

Assessing the Implementation of the Kisan Credit Card Scheme: Inter-State Patterns in Credit Allocation

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DOI: 10.46609/IJSSER.2026.v11i10.027 URL: <https://doi.org/10.46609/IJSSER.2026.v11i10.027>

Received: 4 October 2026 / Accepted: 14 October 2026 / Published: 20 October 2026

ABSTRACT

The Kisan Credit Card (KCC) scheme was introduced to reduce the dependence of Indian farmers on informal moneylenders. This paper assesses how the scheme has been implemented across states by examining the association of state-level KCC credit with various state-agrarian factors such as poverty, the size of the farm economy, input use, irrigation, household income, land ownership and the rural workforce in 2024. The relationship between poverty and credit is inconclusive. Credit is strongly associated with gross state value added in agriculture, fertilizer consumption and operational land holdings, while household income explains almost none of the variation in credit across states. This suggests that the scheme is strongly linked to existing agricultural advantage and formal land ownership, leaving tenant farmers, marginal holders and landless labourers outside the formal system. The paper suggests decoupling eligibility from land titles and setting regionally differentiated targets, so that credit reaches the states and groups that are currently excluded.

1. Introduction

Access to affordable credit remains one of the binding constraints in Indian agriculture. Cultivation is seasonal and input costs are front-loaded, while returns arrive only after harvest, leaving farm households with a structural need for working capital. Where formal institutions fail to meet this need, farmers turn to village moneylenders, traders and input dealers, who lend quickly and without collateral but at much higher interest rates than the institutional rate. The consequences are well documented: repayment obligations that outrun farm incomes, distress sales of land and produce, cycles of rollover debt, and at the extreme, the agrarian distress reflected in India's farmer suicide statistics (National Crime Records Bureau, 2023). Dependence on informal credit is therefore a livelihood and welfare problem as much as a financing one.

The Kisan Credit Card (KCC) scheme was introduced in 1998-99 on the recommendation of the R.V. Gupta Committee to address this gap. Delivered through commercial banks, regional rural

banks and cooperatives, the scheme provides farmers a revolving short-term credit line sanctioned against a scale of finance, that is, the amount of credit fixed per acre for each crop in a district. Its scope has since widened to cover post-harvest expenses, consumption needs, farm asset maintenance and, more recently, animal husbandry and fisheries, while interest subvention has reduced the effective cost of borrowing for farmers who repay on time. Yet the shift away from informal lending has been slower than the scale of the intervention would suggest. Despite a decade of credit-doubling targets and financial inclusion drives, the share of indebted agricultural households who accessed institutional credit rose only from 48.6 to 51.9 percent (Gupta, 2018), and professional and agricultural moneylenders still account for 25.8 percent of total cash dues (Satyasai, 2015). Coverage has also been uneven, with the Eastern and North-Eastern states persistently lagging in KCC adoption (Bista et al., 2012; Gupta, 2018).

This suggests the relevant question is no longer whether formal credit has expanded, but where within the farm economy it has settled. This paper assesses the implementation of the KCC scheme by examining inter-state patterns in credit disbursement. Drawing on state-level NABARD data on operative KCC accounts and outstanding loan amounts, and reading these against indicators of rural poverty, agricultural output, land holdings, irrigation coverage, input use and rural workforce composition, the paper asks which state characteristics credit actually tracks, and by implication, which farmers the scheme reaches and which it passes over. The remainder of the paper is organised as follows. Section 2 reviews the existing literature on institutional agricultural credit and the KCC scheme. Section 3 describes the data sources and methodology. Section 4 presents the state-wise findings. Section 5 concludes and discusses the policy implications.

2. Literature Review

Title	Author & Year	Summary
Progress and Performance of Kisan Credit Card Scheme with a Case Study of Bihar	Bista et al (2012)	The paper assessed KCC's progress and impact on the farm economy using secondary NABARD/RBI data and a primary survey of 60 beneficiary and 60 non-beneficiary farmers in Samastipur, Bihar. Findings indicate wide regional and institutional disparities, with the Eastern and North-Eastern regions persistently underperforming. KCC beneficiaries incurred far lower borrowing transaction costs and earned higher gross and net returns across paddy, maize, wheat, and potato owing to greater input use. Education, land size, and farming experience positively influenced adoption, while lengthy paperwork, low credit limits, and difficulty opening bank accounts were the chief constraints. The paper recommends simplified procedures, higher loan limits, awareness campaigns, and strengthening cooperative banks.

Agricultural Credit in India: With Reference to Kisan Credit Card (KCC)	Gaikar et al (2021)	Examined the growth and variation of KCC in terms of cards issued and amounts sanctioned during 2017–18 to 2020–21, using RBI/NABARD secondary data analysed through mean values, coefficients of variation, exponential growth rates, chi-square tests, and paired t-tests across agencies and regions. Found a sharp decline of about 8.7 per cent in the number of operative KCCs alongside a multifold increase in amounts sanctioned. Commercial banks led both card issuance and sanctioned amounts, followed by cooperative banks and RRBs; cooperative bank activity was concentrated in the Southern region and RRB/commercial bank activity in the Central region. Concludes that the scheme's monetary deepening coexists with shrinking card coverage, implying a need to widen outreach.
Agricultural Credit System in India: Evolution, Effectiveness and Innovations	Gulati and Juneja (2019)	Evaluated India's agricultural credit system on efficiency, inclusiveness, and sustainability using long-run secondary data (RBI, AIDIS, NAFIS). Institutional credit's share of farm household debt rose from about 10 per cent in 1951 to roughly 64 per cent by 2013, and short-term credit reached 123 per cent of input requirements by 2015–16 — yet state-level ratios far above 100 per cent (e.g., Kerala at 326 per cent) suggest diversion of subsidised crop loans to non-farm uses under the interest subvention scheme. Small and marginal farmers receive about 60 per cent of institutional agricultural loans, though only around 30 per cent of agri-households effectively borrow from formal sources, and loan waivers drove agricultural NPAs from 2.1 to 8.1 per cent (2009–18). Flags a KCC-specific gap: despite 150 million cumulative cards claimed, only about 10 per cent of farmers used a KCC in 2015–16 (NAFIS), with no detailed studies on actual use. Recommends expediting KCC issuance, Aadhaar-linked centralised KCC databases, restricting interest subvention to small farmers, and discontinuing generalised loan waivers.
Comprehensive Study of Kisan Credit Card at Central Bank of India – A Useful Credit Tool for Rural Development	Sharma (2016)	Examined whether the KCC scheme meets farmers' credit needs, the gaps between scheme design, implementation, and utilisation, and the difficulties in implementation, focusing on Central Bank of India in Ahmednagar district, Maharashtra. Combined primary data from interviews with bank officials and a field survey of KCC holders (multistage stratified sampling) with secondary data from CBI, NABARD, and RBI reports. Found that only 64 per cent of surveyed farmers were aware of the bank's KCC product, and 30 per cent holding under one hectare were excluded by the minimum landholding criterion. Farmers ranked savings in annual renewal cost (88 per cent), timely credit availability (82 per cent), and hassle-free access (76 per cent) as key benefits, but hidden documentation charges raised the real cost of credit, and misutilisation of funds for non-productive purposes contributed to NPAs. Concludes there is a large gap between policy

