P-ISSN: 2618-0723
E-ISSN: 2618-0731

NAAS Rating (2025): 5.04
www.extensionjournal.com

International Journal of Agriculture Extension and Social Development

Volume 8; Issue 9; September 2025; Page No. 410-420

Received: 17-07-2025
Accepted: 19-08-2025

Indexed Journal
Peer Reviewed Journal

Impact of Kisan credit card scheme on crop production and productivity in Bilaspur district of Chhattisgarh state

Kuldeep Jaiswal and Ajay Tegar

Indira Gandhi Krishi Vishwavidyalaya, Krishak Nagar Jora, Raipur, Chhattisgarh, India

DOI: https://www.doi.org/10.33545/26180723.2025.v8.i9f.2437

Corresponding Author: Kuldeep Jaiswal

Abstract

This study evaluates the impact of the Kisan Credit Card (KCC) scheme on agricultural development in Bilaspur district of Chhattisgarh. The objectives were to assess the growth and coverage of the scheme, compare crop economics between KCC and non-KCC farmers, and identify adoption constraints. Primary data were collected from 168 farmers using stratified random sampling, while secondary information was obtained from NABARD, RBI, and cooperative banks. Results showed that only 55.56% of registered farmers accessed KCCs, with higher coverage in Durg, Narayanpur, and Bemetara, and poor penetration in Jashpur and Balrampur. The cooperative sector issued over 90% of total cards, while Bilha and Kargi Road branches led in Bilaspur. Despite a 7.11% growth rate in issuance, credit disbursement trends remained inconsistent. Economic analysis revealed that KCC farmers incurred slightly higher costs (₹67,952/ha vs. ₹65,986/ha) but achieved greater profitability, with higher net returns (₹59,031/ha vs. ₹55,776/ha), input-output ratio (1.87 vs. 1.85), and cost-benefit ratio (0.87 vs. 0.85). The study highlights key issues: 63.40% farmers lack awareness of KCC benefits, 55.14% face complex paperwork, and 47.74% remain ineligible due to no land documents. Further, 43.66% face digital barriers and 38.16% report disbursement delays. Suggested measures include awareness drives, simplified processes, flexible eligibility norms, digital access, timely credit, wider bank participation, irrigation support, and farmer training.

Keywords: Kishan credit card scheme, compound growth rate, cost return

Introduction

Agriculture remains the backbone of India's rural economy, employing nearly 60% of the population and serving as the primary source of livelihood. Yet, adoption of modern technology requires substantial investment, which most farmers cannot afford without institutional support. Historically, farmers relied heavily on informal credit due to delays, rigid procedures, and limited outreach of formal lending institutions, often leading to high interest burdens. To bridge this gap, the Government of India introduced the Kisan Credit Card (KCC) scheme in 1998, designed by NABARD in consultation with RBI, to ensure timely, affordable, and flexible credit. The scheme simplified access to loans for crop cultivation, marketing, post-harvest expenses, household needs, and farm investments, and has since become a cornerstone of agricultural credit delivery. Over the years, cooperative banks, commercial banks, and regional rural banks have expanded coverage, and by 2021 more than 73 million KCCs had been issued nationwide. Despite this growth, disparities persist across regions. In Chhattisgarh, 17.66 lakh KCCs were sanctioned in 2020-21, with cooperative banks accounting for 76% of issuance, contrasting with the national trend. Bilaspur district, dominated by paddy cultivation, recorded only 45.16% coverage, leaving a significant proportion of farmers without access. The district's high share of small and marginal farmers, diverse cropping patterns, and reliance on cooperative institutions make it a critical area for micro-level assessment. Against this backdrop, the present study seeks to examine the salient features, growth, and status of the KCC scheme, evaluate the comparative economics of crop production between KCC and non-KCC farmers, and identify adoption constraints, thereby offering insights for strengthening institutional credit delivery and improving farm productivity.

Methodology

The study was conducted in Bilaspur district of Chhattisgarh, purposively selecting two blocks (Kota and Takhatpur) and six villages. A total of 168 farmers were chosen using proportionate random sampling, equally divided into KCC and non-KCC groups. Paddy, being the major crop, was selected for analysis. Primary data were collected through structured questionnaires on cost, returns, and credit utilization, while secondary data were obtained from government and institutional reports. Analytical tools included compound growth rate, cost concepts, input-output ratio, and Garrett's ranking technique.

Result and Discussion

(I) Coverage of KCC in Chhattisgarh

In Chhattisgarh, out of 40.11 lakh registered farmers, only 22.28 lakh have received Kisan Credit Cards (KCC), reflecting 55.56 percent coverage. District-wise variation is

significant. Durg achieved the highest coverage at 97.68 percent, followed by Narayanpur (93.18%), Bemetara (93.01%), Balod (92.58%), and Rajnandgaon (92.25%), showing effective outreach. In contrast, Jashpur (20.24%), Balrampur-Ramanujganj (21.89%), and Gaurela-Pendra-Marwahi (23.22%) reported very low coverage, indicating gaps in awareness or institutional access. Among key agricultural regions, Baloda Bazar Bhatapara had the largest number of farmers (2.49 lakh) but only 40.13 percent coverage. Similarly, Bilaspur (45.16%), Raipur (47.57%), and Korba (38.92%) recorded below-average performance. Overall, the data suggests uneven implementation of the KCC scheme, highlighting the need for stronger institutional support and farmer mobilization in weaker districts.

Table 1: Coverage of KCC in Chhattisgarh (As on 2024)

S. No.	District	No. of Registered farmer	KCC issued to Reg. farmer	Remaining farmers	Coverage of KCC (%)
1	Balod	170923	158243	12680	92.58
2	Baloda Bazar Bhatapara	249119	99980	149139	40.13
3	Balrampur Ramanujgaj	113848	24917	88931	21.89
4	Bastar	104257	81157	23100	77.84
5	Bemetara	186932	173860	13072	93.01
6	Bijapur	39207	27022	12185	68.92
7	Bilaspur	177471	80142	97329	45.16
8	Dantewada	23886	18729	5157	78.41
9	Dhamtari	155124	80314	74810	51.77
10	Durg	136246	133089	3157	97.68
11	Gariyaband	90072	45810	44262	50.86
12	Gaurella Pendra Marwahi	87258	20257	67001	23.22
13	Janjgir-Champa	187740	70758	116982	37.69
14	Jashpur	132459	26809	105650	20.24
15	Kabirdham	150289	117623	32666	78.26
16	Kanker	157112	128135	28977	81.56
17	Khairgarh Chhuikhadan Gandai	87951	63749	24202	72.48
18	Kondagaon	133444	95830	37614	71.81
19	Korba	123592	48106	75486	38.92
20	Korea	49720	18115	31605	36.43
21	Mahasamund	193706	105702	88004	54.57
22	Manendragarh-Chirimiri-Bharatpur	58005	15683	42322	27.04
23	Mohla Manpur Ambagarh	73288	42267	31021	57.67
24	Mungeli	131744	51624	80120	39.19
25	Narayanpur	16725	15584	1141	93.18
26	Raigarh	140077	63668	76409	45.45
27	Raipur	162238	77179	85059	47.57
28	Rajnandgaon	146860	135474	11386	92.25
29	Sakti	119216	48730	70486	40.88
30	Sarangarh Bilaigarh	106239	55810	50429	52.53
31	Sukma	36268	19212	17056	52.97
32	Surajpur	136353	44917	91436	32.94
33	Surguja	135403	39765	95638	29.37
Total		4010772	2228260	1782512	55.56

