Improving Access to Institutional Credit for India's Agricultural Sector: A Research Policy Framework with Legal, Administrative, and Fintech Reforms

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Abstract

India's agricultural sector employs roughly 43% of the workforce yet contributes only about 18% of national GDP. The Government of India has articulated the goal of doubling farmers' incomes, a target that hinges critically on expanding the breadth, lowering the cost, and improving the reliability of institutional credit. At present, approximately one quarter of credit is sourced from noninstitutional lenders at interest rates exceeding 20%, exposing marginal and small farmers to debt traps and income volatility. This paper proposes a researchgrounded policy framework that integrates (i) collateral quality enhancement through standardized land record digitization and tenancy formalization; (ii) risksharing and recovery reforms (SARFAESI alignment and credit guarantees); (iii) lowcost, technologyenabled delivery models (business correspondents, MFIs, APIbased data sharing); and (iv) targeted reallocation within Priority Sector Lending to address interstate and intrasector inequities, including agricultureallied activities. We outline an implementation roadmap with stakeholders, timelines, and safeguards. The objective is 100% affordable, accessible, and equitable institutional credit, with measurable improvements in inclusion, delinquency management, and productive investment.

1 Introduction

Agricultural credit shapes input usage, technology adoption, risk management, and ultimately household welfare. While institutional credit penetration has improved, an estimated 25% of farmer borrowing continues to come from noninstitutional sources with usurious rates, especially for nonfarm purposes such as household and medical expenses [MOSPI(2019)]. Strengthening institutional credit mechanisms can raise farmer incomes materiallyrecent estimates suggest gains on the order of 15% in comparable modernization programs [World Bank(2024)].

This paper develops a research policy framework to achieve 100% affordable, accessible, and equitable institutional credit for all farmers. Our approach addresses four binding constraints: (1) collateral quality (fragmented, nonuniform land records and unrecognized tenancy); (2) lender risk and recovery (misaligned legal frameworks and limited guarantees); (3) high delivery frictions in rural markets; and (4) inequitable allocation across regions, farmer types, and agricultureallied activities. We integrate government programs (e.g., AgriStack), statelevel tenancy innovations (e.g., Andhra Pradesh LECs; Odisha BALARAM), regulatory levers (PSL), and fintech rails (secure APIs, unified lending interfaces).

2 Background and Stylized Facts

2.1 Institutional vs. noninstitutional credit

According to the All India Debt and Investment Survey (AIDIS 2019), about 40% of cultivators carry outstanding debt averaging roughly INR 184 903 per household; threequarters of formal credit originates from institutional sources, while onequarter comes from noninstitutional lenders [MOSPI(2019)]. Approximately 67% of noninstitutional loans carry rates exceeding 20%, compared to substantially lower rates in formal channels. Table 1 summarizes the composition and indicative costs.

Table 1: Institutional vs. NonInstitutional Credit (Illustrative Summary from AIDIS 2019)

Credit Source	Share of Total (%)	Typical Interest (% p.a.)
Institutional (Banks, Coops, RRBs)	75	812
NonInstitutional (Moneylenders, Traders)	25	20+

2.2 Regional and distributional inequities

Credit access is geographically uneven. Southern states outperform in perhectare credit disbursement; Eastern and Central states (e.g., Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh) lag behind [Haque and Goyal(2021)]. Within states, small and marginal farmers (who cultivate nearly half of farmland) face lower access rates; only about 41% access formal credit channels in certain samples [Haque and Goyal(2021)]. Agricultureallied activities account for roughly 40% of agricultural output but receive about 10% of agricultural credit [Business Standard(2024)], limiting diversification and income smoothing.

2.3 Unmet demand for nonagricultural uses

A considerable share of noninstitutional borrowing finances household consumption, medical expenses, and education. Institutional credit products remain skewed toward agricultural inputs, leaving nonfarm needs inadequately served [MOSPI(2019)]. This mismatch sustains reliance on highcost informal credit.

3 Policy Gaps and Structural Constraints

3.1 Collateral quality and legal recognition

Incomplete and nonuniform land record digitization, heterogenous state land laws, and limited tenancy recognition restrict the use of land as bankable collateral. Tenant cultivators are excluded from credit, insurance, and subsidies in many states due to lack of legal recognition. Andhra Pradesh's Licensed Cultivators Act (2011) and issuance of Loan Eligibility

Cards (LECs) illustrate a scalable solution to certify cultivation rights for formal lending [Government of Andhra Pradesh(2011)]. Odisha's BALARAM program uses Joint Liability Groups (JLGs) to extend credit to landless cultivators [Department of Agriculture, Odisha(2020)].

3.2 Lender risk, recovery, and information frictions

High rural transaction costs (relative to ticket sizes), limited datasharing, and exclusion of agricultural land from certain recovery frameworks reduce banks' willingness to lend. The SARFAESI Act, central to secured recovery in other sectors, has limited coverage for agricultural land. For loans under INR 600 000, consumer protection and political economy concerns suggest maintaining exclusions while pairing with guarantees; above this threshold, carefully designed inclusion can improve recoveries without jeopardizing vulnerable borrowers [Reserve Bank of India(2020)].

3.3 Delivery frictions and product design

Brickandmortar rural branches are costly. Business Correspondent (BC) networks, microfinance institutions (MFIs), and APIenabled fintech models can lower costtoserve. However, responsible data governance and guardrails against predatory profiling are essential.

3.4 Allocation asymmetries

PSL targets are met in aggregate (e.g., 18% for agriculture; 8% for small/marginal), but distributional inequities persist. Agricultureallied activitieswith steadier cashflows and valueadd potentialremain underfinanced [Business Standard(2024)]. Regionally, perhectare credit in certain lowincome states remains below input requirements.

