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Effectiveness of financial inclusion programmes for agricultural households: A case of Kisan Credit Card scheme in India

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ABSTRACT

This study aims to examine the outreach of the Kisan Credit Card (KCC) scheme in India and to identify the determinants of access to KCC among the agricultural households. It employs the unit level secondary data from the large scale NSSO 77th round survey conducted in 2018–19 and other officially published data sources. Correlates of the access to KCC were identified using a probit model. The coverage of KCC scheme varied widely across the regions in India. The central and southern regions had a highest share in the operative number of KCCs at 26% each. Share in outstanding amount against KCC was at 35% and 23% respectively in the southern and northern regions. Thus, the southern region fared well both in terms of coverage and outstanding amount advanced against the KCCs. However, results from the household level data showed that despite having a fair access to institutional credit services in terms of access to a bank account, only 19.12% of agricultural households reported to have a KCC. The outreach was limited among the disadvantaged socio-economic groups and female headed households. The determinants of agricultural households' access to KCC were age, education and gender of the household head, caste, access to extension services, landholding size, share of non-farm income, access to institutional credit facilities and major economic activity of the household. The study concludes that the outreach of the KCC scheme needs to be strengthened in case of the disadvantaged social groups and regions.

Keywords: Access to KCC, Financial inclusion, Institutional credit, Kisan Credit Card

Agricultural credit is an important input contributing to farm investments, resource use and technology adoption among the households. Therefore, strengthening the outreach of institutional credit has been emphasised as a key focus of the rural credit programmes and policies in India. In order to achieve this, several financial inclusion programmes have been initiated including the setting up of Regional Rural Banks (RRBs) in 1976, to focus on the credit needs of underdeveloped and under-banked regions. Special Agricultural Credit Plan (SACP) was formulated in the year 1994 to monitor and augment the flow of agricultural credit. The Kisan Credit Card (KCC) scheme was initiated in 1998 to provide single window, easy loan access to farmers. KCC is an innovative and specialised credit product developed by the National Bank for Agriculture and Rural Development (NABARD) for providing affordable credit to farmers with an objective of providing adequate, timely credit support through a single window banking system for meeting the financial needs of the farmers at different stages of production. The scheme envisages to cater to various credit requirements of the farm households that include working capital and investment needs; short term crop production, post-harvest, marketing requirements as well as consumption credit demands of farmer household (NABARD 2023). Later, the benefits of the scheme were extended to disadvantaged groups such as marginal farmers, marginal farmers, share croppers, oral lesse and tenant farmers. In addition, Self Help Groups (SHGs) and Joint Liability Groups (JLG) are eligible to avail the benefits of the scheme (RBI 2017, GoI 2022). Further, for achieving a universal financial inclusion, the government launched a nationwide campaign i.e., 'Ghar Ghar KCC Abhiyan' on 1st October 2023 to 31st December 2023.

Nevertheless, existing studies highlight the interstate variations and disparities in the coverage of the KCC Scheme (Singh and Sekhon 2005, Kumar *et al.* 2007, Kumar *et al.* 2010, Sajane *et al.* 2011, Bista *et al.* 2012). This study provides recent evidences on the coverage of the KCC scheme across the states, regions and socio-economic groups besides identifying the household level factors determining an agricultural household's access to the KCC.

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MATERIALS AND METHODS

Data sources: The study employs data from both the officially published reports as well household level survey. Household level evidences are based on the unit level data from the large-scale National Sample Survey (NSS) 77th round on Land and Livestock Holdings of Households and Situation Assessment of Agricultural Households (LHS-SAS) conducted during the year 2018–19 by the National Statistical Office (NSO). Secondary data published by the Directorate of Economics and Statistics (DES) was also used.

Sample size: The household level survey data used in the study covers 45,719 agricultural households surveyed across the states of India.

Analytical framework: The coverage and performance of KCC scheme was examined in terms of state wise and region wise number of the operative KCCs and outstanding amount against the same. Analysis of coverage of KCCs across the regions and households was done using descriptive statistics.

