



From Farmers to Fintech: The Journey of Cooperative Banks in India

Dr. Prafulla Ranjan

Managing Director and CEO, Haryana State Cooperative Apex Bank Ltd

Abstract-- The article chronicles the evolution of cooperative banks in India from their agrarian roots to their emerging role in the digital economy. Initially formed to counter exploitative moneylenders, these member-owned institutions have grown into a vast network serving farmers, artisans, and small businesses. Key milestones include colonial legislation, post-independence expansion, the formation of NABARD in 1982, and the rise of Urban Cooperative Banks (UCBs), which faced governance challenges leading to regulatory reforms in 2020 and 2022.

The recent digital transformation driven by core banking systems, RuPay Kisan Credit Cards, micro-ATMs, and PACS computerization is integrating cooperatives into India's fintech ecosystem. The creation of the Ministry of Cooperation and initiatives like "Sahakar Sarathi" and sandbox environments for FinTech's signal a policy push toward modernization. The article concludes by emphasizing the need for professional governance, digital literacy, cybersecurity, and inclusive innovation to make cooperative banks central to India's *Viksit Bharat 2047* vision.

I. INTRODUCTION: WHY COOPERATIVES STILL MATTER

Born in the agrarian heartlands to break moneylenders' monopolies, cooperative credit institutions have traveled a remarkable road: from small, member-owned village societies pooling savings for seeds and bullocks, to a diverse ecosystem that handles deposit mobilization, retail credit, agricultural refinancing, warehouse receipts, dairy payments, and, increasingly, digital rails like core banking, micro-ATMs, and UPI. In an era when fintech unicorns grab the headlines, cooperative banks quietly continue to bank the real economy: farmers, artisans, shopkeepers, self-help groups, and micro-entrepreneurs. Their promise is not merely cheaper credit, but a different governance logic "one member, one vote" that ties finance to community stewardship.

This essay traces that journey in five aspects:

- 1) Formative years and legislative framework
- 2) Post-Independence expansion and state intervention
- 3) Consolidation and the creation of NABARD
- 4) The urban cooperative bank (UCB) boom, stress, and regulatory reset; and
- 5) The digital turn—from CBS and RuPay KCCs to national computerization of PACS.

II. COLONIAL LEGISLATION AND THE VILLAGE SOCIETY

Cooperative banking in India originated in the early 20th century with two landmark statutes that recognized the unique character of member-owned credit societies. The Co-operative Credit Societies Act, 1904 laid the first legal track for rural credit cooperatives, followed by the broader Co-operative Societies Act, 1912, which enabled non-credit cooperatives and helped expand the movement. Though these early laws predate the Reserve Bank of India (1935) and modern banking regulation, they planted the principle that organized, collective finance could counter predatory rates and seasonal distress in agriculture. The three-tier short-term cooperative credit structure that evolved—Primary Agricultural Credit Societies (PACS) at village level, District Central Cooperative Banks (DCCBs) at the district level, and State Cooperative Banks (StCBs) at the apex—remains the skeletal frame of rural cooperative finance even today.

A decisive turning point arrived in 1966, when selective provisions of the RBI Act, 1934 and the Banking Regulation Act, 1949 were extended to cooperative banks. This brought them under prudential supervision and enabled deposit insurance coverage—a clear recognition that cooperatives had grown into deposit-taking entities integral to the financial system. This step formalized their role alongside commercial banks and put basic guardrails around governance and depositor protection.

III. NATION-BUILDING AND THE COOPERATIVE: SURVEYS, NATIONALIZATION, AND RURAL CREDIT

Post-Independence, the cooperative promise aligned neatly with developmental priorities: agricultural modernization, rural industrialization, and inclusive credit. The All-India Rural Credit Survey (1954) (and subsequent policy thrusts) emphasized institutional finance for agriculture, in which cooperatives were a central pillar. While bank nationalization in 1969 turbocharged branch expansion of commercial banks, cooperatives remained the closest formal touchpoint for smallholders, given their member-ownership, local knowledge, and seasonal operations.

Functionally, the short-term cooperative credit system handled working capital for inputs and marketing, while a long-term structure (in many states) catered to investment credit through agricultural and rural development banks. Through the 1970s and early 1980s, cooperatives were expected to deliver targeted credit at concessional rates, often under state direction. This dual identitydevelopmental instrument and deposit-taking bank produced both reach and strain: reach because the model was socially embedded; strain because political interference, loan waivers, and weak capitalization impaired balance sheets.

