

CHAPTER- V

COST BENEFIT ANALYSIS

5.1. Introduction:

In the various geographical studies the cost benefit analysis technique has been carried out by various geographers and observed to be useful in the study of agricultural geography. e.g. Joshi (1978), Saptarshi and Bairagi (1998), Saptarshi and Bhagat (2004), More (2008) etc. The techniques are useful to understand the optimum use of water resource Saptarshi (1993), Bhagat (2002) and More (2008), Sonawane (2013) rural employment status (Jagdale 2002) human resource assessment (Ugale 2006) human resource development (Musmade 2012) etc. to identify the various problem related to employment potentials, water resources and cash flow analysis. It is used for identifying the water resources and employability local working force. The present study mainly aims at to find out the consumption of water resources and to plan for the cropping pattern in the study area. It is also to find at the employment potentials and up coming capacity of cropping pattern.

The method of cost benefit analysis is given below.

5.2 Cost benefits analysis:

In agriculture geography various geographer have been used the technique benefit with Joshi (1978), Saptarshi (1993), Bhagat (2002) and More (2008), Sonawane (2013), The present study mainly aims at finding out sustainable agriculture development in the drought prone region of karmala tahsil.

The cost benefit analysis technique has been carried out by collecting by the primary data of 118 farmers cultivating of different crops. The methodology adopted in the present work is below.

5.3.1 Step 1 Summarisation of data:

The data has been collected from about more than 118 farmers. Well distributed in randomly selected 15 villages according to the crops. The cost for various operations like fertilising seeds final charges has been taken in to account. The summary of the various operation have been prepared for understand the cost for per hect, for each major crops in the tahsil.

5.3.2 Step 2 Mejer crops:

The costs of the major crops have been taken into consideration. The first step is to identify major crops in the tahsil. They are mainly Jowar, Bajara, Wheat, Sugarcane, covering about 98% of the area under well irrigation.

5.3.3 Step 3 Cost Structure:

The cost of each crops based on sample survey in 10% randomly selected villages. For knowing the cost of various operations structured questionnaire is prepared.

5.3.4 Step 4 Water requirements for cropping pattern:

Water requirement for various crops and cropping pattern has been obtained and sown in the excel sheet.

No of rows =cropping pattern –water availability –water requirement –surplus and deficit – planning

The first excel sheet =of cropping pattern

The second =water availability

The third =Water require

The four =Surplus

The fifth =planning for water deficit village.

The six= the cost of various operation

5.3.5 Step 5 Planning for water deficit villages:

The availability of water resources and need for the various crops is constructed.

5.3.6 Step 6 Employment available:

The employment available and migration is an important factor.

The human power requirement of each crop has been made in the survey is depicted in the table 3 (Appendix No.3). The data regarding employment potentials of each crop has been obtained from survey. This information is compared with the village wise number of cultivators and agricultural labourers. The formula used for this is discussed in the following paragraph.

The census definition of main worker is defined as a person gainfully employed for at least 183 days in the previous year. The agricultural workers need 300 days of gainful employment to fulfill their needs. Taking into consideration employment of 300 days has been assumed as the employment for the year. The following formula has been used for calculating the employment.

Male Employment Potential for ith crop

$$mE_{pi} = \frac{\text{No. of man days required for ith crop per hect.} \times \text{hect. of ith crop in ith Village}}{300}$$

$$fE_{pi} = \frac{\text{No. of women days required for ith crop per hect.} \times \text{hect. of ith crop in ith Village}}{300}$$

mE_{pi} = Male Employment potential for ith crop per hectare

fE_{pi} = Female Employment potential for ith crop per hectare

Employment potential for men in jth village for ith crop = $mE_{pvj} = \sum mE_{pi} \times A_{ij}$ of ith crop in jth village

Employment potential for women in jth village

$$fE_{pvj} = \sum fE_{pi} \times H_{ij} \text{ Hectare of ith crop in jth village}$$

A_{ij} = Hectare of ith crop in jth village.

N = number of crops grown in the village.

M = number of villages in the tahsil.

The village wise figures thus obtained as mE_{pvj} and fE_{pvj} have been compared with village level data.

The available manpower and women power in each village is assumed to be the sum of male cultivators and male agricultural labourers and female cultivators and female agricultural labourers respectively. The village level data regarding unemployed men and women have been estimated and given in the (Table No.2 in).

$$\text{Male employment potential of the tahsil} = mE_{pT} = \sum mE_{pvj}$$

$$\text{Female employment potential of the tahsil} = fE_{pT} = \sum fE_{pvj}$$

5.3.7 Step 7 Trial and Error Method:

Change in the first sheet can be made according to the strategies like reduce hectarage of sugarcane by 10% by replacing the same with the two crops in two season viz kharip and rabbi. Both these crops can be cultivated using irrigation water. This may shows considerable reduction in water requirement.

Thus the suitable strategy can be identify the following conditions

Thus the suitable strategy can be identify the following conditions

1. Requirement of water resource is reduced
2. Net output in increased
3. Local working force is employed by farming sectors.

Example may be given here to explain for clarification reduction of 1 hect. Of sugarcane in a village means the water requirement is reduced by $1 \times 4.25 = 4.25$ mh. The same area may be used for cultivating 1 hectares of hybrid jowar and 1 hect of wheat or jowar in rabbi season. So this the total water requirement for 1 hect of kharip jowar and 1 hect of rabbi wheat can be 4mh. The output for both these crops may be more than that of sugarcane. Further the social aspects like employment generation can be taken in to account. It is also worth to identify to carry out cash flow analysis know what is the proportion of income generated due to agriculture remaining the tahsil and going out of the tahsil.

5.3.6 Step 6 Cash flow analysis:

After getting the figures regarding the cost of cultivation of major crops the total income gain by the farmer has been analysis to understand the cash flow. This kind of cash flow analysis has been carried out (Saptarshi and Kale 1984). This technique is useful to understand the economic system. Here in the present study following items expenditures has considered as a cash flow.

- Cash flow:
1. Wages given to women worker
 2. Wages given to male worker
 3. Profit margin earned by cultivators.

- Cash out:
1. Cost of fertilizers and pesticides
 2. Cost of packing material brought from urban sector
 3. Cost of fuel such as electric bill diesel or hiring tractor.

Thus, the part of income remains in the tashil and part that goes outside the tashil have been estimated on the basis of cost structure. This has been estimated for each village and for the tashil.

5.4 Cost of Cultivations:

5.4.1 Cost- of Kharip Jowar Cultivation:

Table No.5.1
Cost of Kharip Jowar Cultivation

Sr .No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	4	0	800	0	800	5000	5800	25.33
2	Harrowing	2	0	400	0	400	1500	1900	8.30
3	Sowing Seedling	2	0	400	0	400	3500	3900	17.03
4	Cost of Seeds	0	0	0	0	0	500	500	2.18
5	Cost of Water	0	0	0	0	0	0	0	0.00
6	Electricity Charges	0	0	0	0	0	200	200	0.87
7	Fertilizers/ Pesticides	0	0	0	0	0	300	300	1.31
8	Wining	0	22	0	2750	2750	0	2750	12.01
9	Irrigation	2	0	400	0	400	0	400	1.75
10	Harvesting	8	20	1600	2500	4100	0	4100	17.90
11	Threshing	0	16	0	2000	2000		2000	8.73
12	Packing	2	2	400	250	650	400	1050	4.59
Total		20	60	4000	7500	11500	11400	22900	100.0

Source: The field Survey data (2009-2010)

As discussed in the previous chapter no.4 the cropping pattern *jowar* is cultivated in two season *Kharip* and *rabbi*. The cost of various operations in the agricultural field has been calculated for both crops *Kharip* and *rabbi jowar*. The table (Table No.5.2) Shows the cost benefit analysis of *Kharip jowar*. The figure from the table shows that *Kharip jowar* may get profit of Rs. 5700/- hect.

In the table (Table No.5.1) that the total cost of kharip *jowar* cultivation is Rs.22900/- per hect. and the total income from kharip *jowar* cultivation (Included fodder) Rs.28600/- per hect. It means that Rs.5700/- is the net income from the *jowar* cultivation in the study area. In the tahsil in 2009-2010 the area under *kharip jowar* cultivation is 1288.89.hect. It means that employment power requirement is 22662 male man days and 67986 female man- days for only *kharip jowar* cultivation in the study area. The total man days have been divided by 180 days. The calculation shows that availability of employment, as main worker in *jowar* production is 123.84 man days and 374.51 female workers.

