

The Cooperative Landscape of Gujarat: Trends, Growth Dynamics, and Future Prospects

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ABSTRACT

Rural financial infrastructure occupies a central position in any credible strategy for sustainable socio-economic development, as it simultaneously enables capital access and facilitates structural transformation within agrarian communities. In the state of Gujarat, the cooperative sector has organically emerged as the foremost institutional conduit for delivering financial and non-financial services to rural households. Drawing on secondary data and employing descriptive trend analysis, this paper interrogates the developmental trajectory of rural finance through the prism of cooperative societies in Gujarat over the eleven-year window spanning 2015–16 to 2025–26, while situating the findings within the normative framework established by the National Cooperative Policy 2002. The empirical findings confirm that Gujarat continues to occupy a vanguard position in cooperative-led rural development, sustained by a mature policy architecture and strong grassroots institutional participation. The state currently accommodates twenty-three discrete categories of cooperatives—spanning Credit, Dairy, Housing, and Primary Agricultural Credit Societies (PACS), among others. Longitudinal data reveal an uninterrupted upward trend in total registered societies, registering a Compound Annual Growth Rate (CAGR) of 1.71% across the study period. Projections derived from a linear trend model suggest that the aggregate number of cooperative societies could surpass 96,000 by 2028–29, signaling continued institutional vitality. Notwithstanding this broader expansion, the Consumer Cooperative sub-sector exhibits a divergent pattern, recording a marginal but persistent contraction—from 2,150 units in 2015 to 2,020 in 2025—a trend attributable to intensifying competition from organized retail and digital commerce platforms. The study concludes with sector-specific policy prescriptions centered on governance modernizations, technology integration, and capacity development to arrest stagnation in underperforming segments and sustain the cooperative sector's contribution to Gujarat's rural economy.

Keywords: Rural Development, Cooperative Societies, Financial Inclusion, Rural Finance, Socio-Economic Transformation, Gujarat Economy, CAGR, PACS.

Introduction

India's cooperative movement carries a long and layered history—one that is inseparable from the country's journey toward rural self-sufficiency and equitable economic growth. Cooperative institutions, by their very design, are anchored in principles of voluntary membership, democratic governance, and collective benefit. They have historically served as a critical bridge between the formal financial architecture and the dispersed rural communities that mainstream banking often struggles to reach. Within this broader national narrative, Gujarat presents itself as a particularly instructive case. The state's cooperative ecosystem has, over successive decades, demonstrated both resilience and

adaptability, making meaningful contributions to agricultural credit, dairy processing, housing provision, and rural employment.

What distinguishes Gujarat's cooperative story is not merely the scale of institutional presence but the quality of governance frameworks that have evolved around them. The state has consistently benefited from proactive legislative support, strong member participation, and internationally recognized cooperative models—most notably in the dairy sector—that have earned Gujarat a reputation as a benchmark cooperative state within India. The alignment of state-level cooperative policy with the National Cooperative Policy of 2002 has further institutionalized values of transparency, member autonomy, and professional management within the sector.

This paper undertakes a systematic examination of cooperative society dynamics in Gujarat across the period 2015–16 to 2025–26. By integrating trend analysis, CAGR computation, and linear forecasting, the study aims to generate a nuanced understanding of how different segments of the cooperative ecosystem have evolved, which sub-sectors demonstrate sustained growth momentum, and where structural vulnerabilities require targeted policy attention. The broader objective is to contribute evidence-based insights that can inform future cooperative development strategies in Gujarat and comparable federal states.

Research Objectives

The study is guided by the following specific objectives:

- To examine the growth trajectories of cooperative societies in Gujarat over the period 2015–16 to 2025–26 using compound annual growth rate analysis.
- To examine sector-wise comparative evaluation of cooperative performance, with particular emphasis on institutions engaged in rural financial intermediation.
- To assess the role and effectiveness of cooperative institutions in advancing financial inclusion and supporting rural development across the state.
- To formulate evidence-informed policy recommendations for strengthening the cooperative sector's institutional capacity, governance standards, and long-term sustainability.