Source: Directorate of Agriculture, New Raipur, Chhattisgarh (2024)

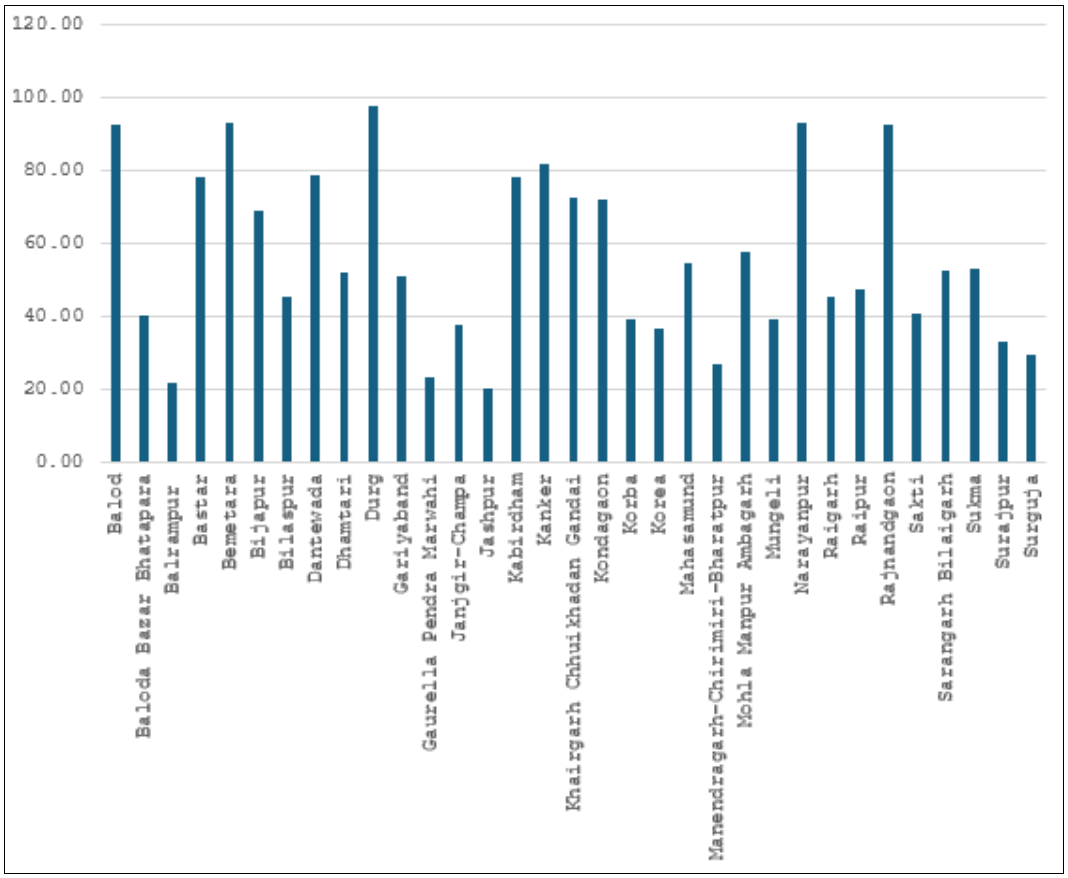

Fig 1: Coverage of KCC in Chhattisgarh

(II) Status of KCC in different bank of Chhattisgarh

The institutional assessment of Kisan Credit Card (KCC) issuance shows uneven but diverse credit delivery in the study area. A total of 18,67,077 KCC accounts were issued, with loans worth Rs.11,953.69 crore. Cooperative Banks dominated, led by Chhattisgarh State Cooperative Apex Bank, issuing 16,94,043 accounts (90.73%) and Rs.6524.38 crore (54.58%), reflecting strong rural outreach but moderate per capita credit. Public Sector Banks (PSBs) issued 58,988 accounts (3.16%) but disbursed Rs.2565.13 crore (21.46%), showing higher credit per farmer. State Bank of India led among PSBs with 17,820 accounts (Rs.1061.06 crore). Private Banks issued 79,680 accounts (4.27%) and Rs.1937.73 crore (16.21%), led by HDFC and Axis. Regional Rural Banks issued 34,366 accounts (1.84%) with Rs.926.45 crore (7.75%).

Table 2: Institution-wise Distribution of Kisan Credit Cards (KCC) Issued and Credit

S. No.	Bank	KCC Issued	KCC (%)	Amount in crore	Amount (%)
1	Bank Of Baroda	15419	(0.83)	809.13	(6.77)
2	Bank Of India	626	(0.03)	198.19	(1.66)
3	Bank Of Maharashtra	301	(0.02)	6.95	(0.06)
4	Canara Bank	2034	(0.11)	22.16	(0.19)
5	Central Bank Of India	3456	(0.19)	26.56	(0.22)
6	Indian Bank	123	(0.01)	2.33	(0.02)
7	Indian Overseas Bank	1087	(0.06)	18.35	(0.15)
8	Punjab And Sind Bank	16	(0.00)	0.29	(0.00)
9	Punjab National Bank	5476	(0.29)	189.08	(1.58)
10	State Bank Of India	17820	(0.95)	1061.06	(8.88)
11	Uco Bank	704	(0.04)	12.37	(0.10)
12	Union Bank Of India	11926	(0.64)	218.66	(1.83)
Sub Total (Psus)		58988	(3.16)	2565.13	(21.46)
13	Axis Bank	30861	(1.65)	631.15	(5.28)
14	Bandhan Bank	75	(0.00)	10.87	(0.09)
15	DCB Bank	17	(0.00)	3.90	(0.03)
16	Federal Bank	9	(0.00)	0.11	(0.00)
17	HDFC Bank	33043	(1.77)	628.73	(5.26)
18	ICICI Bank	7504	(0.40)	444.64	(3.72)
19	IDBI Bank	4956	(0.27)	57.75	(0.48)
20	IDFC First Bank	3119	(0.17)	151.38	(1.27)

21	Karnataka Bank	40	(0.00)	1.19	(0.01)
22	RBL Bank	36	(0.00)	4.72	(0.04)
23	Yes Bank	20	(0.00)	3.29	(0.03)
Sub Total (Private Banks)		79680	(4.27)	1937.73	(16.21)
24	Apex Bank	1694043	(90.73)	6524.38	(54.58)
Sub Total (Coop.Banks)		1694043	(90.73)	6524.38	(54.58)
25	Chhattisgarh RRB	34366	(1.84)	926.45	(7.75)
Sub Total (RRBs)		34366	(1.84)	926.45	(7.75)
Grand Total		1867077	(100.00)	11953.69	(100.00)

Source: SLBC, Raipur Chhattisgarh (2024)

(III) Status of KCC in different co-operative bank branches in Bilaspur

The branch-wise analysis of Kisan Credit Card (KCC) distribution in the study area reveals that a total of 69,763 farmers had availed KCC facilities through various branches of the District Central Cooperative Bank. Among all branches, the Bilha branch recorded the highest number of KCC farmers (9,024), followed by Kargi Road (7,437), Tendubhatha (6,014), and the Main Branch (6,441). These four branches together accounted for a significant portion of total KCC beneficiaries in the district. Other notable branches with considerable KCC coverage include Takhatpur (5,736), Ratanpur (5,636), and Masturi (5,037). On the other hand, branches like Central (1,244), Sarkanda (1,991), and Dhani (2,470) had relatively lower numbers of KCC farmers.