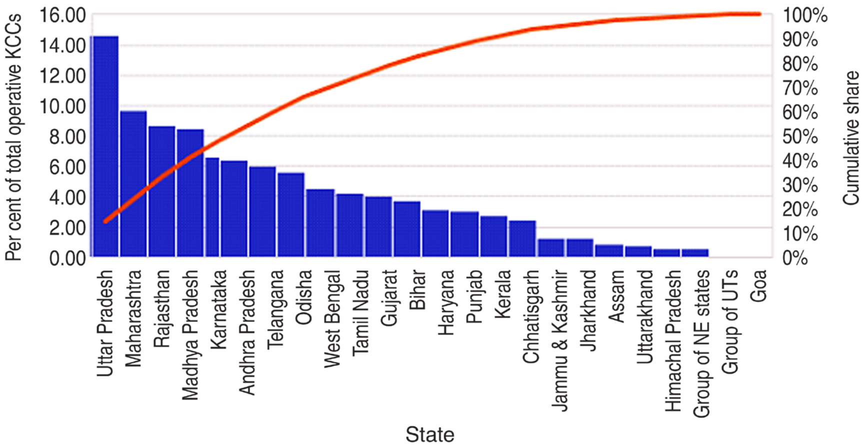

Fig. 1 Share of states in total number of operative KCCs (per cent).
Source: Authors' estimates based on the data from the Directorate of Economics and Statistics (DES).

Specification of the probit model: The determinants of access to KCC were identified using a probit model. A probit model is derived from the underlying unobservable latent variable (I_i that is determined by one or more explanatory variables (X_i) such that the probability of having a KCC is determined by Y = 1. The latent variable may be expressed as,

$$I_i = \beta_1 + \beta_2 X_i$$

Consider that the dependent variable Y = 1, if a household has a KCC and Y = 0, if the household does not have a KCC. Then it may be assumed that Y = 1, if the latent variable assumes a threshold value (I_i^*) which is unobservable but assumed to have a normal distribution (Gujarati 2003). Therefore, the probability the probability of $I_i^* < I_i$ or $I_i^* = I_i$ can be calculated from the standardized normal cumulative distribution function (CDF) as:

$$P_i = P(Y = 1|X) = P(I_i^* \leq I_i) = P(Z_i \leq \beta_1 + \beta_2 X_i) = F(\beta_1 + \beta_2 X_i)$$

Where, P, Probability of an event; P(Y = 1|X), Probability that Y = 1 given the values of X_i; and Z_i, Standard normal variable i.e., $Z \sim N(0, \sigma^2)$). F is the standard normal CDF given as:

$$F(I_i) = \frac{1}{\sqrt{2\text{Ă}}}\int_{-\infty}^{I_i} e^{\frac{-z^2}{2}} dz$$

$$= \frac{1}{\sqrt{2\text{Ă}}}\int_{-\infty}^{{}^{2}{}_{1}+{}^{2}{}_{2}X_i} e^{\frac{-z^2}{2}} dz$$

RESULTS AND DISCUSSION

The variations and disparities in the coverage of the KCC scheme across the states is evident from the fact that five states, viz. Uttar Pradesh, Maharashtra, Rajasthan, Madhya Pradesh and Karnataka accounted for nearly 50% of the operative KCCs. State wise share in the total number of operative KCCs based on the Directorate of Economics and Statistics (DES) data is depicted in Fig. 1. Highest coverage of the KCC was observed in Uttar Pradesh, which accounted for 14% of the total operative KCCs in the country while, Bihar, Haryana, Punjab and Kerala reported less than 5% share in the total operative KCCs. Kumar *et al.* (2011), also reported inter-state variations in the coverage of the KCC scheme. It is pertinent to mention that even after a decade such spatial variations still persist.

Region wise assessment of coverage of the KCC scheme in terms of number of the total operative cards showed that as on 31st March 2022, 7.13 crores KCCs were operational at all-India level (Table 1). The central and southern regions had the highest share in operating number of KCCs, with 1.88 crores and 1.6 crores of KCCs reported from these regions respectively, accounting for 26% of the total operating KCCs in the country. This was followed by the northern region with 1.22 crore KCCs (17.09%), eastern region with 1.08 crore KCCs (15.15%) and western region having 0.97 crore KCCs with a share of 13.73% of the total operating KCCs in the country. Lowest share in operating number of KCCs was reported from the north-eastern region (1.48%).