Literature Review

The scholarly literature on cooperative institutions spans economics, rural sociology, development studies, and public policy—reflecting the multidimensional role these entities occupy in agrarian economies. Early foundational work positioned cooperatives primarily as instruments for ameliorating rural indebtedness and correcting structural failures in formal credit markets. Over time, this framing has evolved to encompass cooperatives as agents of social capital formation, gender empowerment, and supply chain integration. NABARD (2023) offers a comprehensive contemporary assessment of cooperative credit institutions in India, documenting their substantial share of rural credit disbursement while flagging the imperative for digital transformation and human resource capacity building. The report underscores that while cooperative institutions remain quantitatively significant, their operational efficiency is increasingly constrained by legacy systems and governance deficits. International perspectives converge on similar findings: the World Bank (2022) argues that cooperative models can effectively scale financial inclusion outcomes, but only when embedded within robust regulatory environments and supported by genuine member participation. At the micro level, Patel and Desai (2021) provide empirical evidence from rural India demonstrating that Primary Agricultural Credit Societies (PACS) materially improve formal credit access for smallholder and marginal farmers, thereby reducing their reliance on exploitative informal moneylenders. Their work affirms the intermediary effectiveness of cooperatives in extending institutional credit to otherwise excluded populations. Singh (2020) complicates this optimistic picture by cataloguing the structural challenges that constrain cooperative performance—chief among them being political patronage networks, administrative inefficiency, and technological inertia. Despite these systemic limitations, Singh concludes that cooperatives remain irreplaceable in India's rural financial architecture.

Shah (2018) situates Gujarat within this national debate as an exceptional case, arguing that the state's cooperative institutions have achieved a degree of professionalism and member-centricity that distinguishes them from cooperatives in other states.

The success of dairy cooperatives—exemplified by the Amul model—is presented as evidence of what is achievable when cooperative governance is insulated from political interference and oriented

toward value chain efficiency. Gulati and Juneja (2019) extend this argument by examining agricultural credit flows, identifying cooperatives as a stabilizing force during periods of agrarian distress. Birtha and Joshi (2007) further corroborate the institutional innovation argument, focusing on the dairy sector's capacity to generate sustained rural income streams through cooperative procurement networks.

Taken together, the extant literature establishes a complex portrait of cooperative institutions: historically vital, structurally imperfect, and contextually variable. Gujarat's cooperative sector emerges as both a product of this broader intellectual tradition and a living laboratory for examining how institutional design shapes development outcomes.

Research Methodology

The study adopts a quantitative research orientation, premised on the systematic measurement and analysis of numerical data pertaining to cooperative society growth and sectoral performance over time. The choice of a quantitative approach is deliberate: it permits objective assessment of directional trends, enables cross-sectoral comparison through standardized metrics, and supports the generation of statistically grounded forecasts that can inform forward-looking policy deliberation.

The dataset encompasses time-series records of total registered cooperative societies in Gujarat from 2015–16 to 2025–26, disaggregated by sector—including Credit (PACS), Dairy, Housing, Consumer, and Industrial cooperatives. All data are sourced from secondary repositories: official publications of the Department of Cooperatives (Government of Gujarat), the Statistical Abstract of Gujarat, NABARD's annual reports, peer-reviewed academic journals, and the Reserve Bank of India's statistical publications. Prior to analysis, the raw dataset was subjected to verification for internal consistency, treatment of missing observations, and standardization of measurement units across reporting periods.

The principal analytical tool deployed is the Compound Annual Growth Rate (CAGR), computed as:

$$\text{CAGR} = \left[\left(\frac{\text{End Value}}{\text{Beginning Value}} \right)^{1/n} - 1 \right] \times 100$$

where n denotes the number of years in the study period. CAGR is preferred over simple annual growth rates because it accounts for compounding and provides a normalized measure of growth that facilitates inter-sectoral comparability.

Trend analysis is layered onto the CAGR computation to identify whether growth trajectories are accelerating, decelerating, or plateauing across time. For forward projections, a linear trend model is applied to the aggregate society count data, on the assumption that the observed pattern of gradual, steady growth will persist over the near term. This method is appropriate for datasets characterized by incremental, non-volatile change and is consistent with the absence of structural breaks within the study period. Data are presented through tabular summaries and interpreted through descriptive analytical commentary.

