that sugarcane cultivation has improved the standard of living of the farmer cultivators. It is also true that sugarcane cultivation requires less labour and high capital investment. And the harvesting is being managed by the factory itself. So, about 28.75 % of the sample farmers agreed that the sugar cane cultivation requires less labour force. Although otherthan these two items are also most significant but they are least favoured by samples. (See table no.6.8).

6.4. Incentives to the Cane Growers :-

Incentives to some extent, motivate the farmers to cultivate sugarcane. Particularly the sugar factories are completely dependent on sugarcane, as a raw material. Therefore, they have to motivate the farmers to undertake sugarcane cultivation. That is why sugar factories provides, new varieties of seeds, fertilizers, credit, insecticides, tractors, buldozers, irrigation, soil testing, guidance, to the cane growers, etc.

The Ugar Sugar Works, since its establishment initiated to provide incentives to the cultivator farmer by way of various input services (see chapter 5).

The role of state and central government in

motivating the farmers to cultivate sugarcane is also immense. Central government through it's Price Commission fixed the sugarcane prices and/or may give relief in purchase taxes levied on sugarcane, and protect the whole sugar industry.

Almost all selected sample farmers have acquired the benefits provided by Ugar Sugar Works in respect of sugarcane cultivation.

6.5. Cost of Cultivation :-

Cost of cultivation played a significant role to decide whether to continue the cultivation or not to cultivate the sugarcane. The higher cost of cultivation and lower prices to it discourages the farmers to cultivate sugarcane.

Table 6.7 indicates that, as there is rise in the size of holding, the average cost per acre of sugarcane is going on decreasing. This is because of the following reasons.

1) Higher size of holding farmers have their own pump sets and tube wells for irrigation.
2) The higher size of holding farmers do not hire implements because they have their own.
3) The internal and external economies are more favourable to the higher size of holding,

The average cost of cultivation of sugarcane per acre is Rs. 4356.68/- .

6.6. Borrowing Position of Samples Farmers :-

The intensity of borrowing of the sample farmers for crop purposes from various agencies is 133.75 %. Borrowing increases the productivity and motivate the farmers to entertain cash crops. Although the low MF and SF groups farmers borrow for other than crop purposes. For example cultural activities, purchase of gold etc. The institutional borrowing is greater than non-institutional. No non-institutional borrowing is observed among all sample farmers. The institutional borrowings, particularly from primary Agricultural criedit Societies, (PACS) and sugar factory is higher than other agencies. (See table No.6.9) The multi-agency approach makes the farmers to borrow from various agencies. Particularly, SF MdF and LF groups have benefited by multiagency approach. The intensity of borrowing from various agencies of LF groups is about 156.35 %. It is pertaining to note that sugar factories entertain to issue credit to its members for cultivation of sugarcane. This is a type of incentive provided by a sugar factory. The Ugar Sugar Works has initiated to establish co-operative credit societies to the member farmers.

As the PACS issue loans on a cheaper rate of interest borrowing ratio from that agency is higher than the other agency.

6.7 Problems of Cultivators :-

As our agriculture and agriculturists are economically backward and traditional, face the number of problems at a various levels. With a view to a understand the problems of cane cultivator we asked some questions related to the subject matter. Accordingly problems are categorised into family, farm, factory and four making levels. After analysing the discussions with the sample farmers, it is observed that cane cultivators face variety of problems, such problems are recorded in table 6.10.

There were 5 types of problems at family level (see table 6.10). About 68 samples out of 80, stated that they were lacking in the co-operation of other family members. Only 14 samples faced some economic problems. Lack of education, low yield of cane, higher population in the family and non availability of vehicles were some of other problems which are also significant at family level stated by samples.