Commercial banks, RRBs and co-operative banks are the agencies involved in the distribution of KCC. Of these, co-operative banks were the major source of KCCs accounting for distribution of 43.63% of the KCCs operating across the country, followed by commercial banks and RRBs that accounted for 37.66% and 18.17% of the KCCs distributed in India respectively (Table 1). Commercial banks contributed to about 42–45% of the total KCCs issued in the northern, western and north eastern regions. However, in case of north-eastern regions, share of KCCs issued through cooperative banks was lesser at 10.78%. The RRBs played a major role in the outreach of KCC in the north-eastern region and the share of KCCs issued through these agencies in this region was 42.91%. Thus, commercial banks and RRBs played a major role in the north-eastern region in extending the access to KCC.

In terms of its financial performance, the total outstanding amount due against the operative KCCs at all

Table 1 Region wise progress of KCC scheme: No. of active KCCs by agency (000's as on 31st March 2022)

	Region	Cooperative Banks		Regional Rural Banks		Commercial Banks		Region	Share in all India total
		Number	Share	Number	Share	Number	Share	Total	
No. of KCCs issued	Northern	5,318	43.63	1,417	11.62	5,455	44.75	12,190	17.09
	North-Eastern	114	10.78	454	42.91	491	46.41	1,058	1.48
	Western	4,505	45.98	1,088	11.10	4,205	42.92	9,798	13.73
	Central	8,229	43.61	4,118	21.82	6,524	34.57	18,870	26.45
	Southern	8,006	42.99	3,483	18.70	7,133	38.30	18,622	26.10
	Eastern	4,959	45.87	2,788	25.79	3,063	28.33	10,810	15.15
	All India	31,131	43.63	13,348	18.71	26,870	37.66	71,349	100
Outstanding amount against KCCs	Northern	37,240	17.21	34,814	16.09	1,44,351	66.70	2,16,405	23.08
	North-Eastern	169	3.15	1,926	35.76	3,289	61.09	5,384	0.57
	Western	34,227	28.72	13,302	11.16	71,644	60.12	1,19,172	12.71
	Central	33,743	16.21	52,243	25.10	1,22,147	58.69	2,08,133	22.20
	Southern	1,76,075	53.01	42,040	12.66	1,14,023	34.33	3,32,139	35.42
	Eastern	17,828	31.62	17,734	31.46	20,817	36.92	56,379	6.01
	All India	2,99,282	31.92	1,62,060	17.28	4,76,271	50.80	9,37,612	100.00

Source: Authors' estimates based on the data from the Directorate of Economics and Statistics (DES).

India level was Rs 9,37,612 crores in which, commercial banks accounted for highest share of 50.80% of the total amount disbursed followed by the cooperative banks at 31.92% and RRBs at 17.28%.

Across the regions, in the northern, north-eastern and western regions, commercial banks accounted for more than 60% of the total amount advanced through the KCCs whereas, their share in the central region was 58.69%. In the north-eastern and eastern regions, RRBs accounted for 35.76% and 31.46% of the total advances disbursed through the KCCs respectively. The role of cooperatives in channelizing the institutional credit was highest in the southern region with a share of 53.01% in the total amount advanced through KCCs.

Noteworthy, is the fact that all the three types of financial institutions had almost equal role in the eastern region, each accounting for almost 32% or slighty higher share in the outstanding amount against the KCCs.

The number of operational KCCs indicates the physical outreach of the scheme. The financial performance of the scheme is reflected in the amount loan disbursed through the KCCs. The share of states in the total outstanding amount against the operative KCCs showed that Karnataka, Uttar Pradesh, Rajasthan, Madhya Pradesh and Maharashtra together accounted for more than 50% outstanding amount against the operating number of KCCs (Fig. 2). It is worth noting that in case of Karnataka, though the state had 6.64% of operating KCCs, it accounted for highest share of 18.69% in the outstanding amount against the operating number of KCCs.

On the other hand, Uttar Pradesh had the highest share in number of operative KCCs (14.68%), however, with respect to the share in outstanding amount it ranked second (13.12%). Gujarat state, with 4.04% of operative KCCs accounted for 6.07% of outstanding amount, and Punjab having 3.04% share in operative KCCs accounted for 5.95% of outstanding balance under the scheme. In case of West Bengal, we observed that though its share in number of KCCs was 4.52%, it accounted only for 1.47% of the outstanding amount. Region wise progress in the