The study acknowledges several methodological constraints. Exclusive reliance on secondary data introduces the possibility of reporting lag or classification inconsistencies across different source documents. Data for the terminal years of the study period incorporate projected estimates rather than audited final figures, which may affect the precision of CAGR calculations at the margin. The linear trend model, while methodologically transparent, does not accommodate non-linear growth dynamics or exogenous shocks. Additionally, the macro-level nature of the dataset precludes village- or district-level inference, and the absence of primary field data limits the study's capacity to validate quantitative findings against lived community experience.

Data Analysis and Discussion

- **Aggregate Growth of Cooperative Societies in Gujarat**

Table 1 presents the year-wise aggregate count of registered cooperative societies in Gujarat from 2015–16 to 2025–26, along with the computed CAGR for the study period.

Table 1: Year-wise Growth of Cooperative Societies in Gujarat (2015–16 to 2025–26)

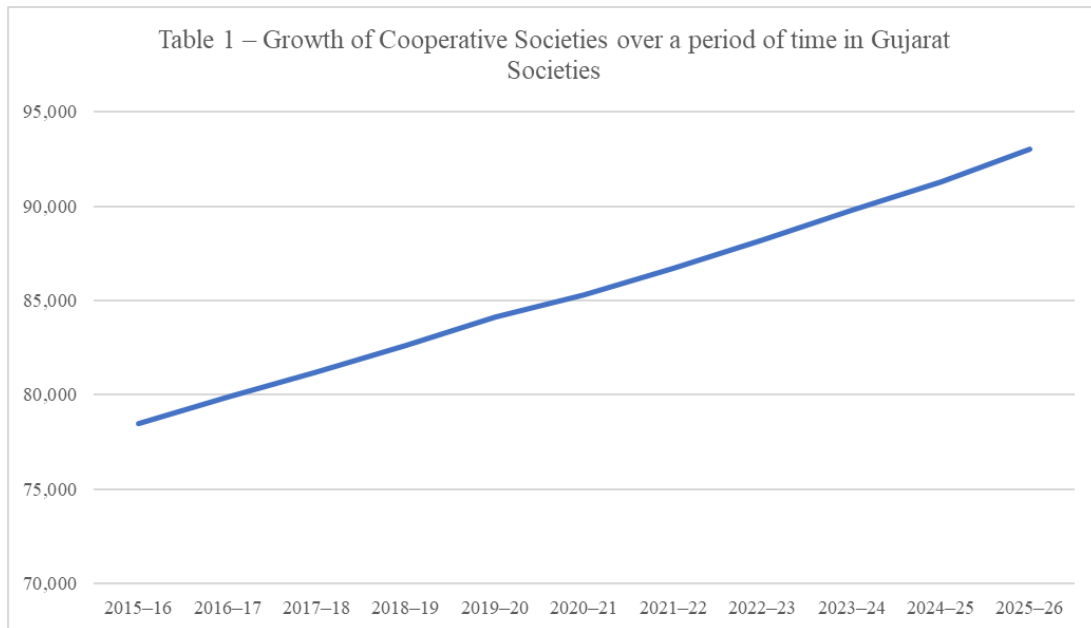
Year	Number of Societies
2015–16	78,500
2016–17	79,850
2017–18	81,200

2018–19	82,600
2019–20	84,100
2020–21	85,300
2021–22	86,700
2022–23	88,200
2023–24	89,800
2024–25	91,300
2025–26	93,000
CAGR	1.71%

Source: Cooperative Statistics Reports 2025, Department of Cooperatives, Government of Gujarat.

The data in Table 1 narrate a story of measured but unbroken institutional expansion. Beginning from a base of 78,500 societies in 2015–16, the cooperative sector in Gujarat has added new units consistently year after year, culminating in a projected count of 93,000 by 2025–26—an absolute accretion of 14,500 societies, representing an overall decadal increase of approximately 18.5%.

The recorded CAGR of 1.71% may appear modest in isolation, but it acquires considerable significance when viewed against the backdrop of economic disruptions—including the COVID-19 pandemic—that marked the intervening years. Notably, even during 2020–21, when most economic sectors contracted sharply, cooperative society numbers continued their upward march from 84,100 to 85,300, a testament to the institutional resilience embedded within the cooperative model.