There are some farm level problems which were experienced by our sample farmers at the time of sugarcane cultivation. The 32 samples stated, the small size of holding was the problem. About 60 samples gracefully stated that they could not get water, fertilizers, seeds when they are needed. This indicates that farmers are

eagerous to manage farm techniques but they could not get the input services at the time when they are required. Few farmers remarked that the quality of soil was the problem. At the farm level except MF size group all size have faced the economic problems.

As sugarcane cultivation is more dependent on the factory management, the problems at factory level are observed. For example delay in harvesting the sugarcane, lack of transportation facilities to transfer the cane from farm to factory, sugarcane prices etc. Particularly sugarcane price was the problem of majority of farmers (43). Farmers complaign against the Agricultural Department, Harvesting Department and Cane Development Department because of their partial attitudes and persons relations.

Few farmers if possible entertain to make jaggery which they feel profitable than sending cane to the sugar factory. But they also face various problems in gur making activities. For example lack of labour force to gur industries and transportations problems are the major problems at their level, However, big farmers, who have an organisational capacities to make gur, entertain to use their sugarcane, provided gur prices are favourable to them. Other than all these problems farmers have to face various other socio-political nature of problems in the process of sugarcane cultivation. That is why farm management science is becoming a though task. In

coming future if these tasks are not considered, agriculture will become a dead sector because the problems like soil salinity and alkalinity are growing in soils. Factory management should consider all these problems as they are dependent on sugarcane farming.

TABLE No.6.1

Selection of Samples

Size of Holding	Jugul	Mangawa-ti.	Shahapur	Shiragu-ppi.	Total
M.F.	4	4	4	4	16
S.F.	4	4	4	4	16
S.M.F.	4	4	4	4	16
M.d.F.	4	4	4	4	16
L.F.	4	4	4	4	16
Total	20	20	20	20	80

TABLE No.6.2

Population Covered

Size of Group	Male	Female	Total	Average size of the family
M.F.	47	48	95 (13.49)	5.93
S.F.	60	62	122 (17.33)	7.62
S.M.F.	70	77	145 (20.60)	9.06
M.d.F.	56	81	137 (19.46)	8.56
L.F.	97	106	204 (28.98)	12.75
Total	330	374	704	8.8

The Data in parenthesis indicate percentages to the total.

TABLE NO. 6.3

Educational Status of Samples

Size Group	Illitrate	upto 5th Std.	6th to 7th Std.	8th to 10 th Std.	11 to 12th Std.	Graduates and above
M.F.	2	6	3	2	2	1
S.F.	4	5	1	3	1	2
S.M.F.	2	3	2	4	-	5
Md.F.	3	5	-	2	4	2
L.F.		2	1	3	3	5
Total	11 (13.75)	21 (26.25)	7 (8.25)	14 (17.50)	12 (15.0)	15 (18.75)

TABLE No.6.4

Sources of Irrigation by No.of Samples

Size of Holding	Wells	Lift Irrigation Schemes	Bore Wells	Pump Sets.
M.F.	--	16	--	--
S.F.	--	14	2	--
S.M.F.	--	13	1	2
Md.F.	--	16	--	--
L.F.	--	14	--	2
Total	--	73 (91.25)	3 (3.75)	4 (5.00)

TABLE No.6.5

Land Holding (In acre)

Size of Holding	Irrigated	Drogghts	Total	Average size of Holding. Acre.	Gunta
M.F.	28 (93.33)	2 (6.67)	30 (100)	1	34
S.F.	76 (97.43)	2 (2.57)	78 (100)	4	34
S.M.F.	151 (100)	--	151 (100)	9	17
Md.F.	195 (94.66)	11 (5.34)	206 (100)	12	34
L.F.	667 (96.38)	25 (3.62)	692 (100)	43	10
Total	1117 (96.54)	40 (3.46)	115 (100)	14	18

TABLE NO. 6.6

Cropping Pattern of Sample Farmers (In Acres)