		and actual utilisation, recommending farmer education, faster loan sanctioning, and relaxation of minimum eligibility criteria.
How Indian Farmers Borrow, Produce and Earn? Evidence from Recent NSSO Surveys (Rural Pulse, NABARD)	Satyasai (2015)	Analysed the borrowing, production, and earning patterns of agricultural households using NSSO 59th (2002–03) and 70th (2012–13) round Situation Assessment and Debt & Investment surveys. Found that despite a decade of intensive interventions (credit doubling, loan waivers, financial inclusion drives), the proportion of indebted agri-households rose only marginally from 48.6 to 51.9 per cent, and the institutional share of outstanding debt (64 per cent in 2012) remained below its 1991 peak — suggesting a plateau in rural credit institutionalisation. The share of professional and agricultural moneylenders rose sharply from 5.2 to 25.8 per cent, with tiny and marginal holders most dependent on non-institutional sources, and borrowing shifted toward household expenses (medical loans doubled, education trebled) that formal agencies do not finance. Loan tenures shortened (45 per cent under one year) and real growth in credit outstanding was negligible. Policy implications include reaching the ‘unreached’, designing products for landless and marginal holders, personal-loan products for consumption needs, and innovating the KCC to permit investment credit through the card.
Progress of Kisan Credit Card Scheme in India	Kaur and Dhaliwal (2018)	The study evaluates the period-wise and agency-wise progress of the Kisan Credit Card scheme in India from 1998-99 to 2012-13, using secondary data from NABARD and RBI analysed through mean, coefficient of variation and exponential growth rate. Cards issued rose from 7.84 lakh to 129.82 lakh and the amount sanctioned grew from ₹2,310 crore to ₹1,26,280 crore, registering growth rates of 26.37 per cent and 22.72 per cent respectively. Commercial banks led both card issuance and credit sanctioned, ahead of co-operative banks and RRBs, with co-operatives recording a negative growth rate in cards issued. The paper establishes KCC as an expanding institutional channel for timely, hassle-free short-term production and consumption credit to farmers.
Institutional versus Noninstitutional Credit to Agricultural Households in India: Evidence on Impact from a National Farmers' Survey	Kumar et al. (2017)	Using the nationally representative NSSO Situation Assessment Survey of 2012–13 (35,200 farm households), the study estimates the determinants of access to formal credit and its effect on farm household welfare. Institutional borrowers were found to earn roughly 17 per cent higher net farm income and to record about 10 per cent higher per capita monthly consumption expenditure than informal borrowers, confirming that formal credit materially improves both farm profitability and household living standards. Access, however, was strongly conditioned by landholding size, education, age and caste, with marginal farmers and Scheduled Caste households disadvantaged. The authors conclude that formal lending remains biased towards

		larger farms and endorse Priority Sector Lending reforms and other measures to deepen smallholder access to institutional finance.
Assessing the Impact of Lending through Kisan Credit Cards in Rural India: Evidence from Eastern India	Kumar et al. (2021)	Drawing on a 2018–19 primary survey of 2,932 agricultural households across Bihar, eastern Uttar Pradesh, Jharkhand, Odisha and West Bengal, and applying Coarsened Exact Matching to address self-selection and endogeneity, this paper identifies the determinants and impacts of KCC access. Only around 19 per cent of sampled households held a card, access was skewed towards older, better-educated, upper-caste and larger landholding households, and obtaining a card usually required several bank visits. KCC access raised farm income (about INR 7,058 per hectare), per capita annual household income and fertilizer use, with gains concentrated among marginal and small farmers, and cut dependence on moneylenders by roughly 25 per cent. The authors conclude that wider awareness and easier access could make the KCC a catalyst for poverty reduction and for the goal of doubling farmers' income in eastern India.
Indian Kisan Credit Card Scheme: An Analytical Study	Mehta et al. (2016)	This descriptive study, based on secondary data from NABARD, RBI and related publications, reviews the design, evolution and performance of the KCC scheme since its 1998–99 launch, including the revised 2012 guidelines converting the KCC into a Smart Card-cum-Debit Card. It catalogues the scheme's benefits to farmers (timely, flexible, low-cost credit with insurance cover and reduced paperwork) and to banks (lower transaction costs, better recovery and improved client relations), while highlighting operational concerns: double counting of issued cards, high stamp duty suppressing credit limits, weak integration with crop insurance, cumbersome documentation, non-recognition of oral leases, and poor awareness of the scheme among both farmers and bank staff. It concludes that the KCC has become a popular and innovative credit delivery mechanism and recommends simplifying loan procedures, creating verified farmer databases, and intensifying coverage in the under-served northern, north-eastern and eastern zones.
Farmers' Income, Indebtedness and Agrarian Distress in India	Reddy et al. (2020)	Combining the NSSO All India Debt and Investment Survey (2012–13), NABARD's All India Rural Financial Inclusion Survey (2016–17) and cost-of-cultivation data with a review of micro-level case studies, this paper analyses farm incomes, indebtedness and agrarian distress. Average farm household income (Rs 6,427 per month in 2012–13) barely exceeded consumption, the bottom 40 per cent of farm households fell below the international poverty line, and around half of farmers were indebted, with small and tenant farmers largely excluded from institutional credit and dependent on informal lenders charging interest rates above 20 per cent. Although the institutional share of farm debt rose from 60 to 72 per cent between the two surveys, micro

		studies consistently linked indebtedness to farmer suicides. The authors recommend stepping up public investment in irrigation and rural infrastructure, expanding collateral-free institutional credit to small and tenant farmers, strengthening Farmer Producer Organisations, and widening income-support and safety-net schemes such as PM-KISAN.
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3. Data and Methodology

