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"COST BENEFIT ANALYSIS OF SUGARCANE CULTIVATION OF WALWA TAHSIL"

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ABSTRACT:
The cost benefit analysis carried out in the study is just not for understanding profitability. It is different from the same observed in the thesis of commerce and economics. Here, the study has adopted geographical prospective. Therefore cost of production of sugarcane is assumed to be the cost of natural recourses consumed by the crop. It also helps to understand any other alternate crop which can fetch more profit utilizing similar quantity of natural recourses. Further, labour cost observed in the study is used to understand capacity of the crop to generate employment for local labour force. Thus, the present chapter deals with sugarcane crop as a agricultural model to get money for utilization of natural resources present in the region and also brought outside the region.

KEYWORDS
Cost Benefit Analysis , commerce and economics , geographical prospective.

1.INTRODUCTION:

The study of cost benefit analysis is very important for any crop that can be observed the economic profitability of the farmer. It is studied by geographers like Saptarshi, (1993), Bhagat (2000), More (2009). To identify problems related to use of water resources, employment potentials and cash flow analysis.

It gives the cost structure which is useful to understand cash flow along with employment generated for local population. It may also be used for identifying proper cropping pattern to reduce the requirement of water without compromising profitability. Cost structure of sugarcane cultivation in the study area may help to identify physical, social and economic issues. "The question like who are benefited due to sugarcane cultivation?" may get proper answer based on cost benefit analysis.

2. COST BENEFIT ANALYSIS:

For the study of the cost structure of various operations in the field of sugarcane from preparation of agricultural land for planting the cane to till harvesting the sugarcane is considered very carefully. It has been based on sample survey conducted in 15 % selected villages according to questionnaire and prepared the cost benefit analysis for per acre of sugarcane. The data obtained from 150 farmers from randomly selected 15 villages had been compiled.

Thus, expenditure per acre incurred on various operations like ploughing, organic manures, cost of seeds, plantation of cane, chemical fertilizers, winning, inter land operations, methods of irrigations and its cost and other charges are considered.

The table (Table No 1.1) shows the cost benefit analysis of sugarcane cultivation. The sugarcane grown as a major cash crop in study area. The sugarcane is cultivated mostly along the banks of river Krishna and Warna where the lift irrigation schemes were developed from the rivers, canal, tanks and wells. The sugarcane requires more than 50 % of water than any other agricultural crops in the study area.

Cost structure of sugarcane cultivation may be use to identify social and economic issues like distribution of opportunities, cash flow towards urban sector proportion of cost circulated to laborers etc.

Thus, the grass root level issues of sugarcane cultivation in the tahsil will be understood properly and strategic planning will be prepared.

3 COST BENEFIT ANALYSIS OF SUGARCANE

Table No 1.1
Production Cost of Sugarcane Cultivation per acare

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	Tractor rent	4000	4800	06.04
2	Harrowing	4	0	800	0	800`	Tractor rent	2000	2800	03.53
3	Plantation	10	10	2000	1500	3500	Transport	1000	4500	05.66
4	Cost of Seeds	0	0	0	0	0	--	8000	8000	10.06
5	Cost of Water	0	0	0	0	0	--	5000	5000	06.28
6	Electricity Charges	0	0	0	0	0	--	1500	1500	01.88
7	Fertilizers/ Pesticides	04	04	800	600	1400	Fertilizers/ Pesticides	10000	11400	14.34
8	Organic manures	08	08	1600	1200	2800	Manures and Transport	18400	21200	26.67
9	Wining	03	50	600	7500	8100	--	00	8100	10.18
10	Irrigation	22	00	4400	00	4400	supervision	1000	5400	06.79
11	Inter Tillering	04	0	800	0	800	Implements	2000	2800	03.53
12	Supervision	10	0	2000	0	2000	--	2000	4000	05.04
Total		69	72	13800	10800	24600	--	54900	79500	100.00

Source: The field Survey data (2012-2013)

The table (Table No.1.1) shows the cost benefit analysis of sugarcane cultivation. The figures given in the table (Table No.1.2) show that cultivation of sugarcane may get the net profit of Rs. 17500/- per acre. The area under the sugarcane cultivation is very good it is 39212.62 hect in the 2011-2012. The sugarcane is grown as a cash crop in the study area.