Table No.5.2
Output of Kharip Jowar

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.14.00/-
2	Grain production / Hectare.	2400 Kg.
3	Grain Production / Hectare.	Rs 23100/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.5500/-
5	Total earnings / Hectare (Grains + Fodder)	Rs.28600 /-
6	Total cost / Hectare	22900/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs.5700/-
8	Man days/ Hect	20 days
9	Women days/ Hect	60 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.3
Cash flow analysis

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	1000	3.50
2	Cash in-flow	21900	76.57
3	Net Profit	5700	19.93
4	Total income	28600	100.00

Source: The field Survey data (2009-2010)

It is observed that the profit earned by the farmer by way of cultivation of kharip jowar is about 19.93%. The cost benefit analysis technique useful to understand the part of income circulated within the tahsil, as cash-flow and part of income going out of the rural areas is called as cash-out flow. In case of jowar cash-flow is just 3.5%. On the contrary, cash out flow kharip *jowar* 12.71%. This means that by cultivating kharip *jowar* sizable amount of income remains within the tahsil. Cash-out flow increases with increased in irrigation facilities.

5.4.2 Cost- of Rabbi irrigated Jowar Cultivation:

Table No.5.4
Cost- of Rabbi irrigated Jowar Cultivation

Sr .No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	4	0.00	800	0	800	3600	4400	16.42
2	Harrowing	2	0.00	400	0	400	1800	2200	8.21
3	Sowing /Seedling	2	0.00	400	0	400	2400	2800	10.45
4	Cost of Seeds	0	0.00	0	0	0	1050	1050	3.92
5	Cost of Water	0	0.00	0	0	0	600	600	2.24
6	Electricity Charges	0	0.00	0	0	0	400	400	1.49
7	Fertilizers/ Pesticides	2	0.00	400	0	400	1250	1650	6.16
8	Wining	0	21.00	0	2625	2625	0	2625	9.79
9	Irrigation	3	2.00	600	250	850	0	850	3.17
10	Harvesting	8	18.00	1600	2250	3850	1200	5050	18.84
11	Threshing	1	14.00	200	1750	1950	1400	3350	12.50
12	Packing	2	3.00	400	375	775	1050	1825	6.81
Total			24	58.00	4800	7250	12050	14750	100.00

Source: The field Survey data (2009-2010)

The jowar is cultivated in two season viz. *kharip* and *rabbi* season. If the irrigation facility is available the farmer cultivates the *jowar*. The cultivation is observed in the canal irrigation region and other source of irrigation is well and tube well.

Table No.5.5

Output of Rabbi Irrigated Jowar cultivation

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.16.00/-
2	Grain production / Hectare.	1690 Kg.
3	Grain Production / Hectare.	Rs.27040/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.9500/-
5	Total earnings / Hectare (Grains + Fodder)	Rs.34540 /-
6	Total cost / Hectare	20800/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs. 7740/-
8	Man days/ Hect	24 days
9	Women days/ Hect	58 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.6

Cash flow analysis of Rabbi Irrigated Jowar

Sr. No.	Cash flow analysis	Rupees	%
1	Cash out-flow	3700	10.71
2	Cash in-flow	23100	66.87
3	Profit	7740	22.40
4	Total income	34540	100

Source: The field Survey data (2009-2010)

It is observed that the profit earned by the farmer from the cultivation rabbi irrigated *jowar* is about 22.40%. The cost benefit analysis technique useful to understand the part of income circulated within the tahsil, as cash-flow and part of income going out of the rural areas is called as cash-out flow. In case of jowar cash-

flow is just 66.87%. On the contrary, cash out flow rabbi irrigated *jowar* is 10.71%. This means that by cultivating rabbi irrigated *jowar* sizable amount of income remains within the tahsil. Cash-out flow increases with increased in irrigation facilities.

5.4.3 Cost- of Rabbi Unirrigated Jowar Cultivation:

Table No.5.7
Cost- of Rabbi Unirrigated Jowar Cultivation

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	4	0	800	0	800	2800	3600	17.43
2	Harrowing	2	0	400	0	400	1500	1900	9.20
3	Sowing /Seedling	2	0	400	0	400	1800	2200	10.65
4	Cost of Seeds	0	0	0	0	0	750	750	3.63
5	Cost of Water	0	0	0	0	0	0	0	0.00
6	Electricity Charges	0	0	0	0	0	0	0	0.00
7	Fertilizers/ Pesticides	0	0	0	0	0	0	0	0.00
8	Wining	0	18	0	2250	2250	0	2250	10.90
9	Irrigation	0	0	0	0	0	0	0	0.00
10	Harvesting	6	10	1200	1250	2450	2500	4950	23.97
11	Threshing	1	12	200	1500	1700	1850	3550	17.19
12	Packing	2	1	400	125	525	925	1450	7.02
Total		17	41	3400	5125	8525	12125	20650	100.00

Source: The field Survey data (2009-2010)

Table No.5.8
Output of Rabbi Unirrigated Jowar cultivation

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.14.00/-
2	Grain production / Hectare.	950 Kg.
3	Grain Production / Hectare.	Rs.13300/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.11500/-
5	Total earnings / Hectare (Grains + Fodder)	Rs.24800 /-
6	Total cost / Hectare	20650/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs. 4150/-
8	Man days/ Hect	17 days

9	Women days/ Hect	41 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

The previous chapter in the cropping pattern mentioned about the *jowar* cultivated in the two season *kharip* and *rabbi*. The following table shows the detail of cost benefit analysis of *rabbi* unirrigated *jowar*. The figure is given in the table (Table No.5.8) shows that the cultivation of *rabbi jowar* gets the net profit of Rs.4150/- per hect.

The table (Table No.5.7) shows us the cultivation cost of *rabbi* unirrigated *jowar* is Rs.4150/-per hect. The total outcome from the *jowar* cultivation (included the cost of fodder) is Rs.24800/- per hect. The field observation and statistic shows the net income from the *jowar* is Rs.4150/- per hect. The employment for *rabbi* unirrigated *jowar* cultivation per hect is 17 males and 41 females. In the tahsil 2009-2010 area under *rabbi* unirrigated *jowar* cultivation is 56807.90 hect.

Table No.5.9
Cash flow analysis of Rabbi Unirrigated Jowar

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	750.00	3.02
2	Cash in-flow	19900.00	80.24
3	Net Profit	4150.00	16.73
4	Total income	24800.00	100.00

Source: The field Survey data (2009-2010)

It is observed that the profit earned by the farmer by way of cultivation *rabbi* unirrigated *jowar* is about 16.73%. The cost benefit analysis technique useful to understand the part of income circulated within the tahsil, as cash-flow and part of income going out of the rural areas is called as cash-out flow. In case of *jowar* cash-flow is just 80.24%. On the contrary, cash out flow *rabbi* unirrigated *jowar* is 3.02%.

5.4.4 Cost- of Bajara Irrigated Cultivation:

Table No.5.10

Cost- of Bajara Irrigated Cultivation

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	2	0	400	0	400	3600	4000	15.28
2	Harrowing	1	0	200	0	200	2000	2200	8.40
3	Sowing / Seedling	3	0	600	0	600	2600	3200	12.23
4	Cost of Seeds	0	0	0	0	0	950	950	3.63
5	Cost of Water	0	0	0	0	0	800	800	3.06
6	Electricity Charges	0	0	0	0	0	600	600	2.29
7	Fertilizers/ Pesticides	2	2	400	250	650	800	1450	5.54
8	Wining	0	20	0	2500	2500	0	2500	9.55
9	Irrigation	3	1	600	125	725	0	725	2.77
10	Harvesting	6	14	1200	1750	2950	1050	4000	15.28
11	Threshing	2	16	400	2000	2400	1250	3650	13.94
12	Packing	2	2	400	250	650	1450	2100	8.02
Total		21	55	4200	6875	11075	15100	26175	100.00

Source: The field Survey data (2009-2010)

Table No.5.11

Output of Bajara Irrigated Cultivation

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.16.00/-
2	Grain production / Hectare.	1690 Kg.
3	Grain Production / Hectare.	Rs.27040/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.6500/-
5	Total earnings / Hectare (Grains + Fodder)	Rs.33540 /-
6	Total cost / Hectare	26175/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs 7275/-

8	Man days/ Hect	21 days
9	Women days/ Hect	55 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

The cultivation of *Bajra* is more in the tahsil. This crop is dominated by the tahsil. The cultivation of bajara is in two ways firstly by irrigation and secondly unirrigated way. The cultivation of *bajara* is *after* the first shower of the rain. The fields are prepared for the *bajara* crop. The season of *bajara* is from the month of June to September. The second season of the irrigated *bajara*, by using the irrigation method in the month of March to May. The net profit from the cultivation of *bajara* is get Rs.7275/-per hect. This crop occupied more area under the cultivation of bajara in the tahsil.

