



**Research Paper**

# A comparative cost of cultivation of major crops grown in South Gujarat for KCCs and Non – KCCs farmers

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**ABSTRACT :** This study was undertaken to determine on a comparative cost of cultivation of major crops grown in South Gujarat for KCCs and non –KCCs farmers 2016-17. The study was based on the information obtained from 80 KCC holders and 80 Non-KCC holders selected from two districts viz., Navsari and Surat of South Gujarat. The results revealed that per hectare cost of cultivation of KCC farmers for paddy, sugarcane, sorghum and chilli was found to be Rs. 52880 /ha, Rs. 189212 /ha, Rs. 31377 /ha and Rs. 55239 /ha, respectively. The cost of cultivation for non- KCC farmers for paddy, sugarcane, sorghum and chilli was found to be Rs. 50900 /ha, Rs. 182980 /ha, Rs. 29581 /ha and Rs. 51680 /ha, respectively. The cost of cultivation is more for KCC farmers as against Non-KCC farmers. The net returns obtained by KCC farmers for paddy, sugarcane, sorghum and chilli was found to be Rs. 10908 /ha, Rs. 60046 /ha, Rs. 6577 /ha and Rs. 23923 /ha, respectively. The net returns obtained by Non-KCC farmers for paddy, sugarcane, sorghum and chilli was found to be Rs. 8790 /ha, Rs. 55420 /ha, Rs. 6062 /ha and Rs. 21304 /ha, respectively. The net returns are more for KCC farmers as against Non-KCC farmers.

**KEY WORDS:** KCCs, Cost of cultivation, Paddy, Sugarcane, Sorghum, Chilli

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## INTRODUCTION :

The Kisan Credit Card scheme is a landmark in the history of rural credit in India. The mechanism of credit cards has been one of the key products developed to expand the outreach of banks and simplify the credit delivery system. The announcement relating to the introduction of Kisan Credit Card scheme was made by the Union Finance Minister during the budget speech for the year 1998-99. NABARD formulated a Kisan Credit

Card scheme for uniform adoption by the banks so that the farmers may use the cards to readily purchase agriculture inputs such as seeds, fertilizers, pesticides etc. and draw cash for their production needs. The model scheme was circulated to co-operative banks, commercial banks and RRBs in August 1998. It is appropriate to study the impact of this scheme since it has completed more than one decade. Hence, the present study was formulated with the specific objectives to analyze the growth in the number of Kisan Credit Cards

issued.

Against this background the KCC scheme announcement made by the honorable finance minister in his budget speech for the year 1998-99 and RBI revised the scheme in the year 2012. So, RBI has advised to all financial agencies to implement the revised KCC scheme immediately from August 2012. It aimed at providing timely and adequate credit to the farmers in a cost effective and flexible manner. In addition to credit for crop production, the scheme provides credit for ancillary activities related to crop production, working capital need for non-farm activities and allied activities with some provision for consumption needs. The scheme is being implemented in the country by all the banks from the year 1998-99. This has now been accepted as the mode of both short-term and long term credit for agriculture.

## MATERIALS AND METHODS :

The study was conducted in Surat and Navsari districts of South Gujarat. For selection of sample farmers, two banks each of commercial bank and Co-operative bank was selected randomly from each selected district, two branches were selected randomly from each selected bank, two villages were selected randomly from each selected branch and from each village five KCC and five Non-KCC holders were selected randomly. Out of five, each of KCC and Non-KCC holders' two marginal farmers, two small farmers and one large farmer were selected randomly. The study was based on the information obtained from 80 KCC holders and 80 Non-KCC holders selected from two districts of South Gujarat.

### Primary data:

Primary data were collected from KCC-holders. The primary data relating to personal information of KCC card holders, recovery position, amount of borrowing, purpose of borrowing, utilization of credit, cost of credit, benefit of credit, etc., were collected from selected borrowers by using a personal interview method with the pre-tested and well structured schedule. For understanding the operational modalities followed in banks, the primary data related to bank was collected from respective bank officers. The information related to procedure of issuing KCC, number of KCC issued, number of KCC renewed, etc. was taken from respective branch officers of commercial banks and co-operative banks by using a personal interview method with the

pretested and well structured schedule.