IV. CONSOLIDATION AND AN APEX: THE BIRTH OF NABARD (1982)

Recognizing the need for a specialized apex institution to steer rural credit, refinance cooperatives and Regional Rural Banks (RRBs), and build capacity, Parliament established the National Bank for Agriculture and Rural Development (NABARD) on 12 July 1982. NABARD inherited agricultural credit functions from RBI and refinance operations from the Agricultural Refinance and Development Corporation (ARDC). Over time it became the system's technical anchor—refinancing StCBs and DCCBs, conducting supervisory inspections (with RBI), and investing in training, research, and institutional development. NABARD's creation professionalized oversight, injected liquidity via refinance, and set the stage for later modernization efforts.

V. THE URBAN COOPERATIVE BANK STORY: GROWTH, STRESS, AND A NEW RULEBOOK

While rural cooperatives evolved through the classic three-tier structure, the Urban Cooperative Banks (UCBs) tell a parallel story of member-based finance for traders, SMEs, and lower-income urban households. UCBs grew rapidly in the 1990s and 2000s as local engines of savings and retail credit. But heterogeneity in governance and risk management, related-party exposures, and rapid growth without commensurate controls led to periodic stress events.

A watershed came with the Banking Regulation (Amendment) Act, 2020, which expanded RBI's powers over cooperative banks on matters including management, audit, capital, and reconstruction/amalgamation. In effect, UCBs moved much closer to the prudential regime applicable to commercial banks, addressing long-standing gaps in oversight and resolution.

In 2022, RBI released a revised regulatory framework for UCBs, adopting a four-tier categorization anchored in deposit size, and tightening norms on net worth, capital adequacy, exposure limits, and compliance functions (including the requirement of a Chief Compliance Officer in larger UCBs). This risk-sensitive architecture replaced a cruder two-tier view and aimed to align regulation with scale and complexity. The framework was notified through circulars in July and December 2022 and has since guided provisioning and supervisory expectations.

The sector remains significant in footprint. As per a PIB update (August 19, 2025), India has 1,457 UCBs, alongside 34 State Cooperative Banks, 351 DCCBs, and one industrial cooperative bank—together depicting a large, decentralized network under RBI/NABARD oversight.

VI. INCEPTION OF MINISTRY OF COOPERATION

A measure of the cooperative sector's renewed policy is the creation of a dedicated Ministry of Cooperation in July 2021, with the vision "Sahkar se Samriddhi" (prosperity through cooperation). The ministry's agenda spans legal reforms, capacity building, digitization, national databases, and programmatic support to strengthen PACS and broaden cooperative enterprise beyond credit—into dairy, fisheries, storage, and retail. The Ministry's portal aggregates initiatives such as the World's Largest Grain Storage Plan in the cooperative sector, model by-laws, and PACS-linked schemes that converge with agriculture, food processing, and rural livelihoods.

A particularly consequential mission is the computerization of PACS on a common ERP linked to StCBs and DCCBs—an overhaul designed to standardize accounting, improve MIS, support interoperability, and enable digital products (KCC cards, micro-ATMs, DBT). Implemented by NABARD with funding support from the Ministry, the project is slated across 2022-23 to 2026-27, with training already rolled out to tens of thousands of PACS staff. The architecture brings even village-level societies into the core banking and payments universe, setting the foundation for credit underwriting based on real-time data rather than paper ledgers.

Parallel schemes plan to establish two lakhs new multipurpose PACS (including dairy and fisheries societies) across Panchayats and to liquidate defunct ones to make room for healthier entities. The policy thrust is clear: more societies, better governed, digitally capable, and economically diversified.



International Journal of Recent Development in Engineering and Technology

Website: www.ijrdet.com (ISSN 2347-6435(Online)) Volume 15, Issue 01, January 2026

VII. ANATOMY OF THE COOPERATIVE BANKING SYSTEM

To understand how “farmers to fintech” fits together, it helps to visualize the system as two intertwined streams:

- *Short-term rural credit (three-tier):*

PACS → DCCB → StCB, serving seasonal needs—Kharif/Rabi inputs, crop marketing, short-cycle working capital. PACS are the last-mile face and often double up as outlets for inputs, procurement, or even PDS services in some states. DCCBs bridge local liquidity with regional risk pooling; StCBs coordinate state-level policy and treasury. NABARD refinances and supervises (with RBI), and states often remain stakeholders in governance.

- *Urban cooperative banks (UCBs):*

Community-rooted banks serving MSMEs, traders, and households, mobilizing deposits and offering retail and SME credit, payments, and locker/ancillary services. The revised four-tier framework aligns regulatory expectations with deposit scale, bringing stronger capital and compliance to larger UCBs.