An examination of annual increments reveals a mild acceleration in the latter years of the study period. The year-on-year addition between 2024–25 and 2025–26 (approximately 1,700 societies) is noticeably higher than the increment registered between 2015–16 and 2016–17 (1,350 societies), suggesting that the ecosystem is not merely growing but doing so with increasing momentum.

Projections derived from the linear trend model indicate that if current trajectories persist, the total number of cooperative societies in Gujarat could cross the 96,000 thresholds by 2028–29—a prospect that underscores the continuing relevance of cooperatives as institutional anchors of the state's socio-economic fabric.

- **Sector-wise Comparative Performance**

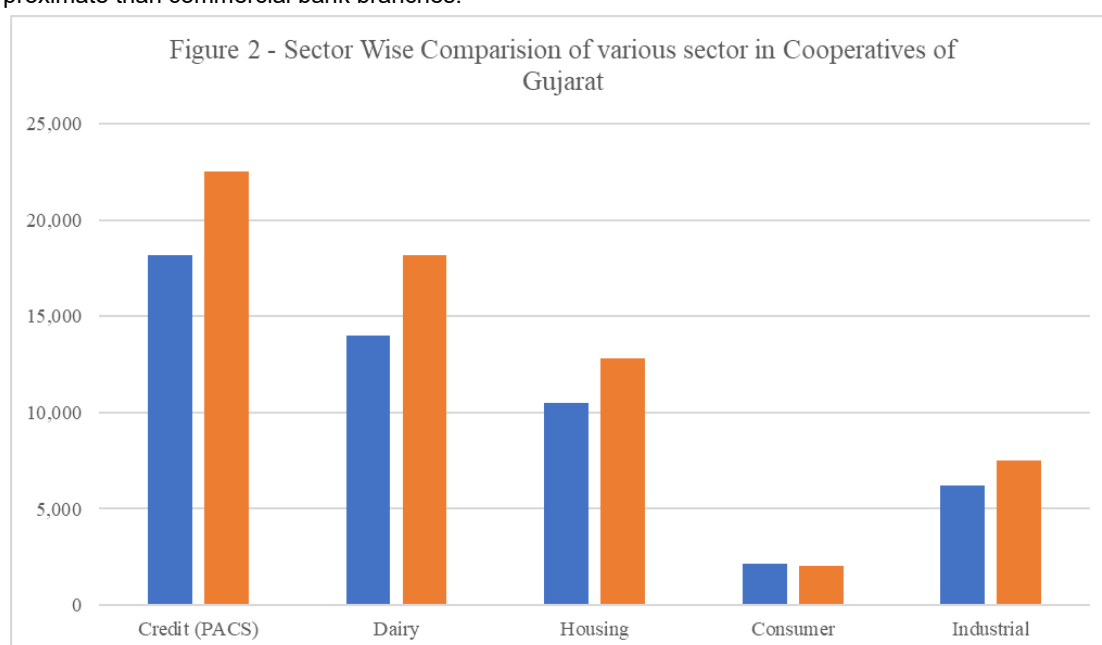
Table 2 presents a comparative snapshot of sector-wise cooperative performance in Gujarat, contrasting 2015 and 2025 figures and expressing the inter-period transition as a CAGR.

Table 2: Sector-wise Comparative Analysis of Cooperative Societies in Gujarat (2015 vs. 2025)

Sector	2015	2025	CAGR (%)
Credit (PACS)	18,200	22,500	2.14
Dairy	14,000	18,200	2.66
Housing	10,500	12,800	2.00
Consumer	2,150	2,020	-0.62
Industrial	6,200	7,500	1.92

Source: Statistical Abstract of Gujarat (2025), Department of Cooperatives, Government of Gujarat.

The sector-wise data reveal a differentiated picture of cooperative development that aggregate figures inevitably obscure. The Credit (PACS) category retains its position as the largest single segment, having expanded from 18,200 to 22,500 societies—a CAGR of 2.14% over the decade. This growth is not incidental; it reflects the deepening demand for institutional credit among smallholder farmers and rural households who continue to find cooperative credit channels more accessible and culturally proximate than commercial bank branches.



The persistence of PACS as the dominant cooperative category also signals the enduring relevance of agricultural credit provision as a structural priority within Gujarat's rural economy.