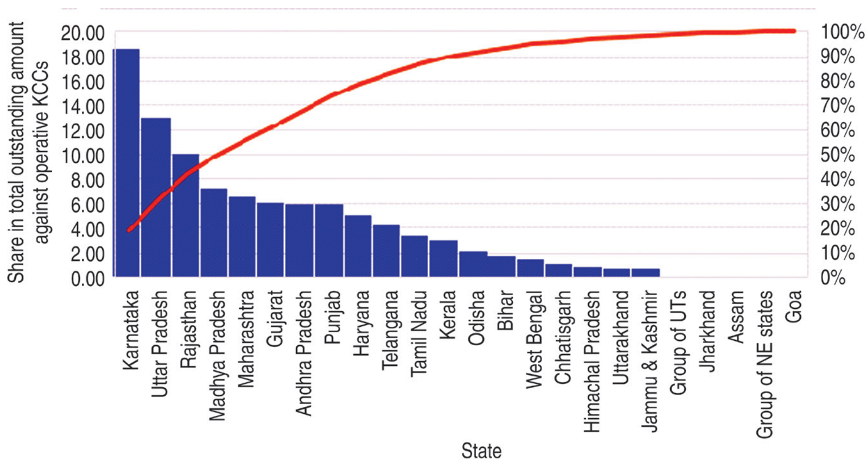

Fig. 2 Share of states in total outstanding amount against operative KCCs (per cent).

Source: Authors' estimates based on the data from the Directorate of Economics and Statistics (DES).

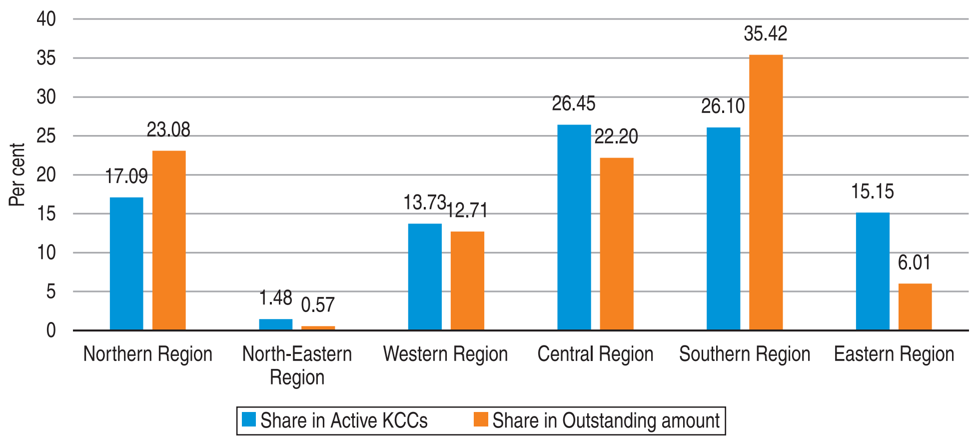

Fig. 3 Region wise progress of KCC scheme in India.

Source: Authors' estimates based on the data from the Directorate of Economics and Statistics (DES).

financial performance of the KCCs is summarized in Fig. 3.

The differences in the physical coverage and financial performance are also reflected in the average outstanding amount due per KCC across the regions (Table 2). The average outstanding amount per operating KCCs was ₹1,32,412 at the national level. The estimate was highest for amount advanced through the commercial banks at ₹1,77,250 followed by RRBs at ₹1,21,411 and cooperative banks at ₹96,136. Across the regions, highest amount of outstanding per KCC was observed in the northern region at ₹2,64,608 for the amount advanced through commercial banks. The outstanding amount against KCCs issued through the RRBs in this region was ₹2,45,691.

Southern region recorded the second highest average loan outstanding amount against KCCs that was estimated at ₹2,19,229 in case of KCCs processed through the cooperative banks. In the north-eastern, western and central regions, commercial banks and RRBs reported higher outstanding amount per KCC. In case of the southern region, all the three types of institutions had higher outstanding amount per card as compared to that in the other regions. On the whole, the southern region is faring well considering the physical coverage and amount disbursed under the KCC.

Table 2 Region wise and agency wise outstanding amount per KCC (₹/KCC) (as on 31st March 2022)

Region	Co-operative Banks (₹)	Regional Rural Banks (₹)	Commercial Banks (₹)	Total (₹)
Northern region	70,026	2,45,691	2,64,608	1,77,527
North-eastern region	14,868	42,416	66.991	50,893
Western region	75,975	1,22,257	1,70,378	1.21,629
Central region	41,005	1,26,866	1,87,227	1,10,298
Southern region	2,19,929	1,20,701	1,59,853	1,78,358
Eastern region	35,951	63,610	67,961	52,154
Total	96,136	1,21,411	1,77,250	1,31,412

Source: Authors' estimates based on the data from the Directorate of Economics and Statistics (DES).