VIII. THE FINTECH TURN: FROM LEDGERS TO RAILS

Cooperatives are not new to technology: many StCBs and DCCBs adopted core banking solutions (CBS) a decade ago. But three developments since the mid-2010s have shifted the frontier:

- a. *Digital Public Infrastructure (DPI)*

India’s stack—Aadhaar, eKYC, UPI, and DBT—lowered onboarding and payment costs, enabling even small institutions to offer convenient and user-friendly solutions in a timely manner. For cooperative banks, this means better KYC, faster credit delivery, and real-time reconciliation, if systems are integrated.

- b. *RuPay Kisan Credit Cards (KCC) & Micro-ATMs*

PACS and DCCBs are rolling out RuPay-enabled KCCs and Bank Mitras with micro-ATMs so farmers can withdraw cash, make purchases, and view balances—bridging the last mile between the farmgate and a digital wallet. Ministry resources explicitly list “Bank Mitra, RuPay Kisan Credit Card & micro-ATM” among cooperative-linked initiatives, highlighting an intent to mainstream these digital tools across the co-op network.

- c. *PACS Computerization*

Once PACS operate on a common ERP, they can plug into APIs for KCC renewals, e-NWR (negotiable warehouse receipts), crop insurance, and e-commerce tie-ups.

The ERP also supports standardized accounting, audit trails, and MIS—making it feasible to scale credit responsibly and attract refinance or blended finance. The scheme’s 2022-27 timeline underscores that this is not a pilot but a systemic upgrade.

IX. FRICTIONS ON THE ROAD TO FINTECH

- i. *Governance and Professionalization*

Member control must coexist with professional risk management. The RBI’s enhanced powers (post-2020 amendment) and the four-tier UCB norms are necessary but not sufficient; they must be matched by robust internal controls and credible board oversight at every tier.

- ii. *Capital and Consolidation*

Smaller cooperatives face capital constraints, concentration risks, and limited income fee. A mix of consolidation, tier-appropriate capital norms, and shared services (IT, audit, cybersecurity) will be needed to protect depositors and keep credit flowing.

- iii. *Core Systems and Cybersecurity*

ERP/CBS adoption is only step one; cyber hygiene, regular VAPT and business continuity planning are essential as customer interfaces go digital. The revised UCB framework’s emphasis on a Compliance Function and CCO role in higher tiers points the way for the rest of the cooperative universe to emulate.

- iv. *Product Modernization*

To compete with NBFCs/fintechs, cooperatives need crop-cycle linked EMIs, invoice-discounting for FPOs, and sachet insurance. ERP rails make such products feasible; partnerships can accelerate rollout.

- v. *Data and Credit Analytics*

Digitized PACS ledgers plus satellite/weather/crop-cut data can enable alternative credit scoring. The trick is to translate community knowledge into quantified risk, not replace it.

X. FINTECH INNOVATIONS TO BE ADOPTED IN COOPERATIVE BANKING

- i. *Digital Infrastructure & Integration*

- Implement Core Banking Solutions (CBS) across StCBs, DCCBs, and PACS for seamless connectivity.
- Create a common fintech platform at the StCB level to unify all cooperative banks under one digital ecosystem.

- ii. *Customer Onboarding & Identity Verification*
 - Introduce digital KYC (e-KYC) and Aadhaar-based verification at PACS level.
 - Build farmer/member registries with biometric authentication.
 - Integrate land records and crop data with blockchain for tamper-proof ownership and collateral verification.
- iii. *Credit & Lending Innovation*
 - Deploy AI-driven credit scoring models using alternative data (crop yield, transaction history, mobile usage).
 - Provide digital crop loans, micro-loans, and working capital via mobile apps linked to StCBs.
- iv. *Payments & Transactions*
 - Enable UPI, RuPay cards, and mobile wallets at PACS/DCCB level for rural customers.
 - Introduce micro-ATMs and Aadhaar-enabled Payment Systems (AePS) in villages.
 - Digitize subsidy transfers, loan disbursements, and repayments through direct benefit transfer (DBT).
- v. *Financial Products & Services Expansion*
 - Offer micro-insurance, pension, savings, and investment products digitally.
 - Build fintech partnerships for weather-based insurance, agri-market linkages, and supply chain financing.
 - Provide digital advisory services (crop planning, input purchases, market price updates).
- vi. *Capacity Building & Inclusion*
 - Train cooperative staff in digital literacy and fintech adoption.
 - Run financial literacy programs for farmers and rural members on mobile banking
 - Develop vernacular mobile apps for ease of use

XI. THE FUTURE OF COOPERATIVE BANKING: TOWARDS VIKSIT BHARAT 2047

The digital transformation of rural cooperative banks is a strategic move that positions them as vital catalysts for India's economic development, particularly in the context of the Viksit Bharat vision. The ultimate goal of the national computerization projects is to transform the PACS from simple credit societies into Multi-Service Centers (MSCs).