The table (Table No.1.2) indicates the cost of sugarcane cultivation is Rs.92000/-per acre and the total income from the sugarcane cultivation included the cost of fodder is Rs.97000/- The net income from the sugarcane cultivation is Rs.17500/- in the study area. The study reveals that the requirement of employment for per acre, sugarcane cultivation is 69 males and 72 females. The employment power requirement is 2705670.78 man days and 2,823,308.64 female days for the sugarcane cultivation. The Employment power generated from sugarcane cultivation is 11942.80 male workers and 9315.38 from female workers.

The sugarcane is mostly grown along the riverside belt and where irrigation facilities available by the canal and tank and other sources of irrigation. Since last 6 decades in the study area using water and chemical fertilizers in soils with traditional methods soil loses its physical, chemical and biological properties. 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.1.2
Output of Sugarcane per acre

Sr. No.	Details	Rs.
1	Sugarcane cost per metric ton	2300/-
2	Avg.Sugarcane production. in M. Ton	40
3	Earning from sugarcane	92000
3	Average on farm price of fodder	5000
6	Total earning from sugercane	97000
7	Net Profit / acre (Total earning - Total production Cost)	17500
8	Man days/ acre	69 days
9	Women days/ acre	72 days
10	Daily wages for male worker	200/-
11	Daily wages for female worker	150/-

Source: The field Survey data (2014-2015)

Table No.1.3
Cash flow analysis of Sugarcane

Sr. No.	Cash flow analysis	Rupees	Percentage
1	Cash out-flow	26500	27.33
2	Cash in-flow	53000	54.63
3	Net Profit	17500	18.04
4	Total income	97000	100.00

Source: The field Survey data (2014-2015)

Table No.1.4
Cash flow analysis

Crop	Cash-out flow	%	Cash in -flow	%	Profit	%	Total income	%
Sugarcane	26500	27.33	53000	54.63	17500	18.04	97000	100.0

Sugarcane is a cash crop and hence it has profitability (18.04%). However, the cash flow analysis has attracted attention of the present work because both cash-out flow (27.33%) and cash-inflow (54.63%) is more it proves that sugarcane cultivation requires labours and also other resources like organic manures and man power. It also requires skilled and unskilled labours in sugar factory so socioeconomic development takes place in and around the study area. This is the reason why sugarcane

cultivation has not been useful for poverty alleviation.

4 EMPLOYMENT GENERATION:

The employment generated per mh of water resource is more in sugarcane cultivation . Employment generation is more because it is a more than 12 months crop the region gets the employment about Rs.53000/- (54.63%) it is cash in fiow.

5 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 1.3). The cash out flow is more in case of crops like sugarcane (27.33%). This will help for input and output in the tashil and help for the economic development of the tahsil.

The cash out flow includes cost of ploughing, harrowing, plantation, water, electricity, fertilizers, pesticides and irrigation. About 27.33 % of the total production cost goes to urban sector. This is outing cash from the region.

The cultivation of sugarcane in one hectare requires water volume =100 m.*100 m.*3 m.=30000000 liters of water.

The average cost of water paid by farmers is about Rs.1250/- per hectare. This is to say that farmers gets the water resource with a rate of Rs. 30000000 / 12500=2400 liter per rupee.

It is observed that average production of sugarcane is 100 tons. The average recovery is about 11%. This means that production of 11 tons requires 30,000 m3 of water or 3,00,00000 liter. The cost of 11 tons in international market is about 11*24000=Rs.2,64000/-. this means that 11 tons of sugar or 3,00,00,000liters of water in the international marketfor Rs.2,64000/- The water resource sold in international market at the rate of 3,00,00000/ Rs.2,64000 =Rs.113.64 liters per rupee.

With true geo-environmental perspective (Saptarshi,1993) the water resource from draught prone areas is sold in international market at the rate of 113.64liters per rupee.This is not a good business.

CONCLUSION:

The present Research paper presented the production cost of sugarcane, net profit, employment generation, and cash flow analysis. The information is useful to understand the rural economy depend upon the sugarcane and other crops. The sugarcane requires more fertilizers, organic manures, water, manpower and soil resources more than 12 months. Obviously there is degradation of soil and loss of water and soil erosion. It is said that the farmers using the natural resources and cultivating the sugarcane and exporting the sugar it means they are sailing the major resources like water and soils. The cropping pattern shows that the crop like sugarcane requires more water and other resources so that it gives more profit than other crops.

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