Coverage of KCC Scheme insights based on large scale NSS survey: The NSS 77th round, LHS-SAS survey is a national level survey covering 45,719 agricultural households. Thus, it provides large database for assessing the coverage of the KCC scheme at the ground level. Also, the administrative data from the DES, provides information on the number of cards that have been issued and that are operational, whereas in the NSS survey household level coverage each household having a KCC is accounted only once (NSSO 2021). Moreover, the survey focussed exclusively on the agricultural households. Therefore, it could provide a better yardstick for assessing the household level coverage.

Across the agricultural households headed by different gender belonging to different socio-economic classes, more than 85% of the households reported to have a bank account. About 96% and 98% of female and male headed households reported having access to a bank account, respectively. Considering the households belonging to various social groups, more than 97% of households belonging to the ST, SC and OBC groups reported to have an access to a bank account. Among the different land holding categories, 87% of landless households reported having a bank account, while more than 90% of households falling under other land classes had a bank account. These statistics highlight the widespread access to banking services across the gender and socio-economic groups.

Further, a broader look at the coverage of KCC in terms of per cent of households holding a KCC card showed that at the all-India level, 19.12% of the total agricultural households reported to have a KCC. We found that 19.89% male headed and 11.32% female headed households reported to have a KCC.

Across the social groups, 24.26% of households belonging to social groups other than SC, ST and OBC had KCC. Among the major social groups, 24.26% of OBC households, 14.35% of SC households and 11.39% of ST households reported KCC access. Of the different land holding classes, the highest percentage of KCC ownership was observed in medium landholding households (43.65%), followed by semi-medium land holders (33.44%) and small land holding households (26.28%). Marginal households reported a KCC ownership of 14.40%, while landless agricultural households constituted 0.42% of KCC holders.

State wise coverage of KCC scheme in terms of per cent of agricultural households holding a KCC is depicted in Supplementary Fig. 1. It was found that Chhattisgarh (40.56%), Rajasthan (34.78%), Uttarakhand (32.62%), Madhya Pradesh (32.07%), Haryana (31.34%) and Uttar Pradesh (27.23%) accounted for 50% of the total agricultural households holding a KCC. The states with the lowest percentage of households possessing a Kisan Credit Card (KCC) were Telangana (1.92%), Tamil Nadu (3.94%), Assam (4.98%), Andhra Pradesh (6.60%) and Kerala (7.44%). These figures highlight the varying degree of KCC adoption across the states, highlighting lowest coverage of this innovative agricultural financial tool.

It is pertinent here to highlight the differences in the KCC coverage observed across the data sources. As discussed earlier, the NSS survey counts each agricultural household reporting a KCC only once, while the administrative data covers the number of total cards reported in a state. Nevertheless, both the data sources reflect on lower coverage of the scheme in Andhra Pradesh and Telangana, and a comparatively higher coverage in Uttar Pradesh, Madhya Pradesh and Rajasthan states.

KCC scheme provides affordable financing option for farmers especially for those belonging to the disadvantaged groups focusing on a single window delivery system for agricultural finance (GoI 2022). In the year 2018–19, the KCC facility was extended to animal husbandry, fishers and fish farmers to meet their working capital requirements. Further, extension of the scheme to meet the investment credit requirement of allied and non-farm activities of farmers in the year 2004 was a positive change considering the investment credit needs of the farmers for technology adoption. Such consistent efforts on further improvisation of the scheme highlights the emphasis on extending the outreach of this ambitious scheme for the benefit of agriculture sector. Ramya and Gowri (2014) provided positive feedback about the KCC scheme from field level evidences and elaborated on its benefits to farmers. Prakash and Kumar (2016) have highlighted the positive effects of the KCC on input use efficiency and farm productivity of the beneficiary farmers in Tamil Nadu. In a recent study, Pavithra *et al.* (2024) highlight the positive role of KCC in the adoption of biofertilizers by the paddy farmers in India. Thus, the KCC scheme in line with the enthusiastic expectations placed on it could contribute immensely in meeting the capital requirements of the farmers, promoting higher farm incomes and technology adoption in the wake of increasing climate related risks in the agriculture sector. However, slow growth in the outreach of the scheme and disparities in its coverage have limited its potential benefits to the farming community.