3.1 Data sources and coverage

This study uses secondary, state-level data for the year 2024. The analysis uses the following variables discussed below in Table 1.

3.2 Unit of analysis and sample

The unit of analysis is the Indian state or union territory. The number of observations plotted differs across figures, which indicates that data availability is not uniform across variables.

3.3 Variable definitions

Table 1: Variable definitions, units and sources

Variable	Definition	Unit	Source
Operative KCC accounts	Number of KCC accounts recorded as operative in the state	Number	Government of India, Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Farmers Welfare, Economics, Statistics and Evaluation Division, Table 3.20
Amount outstanding	Aggregate amount outstanding under KCC in the state	₹ crore	Government of India, Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Farmers Welfare, Economics, Statistics and Evaluation Division, Table 3.19(b)

Rural Below Poverty Line (BPL) population (%)	Rural population below the poverty line as a share of the rural population	Per cent	Government of India, Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Farmers Welfare, Economics, Statistics and Evaluation Division, Table 1.2
Rural BPL population (absolute)	Rural population below the poverty line	Number	Government of India, Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Farmers Welfare, Economics, Statistics and Evaluation Division, Table 1.2
Agricultural GSVa	Gross state value added (GSVA) in agriculture and allied sectors	₹lakh	Government of India, Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Farmers Welfare, Economics, Statistics and Evaluation Division, Table 1.4(a)
Fertilizer consumption	Total consumption of chemical fertilizers in the state	Thousand Tonnes	Government of India, Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Farmers Welfare, Economics, Statistics and Evaluation Division, Table 3.15
Average monthly income per agricultural household	Average monthly income of an agricultural household in the state	₹	Government of India, Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Farmers Welfare, Economics, Statistics and Evaluation Division, Table 3.15
Operational land holdings	Number of operational holdings in the state	Number	Government of India, Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Farmers Welfare, Economics, Statistics and Evaluation Division,

			Table 5.1
Cultivators and agricultural labourers	Combined population of cultivators and agricultural labourers	Number	Government of India, Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Farmers Welfare, Economics, Statistics and Evaluation Division, Table 1.1(b)

3.4 Analytical technique

The analysis is bivariate. For each pair of variables, states are plotted as individual observations on a scatter diagram, and an ordinary least squares linear trendline is fitted. Two quantities are reported for each fit: the slope of the fitted line, which gives the direction and gradient of the association, and the coefficient of determination (R^2), which gives the share of variation in the dependent variable accounted for by the independent variable.

Two key dependent variables are used. The number of operative KCC accounts measures the reach of the scheme, that is, how many farmers hold a card. The amount outstanding measures the depth of the scheme, that is, how much credit those cardholders draw. Both are used because a state may score high on one and low on the other, and the distinction matters for interpreting who the scheme reaches against how much it lends them.

No control variables are included and no multivariate model is estimated. The results therefore describe association and do not identify causal effect.

4. Findings

Overall, the analysis finds that credit allocation under the KCC scheme is not distributed according to agricultural needs necessarily. It is rather strongly associated with the scale and formalisation of a state's agricultural asset base. The evidence below sets out this pattern in five steps: the absence of a demonstrable relationship between poverty and credit; the strong relationship between the size of a state's agricultural economy and the credit it receives, the reinforcement of that relationship by input use and irrigation infrastructure, the self-selection bias this produces against states with weaker agricultural sectors, and the socioeconomic consequences of that bias for households defined by income and landlessness.

4.1 Poverty and credit access: an inconclusive relationship

The first question is whether states with higher poverty are associated with receiving more credit, as a scheme aimed at financial inclusion would imply.

Figure 1 plots the number of operative KCC accounts against the rural population below the poverty line, expressed as a percentage. The observations are widely dispersed at every level of poverty. The fitted line is positive, but the R^2 of 0.0242 shows that the association is very weak. There is no conclusive evidence that states with higher poverty have more operative KCC accounts.

Figure 1: Association between operative KCC accounts and rural BPL population, 2024.
Each point is a state or union territory. $R^2 = 0.0242$, $n = 30$.