The table (Table No.5.10) indicates that the cost of bajara is Rs.26175/-per hect. The total income from the cultivation of *bajara* included the cost of fodder is Rs. Rs.33540/- per hect. The net profit from the *bajara* is Rs.7275/-per hect. The requirement of employment per hect for *bajara* cultivation is 21 males and 55 females. In the tahsil 84.7 hect area is under *bajara* cultivation. It means that the employment requirement is 263607.75 male days and 690401.25 female days for *bajara* cultivation in the study area. The Employment power generated from *bajara* cultivation is 1440.48 male days and 3772.68 female days for cultivation of *bajara* cultivation.

Table No.5.12

Cash flow analysis of Bajara Irrigated

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	3800.00	11.36
2	Cash in-flow	22375.00	66.89
3	Net Profit	7275.00	21.75
4	Total income	33450.00	100.00

Source: The field Survey data (2009-2010)

It is observed that the profit earned by the farmer due to cultivation of irrigated *bajara* is about 21.75%. In case of irrigated *bajara* cash-flow is just 66.89%. On the contrary, cash out flow irrigated *bajara* is 11.36%.

5.4.5 Cost-of Bajara Unirrigated Cultivation

Table No.5.13
Cost-of Bajara Unirrigated Cultivation

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	2	0.00	400	0	400	2800	3200	17.39
2	Harrowing	1	0.00	200	0	200	1600	1800	9.78
3	Sowing / Seedling	3	0.00	600	0	600	2200	2800	15.22
4	Cost of Seeds	0	0.00	0	0	0	950	950	5.16
5	Cost of Water	0	0.00	0	0	0		0	0.00
6	Electricity Charges	0	0.00	0	0	0		0	0.00
7	Fertilizers/ Pesticides	0	2.00	0	250	250		250	1.36
8	Wining	0	18.00	0	2250	2250	0	2250	12.23
9	Irrigation	0	1.00	0	125	125	0	125	0.68
10	Harvesting	6	12.00	1200	1500	2700	600	3300	17.93
11	Threshing	1	14.00	200	1750	1950	650	2600	14.13
12	Packing	1	1.00	200	125	325	800	1125	6.11
Total		14	48	2800	6000	8800	9600	18400	100.00

Source: The field Survey data (2009-2010)

The table (Table No.5.13) indicates that the cost of bajara is Rs.18400/-per hect. The total income from the cultivation of *bajara* included the cost of fodder is Rs. Rs.20850/- per hect. The net profit from the *bajara* is Rs.2180/-per hect. The requirement of employment per hect for *bajara* cultivation is 14 males and 48 females. In the tahsil 1341.80. hect area is under bajara cultivation. It means that the employment requirement is 316917.44 male days and 1086574.08 female days for unirrigated *bajara* cultivation in the study area. The Employment power generated from bajara cultivation is 1731.79 male days and 5937.56 female days

Table No.5.14
Output of Bajara Unirrigated

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.16.00/-
2	Grain production / Hectare.	880 Kg.
3	Grain Production / Hectare.	Rs.14080/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.6500/-
5	Total earnings / Hectare (Grains + Fodder)	Rs.20580 /-
6	Total cost / Hectare	18400/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs.2180/-
8	Man days/ Hect	14 days
9	Women days/ Hect	48 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.15
Cash flow analysis of Bajara Unirrigated

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	1200.00	5.83
2	Cash in-flow	17200.00	83.58
3	Net Profit	2180.00	10.59
4	Total income	20580.00	100.00

Source: The field Survey data (2009-2010)

It is observed that the profit earned by the farmer due to cultivation of unirrigated bajara is about 10.59%. In case of unirrigated *bajara* cash-flow is just 83.58%. On the contrary, cash out flow unirrigated *bajara* 5.83%. The *bajara* unirrigated share small amount of profit in the tahsil.

5.4.6 Cost- of Wheat Cultivation

Table No.5.16
Cost- of Wheat Cultivation

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	2	0	400	0	400	1500	1900	8.16
2	Harrowing	1	0	200	0	200	1200	1400	6.02
3	Sowing / Seedling	3	0	600	0	600	1600	2200	9.45
4	Cost of Seeds	0	0	0	0	0	1200	1200	5.16
5	Cost of Water	0	0	0	0	0	800	800	3.44
6	Electricity Charges	0	0	0	0	0	650	650	2.79
7	Fertilizers/ Pesticides	1	2	200	250	450	1500	1950	8.38
8	Wining	0	20	0	2500	2500	0	2500	10.74
9	Irrigation	3	1	600	125	725	0	725	3.11
10	Harvesting	8	14	1600	1750	3350	850	4200	18.05
11	Threshing	3	20	600	2500	3100	950	4050	17.40
12	Packing	2	2	400	250	650	1050	1700	7.30
Total		23	59	4600	7375	11975	11300	23275	100.00

Source: The field Survey data (2009-2010)

The wheat cultivation in the study area shows change in the agriculture pattern. The wheat cultivation mostly observed in the field survey near the bank of the river and the major source of irrigation is well, tube wells and canals etc. The wheat cultivation shows the change in the agricultural pattern. The growth and production of wheat totally depend upon climatic element. In the table (Table No.5.16) indicates the total cost of wheat cultivation is Rs.40000/- per hect. The total income from the cultivation included with the fodder is Rs. Rs.40500/- per hect and the net profit from the wheat cultivation in the study area is Rs.17725 per hect. The requirement of the employment per hect for the cultivation of wheat is 23 males and 59 females. In the tahsil 2562.17 hect. area under cultivation in the year 2009-2010. It means that the employment power requirement in the tahsil is 332985.95 male days and 854181.35

female days for only wheat cultivation. The Employment power generated from wheat cultivation is 1819.60 male workers and 4667.66 female workers.

Table No.5.17
Output of Wheat Cultivation

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.16.00/-
2	Grain production / Hectare.	2500 Kg.
3	Grain Production / Hectare.	Rs.40000/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.500/-
5	Total earnings / Hectare (Grains + Fodder)	Rs.40500 /-
6	Total cost / Hectare	23275/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs. 17725/-
8	Man days/ Hect	23 days
9	Women days/ Hect	59 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.18
Cash flow analysis of Wheat

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	4150.00	10.25
2	Cash in-flow	19125.00	47.22
3	Net Profit	17725.00	43.77
4	Total income	41000.00	100.00

Source: The field Survey data (2009-2010)

It is observed that the profit earned the farmer by the due to cultivation of wheat is about 43.77%. The wheat is profitable crop in the tahsil. In case of wheat the cash-out flow is very less it is 10.25%. The cash in- flow in case of wheat is 47.22. The cash inflow shows the rural economy in the tahsil.

5.4.7 Cost- of Maize Cultivation

Table No.5.19
Cost- of Maize Cultivation

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	2	0	400	0	400	1500	1900	15.23
2	Harrowing	3	0	600	0	600	1200	1800	14.43
3	Sowing / Seedling	2	0	400	0	400	1600	2000	16.03
4	Cost of Seeds	0	0	0	0	0	650	650	5.21
5	Cost of Water	0	0	0	0	0	650	650	5.21
6	Electricity Charges	0	0	0	0	0	300	300	2.40
7	Fertilizers/ Pesticides	1	2	200	250	450	1000	1450	11.62
8	Wining	0	5	0	625	625	0	625	5.01
9	Irrigation	3	0	600	0	600	0	600	4.81
10	Harvesting	2	4	400	500	900	300	1200	9.62
11	Threshing	1	3	200	375	575	200	775	6.21
12	Packing	2	1	400	125	525	0	525	4.21
Total		16	15	3200	1875	5075	7400	12475	100.00

Source: The field Survey data (2009-2010)

The table (Table No.5.19) indicates that the cost of *maize* cultivation is Rs.12475/-per hect and the net output from the *maize* cultivation included the cost of fodder is Rs.23500/- per hect. The net benefit from the *maize* cultivation is Rs.8625/- per hect. The field observation and statistical data shows the requirement of employment for per hect. *maize* cultivation is 16 males and 15 females. In the tahsil 2009-2010 the area under *maize* cultivation is 2747.64 hect. The employment power requirement is 56195.04 male days and 52682.85 female days. The Employment

power generated from the *maize* cultivation is 307.08 male worker and 287.88 female workers in the tahsil.

Table No.5.20

Output of Maize

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.8.00/-
2	Grain production / Hectare.	2500 Kg.
3	Grain Production / Hectare.	Rs.20000/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.3500/-
5	Total earnings / Hectare (Grains + Fodder)	Rs.23500 /-
6	Total cost / Hectare	12475/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs. 8625/-
8	Man days/ Hect	16 days
9	Women days/ Hect	15 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.21

Cash flow analysis of Maize

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	3050.00	14.45
2	Cash in-flow	9425.00	44.67
3	Profit	8625.00	40.88
4	Total income	21100.00	100.00

Source: The field Survey data (2009-2010)

It is observed that the profit earned by the farmer due to the cultivation of maize is about 40.88%. The maize is mostly use as green fodder in the tahsil. The

cash inflow in case of maize is 44.67%. The cash out-flow in maize cultivation is 14.45.