Further, the factors affecting an agricultural households' access to KCC were explored using household level information from the NSS survey data. Results of the probit model revealed that age and gender of the household head, household size, membership of registered farmer organizations, access to extension services, households' involvement in self-employment in crop production as major activity significantly and positively affected the probability of an agricultural household accessing a KCC (Table 3).

On the other hand, lower education level had a significant negative effect on probability of a household accessing the KCC. In general, farmers with lower education rely more on non-institutional credit sources as they face difficulty accessing institutional financial services thus, they have lower probability of accessing the KCC. Besides, education may also be associated with access to information sources and social networking thus, affecting the awareness about the institutional credit facilities. Rightly, recent initiatives have focussed on creation of awareness among the farmers regarding the KCC scheme which could result in increased coverage of farmers under the scheme in the coming years (The Ministry of Agriculture and Farmers Welfare launched the Kisan Rin Portal (KRP), KCC Ghar Ghar Abhiyaan from 01.10.2023 to 31.12.2023 for extending the benefits of the Kisan Credit Card (KCC) scheme to every farmer across the nation (GoI 2023a).

Table 3 Factors determining the access to KCC by the agricultural households

Variable	Probit estimates	Standard Error
Age (yrs)	0.033***	0.004
Primary education (Yes=1)	-0.219***	0.032
Secondary education (Yes=1)	-0.058^{NS}	0.037
Higher secondary education (Yes=1)	-0.022 ^{NS}	0.040
Household Size (No)	0.013***	0.003
Belongs to ST	-0.223***	0.031
Belongs to SC	-0.235***	0.028
Belongs to OBC	-0.114***	0.024
Male headed HH	0.302***	0.034
Membership of farmers' organization (Yes=1)	0.704***	0.038
Government extension (Yes=1)	0.108***	0.025
Private extension (Yes=1)	+0.050***	0.019
Marginal landholding HH	-1.378***	0.573
Small landholding HH	-0.978***	0.117
Medium landholding HH	-0.561***	0.116
Semi-medium landholding HH	-0.399***	0.117
HH involved in animal farming	-0.224**	0.050
HH has non-agriculture enterprise	-0.248***	0.050
Casual labour in agriculture	-0.446***	0.054
Casual labour in non-agriculture	-0.435***	0.040
Share of non-farm income	0.103*	0.060
No. of institutional borrowers in the village	-0.486***	0.100
State fixed effects	Yes Yes	
Constant	-1.446***	0.181
Log pseudolikelihood	-15866.977	
Wald chi square	6371.50	
Pseudo		
Observations	44,411	

Robust standard errors in parentheses: ***, P<0.01; **, P<0.05; *, P<0.1. *Source*: Authors' estimates based on NSS 77th round LHS-SAS unit level data, 2018–19.

Also, in the year 2023–24, the Department of Animal Husbandry and Dairying (AHDF) launched a KCC campaign for reaching out to the maximum number of farmers. These initiatives aimed at reaching a saturation of PM–Kisan beneficiaries under all type of KCC i.e. crop cultivation, animal husbandry, Dairy and fisheries (GoI 2023b). Compared to the large land holding households, landless marginal, small, medium and semi-medium households were less probable of accessing a KCC. Also, households with crop production as major economic activity had higher probability of accessing a KCC compared to those involved in animal farming and working as casual labour either in agriculture or non-agriculture. Share of non-farm income in the household's total income and number of institutional borrowers in a village also positively affected the households' probability of having a KCC. Similar constraints in the access to institutional credit and KCC have been reported by the earlier studies (Kumar *et al.* 2010, Kumar *et al.* 2007, Kumar *et al.* 2021). Thus, socio-economic constraints have limited the outreach of the KCC scheme particularly among the targeted disadvantaged groups.