Table 3: Status of KCC in Bilaspur co-operative branches of Chhattisgarh

S. No.	Branch Name	Number of KCC farmers
1	Main Branch Bilaspur	6,441
2	Takhatpur	5,736
3	Kargiroad	7,437
4	Bilha	9,024
5	Masturi	5,037
6	Malhar	3,503
7	Tendubhatha	6,014
8	Jodhpur	2,639
9	Ratanpur	5,636
10	Beltara	3,241
11	Sipat	3,352
12	Dhani	2,470
13	Sarkanda	1,991
14	Central	1,244
15	Mopka	3,194
16	Lohi	2,804
Total		69,763

Source: District Central Co-operative Bank (2024-25)

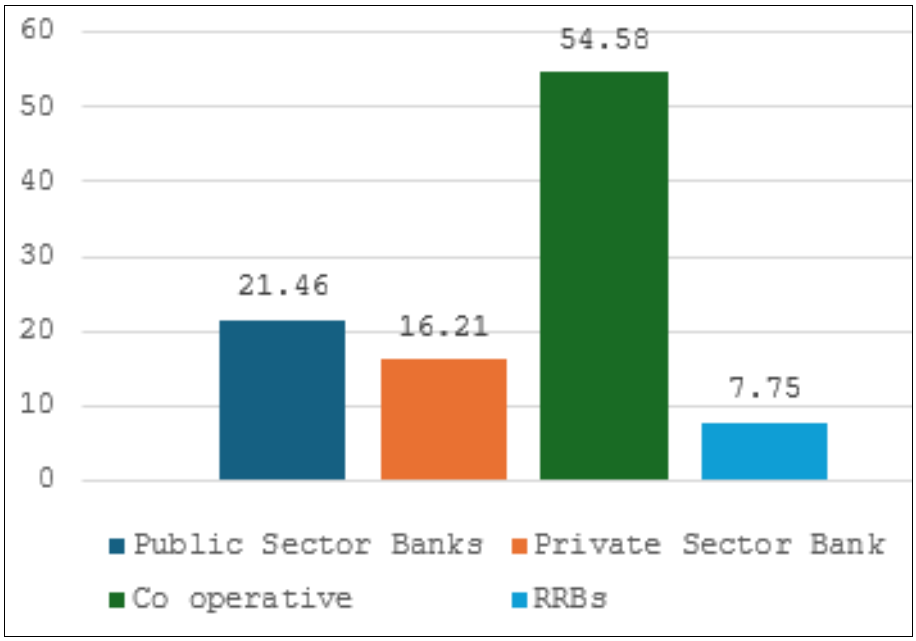

Fig 2: Institutional Wise Distribution of Credit

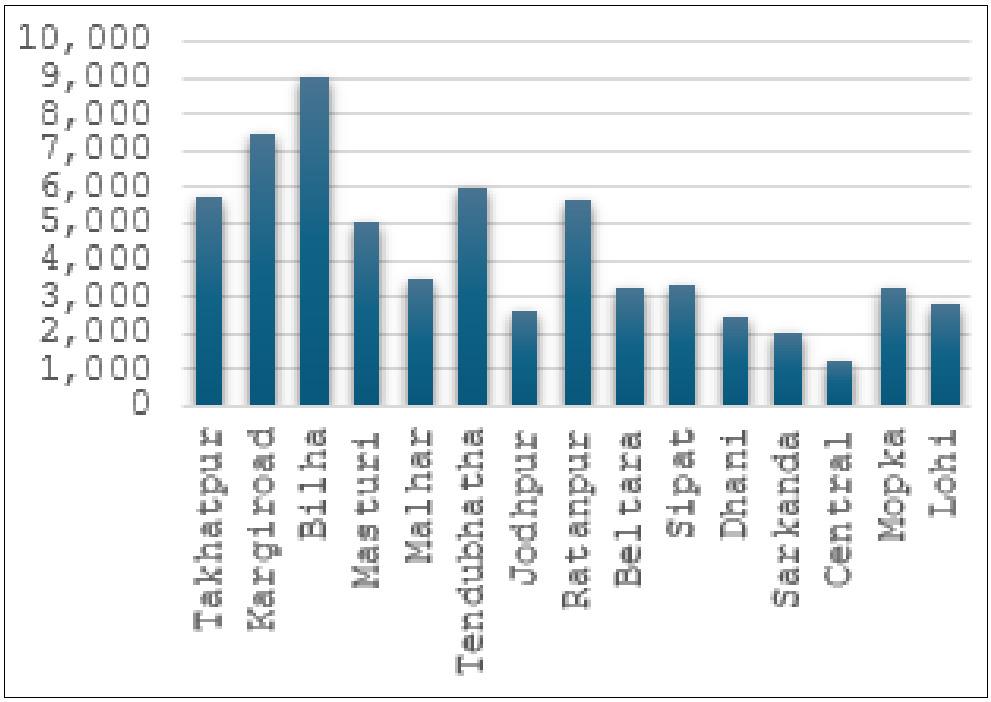

Fig 3: Status of KCC in Bilaspur co-operative branches

(IV) Compound growth rate of KCC users

Table 4 shows the year-wise trend of Kisan Credit Card (KCC) issuance and credit disbursement in Chhattisgarh from 2015-16 to 2024-25. KCCs issued rose from 12.01 lakh in 2015-16 to 21.15 lakh in 2024-25, with a compound growth rate (CGR) of 7.11%. The highest rise was in 2018-19 (42.12%), while declines occurred in 2022-23 (-5.35%) and 2023-24 (-1.23%), likely due to policy or external factors. Loan disbursement started at Rs. 6975.8 lakh in 2015-16 and reached Rs. 9604.15 lakh in 2024-25, with a CGR of 3.62%. Major increases were seen in 2017-18 (35.71%) and 2019-20 (25.71%), while sharp falls in 2018-19, 2020-21, and 2022-23 indicate repayment issues or cautious lending.