5.4.8 Cost- of Mug Cultivation

Table No 5.22
Cost- of Mug Cultivation

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	4	0	800	0	800	1200	2000	18.60
2	Harrowing	4	0	800	0	800	850	1650	15.35
3	Sowing / Seedling	3	0	600	0	600	850	1450	13.49
4	Cost of Seeds	0	0	0	0	0	450	450	4.19
5	Cost of Water	0	0	0	0	0	0	0	0.00
6	Electricity Charges	0	0	0	0	0	0	0	0.00
7	Fertilizers/ Pesticides	1	1	200	125	325	350	675	6.28
8	Winning	0	8	0	1000	1000	0	1000	9.30
9	Irrigation	1	0	200	0	200	0	200	1.86
10	Harvesting	3	4	600	500	1100	300	1400	13.02
11	Threshing	2	8	400	1000	1400	200	1600	14.88
12	Packing	1	1	200	125	325	0	325	3.02
Total		19	22	3800	2750	6550	4200	10750	100.00

Source: The field Survey data (2009-2010)

The table (Table No.5.22) indicates that the cost of *mug* cultivation is Rs.10750/-per hect and the net output from the *mug* cultivation included the cost of fodder is Rs.20800/- per hect. The net benefit from the *mug* cultivation is Rs.10050/- per hect. The field observation and statistical data shows the requirement of employment for per hect. *mug* cultivation is 19 males and 22 females. In the tahsil

2009-2010 the area under *mug* cultivation is 290.05 hect. The employment power requirement is 157309.36 male days and 182147.68 female days. The Employment power generated from the *mug* cultivation is 859.61 male worker and 995.34 female workers in the tahsil.

Table No.5.23

Output of Mug

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.32.00/-
2	Grain production / Hectare.	650 Kg.
3	Grain Production / Hectare.	Rs.20800/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.500/-
5	Total earnings / Hectare (Grains + Fodder)	Rs.20800 /-
6	Total cost / Hectare	10750/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs.10050/-
8	Man days/ Hect	19 days
9	Women days/ Hect	22 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.24

Cash flow analysis of Mug

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	1125	5.41
2	Cash in-flow	9625	46.27
3	Net Profit	10050	48.32
4	Total income	20800	100.00

Source: The field Survey data (2009-2010)

It is observed that the profit earned by the farmer from cultivation of *mug* is about 48.32%. The cost benefit analysis technique useful to understand the part of income circulated within the tahsil, as cash-flow and part of income going out of the rural areas is called as cash-out flow. In case of *mug* cash-flow is just 46.27%. On the

contrary, cash out flow for *mug* is 5.41%. This means that by cultivating *mug* sizable amount of income remains within the tahsil. The cash out flow is very less in case of 5.41% of *mug* means that if cash out flow is less naturally increases the profitability of the crop.

5.4.9 Cost- of Mataki Cultivation

Table No 5.25
Cost- of Mataki Cultivation

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	4	0	800	0	800	850	1650	15.42
2	Harrowing	4	0	800	0	800	650	1450	13.55
3	Sowing / Seedling	3	0	600	0	600	850	1450	13.55
4	Cost of Seeds	0	0	0	0	0	600	600	5.61
5	Cost of Water	0	0	0	0	0	50	50	0.47
6	Electricity Charges	0	0	0	0	0	100	100	0.93
7	Fertilizers/ Pesticides	1	1	200	125	325	350	675	6.31
8	Wining	0	2	0	250	250	0	250	2.34
9	Irrigation	1	0	200	0	200	0	200	1.87
10	Harvesting	4	6	800	750	1550	200	1750	16.36
11	Threshing	2	8	400	1000	1400	150	1550	14.49
12	Packing	1	1	200	125	325	650	975	9.11
Total		20	18	4000	2250	6250	4450	10700	100.00

Source: The field Survey data (2009-2010)

The table (Table No.5.25) indicates that the cost of *mataki* cultivation is Rs.10700 /-per hect and the net output from the *mataki* cultivation included the cost of fodder is Rs.23600/- per hect. The net benefit from the *mataki* cultivation is

Rs.12900/-per hect. The field observation and statistical data shows the requirement of employment for per hect. *mataki* cultivation is 20 males and 18 females. In the tahsil 2009-2010 the area under *mataki* cultivation is 1170.10 hect. The employment power requirement is 121660.60 male days and 109494.54 female days. The total human power requirement for the *mataki* cultivation is 231155.14. The Employment power generated from the *mataki* cultivation is 664.81 male worker and 598.33 female workers in the tahsil.

Table No.5.26
Output of Mataki

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.42.00/-
2	Grain production / Hectare.	550 Kg.
3	Grain Production / Hectare.	Rs.23100/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.500/-
5	Total earnings / Hectare (Grains + Fodder)	Rs. 23600/-
6	Total cost / Hectare	10700/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs.12900/-
8	Man days/ Hect	20 days
9	Women days/ Hect	18 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.27
Cash flow analysis of Mataki

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	1100	4.66
2	Cash in-flow	9600	40.68
3	Net Profit	12900	54.66
4	Total income	23600	100.00

Source: The field Survey data (2009-2010)

It is observed that the profit earned by the farmer due to the cultivation of *mataki* is about 54.66%. The cash inflow in case of *mataki* is 40.68%. The cash out flow from the *mataki* cultivation is very low it is only 4.66%. This means that most of

the profit distribute within the tahsil. This crop is taken as mix crop with the other crop like *jowar* and *bajara*. The matakhi is used as the diet especially in the meal.

5.4.10 Cost- of Hulga Cultivation

Table No 5.28
Cost- of Hulga Cultivation

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	3	0	600	0	600	600	1200	14.12
2	Harrowing	3	0	600	0	600	650	1250	14.71
3	Sowing /Seedling	2	0	400	0	400	850	1250	14.71
4	Cost of Seeds	0	0	0	0	0	450	450	5.29
5	Cost of Water	0	0	0	0	0	100	100	1.18
6	Electricity Charges	0	0	0	0	0	100	100	1.18
7	Fertilizers/ Pesticides	1	1	200	125	325	350	675	7.94
8	Wining	0	4	0	500	500	0	500	5.88
9	Irrigation	1	0	200	0	200	0	200	2.35
10	Harvesting	3	3	600	375	975	100	1075	12.65
11	Threshing	2	5	400	625	1025	100	1125	13.24
12	Packing	1	1	200	125	325	250	575	6.76
Total		16	14	3200	1750	4950	3550	8500	100.00

Source: The field Survey data (2009-2010)

The table (Table No.5.28) indicates that the cost of *hulga* cultivation is Rs.8500 /-per hect and the net output from the *hulga* cultivation included the cost of fodder is Rs.10300/- per hect. The net benefit from the *hulga* cultivation is Rs.1800/- per hect. The field observation and statistical data shows the requirement of employment for per hect. *hulga* cultivation is 16 males and 14 females. In the tahsil

2009-2010 the area under *hulga* cultivation is 639.80 hect. The employment power requirement is 10236.80 male days and 8957.20 female days. The total human power requirement for the *hulga* cultivation is 386.4. The Employment power generated from the *hulga* cultivation is 55.94 male worker and 48.95 female in the tahsil.

Table No.5.29
Output of Hulga

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.42.00/-
2	Grain production / Hectare.	350 Kg.
3	Grain Production / Hectare.	Rs.9800/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.500/-
5	Total earnings / Hectare (Grains + Fodder)	Rs.10300 /-
6	Total cost / Hectare	8500/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs.1800/-
8	Man days/ Hect	16 days
9	Women days/ Hect	14 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.30
Cash flow analysis of Hulga

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	1325	12.86
2	Cash in-flow	7175	69.66
3	Net Profit	1800	17.48
4	Total income	10300	100.00

Source: The field Survey data (2009-2010)

It is observed that the profit earned by the way of cultivation *hulga* is about 12.86%. The cost benefit analysis technique useful to understand the part of income circulated within the tahsil, as cash-flow and part of income going out of the rural areas is called as cash-out flow. In case of *hulga* cash-flow is just 12.86%. On the contrary, cash out flow *hulga* 69.66%. This means that by cultivating *hulga* sizable amount of income

remains within the tahsil. The hulga crop is taken as mix crop with other crops. The hulga crop increases the fertility of soil after falling the leaves on the ground.