Conclusions and policy implications: The study shows spatial variations in the coverage of the KCC scheme and lower coverage among the socio-economically marginalised and female headed households despite their impressive access to institutional banking in terms of access to a bank account. Thus, ground level constraints in inclusive coverage of the KCC scheme among the disadvantaged groups still exists. Strengthening the social networks of the farmers, customising the programme to provide access to the disadvantaged groups is the need of the hour. Agricultural households with crop production as major activity showed higher probability of accessing a KCC. Considering the policy initiatives to extend the benefits of the KCC to the agriculture allied sector, higher coverage of the beneficiaries from the animal husbandry, fisheries and other allied sector needs to be achieved.

Regional disparities in the access to KCC need to be plugged through extensive outreach activities with due attention to the states with lower coverage of the KCC especially those in the of hill region. Considering the contribution of cooperatives in the distribution of KCCs, the cooperative bank network across the states could play a great role in enhancing the outreach of the KCC Scheme. Information and extension services have a positive role in promoting access to KCC, therefore, the benefits of digitalization need to be channelized to adequately harness the agricultural development potential of the KCC scheme. The slow progress of the KCC scheme even after almost two decades of its unveiling is a concern. Nevertheless, indubitably, the KCC scheme has been rightly envisaged and could play a game changing role in agricultural finance sector if the issues of disparities in its outreach are addressed.

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REFERENCES

Bista D R, Kumar P and Mathur V C. 2012. Progress and performance of Kisan Credit Card scheme with a case study of Bihar. *Agricultural Economics Research Review* **25**: 125–35.

GoI. 2022. *Kisan Credit Card Scheme*. Ministry of Agriculture and Farmers Welfare. Government of India.

GoI. 2023a. *Revolutionizing Indian Agriculture: Unveils Game-Changing Initiatives for Farmers.* Ministry of Agriculture and Farmers Welfare. Government of India.

GoI. 2023b. *Nationwide AHDF KCC campaign for 2023–24 launched for providing Kisan Credit Card facility to all eligible Animal Husbandry, Dairy and Fishery Farmers.* Ministry of Agriculture and Farmers Welfare. Government of India.

Gujarati D N. 2003. *Basic Econometrics- 4th edition*. McGraw -Hill publications.

Kumar A, Singh D K and Kumar P. 2007. Performance of rural credit and factors affecting the choice of credit sources. *Indian Journal of Agricultural Economics* **62**(3): 297–312.

Kumar A, Singh K M and Sinha S. 2010. Institutional credit to agriculture sector in India: Status, performance and determinants. *Agricultural Economics Research Review* **23**(2): 253–64.

Kumar A, Sonkar V K and Aditya K S. 2021. Assessing the impact of lending through Kisan Credit Cards in rural India. *IFPRI Discussion Paper 01997*. International Food Policy Research Institute.

Kumar A, Yadav C, Jee S, Kumar S and Chauhan S. 2011. Financial innovation in Indian agricultural credit market: Progress and performance of Kisan Credit Card. *Indian Journal of Agricultural Economics* **66**(3): 418–28.

NABARD. 2023. National Bank for Agriculture and Rural Development. https://ggka.nabard.org/ui

NSSO. 2021. Situation assessment of agricultural households and land and livestock holdings of households in rural India, 2019. *NSS 77th Round*. National Statistical Office, Ministry of Statistics and Programme Implementation, Government of India.

Pavithra S, Singh A, Singh H and Burman R R. 2024. Can access to institutional credit promote adoption of improved technology? A case of biofertilizer use among the Indian paddy farmers. *Indian Journal of Agricultural Economics* **79**(3): 739–49. DOI:10.63040/25827510.2024.03.028

Prakash P and Kumar P. 2016. Performance of Kisan Credit Card scheme in Tamil Nadu. *Indian Journal of Agricultural Economics* **71**(2): 191–211.

Ramya G and Gowri J. 2014. Increasing role of Kisan Credit Card in the life of a farmer. *Indian Farming* **64**(1): 14–17.

RBI. 2017. *Master Circular - Kisan Credit Card (KCC) Scheme*. Reserve Bank of India. https://www.rbi.org.in/commonman/English/Scripts/Notification.aspx?Id=2311

Sajane A M, Basavaraja H, Guledgudda S S, Patil B L, Mahajanshetty S B and Bhat A R S. 2011. Economic evaluation of Kisan Credit Card scheme. *Karnataka Journal of Agricultural Sciences* **24**(2): 173–76.

Singh H and Sekhon M K. 2005. Cash-in benefits of the Kisan Credit Card Scheme: Onus is upon the farmer. *Indian Journal of Agricultural Economics* **60**(3).