Table 4: Compound growth rate of KCC users in Chhattisgarh

S. No.	Years	KCC issued	Change over (%)	Loan distributed (Rs. lakh)	Change over (%)
1	2015-16	1201200		6975.8	
2	2016-17	1239855	3.22	7734.40	10.87
3	2017-18	1370693	10.55	10496.33	35.71
4	2018-19	1948000	42.12	7795.44	-25.73
5	2019-20	1953599	0.29	9799.55	25.71
6	2020-21	2022571	3.53	8882.64	-9.36
7	2021-22	2212095	9.37	10821.85	21.83
8	2022-23	2093718	-5.35	7912.38	-26.89
9	2023-24	2067891	-1.23	8451.71	6.82
10	2024-25	2228260	7.76	9604.15	13.64
	CGR	7.11*		3.62*	

Note: Figures in parenthesis indicate percentages to change over in growth.
* Denotes the significant level at 5% of probability level at t distribution.
Source: District Central Co-operative Bank (2024-25)

(V) Total Variable Cost Structure of KCC and Non-KCC Farmers

Table 5 compares the variable cost structure of KCC and non-KCC farmers in paddy cultivation across farm sizes. KCC holders consistently incurred higher costs: Rs. 35,717.00, Rs. 38,162.74, Rs. 42,515.56, and Rs. 46,807.58 per hectare for marginal to large farmers, against Rs. 33,733.87, Rs. 36,195.86, Rs. 40,368.06, and Rs. 45,170.08 for non-KCC farmers. On average, KCC farmers spent Rs. 40,800.72/ha, while non-KCC farmers spent Rs. 38,866.97/ha. Material costs were higher for KCC users: seed (Rs. 3,034.75 vs. 2,839.75), fertilizer (Rs. 6,335.75 vs. 5,910.75), and plant protection (Rs. 4,319.50 vs. 4,219.50), though irrigation was equal (Rs. 1,081.25). Labour expenses also differed, with hired labour averaging Rs. 11,836.75 for KCC and Rs. 10,986.75 for non-KCC, while family labour was equal (Rs. 4,750.00). Additional costs like machinery, interest, and bullock labour were slightly higher for KCC holders, showing their greater credit access and investment capacity.

(VI) Total Fixed Cost Structure of KCC and Non-KCC Farmers

Cost structure for KCC and non-KCC farmers included land revenue, interest on fixed capital, rental value of owned land, and depreciation. Land revenue was uniform at Rs.10,

contributing only 0.01-0.02% of total cost. Interest on fixed capital (8%) averaged Rs.2011.22 for KCC (2.74-3.18%) and Rs.2008.82 for non-KCC (2.80-3.28%). Rental value of land was constant at Rs.24,450, accounting for 32.92-39.04% among KCC and 33.68-40.34% among non-KCC farmers. Depreciation (10%) averaged Rs.680.28 for KCC (0.72-1.29%) and Rs.650.28 for non-KCC (0.69-1.29%). Total fixed cost ranged from Rs.26,904.10-27,452.41 for KCC (average Rs.27,151.50) and Rs.26,871.70-27,430.81 for non-KCC (average Rs.27,119.10). In both groups, rental value of land was the dominant cost component.

(VII) Comparison of Different Cost Concepts in Paddy Cultivation for KCC and Non-KCC Farmers (Rs./ha)

Table 6 compares different cost measures (Cost A1 to Cost C3) across farm sizes for KCC and non-KCC farmers. Cost A1, covering paid-out expenses like seed, fertilizer, and hired labour, averaged ₹36,740.99 for KCC₹34,777.24 for non-KCC farmers; Cost.

Table 5: Farm-Size Wise Comparison of Variable Costs in Paddy Cultivation Between KCC and Non-KCC Farmers (Rs. /ha)

(A)	Variable cost										
	KCC Farmer						Non-KCC Farmer				
S. No.	Particulars	Marginal	Small	Medium	Large	Overall	Marginal	Small	Medium	Large	Overall
1	Seed cost	2853.00	2936.00	3125.00	3225.00	3034.75	2563.00	2746.00	2925.00	3125.00	2839.75
		(4.56)	(4.50)	(4.48)	(4.34)	(4.47)	(4.23)	(4.35)	(4.33)	(4.30)	(4.30)
2	Manure & Fertilizer	5973.00	6061.00	6581.00	6728.00	6335.75	5173.00	5761.00	6181.00	6528.00	5910.75
		(9.54)	(9.30)	(9.44)	(9.06)	(9.32)	(8.54)	(9.12)	(9.15)	(8.99)	(8.96)
3	Plant Protection	3849.00	3950.00	4529.00	4950.00	4319.50	3749.00	3830.00	4449.00	4850.00	4219.50
		(6.15)	(6.06)	(6.49)	(6.67)	(6.36)	(6.19)	(6.06)	(6.59)	(6.68)	(6.39)
4	Irrigation	950.00	975.00	1150.00	1250.00	1081.25	950.00	975.00	1150.00	1250.00	1081.25
		(1.52)	(1.50)	(1.65)	(1.68)	(1.59)	(1.57)	(1.54)	(1.70)	(1.72)	(1.64)
	Total material cost	13625.00	13922.00	15385.00	16153.00	14771.25	12435.00	13312.00	14705.00	15753.00	14051.25
		(38.15)	(36.48)	(36.19)	(34.51)	(36.20)	(36.86)	(36.78)	(36.43)	(34.87)	(36.15)
5	Family labour cost	6524.00	5584.00	4351.00	2541.00	4750.00	6524.00	5584.00	4351.00	2541.00	4750.00
		(10.42)	(8.57)	(6.24)	(3.42)	(6.99)	(10.76)	(8.84)	(6.44)	(3.50)	(7.20)
6	Hired labour cost	8536.00	10421.00	12570.00	15820.00	11836.75	8136.00	9421.00	11570.00	14820.00	10986.75
		(13.63)	(15.99)	(18.02)	(21.30)	(17.42)	(13.42)	(14.91)	(17.13)	(20.41)	(16.65)
	Total human Labour	15060.00	16005.00	16921.00	18361.00	16586.75	14660.00	15005.00	15921.00	17361.00	15736.75
		(24.05)	(24.56)	(24.26)	(24.73)	(24.41)	(24.19)	(23.75)	(23.57)	(23.91)	(23.85)
7	Machine Charge	4512.00	5559.00	7551.00	9589.00	6802.75	4212.00	5259.00	7151.00	9389.00	6502.75
		(7.21)	(8.53)	(10.83)	(12.91)	(10.01)	(6.95)	(8.32)	(10.59)	(12.93)	(9.85)
8	Bullock labour	377.06	398.80	0.00	0.00	193.97	377.06	398.80	0.00	0.00	193.97
		(0.60)	(0.61)	(0.00)	(0.00)	(0.29)	(0.62)	(0.63)	(0.00)	(0.00)	(0.29)
9	Miscellaneous	950.00	998.00	1153.00	1031.25	1033.06	950.00	998.00	1153.00	1031.25	1033.06
		(1.52)	(1.53)	(1.65)	(1.39)	(1.52)	(1.57)	(1.58)	(1.71)	(1.42)	(1.57)
10	Interest on working capital (@6.25%)	1192.94	1279.94	1505.56	1673.33	1412.94	1099.81	1223.06	1438.06	1635.83	1349.19
		(1.91)	(1.96)	(2.16)	(2.25)	(2.08)	(1.81)	(1.94)	(2.13)	(2.25)	(2.04)
	Total variable cost	35717.00	38162.74	42515.56	46807.58	40800.72	33733.87	36195.86	40368.06	45170.08	38866.97
		(57.04)	(58.55)	(60.96)	(63.03)	(60.04)	(55.66)	(57.29)	(59.75)	(62.22)	(58.90)
(B)	Fixed Cost										
1	Land revenue	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
		(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)	(0.02)
2	Interest on fixed capital@8%	1992.90	2001.27	2017.21	2033.51	2011.22	1990.50	1998.87	2014.01	2031.91	2008.82
		(3.18)	(3.07)	(2.89)	(2.74)	(2.96)	(3.28)	(3.16)	(2.98)	(2.80)	(3.04)
3	Rental value of owned land	24450.00	24450.00	24450.00	24450.00	24450.00	24450.00	24450.00	24450.00	24450.00	24450.00
		(39.04)	(37.51)	(35.05)	(32.92)	(35.98)	(40.34)	(38.70)	(36.19)	(33.68)	(37.05)
4	Depreciation @10%	451.20	555.90	755.10	958.90	680.28	421.20	525.90	715.10	938.90	650.28
		(0.72)	(0.85)	(1.08)	(1.29)	(1.00)	(0.69)	(0.83)	(1.06)	(1.29)	(0.99)
	Total fixed cost	26904.10	27017.17	27232.31	27452.41	27151.50	26871.70	26984.77	27189.11	27430.81	27119.10
		(42.96)	(41.45)	(39.04)	(36.97)	(39.96)	(44.34)	(42.71)	(40.25)	(37.78)	(41.10)
(C)	Total cost (A+B)	62621.09	65179.91	69747.87	74259.99	67952.22	60605.57	63180.63	67557.17	72600.89	65986.07
		(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)