5.4.11 Cost- of Gram Cultivation

Table No 5.31
Cost- of Gram Cultivation

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	5	0	1000	0	1000	2500	3500	18.64
2	Harrowing	6	0	1200	0	1200	1800	3000	15.98
3	Sowing / Seedling	4	0	800	0	800	1600	2400	12.78
4	Cost of Seeds	0	0	0	0	0	850	850	4.53
5	Cost of Water	0	0	0	0	0	800	800	4.26
6	Electricity Charges	0	0	0	0	0	350	350	1.86
7	Fertilizers/ Pesticides	3	1	600	125	725	650	1375	7.32
8	Wining	2	12	400	1500	1900	0	1900	10.12
9	Irrigation	1	1	200	125	325	0	325	1.73
10	Harvesting	3	10	600	1250	1850	100	1950	10.39
11	Threshing	2	10	400	1250	1650	100	1750	9.32
12	Packing	1	1	200	125	325	250	575	3.06
Total		27	35	5400	4375	9775	9000	18775	100.00

Source: The field Survey data (2009-2010)

The table (Table No.5.31) indicates that the cost of *Gram* cultivation is Rs.18775/-per hect and the net profit from the *gram* cultivation included the cost of fodder is Rs.27500 /- per hect. The net benefit from the *gram* cultivation is Rs.8725/- per hect. The field observation and statistical data shows the requirement of employment for per hect. *gram* cultivation is 27 males and 35 females. In the tahsil

2009-2010 the area under *gram* cultivation is 2751.53 hect. The employment power requirement is 69253.38 male days and 89772.90 female days. The total human power requirement for the *gram* cultivation is 159026.28. The Employment power generated from the *gram* cultivation is 387.43 male worker and 490.56 female workers in the tahsil.

Table No.5.32

Output of Gram

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.34.00/-
2	Grain production / Hectare.	800 Kg.
3	Grain Production / Hectare.	Rs.27200/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.300/-
5	Total earnings / Hectare (Grains + Fodder)	Rs.27500 /-
6	Total cost / Hectare	18775/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs.8725/-
8	Man days/ Hect	27 days
9	Women days/ Hect	35 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.33

Cash flow analysis of Gram

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	3375.00	10.04
2	Cash in-flow	18775.00	55.88
3	Net Profit	8725.00	29.84
4	Total income	33600.00	100.00

Source: The field Survey data (2009-2010)

The cash inflow and out low is play important role in the development of economy. The cash flow analysis revealed through the table (Table No.5.33) the net profitability in case of *gram* is 29.84%. The cash-out flow is 10.04% means that only 10 to 11% amount goes out of the tahsil, for cost of seeds, and cost of fertilizer cost of water. The cash-inflow is 55.58%.

5.4.12 Cost- of Tur Cultivation

Table No 5.34
Cost- of Tur Cultivation

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	4	0	800	0	800	2600	3400	23.57
2	Harrowing	6	0	1200	0	1200	1800	3000	20.80
3	Sowing / Seedling	2	0	400	0	400	1200	1600	11.09
4	Cost of Seeds	0	0	0	0	0	750	750	5.20
5	Cost of Water	0	0	0	0	0	200	200	1.39
6	Electricity Charges	0	0	0	0	0	100	100	0.69
7	Fertilizers/ Pesticides	0	1	0	125	125	450	575	3.99
8	Wining	2	8	400	1000	1400	0	1400	9.71
9	Irrigation	1	1	200	125	325	0	325	2.25
10	Harvesting	0	10	0	1250	1250	100	1350	9.36
11	Threshing	2	6	400	750	1150	100	1250	8.67
12	Packing	1	1	200	125	325	150	475	3.29
Total		18	27	3600	3375	6975	7450	14425	100.00

Source: The field Survey data (2009-2010)

The Table (Table No.5.34) shows that cost-benefit-analysis of *tur* cultivation. The figures given in the table shows that cultivation of *tur* may get net profit of Rs.7075/- hect. For *tur* cultivation (Table No.5.34), cost is Rs.14425/- hect. with total income (including fodder) is Rs. 21500/- per hectare accounts net profit of Rs. 7075/- per hectare. Hence the field survey reveals that the requirement of employment for per hect *tur* cultivation is 18 males and 27 females. So in this tahsil 3577 hect. area is under *tur* cultivation in 2009-10. It means that employment power requirement is 19010.52 man-days and 28515.78 female days for only *tur* cultivation in the study

area. So that the Employment power generated from *tur* cultivation is 103.88 male worker and 155.82 female workers in the study area.

Table No.5.35

Output of Tur

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.28.00/-
2	Grain production / Hectare.	900 Kg.
3	Grain Production / Hectare.	Rs.21000/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.500/-
5	Total earnings / Hectare (Grains + Fodder)	Rs.21500 /-
6	Total cost / Hectare	14425/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs.7075/-
8	Man days/ Hect	18 days
9	Women days/ Hect	27 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.36

Cash flow analysis of Tur

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	1500.	5.84
2	Cash in-flow	12925.	50.29
3	Net Profit	7075	43.87
4	Total income	25700.	100.00

Source: The field Survey data (2009-2010)

It is observed that the profit earned by the farmer due to the cultivation of *tur* is about 43.87%. The cash inflow in case *tur* of is 50.29%. The cash out flow from the *tur* cultivation is very low it is only 5.84%. This means that most of the profit distribute within the tahsil. This crop is taken for increasing the fertility of the soil the roots of the *tur* hold the soil. The soil degradation is stoped by the tur; the leaves of the *tur* increase the fertility of soil.

5.4.13 Cost- of *Kardai* Cultivation

Table No 5.37
Cost- of *Kardai* Cultivation

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	4	0	800	0	800	850	1650	19.19
2	Harrowing	6	0	1200	0	1200	650	1850	21.51
3	Sowing / Seedling	2	0	400	0	400	1000	1400	16.28
4	Cost of Seeds	0	0	0	0	0	550	550	6.40
5	Cost of Water	0	0	0	0	0	100	100	1.16
6	Electricity Charges	0	0	0	0	0	100	100	1.16
7	Fertilizers/ Pesticides	1	0	200	0	200	350	550	6.40
8	Wining	0	4	0	500	500	0	500	5.81
9	Irrigation	0	0	0	0	0	0	0	0.00
10	Harvesting	1	4	200	500	700	100	800	9.30
11	Threshing	2	2	400	250	650	100	750	8.72
12	Packing	1	0	200	0	200	150	350	4.07
Total		17	10	3400	1250	4650	3950	8600	100.00

Source: The field Survey data (2009-2010)

The table (Table No.5.37) shows the cost benefit analysis of *karadi* cultivation. The figures given in the table (Table No.5.38) show that cultivation of *karadi* may get the profit of Rs.1950/- per hect. *Karadi* is grown in the rabbi season only. The area under the *karadi* cultivation is very low it is 127 hect in the 2009-2010. The *karadi* is traditionally grown it is useful as vegetables and oilseed also.

The table (Table No.5.37) indicates the cost of *karadi* cultivation is Rs.8600/- per hect and the total income from the *karadi* cultivation included the cost of fodder is

Rs.10550/- The net income from the *karadi* cultivation is Rs.10550/- in the study area. The study reveals that the requirement of employment for per hect, *karadi* cultivation is 17 males and 10 females. The area under the *karadi* is 750.90 in 2009-2010. The employment power requirement is 12765.30 man days and 7509.00 female days for the *karadi* cultivation. The Employment power generated from *karadi* cultivation is 69.76 male worker and 41.03 from female worker.

Table No.5.38
Output of Kardai

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.41.00/-
2	Grain production / Hectare.	250 Kg.
3	Grain Production / Hectare.	Rs.10250/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.300/-
5	Total earnings / Hectare (Grains + Fodder)	Rs.10550 /-
6	Total cost / Hectare	8600/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs 1950./-
8	Man days/ Hect	17 days
9	Women days/ Hect	10 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.39
Cash flow analysis of Kardai

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	1100	10.43
2	Cash in-flow	8600	81.52
3	Net Profit	1950	18.48
4	Total income	11650	100.00

Source: The field Survey data (2009-2010)

It is observed that the profit earned by the farmer due to cultivation *kardai* is about 18.48%. The cost benefit analysis technique useful to understand the part of income circulated within the tahsil, as cash-flow and part of income going out of the rural areas is called as cash-out flow. In case of *kardai* cash-flow is just 81.52%. On

the contrary, cash out flow *kardai* 10.43%. This means that by cultivating *kardai* sizable amount of income remains within the tahsil. The *kardai* is very less profitability crop.