### Secondary data:

Secondary data related to Kisan Credit Card across India, Gujarat and South Gujarat region were collected from RBI, NABARD and also from different financial agencies like commercial banks, co-operative banks. The time series data related to number of KCCs issued, amount sanctioned under KCC scheme for India were collected from RBI publications since inception (1998-99) of the scheme upto 2015-16. In the study area data were collected from lead bank of respective districts from 2002-03 to 2015-16. The initial three years data of the study area regarding number of KCC issued and amount sanctioned was not available with the lead banks. The RRBs are vomited in the Navsari and Surat district because these two districts shows negligible growth rate in the number of KCCs issued and amount sanctioned.

### Cost of cultivation:

The cost of cultivation of pointed gourd crops was worked out by using various cost concepts defined below:

#### Cost A1: It includes :

- Value of hired human labour (Rs.)
- Value of hired and owned animal labour (Rs.)
- Value of hired and owned machine labour (Rs.)
- Value of seed (both farm seed and purchased) (Rs.)
- Value of manures (owned and purchased) and fertilizers (Rs.)
- Depreciation (Rs.)
- Irrigation charges (Rs.)
- Land revenue (Rs.)
- Interest on working capital (Rs.)
- Amortized cost (Rs./ha).

Cost A2: Cost A1 + rent paid for leased in land.

Cost B<sub>1</sub>: Cost A1 + interest on fixed capital (excluding land)

Cost B<sub>2</sub>: Cost B<sub>1</sub> + rental value of owned land + rent for leased in land.

Cost C<sub>1</sub>: Cost B<sub>1</sub> + imputed value of family labour.

Cost C<sub>2</sub>: Cost B<sub>2</sub> + imputed value of family labour.

Cost C<sub>3</sub>: Cost C<sub>2</sub> + 10 per cent of cost C<sub>2</sub> as management cost.

### Cost of production:

The cost of production is worked out by using following formula:

$$\text{Cost of production} = \frac{\text{Cost of production}}{\text{Quantity of main produce}}$$

$$\text{Cost of production} = \frac{\text{Cost of cultivation}}{\text{Total no. of flower bundles}}$$

**Income measure:**

Following income measures were used.

**Gross income:**

It is the total value of main product

$$GI = (Q_m \times P_m) + (Q_b \times P_b)$$

where,

GI = Gross Income

Q<sub>m</sub> = Quantity of product

P<sub>m</sub> = Price of product

Q<sub>b</sub> = Quantity of by product

P<sub>b</sub> = Price of by product.

**Return over variable cost (RVC):**

$$RVC = \text{Gross income} - \text{Cost A}_1.$$

**Farm business income (FBI):**

$$FBI = \text{Gross income} - \text{Cost A}.$$

**Family labour income (FLI) or return to family labour:**

$$FLI = \text{Gross income} - \text{Cost B}_2$$

**Farm investment income (FII) :**

$$FII: \text{Gross income} - \text{Cost C}_1$$

**Net income:**

$$\text{Net income} = \text{Gross income} - \text{Cost C}_3$$

**Returns to management:**

$$RM = \text{Gross income} - \text{Cost C}_3$$

**RESULTS AND DATA ANALYSIS :**

Item wise details on per hectare cost of cultivation of *Kharif* paddy crop with and without KCC farmers have been worked out at different cost levels and presented in Table 1. Per hectare cost of cultivation (Cost-C<sub>2</sub>) of paddy crop cultivation has been estimated by considering the quantity of input and labour used. The labour and material cost constitutes main items of the total cost of the *Kharif* paddy crop. Among the three

categories of KCC farmers, the total cost incurred by the large farmers was high (Rs.54615/ha) as compared to marginal and small farmers (Rs. 51731/ha and Rs. 52293 /ha, respectively). On the other hand, the net returns per hectare obtained by large farmers were high (Rs. 11514/ha) as compared to small and marginal farmers (Rs.10792 /ha and Rs. 10417/ha, respectively). The similar results were also supported by Patel (2012).