Note: Figures in parenthesis indicate percentages of cultivation cost of padd

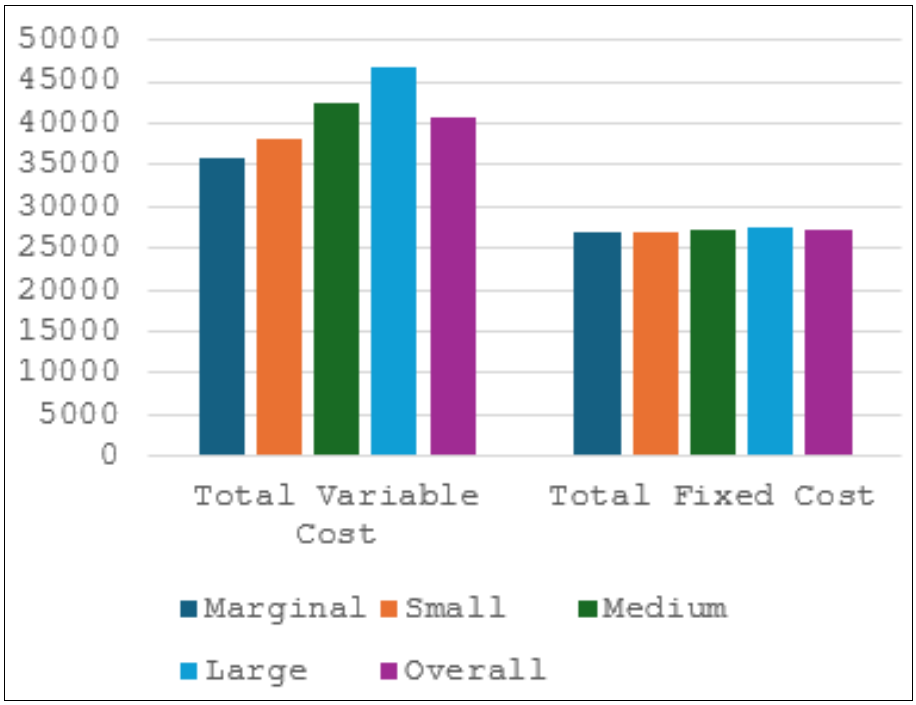

Fig 4: Total Variable and Fixed Cost for KCC farmers

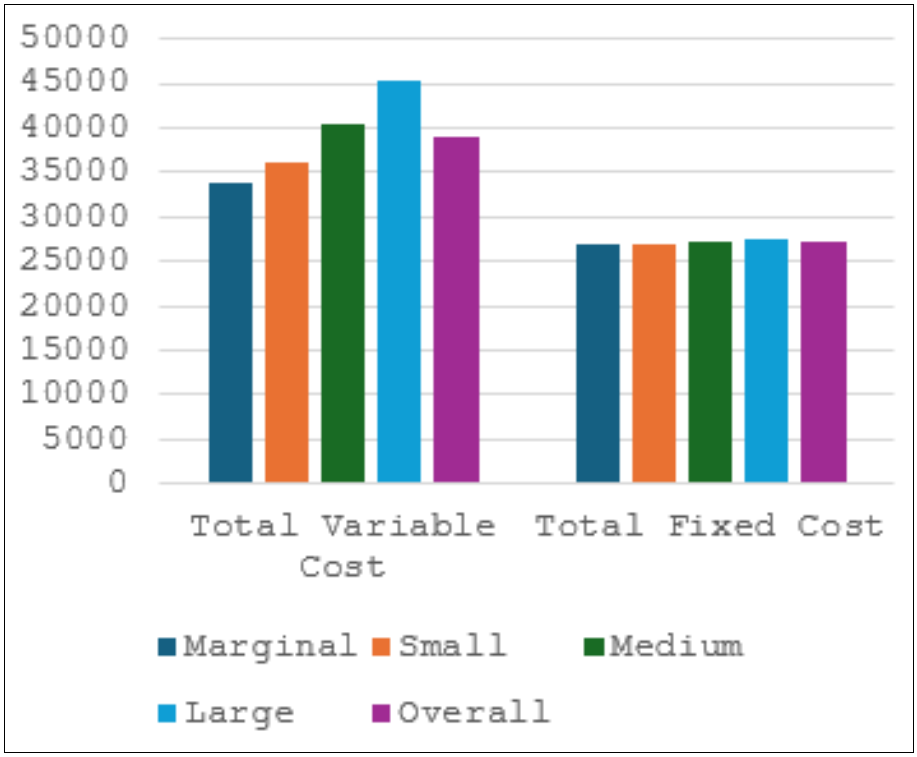

Fig 5: Total Variable and Fixed Cost for Non- KCC farmers

A2 remained the same. With family labour included (Cost A2+FL), averages rose to ₹41,490.99 (KCC) and ₹39,527.24 (non-KCC). Cost B1, adding interest on owned capital, stood at ₹38,752.22 for KCC and ₹36,786.07 for non-KCC, while Cost B2, including rental value of land, increased to ₹63,202.22 and ₹61,236.07 respectively. Finally, Cost C3, incorporating managerial input, averaged ₹74,747.44 for KCC and ₹72,584.67 for non-KCC farmers, with the highest among large farmers-₹81,685.99 (KCC) versus ₹79,860.98 (non-KCC).