5. 4.14 Cost- of Til Cultivation

Table No 5.340
Cost- of Til Cultivation

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	3	0	600	0	600	950	1550	19.62
2	Harrowing	4	0	800	0	800	850	1650	20.89
3	Sowing / Seedling	2	0	400	0	400	950	1350	17.09
4	Cost of Seeds	0	0	0	0	0	350	350	4.43
5	Cost of Water	0	0	0	0	0	200	200	2.53
6	Electricity Charges	0	0	0	0	0	100	100	1.27
7	Fertilizers /Pesticides	1	0	200	0	200	350	550	6.96
8	Wining	0	3	0	375	375	0	375	4.75
9	Irrigation	0	0	0	0	0	0	0	0.00
10	Harvesting	1	3	200	375	575	100	675	8.54
11	Threshing	2	2	400	250	650	100	750	9.49
12	Packing	1	0	200	0	200	150	350	4.43
Total		14	8	2800	1000	3800	4100	7900	100.00

Source: The field Survey data (2009-2010)

The table (Table No.5.40) shows the cost benefit analysis of *til* cultivation. The figures given in the table (Table No.5.35) show that cultivation of *til* may get the profit of Rs.4500/- per hect. The area under the *til* cultivation is very low it is only 7.1 hect in the 2009-2010. The *til* is traditionally grown as an oilseed.

The table (Table No.5.40) indicates the cost of *til* cultivation is Rs. 7900/-per hect and the total income from the *til* cultivation included the cost of fodder is Rs.12400/- The net income from the *til* cultivation is Rs.12400/- in the study area. The study reveals that the requirement of employment for per hect, *til* cultivation is 14 males and 8 females. The area under the *til* is 340.91 in 2009-2010. The employment power requirement is 4772.74 man days and 2727.28 female days for the *til* cultivation. The Employment power generated from *til* cultivation is 26.08 male worker and 14.90 from female worker.

Table No.5.41
Output of Til

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.32.00/-
2	Grain production / Hectare.	400 Kg.
3	Grain Production / Hectare.	Rs.12000/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.400/-
5	Total earnings / Hectare (Grains + Fodder)	Rs.12400 /-
6	Total cost / Hectare	7900/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs 4500./-
8	Man days/ Hect	14 days
9	Women days/ Hect	10 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.42
Cash flow analysis of Til

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	1000	8.06
2	Cash in-flow	6900	55.65
3	Net Profit	4500	36.29
4	Total income	12400	100.00

Source: The field Survey data (2009-2010)

It is observed that the profit earned by the farmer due to the cultivation of *til* is about 36.29%. The cash inflow in case of *til* is 55.65%. The cash out flow from the

til cultivation is very low it is only 8.06%. This means that most of the profit distribute within the tahsil. This crop is taken as mix crop with the other crop like *jowar* and *bajara*. The *til* is used as the diet especially in the meal and for oilseed.

5.4.15 Cost- of Vegetables Cultivation

Table No 5.43
Cost- of Vegetables Cultivation

Sr .No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	5	0	1000	0	1000	3000	4000	9.50
2	Harrowing	6	0	1200	0	1200	1500	2700	6.41
3	Sowing / Seedling	5	22	1000	2750	3750	3500	7600	18.05
4	Cost of Seeds	0	0	0	0	0	1000	7050	16.75
5	Cost of Water	0	0	0	0	0	3000	3900	9.26
6	Electricity Charges	0	0	0	0	0	400	400	0.95
7	Fertilizers/ Pesticides	4	18	800	2250	3050	3550	2500	5.94
8	Wining	4	15	800	1875	2675	0	2675	6.35
9	Irrigation	15	2	3000	250	3250	0	3250	7.72
10	Harvesting	5	20	1000	2500	3500	0	3500	8.31
11	Threshing	2	2	400	250	650		650	1.54
12	Packing	10	15	2000	1875	3875	0	3875	9.20
Total		56	94	11200	11750	22950	15950	42100	100.00

Source: The field Survey data (2009-2010)

The table (Table No. 5.43) show that cost-benefit-analysis of *vegetable cultivation*. The figures given in the table shows that cultivation of *vegetable* may get net profit of Rs. 17800/- hect.

The table (Table No.5.43) indicates that total cost of *vegetable* cultivation is Rs. 42100/- per hect. and total income from *vegetable* cultivation (included fodder) is Rs. 59900/- per hect. It means that Rs. 17800/- per hect is the net income from *vegetable* cultivation in the study area. Hence the field survey reveals that the requirement of employment per hect for *vegetable* cultivation is 56 males and 94 females. So in this tahsil 3027.83 hect. area is under *vegetable* cultivation in 2009-10. It means that employment power requirement is 47614 man-days and 79923 female days for only *vegetable* cultivation in the study area. So that the Employment power generated from *vegetable* cultivation is 260.19 male workers and 436.74 female.

Table No.5.44
Output of Vegetables

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.8.00/-
2	Grain production / Hectare.	5400 Kg.
3	Grain Production / Hectare.	Rs. 59400/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.500/-
5	Total earnings / Hectare (Grains + Fodder)	Rs. 59900/-
6	Total cost / Hectare	42100/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs. 17800/-
8	Man days/ Hect	56 days
9	Women days/ Hect	94 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.45
Cash flow analysis of vegetables

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	7950	13.27
2	Cash in-flow	34150	57.01
3	Net Profit	17800	29.72
4	Total income	59900	100.00

Source: The field Survey data (2009-2010)

It is observed that the profit earned by the farmer due to cultivation of vegetables is about 29.72%. The cost benefit analysis technique useful to understand the part of income circulated within the tahsil, as cash-flow and part of income going out of the rural areas is called as cash-out flow. In case of jowar cash- in flow is just 57.01%. On the contrary, cash out flow vegetables 13.27%.

5.4.16 Cost- of Onion Cultivation

Table No 5.46
Cost- of Onion Cultivation

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	8	0	1600	0	1600	4500	6100	12.71
2	Harrowing	12	0	2400	0	2400	2500	4900	10.21
3	Sowing / Seedling	13	8	2600	1000	3600	5000	7600	15.84
4	Cost of Seeds	0	0	0	0	0	13000	7050	14.70
5	Cost of Water	0	0	0	0	0	5000	3900	8.13
6	Electricity Charges	0	0	0	0	0	700	700	1.46
7	Fertilizers/ Pesticides	5	4	1000	500	1500	2500	2500	5.21
8	Wining	0	15	0	1875	1875	0	1875	3.91
9	Irrigation	13	2	2600	250	2850	0	2850	5.94
10	Harvesting	12	8	2400	1000	3400	0	3400	7.09
11	Threshing	16	10	3200	1250	4450		4450	9.28
12	Packing	12	2	2400	250	2650	0	2650	5.52
Total		91	49	18200	6125	24325	33200	47975	100.00

Source: The field Survey data (2009-2010)

The table (Table No.5.46) shows the cost benefit analysis of onion cultivation. The figures given in the table (Table No.5.41) show that cultivation of onion may get

the profit of Rs.16025 /- per hect. The area under the onion cultivation is very good it 2302 hect in the 2009-2010. The onion is traditionally grown as a cash crop in the study area where irrigation facilities are available.

The table (Table No. 5.42) indicates the cost of onion cultivation is Rs. 47975/-per hect and the total income from the onion cultivation included the cost of fodder is Rs.64000 /- The net income from the onion cultivation is Rs.64000/- in the study area. The study reveals that the requirement of employment for per hect, onion cultivation is 91 males and 49 females. The area under the onion is 6943.18 in 2009-2010. The employment power requirement is 590511.74 man days and 317967.86 female days for the onion cultivation. The Employment power generated from the onion cultivation is 3226.84 male worker and 1537.53 from female worker.

Table No 5.47
Output of Onion Cultivation

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.8.00/-
2	Grain production / Hectare.	8000Kg.
3	Grain Production / Hectare.	Rs. 64000/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.0.0/-
5	Total earnings / Hectare (Grains + Fodder)	Rs. 64000/-
6	Total cost / Hectare	47975/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs. 16025/-
8	Man days/ Hect	91 days
9	Women days/ Hect	49 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.48
Cash flow analysis of onion

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	21200	33.13
2	Cash in-flow	26775	41.84
3	Net Profit	16025	25.04
4	Total income	64000	100.00

Source: The field Survey data (2009-2010)

In case of onion the cash out flow is 33.14%. The net profit from the onion is 25.04%, means that the 25% profit from the onion. The cash inflow from the onion is 41.84%. The onion is mostly cultivated as a cash crop, when the prices of the crop increases in the market the farmer earn the money by selling the crop in the market.