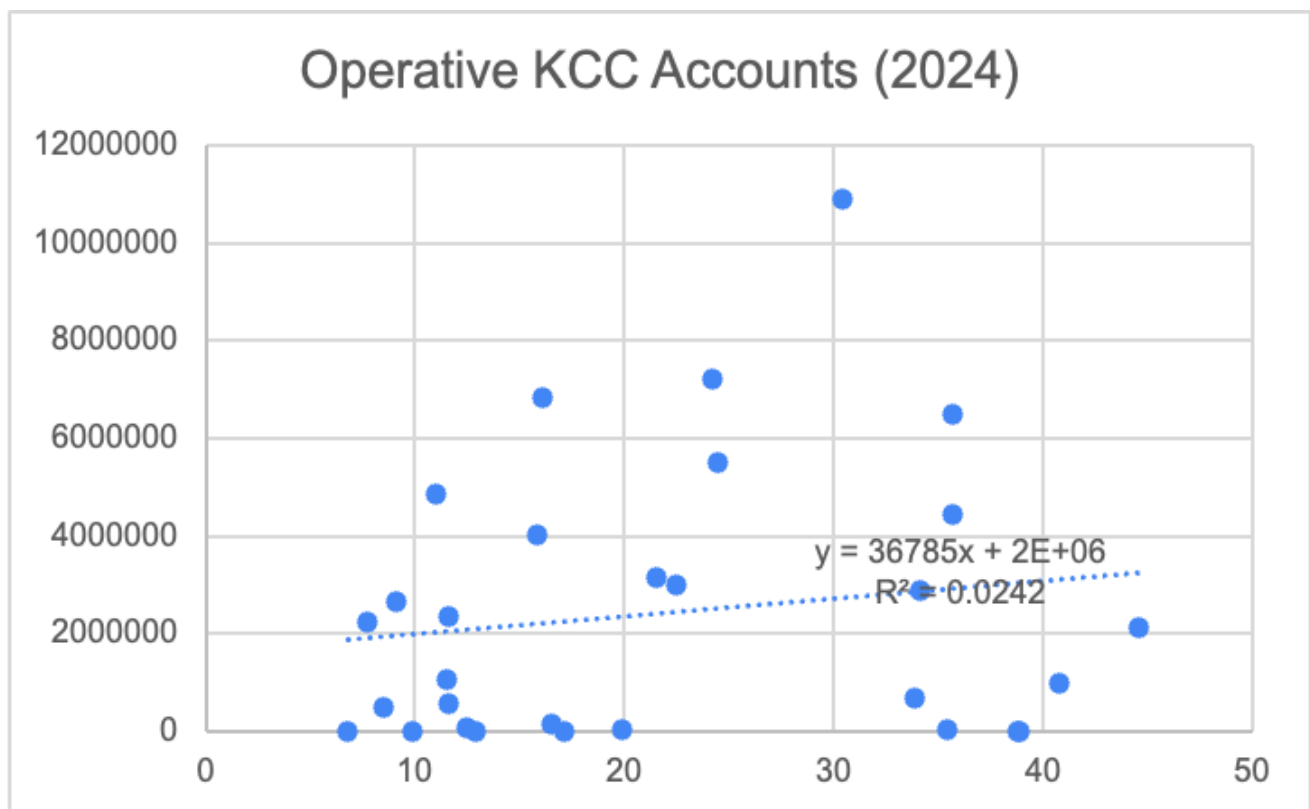
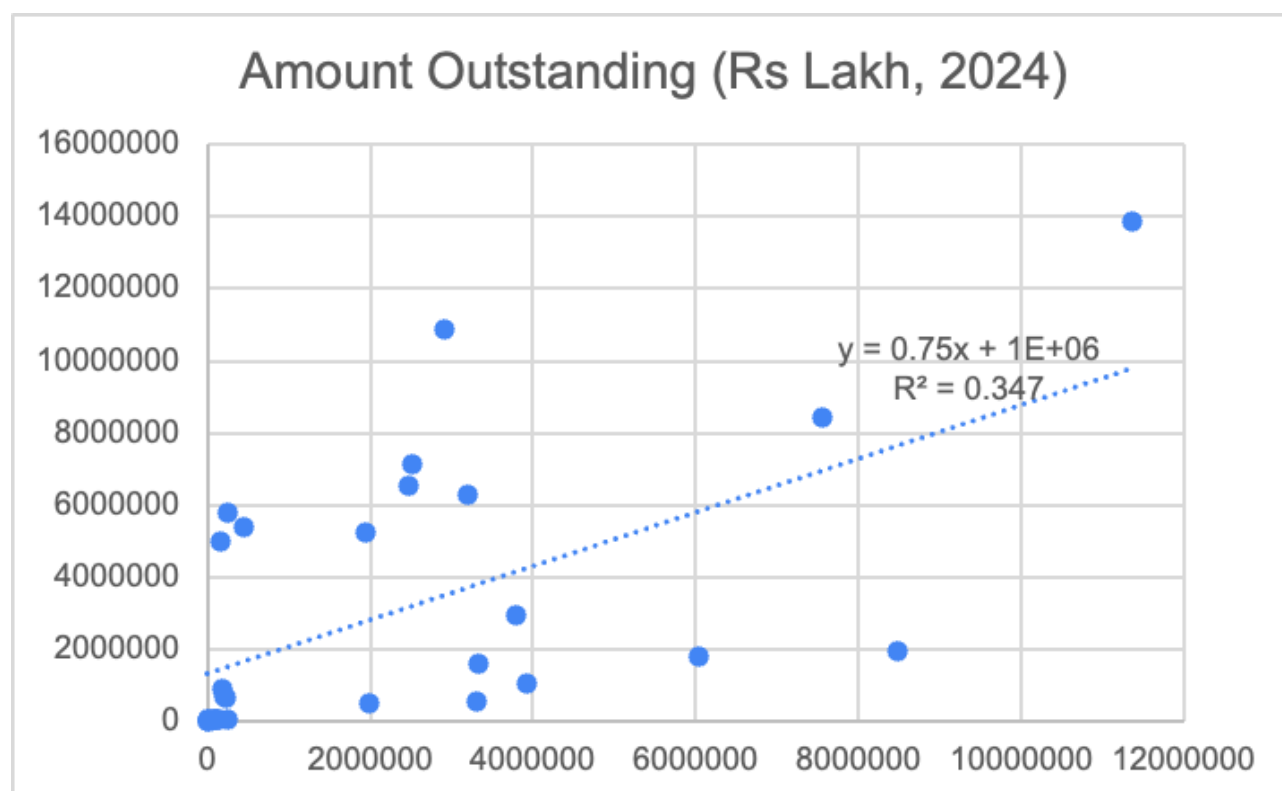


Figure 2 plots the amount outstanding against the rural BPL population in absolute terms. The direction is positive, but both axes are unnormalised counts, so the association is consistent with larger states recording larger values on both measures. It does not, however, establish that states with higher poverty are associated with more credit.

Figure 2: Association between KCC amount outstanding and absolute rural BPL population, 2024. Each point is a state or union territory. $R^2 = 0.347$, $n = 30$.