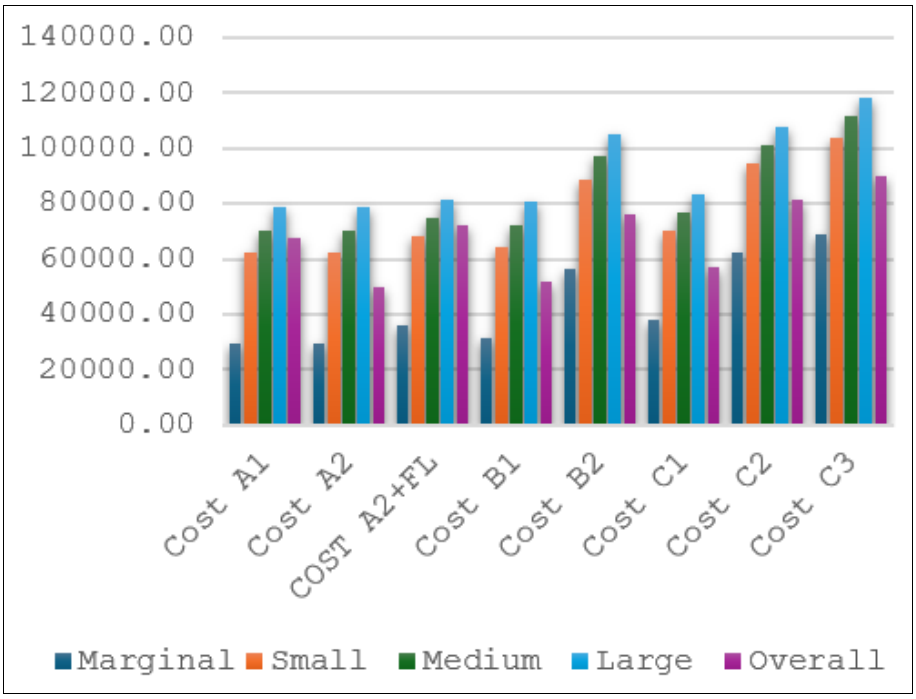

Fig 6: Different Cost Concepts in Paddy Cultivation for KCC Farmer

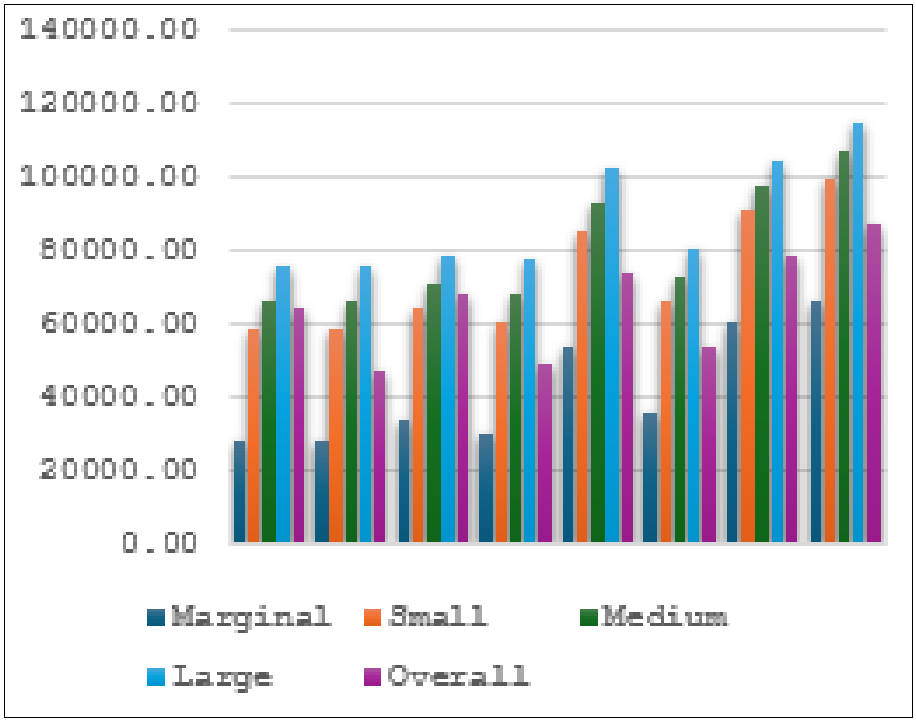

Fig 7: Different Cost Concepts in Paddy Cultivation for Non-KCC Farmer

(VIII) Cost of Production and Return of KCC and Non-KCC Farmers

The cost and return analysis highlights clear differences between KCC and non-KCC farmers. Production cost per quintal was generally lower for KCC farmers: marginal (₹1,284.54 vs. ₹1,336.69), small (₹1,262.44 vs. ₹1,300.01), and large (₹1,269.40 vs. ₹1,275.94), though medium farmers showed slightly higher costs (₹1,250.19 vs. ₹1,233.92). On average, KCC farmers incurred ₹1,228.64 per quintal, lower than non-KCC at ₹1,235.31. Yields were consistently better among KCC farmers-marginal (48.75 q/ha vs. 45.34), small (51.63 vs. 48.60), medium (55.79 vs. 54.75), and large (58.50 vs. 56.90)-with an overall 55.31 q/ha compared to 53.42 q/ha for non-KCC. At ₹2,300 per quintal, main product income reached ₹1,12,125-₹1,34,550 for KCC versus ₹1,04,282-₹1,30,870 for non-KCC, averaging ₹1,27,205.33 against ₹1,22,858.33. By-product income was equal (₹3,547.50). Overall, KCC farmers achieved higher productivity and gross returns.

(IX) Input output and Benefit-Cost Ratio of KCC and Non-KCC Farmers

The cost of cultivation was consistently higher for KCC farmers than non-KCC across all categories. Marginal

farmers spent ₹62,621.09/ha against ₹60,605.57/ha for non-KCC, while small farmers incurred ₹65,179.91 versus ₹63,180.63. Medium KCC farmers reported ₹69,747.87 compared to ₹67,557.17, and large farmers ₹74,259.99 against ₹72,600.89. On average, KCC farmers invested ₹67,952.22/ha, about ₹1,966 more than non-KCC at ₹65,986.07. Despite this higher cost, net returns were better for KCC holders. Marginal farmers earned ₹52,753.91/ha, nearly ₹5,827 higher than non-KCC, while small farmers gained ₹56,939.09 versus ₹51,969.37. Medium farmers earned ₹62,279.13, slightly above non-KCC at ₹62,077.83, and large farmers received ₹64,150.01 compared to ₹62,129.11. Overall, KCC farmers achieved ₹59,030.53/ha, surpassing non-KCC at ₹55,775.68 by ₹3,254.85. Efficiency indicators also favored KCC, with an input-output ratio of 1.87 (vs. 1.85) and cost-benefit ratio of 0.87 (vs. 0.85).