In the Non-KCC category also the total cost incurred by the large farmers was higher (Rs. 51632/ha) as compared to marginal farmers (Rs.50238/ha) and small farmers and Rs. 50830 /ha). The major item of expenditure on the fixed cost were the expenditure on rental value of owned land (Rs. 8891/ha) and in case of variable cost the major items were hired labours (Rs.13138 /ha) and fertilizers (Rs. 2533 /ha). The net returns per hectare obtained by large farmers were higher (Rs. 9506 /ha) as compared to marginal farmers (Rs. 8392/ha) and small farmers (Rs. 8472/ha). Finally the overall cost of cultivation of paddy was more in case of KCC farmers (Rs. 52880 /ha) than Non-KCC farmers (Rs.50900 /ha). The breakup of total cost to various components showed that beneficiary farmers were using higher amount of inputs leading to higher per hectare cost of production. This higher cost of production for KCC farmers is due to application of higher amount of purchased inputs made available with the help of borrowed money. The total net returns obtained was the highest in case of KCC farmers (Rs.10908 /ha) than the Non-KCC farmers (Rs. 8790 /ha). The results are in same line with the results obtained by Prakash (2013).

The average cost of cultivation of sugarcane and average amount of loan sanctioned under KCC and Non-KCC for different categories of farmers are presented in Table 2. The average yield of the sugarcane for KCC farmers was nearly 774 qtls/ha on the other hand for Non-KCC farmers it was around 733 qtls/ha. The total cost incurred in sugarcane cultivation was Rs. 189212 /ha for the KCC farmers and for Non-KCC farmers it was Rs.182980 /ha. The breakup of total cost to various inputs showed that KCC farmers were using higher amount of inputs leading to higher per hectare cost of production. This higher cost of production for KCC farmers is due to application of higher amount of purchased inputs made available with the help of borrowed money. The overall hired labour had the major share in the total variable cost (Rs. 36549 /ha in KCC and Rs. 35703 /ha) followed by propagating material had

Table 1: Cost of cultivation per hectare for with KCC and without KCC in Kharif paddy crop

Sr. No.	Particulars	KCC holders						Non-KCC holders									
		Marginal		Small		All		Marginal		Small		All					
		Physical unit	Value (Rs.)	Physical unit	Value (Rs.)	Physical unit	Value (Rs.)	Physical unit	Value (Rs.)	Physical unit	Value (Rs.)	Physical unit	Value (Rs.)				
1.	Family labour (man days)	4725	7088	45.37	6806	40.83	6125	44	6673	46.25	6938	44.21	6632	36.16	5424	42.21	6331
	Hired (Man days)	84	12600	84.70	12705	97.62	14643	89	13316	82.34	12351	84.89	12734	95.53	14330	87.59	13138
2.	Bullock labour (Per days)	3	1080	3	1140	3	1200	3	1140	2	760	2	780	2	800	2	780
3.	Seed (kg)	3025	1815	32.15	2186	35.62	2315	33	2105	28.26	1696	30.45	1827	34.21	2121	30.97	1881
4.	Manures (carts)	6	1200	8	1600	10	2000	8	1600	5	1000	7	1400	8	1600	6.67	1333
5.	Chemical fertilizer (kg) N	100	2500	110	2620	112	2750	107	2623	90	2400	100	2580	110	2620	100	2533
	P	32		36		38		35		29		35		36		33.33	
	K	3		2		3		3		2		2		3		2.33	
6.	Irrigation		1060		1250		1650		1320		1040		1230		1640		1303
7.	Insectpest		400		560		680		547		350		520		660		510
8.	Misce. cost		2250		2350		2420		2340		2200		2320		2400		2307
9.	Depreciation		510		450		280		413		500		420		260		393
10.	Int. on working capital		1020		1160		1180		1120		1015		1140		1165		1107
11.	Rental value of own land		9020		8560		9158		8913		9000		8540		9132		8891
12.	Int on own fixed capital		250		180		120		183		240		175		110		175
13.	Managerial charge		3850		3920		3969		3913		3810		3900		3946		3885
14.	Cost-A		31523		32827		35243		33198		30250		31583		33020		31618
15.	Cost-B		31773		33007		35363		33381		30490		31758		33130		31793
16.	Cost-C1		47881		48373		50646		48967		46428		46930		47686		47015
17.	Cost-C2		51731		52293		54615		52880		50238		50830		51632		50900
	Yield to/ha)	41.71	1490	40.7	1550	40.20	1645	40.90	1562	41	1430	39.80	1490	39.70	1540	40.20	1487
	Price Es./To.	62148		63085		66129		63787		58630		59302		61138		59690	
	Gross income	10417		10792		11514		10908		8392		8472		9506		8790	