Taken together, the two figures are inconclusive. Figure 1 shows no relationship. Figure 2 shows a weak positive one that is confounded by state size. There is not sufficient evidence here to conclude that states with higher poverty receive more credit, and equally not sufficient evidence to conclude that they receive less. The relationship between poverty and credit allocation needs more granular data for further exploration.

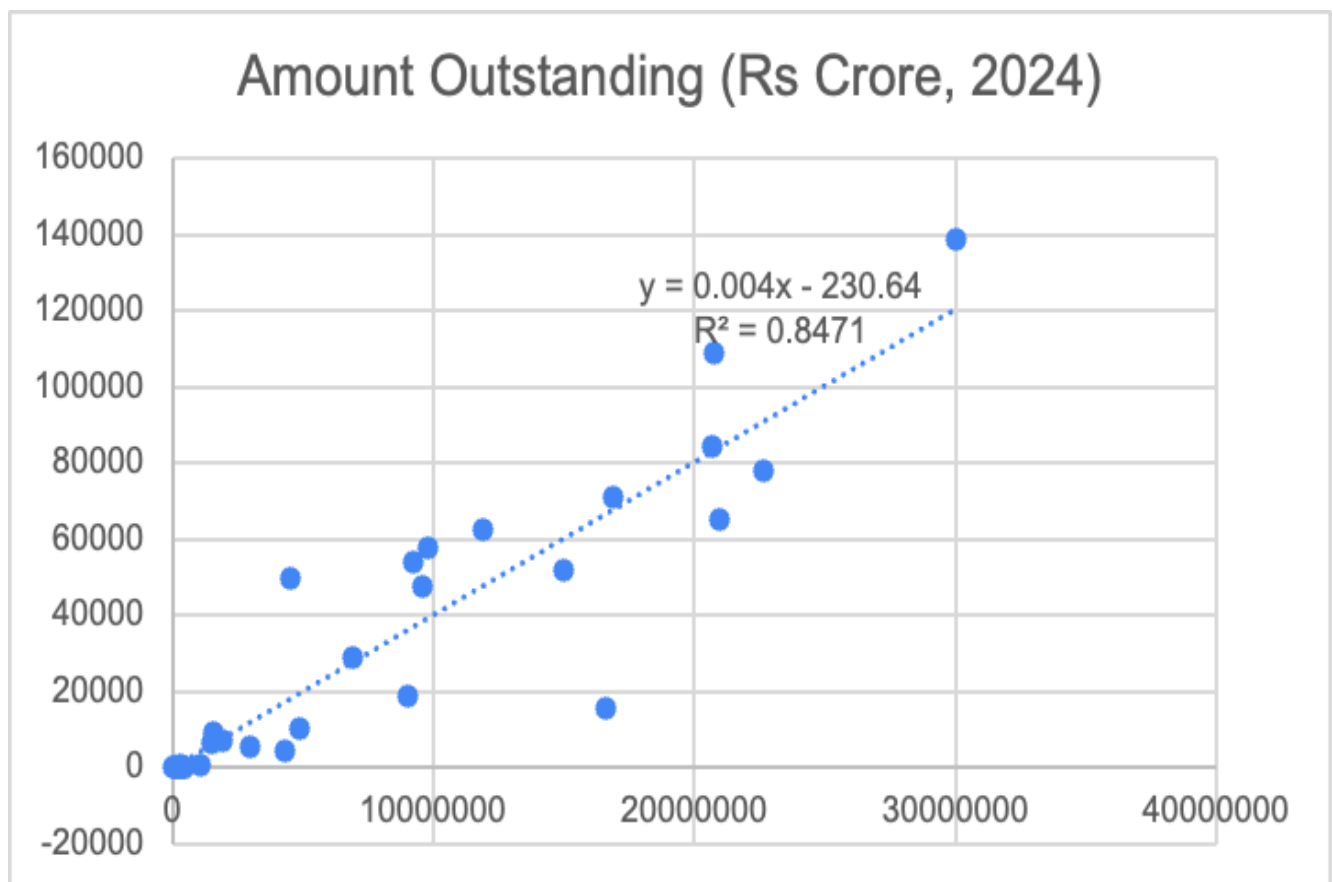
The literature reports limited progress in extending institutional credit to vulnerable groups (Gulati and Juneja, 2019; Kumar et al., 2017). The proportion of indebted agricultural households rose from 48.6 per cent to 51.9 per cent over a decade despite credit doubling and various financial inclusion drives (Gupta, 2018; Satyasai, 2015). Eastern and North-Eastern regions have persistently recorded lower KCC coverage relative to their operational holdings than Southern and Northern regions (Bista *et al.*, 2012; Gupta, 2018).

The analysis now turns to the association of credit with other socio-economic characteristics that are specific to the agricultural sector.

4.2 The size of the agricultural economy

Figure 3 plots the amount outstanding against gross state value added in agriculture and allied sectors. The relationship is strongly positive and the observations cluster closely around the fitted line across the full range.

Figure 3: Association between KCC amount outstanding and gross state value added in agriculture and allied sectors, 2024. Each point is a state or union territory. $R^2 = 0.8471$, $n = 33$.