5.4.17 Cost- of Jawas Cultivation

Table No 5.49
Cost- of Jawas Cultivation

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	3	0	600	0	600	1250	1850	24.75
2	Harrowing	3	0	600	0	600	650	1250	16.72
3	Sowing / Seedling	2	0	400	0	400	950	1350	18.06
4	Cost of Seeds		0	0	0	0	450	450	6.02
5	Cost of Water	0	0	0	0	0	200	200	2.68
6	Electricity Charges	0	0	0	0	0	200	200	2.68
7	Fertilizers/ Pesticides	1	0	200	0	200	350	550	7.36
8	Wining	0	0	0	0	0	0	0	0.00
9	Irrigation	0	0	0	0	0	0	0	0.00
10	Harvesting	2	2	400	250	650	0	650	8.70
11	Threshing	2	3	400	375	775		775	10.37
12	Packing	1	0	200	0	200	0	200	2.68
Total		14	5	2800	625	3425	4050	7475	100.00

Source: The field Survey data (2009-2010)

In the table (Table No.5.49) that the total cost of *jawas* cultivation is Rs.7475/- per hect. and the total income from *jawas* cultivation (Included fodder) Rs.9500/- per

hect. It means that Rs.2075/- is the net income from the *jawas* cultivation in the study area. In the tahsil in 2010-2011 the area under *jawas* cultivation is 12.4 hect. It means that employment power requirement is 2211.86 male man days and 789.95 female man- days for only *jawas* cultivation in the study area. The total man days have been divided by 180 days. The calculation shows that availability of employment, as main worker in *jawas* production is 12.09 man days and 4.32 female workers.

Table No.5.50
Output of *Jawas* Cultivation

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.26.00/-
2	Grain production / Hectare.	350 Kg.
3	Grain Production / Hectare.	Rs. 9100/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.450/-
5	Total earnings / Hectare (Grains + Fodder)	Rs. 9550/-
6	Total cost / Hectare	7475/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs. 2075/-
8	Man days/ Hect	14 days
9	Women days/ Hect	5 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.51
Cash flow analysis of *jawas*

Sr.No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	1350	14.14
2	Cash in-flow	6125	64.14
3	Profit	2075	22.01
4	Total income	9550	100.00

Source: The field Survey data (2009-2010)

It is observed that the profit earned by the farmer by way of cultivation *jawas* is about 22.01%. The cost benefit analysis technique is useful to understand the part of income circulated within the tahsil, as cash-flow and part of income going out of the rural

areas is called as cash-out flow. In case of *jawas* cash-flow is just 64.14%. On the contrary, cash out flow *jawas* 14.14%. This means that by cultivating *jawas* sizable amount of income remains within the tahsil. *Jawas* is used as oilseeds.

5.4.18 Cost of Fruit Cultivation

Table No 5.52
Cost of Fruit Cultivation

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	1	0	200	0	200	1200	1400	4.27
2	Harrowing	5	4	1000	500	1500	1000	2500	7.62
3	Sowing /Seedling	1	2	200	250	450	1500	1950	5.95
4	Cost of Seeds	0	0	0	0	0	15000	15000	45.73
5	Cost of Water	0	0	0	0	0	1200	1200	3.66
6	Electricity Charges	0	0	0	0	0	1200	1200	3.66
7	Fertilizers /Pesticides	2	2	400	250	650	2500	3150	9.60
8	Wining	2	2	400	250	650	0	650	1.98
9	Irrigation	4	2	800	250	1050	0	1050	3.20
10	Harvesting	2	9	400	1125	1525	0	1525	4.65
11	Threshing	1	6	200	750	950		950	2.90
12	Packing	4	3	800	375	1175	1050	2225	6.78
Total		22	30	4400	3750	8150	24650	32800	100.00

Source: The field Survey data (2009-2010)

As discussed in the previous Chapter No.4 the cropping pattern fruit is cultivated at once only. So the cost benefit analysis has been calculated on the basis of

first year means the year of cultivation or plantation of fruits like mango, orange, guava and sweet lemon. The area under fruit cultivation in 2009-2010 is 19622 hect.

In the table (Table No.5.52) that the total cost of fruit cultivation is Rs.32800/- per hect. and the total income from fruit cultivation (Included fodder) Rs.36500/- per hect. It means that Rs.3750/- is the net income from the fruit cultivation in the study area. In the tahsil in 2009-2010 the area under fruit cultivation is 350 hect. It means that employment power requirement is 15685.78 male man days and 21389.70 female man- days for only fruit cultivation in the study area. The total man days have been divided by 300 days. The calculation shows that availability of employment, as main worker in fruit production is 85.71 man days and 116.88 female workers. The total worker for the fruit cultivation is 202.60. In the tahsil average the employment generated by the fruit cultivation is 0.95%.

Table No 5.53

Output of Fruit Cultivation

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.18.00/-
2	Grain production / Hectare.	2000 Kg.
3	Grain Production / Hectare.	Rs.36000/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.500/-
5	Total earnings / Hectare (Grains + Fodder)	Rs. 36500/-
6	Total cost / Hectare	32800/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs. 3750/-
8	Man days/ Hect	22 days
9	Women days/ Hect	30 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.54**Cash flow analysis of Fruit**

Sr.No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	19900	54.52
2	Cash in-flow	12900	35.34
3	Net Profit	3750	10.27
4	Total income	36500	100.00

Source: The field Survey data (2009-2010)

It is observed that the profit earned by the farmer by way cultivation of fruit is about 10.27%. The cost benefit analysis technique useful to understand the part of income circulated within the tahsil, as cash-flow and part of income going out of the rural areas is called as cash-out flow. In case of fruit cash-flow is just 35.34%. On the contrary, cash out flow fruit 54.32%.

5.4.19 Cost- of Other Crop Cultivation**Table No 5.55****Cost of Other crop cultivation**

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	4	0	800	0	1200	1650	2850	8.18
2	Harrowing	5	0	1000	0	2400	1250	3650	10.48
3	Sowing / Seedling	4	3	800	375	3225	1200	4425	12.71
4	Cost of Seeds	0	0	0	0	0	950	950	2.73
5	Cost of Water	0	0	0	0	0	800	800	2.30
6	Electricity Charges	0	0	0	0	0	800	800	2.30
7	Fertilizers/ Pesticides	4	2	800	250	1825	1500	3325	9.55
8	Wining	0	12	0	1500	2250	0	2250	6.46

9	Irrigation	4	2	800	250	3250	0	3250	9.33
10	Harvesting	3	8	600	1000	3400	250	3650	10.48
11	Threshing	2	9	400	1125	4700	200	4900	14.07
12	Packing	5	2	1000	250	2775	1200	3975	11.41
Total		31	38	6200	4750	25025	9800	34825	100.00

Source: The field Survey data (2009-2010)

As discussed in the previous chapter the area under the other crop cultivation is 1270 hect. In the other crop included vegetables. The metropolitan city is very near to the Karmala tahsil and good market is available for the vegetables so most of the farmer is taking as vegetables in their agricultural land.

In the table (Table No.5.55) that the total cost of other crops cultivation is Rs.34825/- per hect. and the total income from jowar cultivation (Included fodder) Rs.40500/- per hect. It means that Rs.5675/- is the net income from the other crops cultivation in the study area. In the tahsil in 2009-2010 the area under other crops cultivation is 3543.02 hect. It means that employment power requirement is 109833.62 male man days and 134634.76 female man- days for only other crops cultivation in the study area. The total man days have been divided by 180 days. The calculation shows that availability of employment, as main worker in other crops production is 600.18 man days and 735.71 female workers. The total male and female required is 1335.89. The employment generated by the other crops is 6.25%.

Table No 5.56
Output of other crop cultivation

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.16.00/-
2	Grain production / Hectare.	2500 Kg.
3	Grain Production / Hectare.	Rs. 40000/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.500/-
5	Total earnings / Hectare (Grains + Fodder)	Rs. 40500/-

6	Total cost / Hectare	34825/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs. 5675/-
8	Man days/ Hect	31 days
9	Women days/ Hect	38 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.57

Cash flow analysis of other crop.

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	5875	14.51
2	Cash in-flow	28950	71.48
3	Net Profit	5675	14.01
4	Total income	40500	100.00

Source: The field Survey data (2009-2010)

It is observed that the profit earned by the farmer by way cultivation of fruit is about 14.01%. The cost benefit analysis technique useful to understand the part of income circulated within the tahsil, as cash-flow and part of income going out of the rural areas is called as cash-out flow. In case of fruit cash-flow is just 71.48%. On the contrary, cash out flow fruit 14.51%.

5.4.20 Cost of Groundnut cultivation

Table No 5.58

Cost of Groundnut cultivation

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Female	Total			
1	Ploughing	6	0	1200	0	1200	5000	6200	14.91
2	Harrowing	12	0	2400	0	2400	3000	5400	12.99

3	Sowing / Seedling	13	5	2600	625	3225	3000	6225	14.97
4	Cost of Seeds	0	0	0	0	0	2700	2700	6.49
5	Cost of Water	0	0	0	0	0	800	800	1.92
6	Electricity Charges	0	0	0	0	0	850	850	2.04
7	Fertilizers/ Pesticides	6	5	1200	625	1825	1200	3025	7.28
8	Wining	0	18	0	2250	2250	0	2250	5.41
9	Irrigation	15	2	3000	250	3250	0	3250	7.82
10	Harvesting	12	8	2400	1000	3400	0	3400	8.18
11	Threshing	16	12	3200	1500	4700		4700	11.30
12	Packing	12	3	2400	375	2775	0	2775	6.67
Total		92	53	18400	6625	25025	16550	41575	100

Source: The field Survey data (2009-2010)

The table (Table No.5.58) shows the cost benefit analysis of Groundnut cultivation. The figures given in the table (Table No.5.53) show that cultivation of onion may get the profit of Rs. 45025/- per hect. The area under the onion cultivation is very good it is 2302 hect in the 2009-2010.