Source: Field survey

Table 2: Cost of cultivation per hectare for with KCC and without KCC in planted sugarcane

Sr. No.	Particulars	KCC holders						Non-KCC holders									
		Marginal		Small		Large		Marginal		Small		Large		All			
		Physical unit	Value (Rs.)	Physical unit	Value (Rs.)	Physical unit	Value (Rs.)	Physical unit	Value (Rs.)	Physical unit	Value (Rs.)	Physical unit	Value (Rs.)	Physical unit	Value (Rs.)		
1.	Family labour (man days)	63.20	9480	53.90	8085	29.30	4395	48.8	7320	61.15	9173	50.62	7593	27.90	4185	47	6984
	Hired (Man days)	223.75	33563	246.65	36998	260.57	39086	243.65	36549	220.51	33077	239.82	35973	253.73	38060	238	35703
2.	Bullock labour (Per days)	11.60	5220	9.90	4455	8.20	3690	9.9	4455	10.5	4725	11.4	5130	9.61	4325	11	4727
3.	Seed (tonns)	7.90	26544	8.80	29568	9.56	32122	8.75	29411	7.20	24192	8.15	27384	9.12	30643	8	27406
4.	Manures (kg)	1680.3	3681	1340.48	4130	1570.60	4986	1530.46	4266	1632.56	3592	1245.31	3736	1520.72	4562	1466	3963
5.	Chemical fertilizer (kg) N	261.8	16142	274	16246	282	16432	272.6	16273	258.63	15853	269.31	16053	271.64	16197	267	16034
	P	130.3	16142	132.50	16246	136.54	16432	133.11	16273	125.61	15853	128.3	16053	132.45	16197	129	16034
	K	126.35	16142	127.58	16246	129.27	16432	127.73	16273	122.45	15853	125.3	16053	127.42	16197	125	16034
6.	Irrigation		15234		14860		15870		15321		15153		15054		15523		15243
7.	Insec/pest.		460		480		1280		740		420		510		1150		693
8.	Misce. cost		20156		20289		21240		20562		18540		19753		20456		19583
9.	Depreciation		200		170		218		196		168		175		200		181
10.	Int. on working capital		15146		14856		15642		15215		14985		13843		15173		14667
11.	Rental value of own land		14684		14317		15624		14875		13951		14013		15163		14376
12.	Int. on own fixed capital		106		82		115		101		100		76		112		96
13.	Managerial charge		16423		16564		16836		16608		16120		16248		16647		16338
14.	Cost-A		145826		150137		154961		150308		139878		145204		150474		145185
15.	Cost-B		145932		150219		155076		150409		139978		145280		150586		145281
16.	Cost-C1		170096		172621		175095		172604		163102		166888		169934		166641
17.	Cost-C2		186519		189185		191931		189212		179222		183136		186581		182980
	Yield to/ha)	750	310	763	325	810	330	774	322	690	320	730	330	780	325	753	325
	Price Rs./To.		232500		247975		267300		249258		220800		240900		253500		238400
	Gross income		45981		58790		75369		60046		41578		57764		66919		55420