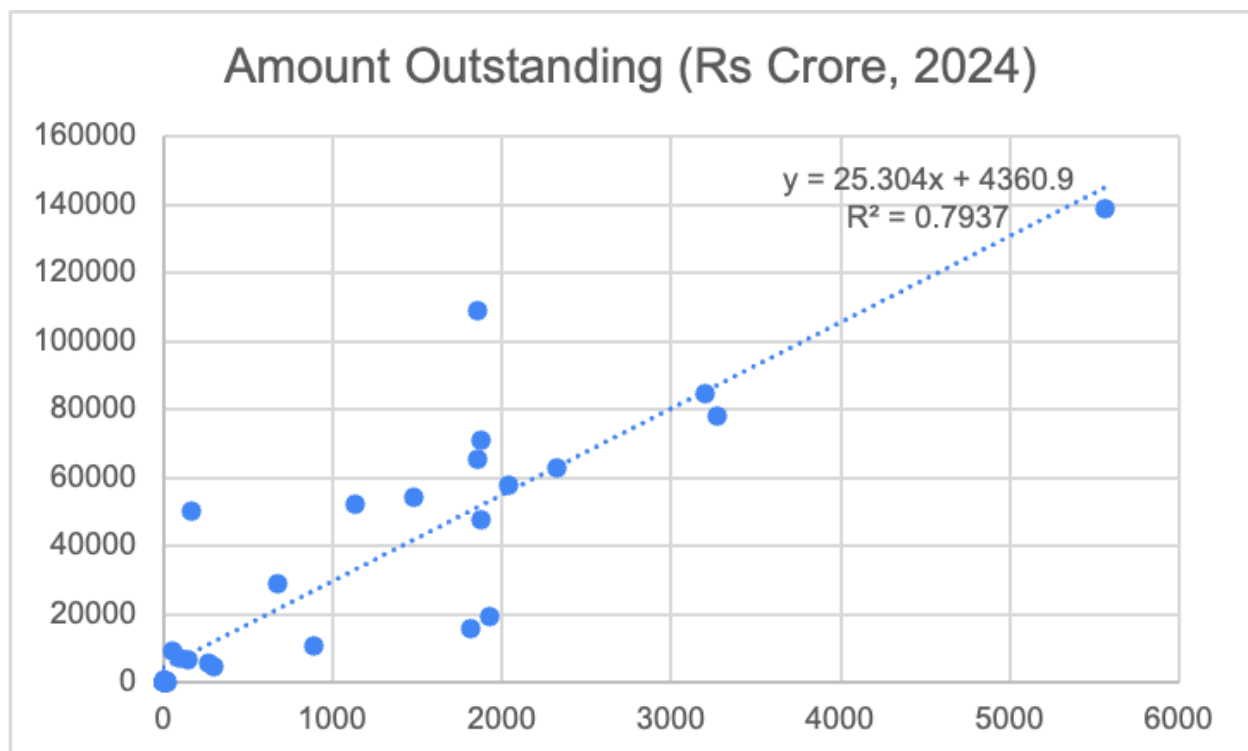
This is the strongest association in the analysis. States with larger agricultural economies are associated with receiving substantially more credit. The size of the farm economy accounts for over 84 per cent of the variation in outstanding credit between states. Credit allocation seems to follow the scale of existing agricultural production rather than the intensity of agricultural need.

Two further observations reinforce this finding.

4.3 Reinforcement (a): input use

Figure 4 plots the amount outstanding against fertilizer consumption. The association is strongly positive, and states at the upper end of fertilizer consumption record the highest outstanding balances.

Figure 4: Association between KCC amount outstanding and fertilizer consumption, 2024.
Each point is a state or union territory. $R^2 = 0.7937$, $n = 34$.



The pattern follows from the design of the instrument. KCC credit limits are calculated to cover the cost of purchased inputs for a cropping season, so states consuming more inputs draw proportionately larger balances. Beneficiary farmers have been found to realise higher returns because borrowed funds finance a greater volume of purchased inputs (Bista *et al.*, 2012). There seems to be a reinforcing relationship at work here: input-intensive agriculture attracts credit, and credit finances further input intensification. This raises short-term yields, but sustained over-application of fertilizer carries a risk to long-term soil health (Satyasai, 2015).

4.4 Reinforcement (b): irrigation infrastructure

The second reinforcing factor is irrigation. States with a higher percentage of irrigated agricultural area record higher outstanding KCC credit.

This reinforces the same point: states where agriculture has higher inputs or operational investment are more likely to receive credit. Reliable irrigation reduces exposure to agro-climatic failure, permits multiple cropping cycles in a year, and supports higher-value crops. A farmer in such a state can service a larger loan with greater certainty, and a lender can extend one at lower expected loss. Capital is therefore directed towards well-irrigated regions, while farmers dependent on rain-fed cultivation face lower sanctioned limits.

Irrigation also conditions what a farmer can do with credit once received. The scheme generates demand for irrigation inputs, which in turn requires investment credit to sustain farm operations (Bista *et al.*, 2012). Farmers who lack irrigation infrastructure are therefore likely to be at a disadvantage in accessing credit. The same may apply to farmers who use less water because they follow more climate-friendly farming practices.

4.5 Self-selection bias against weaker agricultural sectors

Sections 4.2 to 4.4 describe a single mechanism. Credit flows to states with large agricultural economies, high input consumption and developed irrigation. These three characteristics largely coincide in the same states. Twelve states are above the median on all three, and their median outstanding credit is ₹60,312 crore, against ₹518 crore for the remaining 21 states. Uttar Pradesh, Gujarat and Punjab, for example, rank in the top ten on all three measures and in the top eight for outstanding credit.

The result is a self-selection bias. States with smaller or weaker agricultural sectors are excluded not by any explicit criterion but by the operation of ordinary lending assessment. A state with limited irrigation has lower and more variable yields. This is associated with lower input expenditure and therefore smaller sanctioned credit limits. Smaller limits in turn constrain the input purchase that would raise yields in the following season. The scheme was introduced to extend formal credit to farmers underserved by the banking system. Its allocation pattern reproduces the distribution of agricultural advantage that already existed.

This bias operates at the level of states. Household studies suggest it also operates within them. Access to KCC credit is skewed towards households with larger landholdings, more education and higher caste status, while marginal, tenant and landless households remain more dependent on informal lenders (Kumar *et al.*, 2017; Kumar *et al.*, 2021; Reddy *et al.*, 2020).

4.6 Socioeconomic consequences: income and land ownership

Figure 5 plots the amount outstanding against average monthly income per agricultural household. The near-zero R^2 provides no conclusive evidence for the association between average household income and KCC credit across states.

Figure 5: Association between KCC amount outstanding and average monthly income per agricultural household, 2024. Each point is a state or union territory. $R^2 = 0.0092$, $n = 28$.