4 Policy Recommendations

4.1 Enhancing collateral quality and recognition

Centralized Land Reform Council (CLRC)

Establish a CLRC (analogous to the GST Council) with central and state representation to standardize land record digitization, registration workflows, and interoperability.

Digitization of records with geospatial integration

Digitize ownership records (e.g., Khatauni), integrate with geospatial (GIS) layers, and maintain verifiable histories of transactions. Provide secure, audited API access to banks for querybased verification (with consent, purpose limitation, and logging).

Formalizing tenancy with safeguards

Scale *Certificates of Cultivation*/LECs (AP model) to certify cultivation rights for tenants; deploy BALARAMlike JLGs to bridge collateral gaps [Government of Andhra Pradesh(2011), Department of Agriculture, Odisha(2020)]. Allow voluntary land aggregation (optin) mediated by government with anticoercion protections. Decentralize lease certification via Revenue Departments to reduce delays.

4.2 Reducing repayment uncertainty and sharing risk

SARFAESI alignment and thresholds

Bring agricultural land under SARFAESI above INR 600 000 with procedural safeguards (preforeclosure mediation via Lok Adalats; timebound grace; farmerfirst notices). Maintain exclusion below INR 600 000 and protect small/marginal farmers via guarantees.

Credit guarantee fund for agricultural loans

Create a revolving guarantee fund (CGTMSElike) for KCC and input loans below the threshold; subsidize premiums through a shared contribution (e.g., 1% farmer; 1.2% each Centre/State) to crowdin lending and reduce effective risk weights.

4.3 Optimizing lending delivery and product mix

Direct allotment for underserved regions

Assign lowdensity blocks to specific banks by presence and capability (an "anchor bank" model) with measurable coverage targets (e.g., INR 75 000/hectare input credit up to block level), paired with monitoring and incentives.

Lowcost channels: BCs and MFIs

Mandate BC coverage and enable onus/offus interoperability; allow banks to wholesale funds to MFIs at concessional rates (0% wholesale with capped retail spread of 1215% p.a.) subject to transparent pricing audits and borrower protection norms.

Data rails and unified lending interface

Leverage a Unified Lending Interface (ULI) with standardized APIs for datasharing (income proxies, land records, warehouse receipts), embedded consent, and rolebased access. Integrate AgriStack IDs to reduce duplication and information asymmetry [National Portal of India(2024)].

4.4 Addressing disparities in allocation

PSL subcategory for agricultureallied activities

Create a dedicated PSL subcategory (e.g., 7.2% of total PSL) for dairy, fisheries, horticulture, postharvest infrastructure, etc., reflecting their 40% output contribution and smoother cashflows [Business Standard(2024)].

Meeting nonagricultural household needs

Topup KCC limits by 20% as a regulated personal loan window for household, education, and medical needs to reduce dependence on informal lenders for nonfarm expenses [MOSPI(2019)].

5 Implementation Roadmap

5.1 Stakeholders, roles, and sequencing

Table 2: Stakeholder Map and Roles

Stakeholder	Primary Roles
Central Government (CG)	Constitute CLRC; national standards for digitization and APIs; PSL reclassification; guarantee fund design; SARFAESI amendment drafting.
State Governments (SG)	Land record digitization; tenancy certification; decentralized lease issuance; monitoring and grievance redressal.
Scheduled Commercial Banks (SCB)	Anchor bank coverage; BC network buildout; MFI partnerships; credit underwriting aligned to new data rails.
Fintech / Utilities	ULI/AgriStack integration; consent management; secure data exchange; fraud analytics and warehousereceipt tokenization.
Farmer Orgs/Coops	Outreach; JLG formation; mediation; borrower education and grievance channels.

5.2 Indicative timeline

5.3 Safeguards and political economy

- **Farmer protections:** Preforeclosure mediation; repurchase/rehabilitation windows; targeted exclusions for small/marginal farmers under thresholds.
- **Data governance:** Purpose limitation; audit logs; grievance redressal; strong penalties for misuse; independent oversight.

- **Anticoercion in aggregation:** Voluntary participation; explicit informed consent; competition safeguards; ombudsperson.

6 Expected Outcomes and Measurement

We propose program metrics across inclusion, pricing, risk, and productivity:

- *Inclusion:* Share of farmers with active institutional credit; coverage across small/marginal and tenant segments; regional convergence.
- *Pricing:* Weightedaverage interest rate decline; reduction in informal borrowing share.
- *Risk:* NPA rates by product and region; guarantee utilization ratios; resolution times.
- *Productivity:* Input intensity changes; alliedactivity investment volumes; income proxies (where observable).

7 Conclusion

Affordable, accessible, and equitable institutional credit requires reaching beyond headline PSL targets to fix foundational frictions in collateral, recovery, and delivery. The integrated blueprintCLRCled standardization, tenancy formalization, calibrated SARFAESI coverage with guarantees, lowcost channels at scale, ULI/AgriStack data sharing, and PSL reallocation to allied activitiescan crowd in sustainable lending while protecting vulnerable borrowers. Coupled with robust safeguards and transparent measurement, the roadmap can help close regional and distributional gaps and contribute meaningfully to the goal of doubling farmer incomes.

Table 3: Phased Timeline (Illustrative)

Phase	**Key Milestones**
0–6 months	Constitute CLRC; publish national land-digitization and API standards; pilot tenancy certification in three states; design guarantee fund; draft SARFAESI amendments.
6–18 months	Scale digitization ($> 50\%$ of land records); operationalize ULI with major banks; launch PSL sub-category for allied activities; anchor-bank assignments to low-density blocks.
18–36 months	Achieve $\geq 90\%$ digitization; statewide tenancy certification; full BC/MFI coverage; evaluate outcomes and recalibrate PSL targets; stage-2 SARFAESI implementation.

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