Source: Field survey

Table 3: Cost of cultivation per hectare for with KCC and without KCC in *Rabisorghum*

Sr. No.	Particulars	KCC holders						Non-KCC holders						(Rs./ha)			
		Marginal		Small		large		Marginal		Small		large		Physical unit	Value (Rs.)		
		Physical unit	Value (Rs.)	Physical unit	Value (Rs.)	Physical unit	Value (Rs.)	Physical unit	Value (Rs.)	Physical unit	Value (Rs.)	Physical unit	Value (Rs.)				
1	Family labour (man days)	26.45	3968	24.74	3711	16.86	2192	23	2778	25.23	3028	22.12	2655	14.32	1718	21	2467
2	Hired (Man days)	52.68	7902	54.23	8135	57.62	7491	55	6773	51.50	6144	52.15	6258	55.85	6702	53	6368
	Bullock labour (Per days)	12.24	4651	13.56	5153	15.42	5860	14	5221	11.78	4476	12.21	4640	14.37	5461	13	4859
3.	Seed (kg)	14.5	580	15.46	618	16.21	681	15	626	13.25	530	14.63	586	15.20	638	14	585
4.	Manures (cart)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.	Chemical fertilizer (kg) N	40.24		41.27		42.15		41		38.52		40.23		41.78		40	
	P	18.56	1500	19.32	1560	19.85	1620	19	1493	17.62	1450	18.59	1520	19.21	1580	18	1517
6.	K	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7	Irrigation	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8.	Insec/pest.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9.	Misce. cost	1210		1420		1500		1377		1175		1370		1465		1337	
10.	Depreciation	140		120		150		130		130		125		135		130	
11.	Int. on working capital	550		683		730		688		620		662		690		657	
12.	Rental value of own land	6500		6500		6500		6500		6200		6200		6200		6200	
13.	Int. on own fixed capital	60		55		72		65		55		62		68		62	
14.	Managerial charge	2912		2895		3010		2939		2875		2925		3000		2933	
15.	Cost-A	13026		19031		20224		19094		17553		17816		18389		17919	
16.	Cost-B	18086		19096		20256		19159		17608		17878		18457		17981	
17.	Cost-C1	27760		28565		28988		28438		26836		26733		26375		26648	
	Cost-C2	30672		31460		31998		31377		29711		29658		29375		29581	
	Yield (t/ha)	12.80	2900	13.10	2900	12.50	3100	12.80	2957	12.2	2900	12.7	2800	11.8	3050	12.2	2917
	Price Rs./To.	37120		37990		38750		33513		35380		35560		35990		35643	
	Gross income	6448		6530		6752		6577		5669		5902		6615		6062	