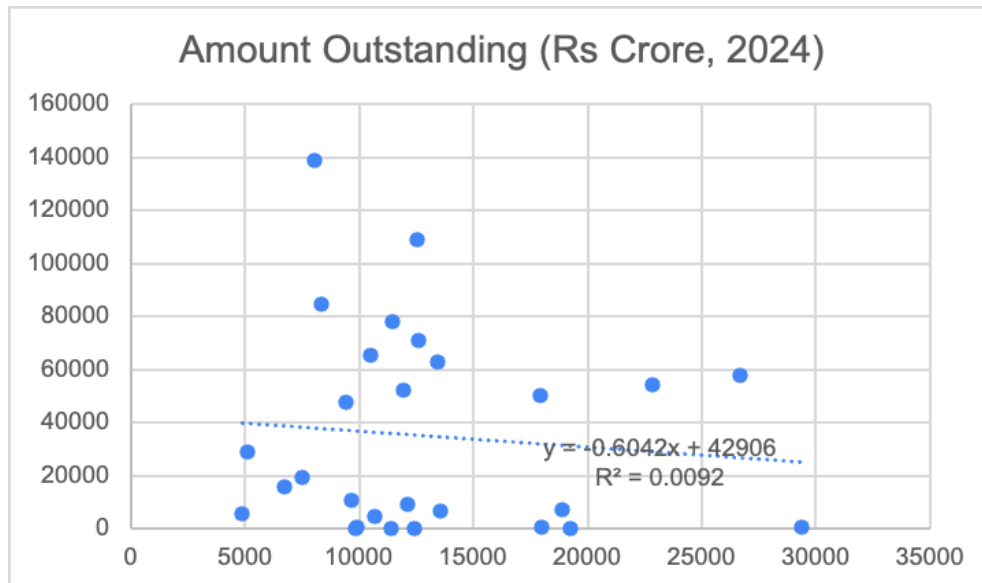
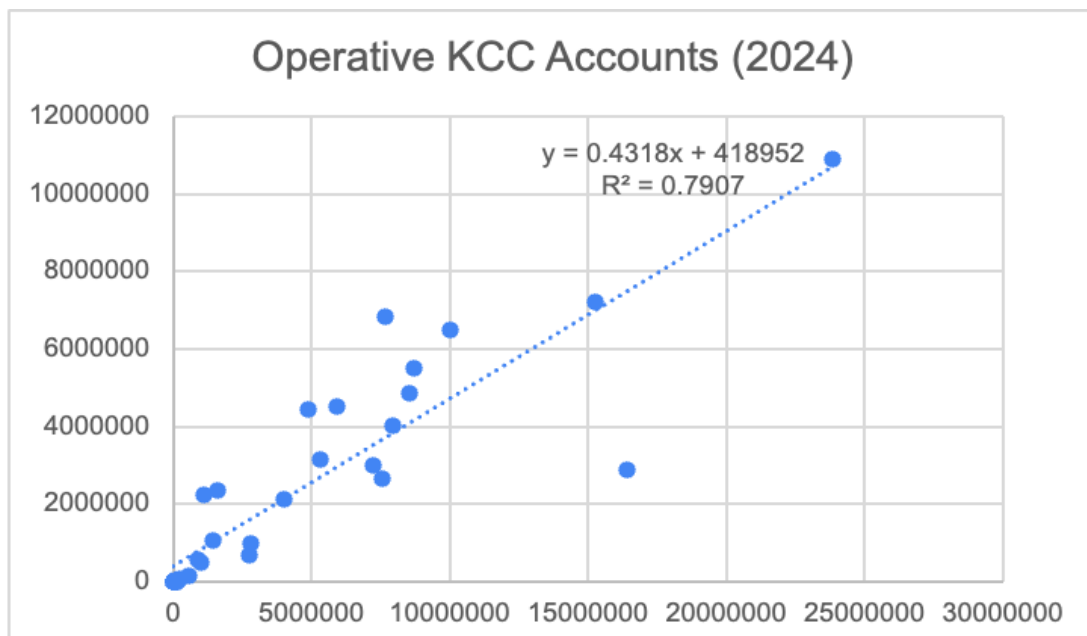


Figure 6 plots the number of operative KCC accounts against the number of operational land holdings. The relationship is strongly positive and closely fitted.

Figure 6: Association between operative KCC accounts and number of operational land holdings, 2024. Each point is a state or union territory. $R^2 = 0.7907$, $n = 34$.



The contrast between Figures 5 and 6 identifies the operative criterion. Income explains almost none of the variation in credit; operational holdings explain nearly 80 per cent of it. This indicates that formalised land ownership plays a key role in shaping access to the scheme.

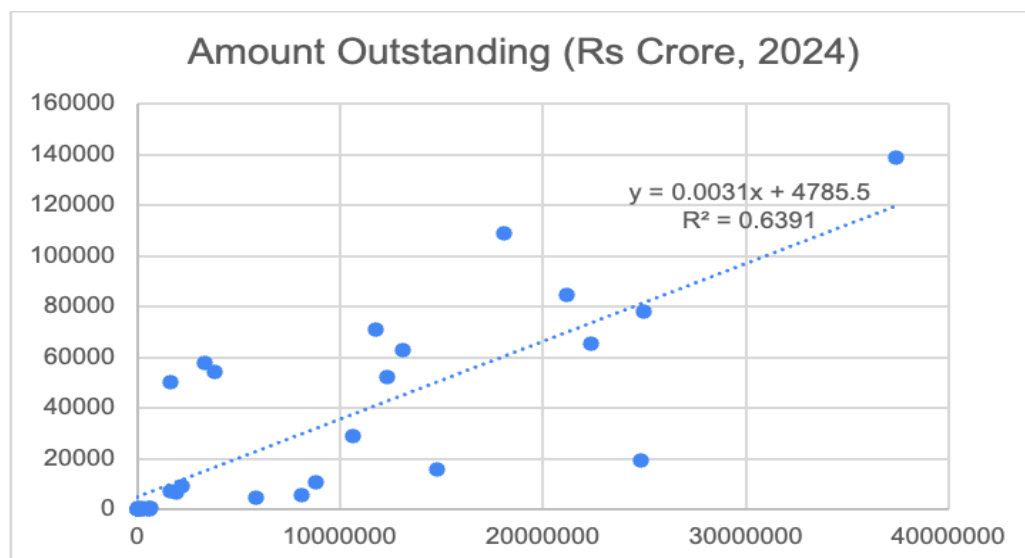
This mechanism is the eligibility rule itself. The KCC framework requires a land title as a prerequisite for borrowing. The title serves as collateral and as proof of cultivation, and a farmer without one cannot enter the scheme regardless of what they cultivate or earn. Land size has been found to exert a positive and significant influence on the decision and ability to adopt the scheme (Bista et al., 2012; Kumar et al., 2021). Tenant farmers and women cultivators, who frequently work land they do not formally hold, are excluded by this requirement (Mehta et al., 2016; Reddy et al., 2020). Formal agencies have not developed products suited to small and marginal holders, whose credit needs differ from those of large farmers, which leaves those holders dependent on non-institutional sources (Reddy et al., 2020; Satyasai, 2015).