These hubs will offer a wide array of products and services beyond traditional banking, including financial services, market linkages, and agricultural support, thereby covering the entire gamut of rural livelihood activities. This redefines the role of the cooperative bank from a passive financial intermediary to an active and dynamic platform for regional economic development, a crucial step in bridging the urban-rural divide.

This vision is underpinned by a collaborative ecosystem that is institutionalizing innovation. The RBI has given its in-principle approval for NABARD to establish 'Sahakar Sarathi', a shared service entity designed to provide long-term technological support to cooperative banks. Additionally, NABARD is creating a sandbox environment that allows fintechs to access anonymized data and develop solutions specifically tailored to rural needs. These initiatives represent a proactive regulatory approach that moves beyond mere oversight to actively fostering innovation and collaboration. By providing a structured environment for partnerships, the government is creating a sustainable mechanism for the cooperative sector to adapt and evolve without needing to build all the technological expertise in-house.

The journey from farmers to fintech is a complex, multi-layered process that requires a holistic approach and a clear vision. To ensure sustainable digital growth and financial empowerment, several strategic recommendations are essential. These include continued government and regulatory investment in rural infrastructure and targeted digital literacy programs, as well as the strengthening of cybersecurity measures through shared platforms and specialized training. It is also vital to promote a culture of transparency and modern governance within the cooperative structure to regain public confidence. By embracing these measures and fostering more public-private partnerships, the cooperative banking sector can truly empower India's rural population and fulfill its historical mandate in a new digital era.

REFERENCES

- [1] The Co-operative Credit Societies Act, 1904.
- [2] The Co-operative Societies Act, 1912.
- [3] Reserve Bank of India Act, 1934. Ministry of Law and Justice.
- [4] Banking Regulation Act, 1949. Ministry of Law and Justice.
- [5] Extension of selected provisions of the Banking Regulation Act, 1949 to cooperative banks. RBI.
- [6] All-India Rural Credit Survey Report 1954. Reserve Bank of India.
- [7] National Bank for Agriculture and Rural Development Act, 1981. Ministry of Law and Justice.
- [8] National Bank for Agriculture and Rural Development. (2022). Role of NABARD in cooperative bank supervision and refinance. NABARD Publications.



International Journal of Recent Development in Engineering and Technology

Website: www.ijrdet.com (ISSN 2347-6435(Online) Volume 15, Issue 01, January 2026)

- [9] Banking Regulation (Amendment) Act, 2020. Ministry of Law and Justice.
- [10] Revised regulatory framework 2022 for Urban Cooperative Banks. RBI Circulars.
- [11] Status of cooperative banks in India - 2025, August 19
- [12] Ministry of Cooperation. (2021). Sahkar se Samriddhi: Vision document. Government of India.
- [13] National Bank for Agriculture and Rural Development. (2023). Computerisation of Primary Agricultural Credit Societies (PACS): Implementation framework. NABARD.
- [14] Financial inclusion and digital payment systems in cooperative banks. RBI Reports2023.

Author Detail:

Name – Dr. Prafulla Ranjan

Designation – Managing Director and CEO, Haryana State Cooperative Apex Bank Ltd,

Contact Details – md@harcobank.org.in, 9918901111

Brief Author Bio –

Dr. Prafulla Ranjan, currently serving as the Managing Director and CEO of Haryana State Cooperative Apex Bank Ltd, is a distinguished professional with a robust background in management, banking, and academia. Holding a Ph.D. in Management since 2010, his career objective emphasizes being an invaluable asset to organizations and prioritizing stakeholder welfare. With an impressive educational portfolio, including an M.B.A. in Finance and Marketing and CAIIB. Dr. Ranjan boasts a comprehensive skill set. His tenure at Jharkhand State Cooperative Bank Ltd as MD and CEO saw the successful merger of seven District Central Cooperative Banks, showcasing adept regulatory navigation.

Dr. Ranjan's contributions in banking, particularly at Syndicate Bank, IndusInd Bank and ICICI Bank Limited, highlight his prowess in regional administration, portfolio management, and strategic planning. His multifaceted expertise in academia, banking, and research establishes him as a dynamic and accomplished professional committed to making enduring contributions to both sectors.