Size of holding.	Sugar-cane	Jawar	Paddy	Wheat	G/Nut.	Gram	Hulga	Gross cropped Area	New cultivable area.	Intensity of (%)crops.
M.F.	24	--	--	--	--	--	06	30	30	100
S.F.	58	1	--	1	1	--	18	79	78	101.28
S.M.F.	98	4	--	35	3	--	30	170	151	112.58
Md.F.	164	-	--	3	2	10	35	214	206	103.88
L.F.	467	58	7	42	35	20	81	710	692	102.60
TOTA L	811	63	7	81	41	30	170	1203	1157	103.97
	(67.41)	(5.23)	(0.58)	(6.73)	(3.40)	(2.49)	(14.13)			

TABLE NO.6.7

Average cost per acre of sugarcane cultivation by Sample Farmers.

Size of Holding	Average cost (Rs.)
M.F.	4729.68
S.F.	4725 .93
S.M.F.	4204.37
Md.F.	4106.25
L.F.	4017.18
Average cost of all sizegroups	4356.68

TABLE No.6.8
Frequency Measurements of the Objectives of the Sugarcane Cultivation

Items	MF	SF	SMF	MdF	LF	Total
1.Other crops will not came in between two sugarcane fields.	2	=	--	--	--	2
2.Requires less labourers.	7	5	3	4	4	23
3.High incane	16	15	15	16	16	78
4.Irrigation			1		2	3
5.Inputs are easily availa-ble.			3	1		4
6.Animal feed	1					1
7.Low size of	1					1
8.Favourable climatic con-ditions.	1		1		1	3

TABLE No.6.9

Agencywise No. of Borrowers who Borrowed for Sugarcane crop and other Purposes.

S/H.	'Commercial Banks	LDBs	'Co-operative Banks	PACS	' Sahuhnas	Sugar-factory	' Traders '		' Total
A)	No. of Borrowers who borrowed for sugarcane co-op.								
M.F.	2	--	5	7	-	5	--	--	19
S.F.	2	2	3	9	-	7	--	--	23
S.M.F.	1	--	1	10	-	6	--	--	18
Md.F.	1	1	2	9	-	9	--	--	22
L.F.	5	--	1	10	-	9	--	--	25
TOTAL	11	3	12	45	-	36	--	--	107

TABLE No.6.10

Problems of cane cultivation : A frequency measureme

FAMILY LEVEL

	Problems	M.F.	S.F.	S.M.F.	Md.F.	.L.F.	To
1.	Lack of cooperation of other family members/labourers.	7	14	16	15	16	68
2.	Economic problems	3	2	4	3	2	14
3.	Lack of education	6	5	3	4	1	19
4.	Low in cane & huge population.	5	3	2	2	2	14

FARM LEVEL

1.	Small size of land holding.	4	7	9	9	3	3
2.	Per acre yield is low.	1	2	6	5	3	1
3.	Lack of water,seeds, Fertilizers in proper time(nnedy times)	11	13	11	12	13	6
4.	Soil is black & loss fertile	2	3	6	4	11	2
5.	Agri.impliments are not available in time.	2	--	--	--	--	
6.	Eco. Problems	-	3	2	2	2	1

TABLE NO.6.10(cont.)

FACTORY LEVEL

PROBLEMS	M.F.	S.F.	S.M.F	Md.F.	L.F.	TOTAL
1. Lack of transporatation .	--	1	7	6	3	17
2. Inadequate personal guidance due to vast area.	--	2	3	10	-	15
3. Sugarcane price seems	6	10	6	8	13	43
4. To be low in bills irrigatarity.	7	7	7	7	3	31
5. Orders to cut the cane are not given in a proper time.	8	11	8	7	14	48
6. Stoppages should avoided.	6	5	9	3	10	33

GUR MAKING

1. Lack of alabour force.	--	1	--	--	--	1
2. Lack of gur industries.	4	4	9	8	5	30
3. Gur recovery is low	3	2	6	6	4	21
4. Transportation problems.	-	1-	-	-	-	1