Land ownership is therefore currently a critical gateway to access the scheme. This has a direct implication for those who own no land at all.

4.7 The exclusion of agricultural labourers

Figure 7 plots the amount outstanding against the combined population of cultivators and agricultural labourers. The association is positive and strong.

Figure 7: Association between KCC amount outstanding and the combined population of cultivators and agricultural labourers, 2024. Each point is a state or union territory. $R^2 = 0.6391$, $n = 33$.



The independent variable pools two groups whose relationship to the eligibility rule established in Section 4.6 is opposite. Cultivators operate land and can therefore hold a card. Agricultural labourers are landless and cannot. A positive fit for the combined series may likely be driven by the former group that operates land and holds a card for proof. The fit is also weaker than that for operational holdings in Figure 6, which is what would be expected if a large population unrelated to landholding had been added to a variable that otherwise tracks it.

Existing literature establishes that the landless component contributes little to the association.

First, holding size has been found to be a statistically significant determinant of participation. In a logit estimation of the factors influencing KCC adoption, Bista et al. (2012) found that a one per cent increase in land size raises the probability of adoption by 0.03 per cent.

Second, the scheme's own coverage metric is defined over landholders. Performance is assessed by expressing cards issued as a percentage of operational holdings, a ratio that stood at 7.9 per cent nationally, with 10,169,000 cards issued against 129,222,237 operational holdings (Bista et al., 2012). A landless labourer does not appear in that denominator. The population is absent from the frame within which the scheme measures its own reach, which means that complete exclusion of agricultural labourers would register as no shortfall in coverage at all.

Third, the constraints reported by farmers outside the scheme identify both the barrier and its consequence. Among non-beneficiary farmers, difficulty in opening a bank account ranks first (Bista et al., 2012). Where formal entry is obstructed, informal lending substitutes for it directly.

4.8 Summary insights

Across seven comparisons, the variables that are found to be associated with credit allocation are those indicative of the scale and formality of agricultural assets: gross state value added in agriculture ($R^2 = 0.8471$), fertilizer consumption ($R^2 = 0.7937$) and operational land holdings ($R^2 = 0.7907$). The variables measuring need account for almost none of it: average household income ($R^2 = 0.0092$) and rural poverty share ($R^2 = 0.0242$).

The scheme was introduced to reduce dependence on informal moneylending by extending formal credit to farmers the banking system had not served. Its allocation is governed by land title, farm economy size and infrastructural endowment. The instrument reaches those who can document ownership and demonstrate capacity to absorb credit, and passes over those who can do neither, which is the population the policy was designed to reach.

5. Conclusion

This paper set out to assess how the KCC scheme has been implemented across Indian states by examining association of state-level credit flows with various agro-economic parameters. Five patterns emerge. First, poverty and credit access are disconnected: states with higher rural BPL shares and larger absolute BPL populations do not receive proportionally more credit, indicating that financial need alone does not drive allocation. Second, credit tracks the size of the farm economy closely, rising with GSVA in agriculture and with fertiliser consumption, which suggests that lending follows established input-intensive agriculture and reinforces it. Third, household income shows no meaningful relationship with outstanding credit, while operative KCC accounts scale with the number of cultivators and total operational holdings, confirming that formalised land ownership rather than earning capacity governs access. Fourth, credit concentrates in states with higher irrigated area, likely because agro-climatic risk is lower and repayment is more assured there. Taken together, these findings point to a scheme whose delivery falls short of its own foundational objective. The KCC was designed to displace exploitative informal lending, but its implementation relatively channels credit toward states that already possess the assets, infrastructure and titled land that make lending safe. The result is a reinforcing cycle: states with weak agricultural infrastructure have weaker farm economies, lower farm incomes, less formalised land ownership and lower input expenditure, and therefore absorb less institutional credit, which in turn constrains their capacity to develop. The farmers the policy was most intended to protect, tenants, women cultivators, marginal holders and agricultural labourers, are precisely those the collateral requirement excludes.

Strengthening implementation would require decoupling eligibility from land titles, through wider adoption of measures such as Joint Liability Groups, recognition of tenancy and cultivation certificates, and lending against expected cash flows rather than land records. It would also require regionally differentiated targets that direct credit toward lagging states rather than allocating in proportion to existing agricultural output. Loan products are also needed for consumption, medical and education needs, which currently push households to moneylenders. Finally, complementary public investment in irrigation and storage is needed so that credit absorption capacity is built alongside credit supply. Future research could extend this analysis to district-level data, where the intra-state variation masked by state aggregates is likely to be sharpest; track these patterns over time to test whether the gaps are narrowing; and examine loan utilisation and repayment outcomes at the household level to establish whether KCC access translates into reduced informal borrowing rather than borrowing from both sources at once.

5.1 Limitations

First, the analysis is bivariate. Because no controls are applied, an observed association may be driven by other factors, outside the scope of this study.

Second, some comparisons pair two variables that are both unnormalised absolute counts. Larger states will tend to record larger values on both axes for reasons of size alone. Associations involving absolute counts are therefore weaker evidence than those involving rates or percentages, and are treated as such in Section 4.

Third, it is cross-section data for a single year and no inference is drawn about change over time.

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