The table (Table No. 5.59) indicates the cost of groundnut cultivation is Rs. 41575/-per hect and the total income from the onion cultivation included the cost of fodder is Rs.86600 /- The net income from the onion cultivation is Rs.45025/- in the study area. The study reveals that the requirement of employment for per hect, Groundnut cultivation is 92 males and 53 females. The employment power requirement is 370590.72 man days and 213492.48 female days for the groundnut cultivation. The Employment power generated from groundnut cultivation is 2025.09 male worker and 1166.63 from female worker.

Table No 5.59
Output of Groundnut cultivation

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.21.00/-
2	Grain production / Hectare.	4100 Kg.
3	Grain Production / Hectare.	Rs. 86100/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.500/-
5	Total earnings / Hectare (Grains + Fodder)	Rs. 86600/-
6	Total cost / Hectare	41575/-
7	Net Profit / hectare (Total earning – Total Cost)	Rs. 45025/-
8	Man days/ Hect	92 days
9	Women days/ Hect	53 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.60
Cash flow analysis of Groundnut crop.

Sr.No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	41575	48.01
2	Cash in-flow	25025	28.90
3	Net Profit	45025	51.99
4	Total income	111625	100.00

Source: The field Survey data (2009-2010)

It is observed that the profit earned by the farmer by way of cultivation groundnut is about 51.99%. The cost benefit analysis technique useful to understand the part of income circulated within the tahsil, as cash-flow and part of income going out of the rural areas is called as cash-out flow. In case of jowar cash-flow is just 28.90%. On the contrary, cash out flow groundnut 48.01%.

5.4.21 Cost- of Sugarcane Cultivation

Table No 5.61
Cost- of Sugarcane Cultivation

Sr. No.	Operations	Human Power		Labour Cost			Other Cost	Total cost	%
		Man days	Woman days	Male	Femal e	Total			
1	Ploughing	4	0	800	0	800	8000	8800	6.84
2	Harrowing	8	0	1600	0	1600	3000	4600	3.58
3	Sowing / Seedling	25	35	5000	4375	9375	15000	24375	18.9 5
4	Cost of Seeds	0	0	0	0	0	20000	20000	15.5 5
5	Cost of Water	0	0	0	0	0	8000	8000	6.22
6	Electricity Charges	0	0	0	0	0	5000	5000	3.89
7	Fertilizers/ Pesticides	28	12	5600	1500	7100	25000	32100	24.9 6
8	Wining	16	60	3200	7500	10700	0	10700	8.32
9	Irrigation	69	10	13800	1250	15050	0	15050	11.7 0
10	Harvesting	0	0	0	0	0	0	0	0.00
11	Packing	0	0	0	0	0	0	0	0
Total		150	117	30000	14625	44625	84000	128625	100. 00

Source: The field Survey data (2009-2010)

The table (Table No.5.61) shows the cost benefit analysis of sugarcane cultivation. The figures given in the table (Table No.5.62) show that cultivation of sugarcane may get the profit of Rs. 81875/- per hect. The area under the sugarcane cultivation is very good it is 11120.30 hect in the 2009-2010. The sugarcane is grown as a cash crop in the study area.

The table (Table No.5.63) indicates the cost of sugarcane cultivation is Rs.128625/-per hect and the total income from the sugarcane cultivation included the cost of fodder is Rs.210500/- The net income from the sugarcane cultivation is Rs.210500/- in the study area. The study reveals that the requirement of employment for per hect, sugarcane cultivation is 150 males and 117 females. The employment power requirement is 2185531.50 man days and 1704714.57 female days for the sugarcane cultivation. The Employment power generated from sugarcane cultivation is 11942.80 male worker and 9315.38 from female worker.

The sugarcane is mostly grown along the riverside belt and where irrigation facilities available by the canal and tank and other sources of irrigation. But the major drawback of the cultivation of sugar is it reduce the soil fertility and second use of water resource is more it means that loss of water, the statistical information shows that sugarcane requires 50% of the water The sugarcane contributes for labour generation in the study area. Although it requires 50% of the water but it is profitable crop.

Table No.5.62

Output of Sugarcane

Sr. No.	Details	Rs.
1	On- farm Price / kg Rs.	Rs.2000/-
2	Grain production / Hectare.	104 Ton
3	Grain Production / Hectare.	Rs.208000/-
4	Average on farm price of fodder/ Hectare Rs.	Rs.2500/-
5	Total earnings / Hectare (Grains + Fodder)	Rs. 210500/-
6	Total cost / Hectare	128625
7	Net Profit / hectare (Total earning – Total Cost)	Rs. 81875/-
8	Man days/ Hect	186 days
9	Women days/ Hect	40 days
10	Daily wages for male worker	Rs. 200/-
11	Daily wages for female worker	Rs. 125/-

Source: The field Survey data (2009-2010)

Table No.5.63
Cash flow analysis of Sugarcane

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	65100	30.93
2	Cash in-flow	63525	30.18
3	Net Profit	81875	38.90
4	Total income	210500	100.00

Source: The field Survey data (2009-2010)

Sugarcane is good cash crop and hence has high profitability (38.9%). However, the cash flow analysis has attracted attention of the present worker because both cash-out flow (30.93%) and cash-inflow (30.18%) are almost equal. This is the reason why sugarcane cultivation has not been useful for poverty alleviation.

5.5 Employment Generation:

The employment generated per mh of water resource by the gram crop (0.97mh) is more in the tahsil followed by the other crop like bajara irrigated (0.92%), jowar rabbi irrigated (0.85), etc. The lowest employment generated by the fruit crop it is 0.6 mh. . Employment generation and requirement of mh of water resource for the crops shows in the table no

Table No.5.64
Cash flow analysis

Sr. No.	Operations	Cash-out flow	%	Cash in - flow	%	Profit	%	Total income	%
1	Jowar K	1000	0.52	21900	5.42	5700	2.06	28600	3.28
2	Jowar R ir	3700	1.94	23100	5.72	7740	2.80	34540	3.96
3	Jowar R U	750	0.39	19900	4.92	4150	1.50	24800	2.84
4	Bajara Ir	3800	1.99	22375	5.54	7275	2.63	33450	3.84
5	Bajara Un	1200	0.63	17200	4.26	2180	0.79	20580	2.36
6	Wheat	4150	2.17	19125	4.73	17725	6.40	41000	4.70
7	Maize	3050	1.60	9425	2.33	8625	3.12	21100	2.42
8	Mug	1125	0.59	9625	2.38	10050	3.63	20800	2.39
9	Mataki	1100	0.58	9600	2.38	12900	4.66	23600	2.71
10	Hulga	1325	0.69	7175	1.78	1800	0.65	10300	1.18

11	Gram	3375	1.77	18775	4.65	8725	3.15	30875	3.54
12	Tur	1500	0.78	12925	3.20	11275	4.07	25700	2.95
14	Til	1000	0.52	6900	1.71	4500	1.63	12400	1.42
15	Vegetable	7950	4.16	34150	8.45	17800	6.43	59900	6.87
16	Onion	21200	11.09	26775	6.63	16025	5.79	64000	7.34
19	Jawas	1350	0.71	6125	1.52	2102	0.76	9577	1.10
13	Kardai	1100	0.58	8600	2.13	1950	0.70	11650	1.34
18	Groundnut	41575	21.75	25025	6.19	45025	16.26	111625	12.80
17	Sugarcane	65100	34.06	63525	15.72	81875	29.57	210500	24.14
20	Fruit	19900	10.41	12900	3.19	3750	1.35	36550	4.19
21	Other	5875	3.07	28950	7.16	5675	2.05	40500	4.64
	Total	191125	100	404075	100	276847	100	872047	100

5.6 Cash flow analysis:

The cash flow analysis technique is useful to understand the incoming and outgoing rupees in the tahsil. The cash flow analysis revealed from the table (Table No 5.64). The cash out flow is more in case of crops like sugarcane (34.06%), groundnut (21.75%), onion (11.09%) and fruit (10.41%).

Résumé:

The present chapter presented the cost of various crops and employment generation, cash flow analysis. The information is useful to understand the rural economy and its change to the employment generation and cash flow analysis. The cropping pattern shows that the crops like sugarcane require more water and more profit and more water.