Table 6: Farm-Size Wise Comparison of Different Cost Concepts in Paddy Cultivation for KCC and Non-KCC Farmers (Rs./ha)

	KCC Farmer						Non-KCC Farmer				
S. No.	**Particulars**	**Marginal**	**Small**	**Medium**	**Large**	**Overall**	**Marginal**	**Small**	**Medium**	**Large**	**Overall**
1	Cost A1	29654.20	33144.64	38929.66	45235.48	36740.99	27641.07	31147.76	36742.16	43577.98	34777.24
2	Cost A2	29654.20	33144.64	38929.66	45235.48	36740.99	27641.07	31147.76	36742.16	43577.98	34777.24
3	COST A2+FL	36178.20	38728.64	43280.66	47776.48	41490.99	34165.07	36731.76	41093.16	46118.98	39527.24
4	Cost B1	31647.09	35145.91	40946.87	47268.99	38752.22	29631.57	33146.63	38756.17	45609.89	36786.07
5	Cost B2	56097.09	59595.91	65396.87	71718.99	63202.22	54081.57	57596.63	63206.17	70059.89	61236.07
6	Cost C1	38171.09	40729.91	45297.87	49809.99	43502.22	36155.57	38730.63	43107.17	48150.89	41536.07
7	Cost C2	62621.09	65179.91	69747.87	74259.99	67952.22	60605.57	63180.63	67557.17	72600.89	65986.07
8	Cost C3	68883.20	71697.90	76722.66	81685.99	74747.44	66666.13	69498.70	74312.89	79860.98	72584.67

Table 7: Cost and Return of KCC and Non-KCC Farmers across Different Farm Sizes (Rs./ha)

	KCC Farmer						Non-KCC Farmer				
S. No.	**Particulars**	**Marginal**	**Small**	**Medium**	**Large**	**Overall**	**Marginal**	**Small**	**Medium**	**Large**	**Overall**
1	Cost of Production (Rs/q.)	1284.54	1262.44	1250.19	1269.40	1228.64	1336.69	1300.01	1233.92	1275.94	1235.31
2	Cost over A2+FL	742.12	750.12	775.78	816.69	750.20	753.53	755.80	750.56	810.53	739.98
3	Main Product (Q./ha)	48.75	51.63	55.79	58.50	55.31	45.34	48.60	54.75	56.90	53.42
4	Value of Main Product@2300	112125.00	118749.00	128317.00	134550.00	127205.33	104282.00	111780.00	125925.00	130870.00	122858.33
5	By Product trolly per ha	3.25	3.37	3.71	3.86	3.55	3.25	3.37	3.71	3.86	3.55
6	Value of By Product@1000	3250.00	3370.00	3710.00	3860.00	3547.50	3250.00	3370.00	3710.00	3860.00	3547.50
7	Gross income	115375.00	122119.00	132027.00	138410.00	126982.75	107532.00	115150.00	129635.00	134730.00	121761.75

Table 8: Input output and Benefit-Cost Ratio of KCC and Non-KCC Farmers

	KCC Farmer						Non-KCC Farmer				
S. No.	**Particulars**	**Marginal**	**Small**	**Medium**	**Large**	**Overall**	**Marginal**	**Small**	**Medium**	**Large**	**Overall**
1	Cost of cultivation	62621.09	65179.91	69747.87	74259.99	67952.22	60605.57	63180.63	67557.17	72600.89	65986.07
2	Net return	52753.91	56939.09	62279.13	64150.01	59030.53	46926.43	51969.37	62077.83	62129.11	55775.68
3	Input-Output	1.84	1.87	1.89	1.86	1.87	1.77	1.82	1.92	1.86	1.85
4	Cost-Benefit Ratio	0.84	0.87	0.89	0.86	0.87	0.77	0.82	0.92	0.86	0.85

(X) Income Over Different Cost Concepts among KCC and Non-KCC Farmers (Rs./ha)

Income over Cost A1 and A2 values are identical. For marginal farmers, KCC farmers record ₹85,720.80, compared to ₹79,890.93 for non-KCC. Small farmers earn ₹88,974.36 (KCC) and ₹84,002.24 (non-KCC). On average, KCC farmers secure ₹90,241.76, exceeding non-KCC by ₹3,257.25. When including family labour (A2+FL), income declines slightly: marginal farmers earn ₹79,196.80 (KCC) vs ₹73,366.93 (non-KCC), while small farmers earn ₹83,390.36 against ₹78,418.24. Medium and large farmers show close values, but overall KCC advantage remains at ₹3,257.25. Under Cost B1, marginal and small KCC farmers earn ₹83,727.91 and ₹83,390.36, far above non-KCC at ₹30,974.00 and ₹30,034.00. However, medium and large non-KCC farmers report higher incomes, though overall KCC remains ahead at ₹85,491.76 against ₹84,975.68. For B2, KCC farmers display a strong edge: marginal ₹59,277.91 vs ₹53,450.43, small ₹86,973.09 vs ₹57,553.37, and medium ₹91,080.13 vs ₹66,428.83. The overall income is ₹88,230.53 (KCC) against ₹60,525.68 (non-KCC), a wide gap of ₹27,704.85. At Cost C1, non-KCC farmers lead with ₹80,225.68 compared to ₹63,780.53. Yet, under C2 and C3, KCC farmers regain advantage, earning ₹83,480.53 and ₹59,030.53, while non-KCC report ₹55,775.68 and ₹49,177.08 respectively.