Source: Field survey

**Table 4: Cost of cultivation per hectare for with KCC and without KCC in green chilli crop**

Sr. No.	Particulars	KCC holders						Non-KCC holders						All			
		Marginal		Small		large		Marginal		Small		large					
		Physical unit	Value (Rs.)	Physical unit	Value (Rs.)	Physical unit	Value (Rs.)	Physical unit	Value (Rs.)	Physical unit	Value (Rs.)	Physical unit	Value (Rs.)				
1.	Family labour (man days)	30.21	4532	27.51	4127	25.46	3819	27.73	4159	28.45	4268	26.75	4013	24.15	3623	26.45	3968
	Hired (Man days)	68.21	10232	72.52	10878	79.34	11901	73.36	11004	67.15	10073	71.94	10791	78.34	11751	72.48	10872
2.	Bullock labor (Per days)	2	1000	2	1060	3	1590	2.33	1217	2	900	2	960	3	1440	2.33	1100
3.	Seed (kg)	2.2	792	2.9	1102	4.6	1748	3.23	1214	1.5	375	2.4	720	4.2	1344	2.70	813
4.	Manures (carts)	4	2000	5	2600	6	3120	5	2573	3	1350	4	1920	6	2880	4.33	2050
5.	Chemical fertilizer(kg)	74.28		81.92		92.47		82.89		72.48		80.47		90.25		81.07	
	N																
	P	42.15	2552	45.21	3139	45.18	3330	44.18	3007	41	2500	43.15	2950	44.62	2150	42.92	2533
	K	18		25		28		23.67		16		23		27		22	
6.	Irrigation		2500		2800		3000		2767		2200		2550		2850		2533
7.	Insec/pest.		600		780		840		740		450		620		780		617
8.	Misce. cost		2610		2650		2800		2687		2580		2600		2740		2640
9.	Depreciation		800		960		1020		927		750		900		960		877
10.	Int. on working capital		2560		2610		2780		2650		2480		2570		2690		2580
11.	Rental value of own land		10930		11450		12024		11468		9840		10480		11860		10727
12.	Int. on own fixed capital		750		860		975		862		720		850		940		837
13.	Managerial charge		5460		5720		6240		5807		5210		5440		6050		5567
14.	Cost-A		30177		32706		35948		32944		27925		30594		33228		30582
15.	Cost-B		30927		33566		36923		33805		28645		31444		34168		31419
16.	Cost-C1		46389		49142		52766		49432		42753		45936		49650		46113
17.	Cost-C2		51849		54862		59006		55239		47963		51376		55700		51680
	Yield (t/ha)	84.25	850	90.20	870	98.20	890	91	870	78.11	840	82.80	880	92.5	870	84.47	863
	Price Rs./To.		71613		78474		87398		79162		65612		72864		80475		72984
	Gross income		19764		23612		28392		23923		17650		21488		24775		21307

Source: Field survey

the major share in the total variable cost (Rs. 29411 /ha in KCC and Rs. 27406 /ha under Non-KCC category) followed by fertilizers (Rs. 16273 /ha in KCC and Rs. 16034 /ha under Non-KCC, respectively). In the case of total fixed cost the overall managerial cost was the major item (Rs. 16608 /ha) in case of KCC farmers and for Non-KCC farmers (Rs. 16338 /ha) followed by the rental value of the owned land (Rs. 14875 /ha) in case of KCC farmers and for Non-KCC farmers it was Rs. 14376/ha. Net returns per hectare obtained by large farmers were higher in both the KCC and Non-KCC categories (Rs. 75369 /ha and Rs. 66919 /ha, respectively) as compared to marginal farmers (Rs. 45981 /ha and Rs. 41578 /ha, respectively) and small farmers (Rs. 58790 /ha and Rs. 57764 /ha, respectively). These results were also in conformity with findings of earlier study conducted by Sajane *et al.* (2011).

The cost incurred and returns realized from sorghum cultivation were calculated and presented in Table 3. Among the three categories of KCC farmers, the total cost incurred by the large farmers were high (Rs. 31998 /ha) as compared to marginal and small farmers (Rs. 30672 /ha and Rs. 31460 /ha, respectively). On the other hand, the net returns per hectare obtained by large farmers were high (Rs. 6752/ha) as compared to marginal and small farmers (Rs.6448/ha and Rs. 6530 /ha, respectively). In case of Non-KCC category, the total cost incurred by the large farmers were high (Rs.29375 /ha) as compared to marginal and small farmers (Rs.29711 /ha and Rs. 29658/ha, respectively) and net returns per hectare obtained by large farmers were high (Rs. 6615/ha) as compared to marginal and small farmers (Rs. 5669 /ha and Rs. 5902/ha, respectively). On overall, the rental value of owned land had greater share in the total fixed cost (Rs. 6500/ha and Rs. 6200/ha in KCC and Non-KCC, respectively). The share of hired labour in total variable cost was Rs. 6773/ha for KCC holders and Rs. 6368/ha for Non-KCC holders followed by fertilizers of Rs. 1493/ha for KCC holders but in the case of Non-KCC holders, it was Rs. 6368 /ha and Rs. 1517 /ha in the total variable cost. Overall total cost of cultivation of sorghum was higher in case of KCC farmers (Rs. 31377/ha) as compared to Non-KCC farmers (Rs. 29581/ha). The breakup of overall total cost to various inputs showed that KCC farmers were using higher amount of inputs leading to higher per hectare cost of production. This higher cost of production for KCC farmers was due to application of higher amount of purchased inputs made

available with the help of borrowed money. The net returns obtained by KCC farmers was higher (Rs. 6577 /ha) as against the Non-KCC farmers (Rs. 6062/ha). The similar findings were also supported by Bhargale and Sarode (2015).

The cost incurred and net returns realized from green chilli cultivation are presented in Table 4. Among the three categories of KCC farmers, the total cost incurred by the large farmers were high (Rs. 55239 /ha) as compare to Non-KCC farmers (Rs. 51680 /ha). The average yield of chilli for KCC farmers was to the tune of 91 q/ha and for Non-KCC farmers it was 84.47 q/ha. Among the different sub categories of KCC the large farmers obtained the highest net returns (Rs. 28392 /ha) followed by small farmers (Rs. 23612 /ha) and marginal farmers (Rs. 19764 /ha).

In case of Non-KCC category, the total cost incurred by the large farmers were high (Rs.59006/ha) as compared to marginal and small farmers (Rs.51849/ha and Rs. 54862/ha respectively) and net returns per hectare obtained by large farmers were high (Rs. 28394 /ha) as compared to marginal and small farmers (Rs. 23612 /ha and Rs. 19764/ha respectively). On overall, the rental value of owned land had greater share in the total fixed cost (Rs. 11468/ha and Rs. 10272 /ha in KCC and Non-KCC, respectively). The share of hired labour in total variable cost was Rs. 11004 /ha for KCC holders and Rs. 10872 /ha for Non-KCC holders followed by fertilizers of Rs. 3007/ha for KCC holders and for Non-KCC holders, it was Rs. 2533 /ha in the total variable cost. Overall total cost of cultivation of green chilli was higher in case of KCC farmers (Rs. 55239/ha) as compared to Non-KCC farmers (Rs. 51680/ha). The breakup of overall total cost to various inputs showed that KCC farmers were using higher amount of inputs leading to higher per hectare cost of production. This higher cost of production for KCC farmers was due to application of higher amount of purchased inputs made available with the help of borrowed money. The net returns obtained by KCC farmers was higher (Rs. 23923/ha) as against the Non-KCC farmers (Rs. 21304/ha). The results are in conformity with findings of earlier study conducted by Bhargale and Sarode (2015).

### Conclusion:

From the findings of the present study, it can be concluded that the per hectare cost of cultivation of KCC farmers for paddy, sugarcane, sorghum and chilli was



found to be Rs. 52880 /ha, Rs. 189212 /ha, Rs. 31377/ ha and Rs. 55239 /ha, respectively. The cost of cultivation for Non KCC farmers for paddy, sugarcane, sorghum and chilli was found to be Rs. 50900 /ha, Rs. 182980 /ha, Rs. 29581/ha and Rs. 51680/ha, respectively. The cost of cultivation is more for KCC farmers as against Non-KCC farmers. The net returns obtained by KCC farmers for paddy, sugarcane, sorghum and chilli was found to be Rs. 10908 /ha, Rs. 60046 /ha, Rs. 6577 /ha and Rs. 23923 /ha, respectively. The net returns obtained by Non-KCC farmers for paddy, sugarcane, sorghum and chilli was found to be Rs. 8790/ha, Rs. 55420/ha, Rs. 6062/ha and Rs. 21304 /ha, respectively. The net returns obtained were more for KCC farmers as against Non-KCC farmers.

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