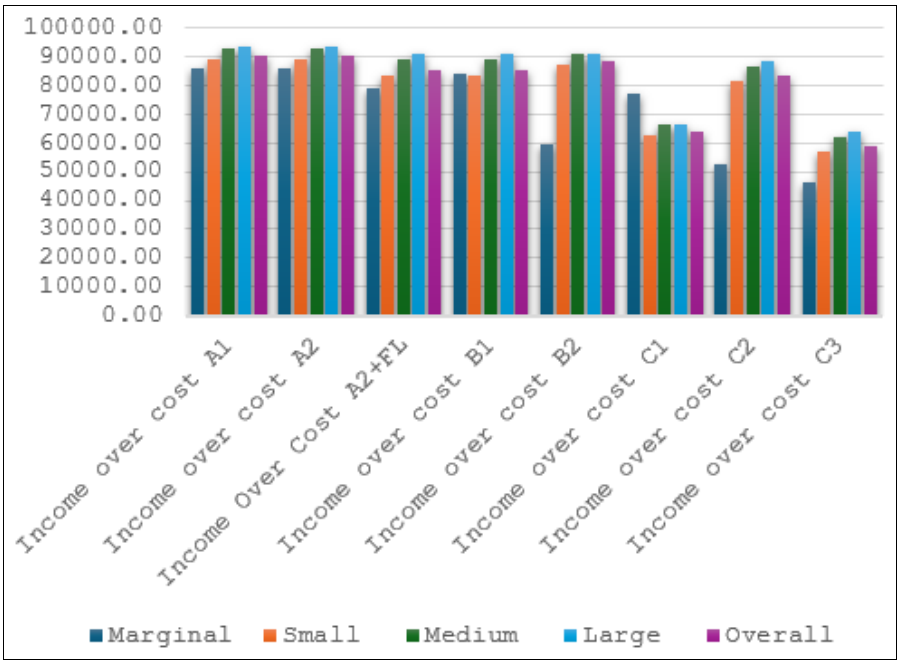

Fig 8: Income Over Different Cost Concepts for KCC Farmer

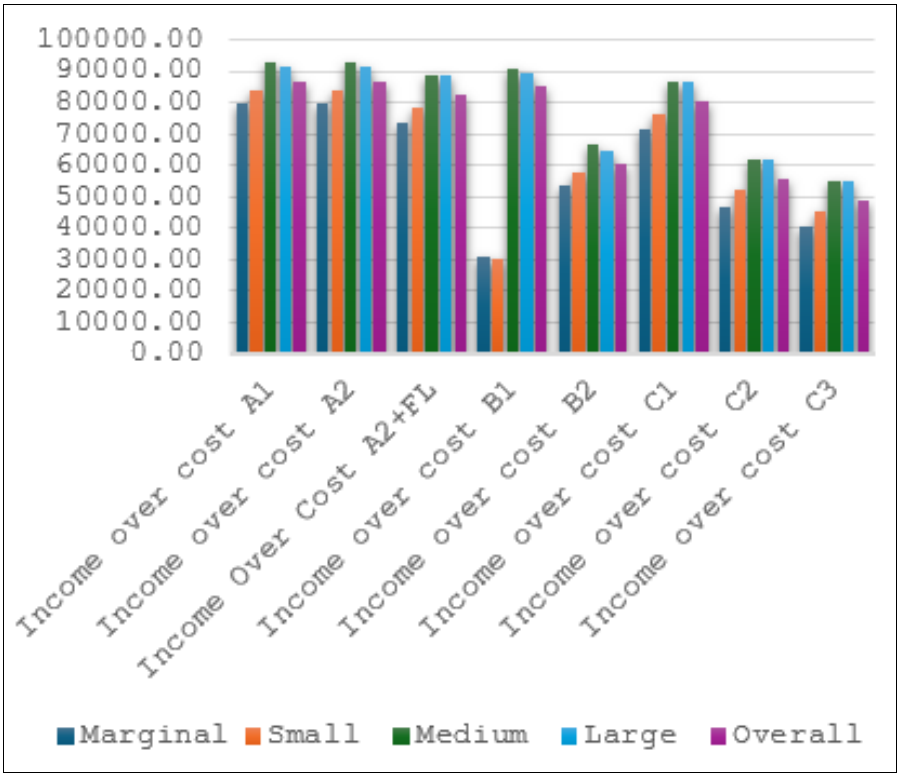

Fig 9: Income Over Different Cost Concepts for Non- KCC Farmer

Table 9: Income Over Different Cost Concepts among KCC and Non-KCC Farmers (Rs. /ha)

		KCC Farmer					Non-KCC Farmer				
S. No.	**Particulars**	**Marginal**	**Small**	**Medium**	**Large**	**Overall**	**Marginal**	**Small**	**Medium**	**Large**	**Overall**
1	Income over cost A1	85720.80	88974.36	93097.34	93174.52	90241.76	79890.93	84002.24	92892.84	91152.02	86984.51
2	Income over cost A2	85720.80	88974.36	93097.34	93174.52	90241.76	79890.93	84002.24	92892.84	91152.02	86984.51
3	Income Over Cost A2+FL	79196.80	83390.36	88746.34	90633.52	85491.76	73366.93	78418.24	88541.84	88611.02	82234.51
4	Income over cost B1	83727.91	83390.36	88746.34	90633.52	85491.76	30974.00	30034.00	90878.83	89120.11	84975.68
5	Income over cost B2	59277.91	86973.09	91080.13	91141.01	88230.53	53450.43	57553.37	66428.83	64670.11	60525.68
6	Income over cost C1	77203.91	62523.09	66630.13	66691.01	63780.53	71376.43	76419.37	86527.83	86579.11	80225.68
7	Income over cost C2	52753.91	81389.09	86729.13	88600.01	83480.53	46926.43	51969.37	62077.83	62129.11	55775.68
8	Income over cost C3	46491.80	56939.09	62279.13	64150.01	59030.53	40865.87	45651.30	55322.11	54869.02	49177.08

Summary and Conclusion

The study highlights that although the Kisan Credit Card (KCC) scheme has been in operation for over two decades, its outreach in Chhattisgarh remains uneven. As of 2024-25, only 55.56% of registered farmers held active KCC accounts. While some districts like Durg, Narayanpur, and Rajnandgaon achieved near-complete coverage, others such as Jashpur, Balrampur, and Gaurela-Pendra-Marwahi reported very low penetration. Even agriculturally significant districts like Baloda Bazar, Bilaspur, Raipur, and Korba reflected below-average coverage. Among institutions, Cooperative Banks dominated with over 90% share in issuance, while Public Sector Banks, despite their limited share, disbursed comparatively higher per-farmer credit. During 2015-16 to 2024-25, KCC issuance in the state increased from 12.01 lakh to 22.28 lakh, registering a Compound Growth Rate (CGR) of 7.11%. However, fluctuations were observed in loan disbursement trends, with sharp increases in 2017-18 and 2019-20, followed by declines in later years.

A comparative economic analysis between KCC and non-KCC farmers revealed notable differences. KCC farmers spent more on inputs such as quality seeds, fertilizers, and hired labor, leading to slightly higher costs of cultivation (₹67,952.22/ha vs. ₹65,986.07/ha). However, they achieved better yields (55.31 qtl/ha vs. 53.42 qtl/ha), lower cost of production per quintal (₹1,228.64 vs. ₹1,235.31), and significantly higher net returns over Cost C3 (₹59,030.53/ha vs. ₹49,177.08/ha). Their input-output ratio (1.87) also surpassed that of non-KCC farmers (1.85), demonstrating higher profitability and efficiency. Overall, the findings confirm that KCC access enhances farmers' investment capacity, productivity, and income, establishing the scheme as an effective instrument for improving farm-level economics in Chhattisgarh. Conclusion of the study highlights key challenges in KCC implementation. About 63.40% of farmers lacked awareness of benefits, while 55.14% faced documentation hurdles. Ineligibility affected 47.74% tenant farmers, and 43.66% struggled with digital access. Delays in renewal were reported by 38.16%. Coverage remained low in districts like Jashpur (20.24%) and Balrampur (21.89%). Greater bank involvement, irrigation support, and capacity-building are essential for improving KCC outreach and effectiveness.

References

1. Agrawal K, Ahirwar J. Impact of Kisan credit card scheme on agricultural income and productivity among farmers. Int J Res Soc Sci. 2014;4(3):519-25.
2. Bista DR, Kumar P, Mathur VC. Progress and performance of kisan credit card scheme with a case study of Bihar. Agric Econ Res Rev. 2012;25(1):125-35.
3. Jyothilinga V, Olekar RO. An evaluation of kisan credit card scheme and agricultural development in Karnataka: A study. ZENITH Int J Bus Econ Manag Res. 2018;8(7):13-24.
4. Kaur H. Progress of Kisan Credit Card Scheme in India: A state and zone-wise analysis. Int J Sci Res Eng Dev. 2020;8(2):398-408.
5. Keshri AK, Bose DK, Das EPK. To compare the productivity level of important crops between KCC holders and non-KCC holders. 2019;135-8.
6. Malik DP, Malik JS. Assessment on the progress of KCC scheme in India. Indian J Ext Educ. 2022;58(3):33-7.
7. Meena SS, Reddy GP. A study on growth, performance and impact of Kisan Credit Cards on farmer's income in Rajasthan – an economic approach. 2013;75-81.
8. Parwate P, Sharma ML, Maske M. A study on utilization pattern of Kisan credit card (KCC) among the farmers in Raipur district of Chhattisgarh. Int J Agron Plant Prod. 2012;3(2):54-8.
9. Sharma CP, Singh A. Progress and performance of Kisan Credit Card (KCC) scheme in India since 1998. J Commer Trade. 2020;15(1):1-8.
10. Verma LK, Solanki A, Singh P. Utilization pattern of Kisan Credit Card (KCC) in Baghpat district of Uttar Pradesh. Int J Agric Innov Res. 2019;7(5):513-5.