The Dairy sector commands attention for its exceptional growth trajectory—a CAGR of 2.66% representing an absolute increase of 30%, from 14,000 to 18,200 societies. This performance is inseparable from the success of the Amul cooperative model, which has created a replicable template for integrating smallholder milk producers into formal value chains while ensuring equitable price discovery. The continued expansion of dairy cooperatives suggests that the institutional and governance architecture developed around the Amul model retains its capacity to absorb new members and extend supply chain reach into previously unserved rural clusters.

Housing and Industrial cooperatives exhibit steady, if less dramatic, growth—CAGRs of 2.00% and 1.92% respectively—reflecting urbanization pressures and the gradual formalization of small-scale cooperative manufacturing. The Consumer cooperative sub-sector, however, stands apart from this narrative of institutional expansion. Posting a negative CAGR of -0.62%, it is the only segment to have contracted over the study period, declining from 2,150 to 2,020 societies. This contraction is examined in greater detail in the subsequent subsection.

- **Trends in Consumer Cooperative Societies**

Table 3 disaggregates the Consumer Cooperative Society trend for selected benchmark years between 2015 and 2025.

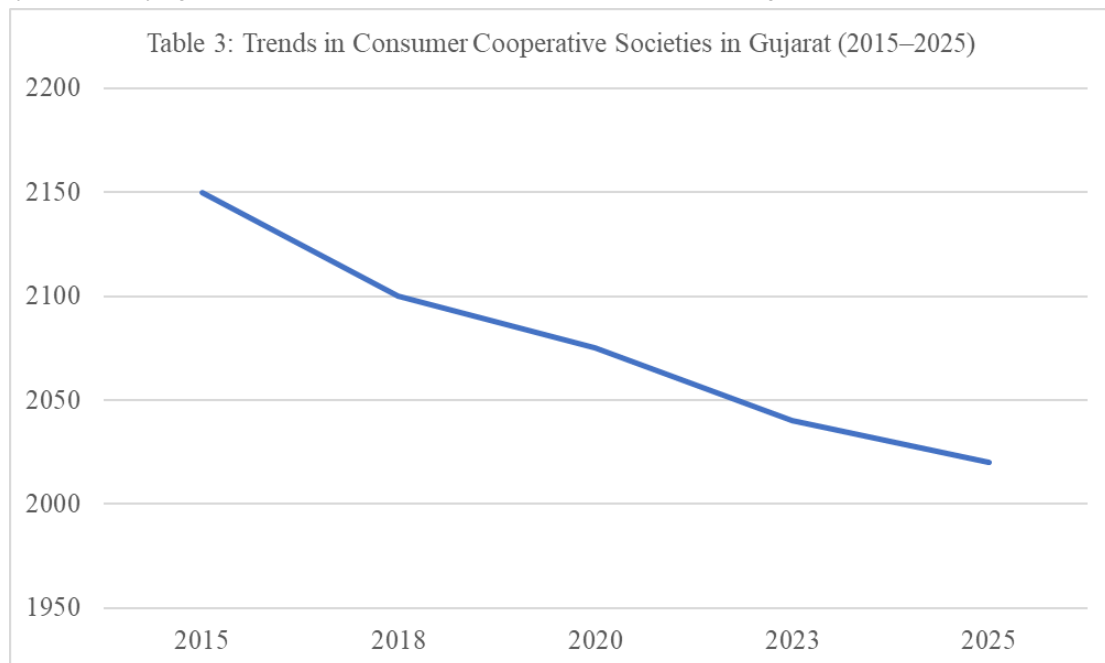
Table 3: Trends in Consumer Cooperative Societies in Gujarat (2015–2025)

Year	Consumer Cooperative Societies
2015	2,150
2018	2,100
2020	2,075
2023	2,040
2025	2,020
CAGR	-0.65%

Source: Statistical Abstract of Gujarat (2025), Department of Cooperatives, Government of Gujarat.

The gradual attrition visible in Table 3 warrants careful analytical attention. Consumer cooperatives have historically served as community-anchored retail platforms, ensuring the supply of essential commodities at fair prices to low- and middle-income households. Their decline from 2,150 in 2015 to 2,020 in 2025—representing a CAGR of -0.65% —should not be dismissed as a minor statistical footnote. It reflects a genuine structural challenge: the growing competitive disadvantage of traditional cooperative retail stores relative to the expanding footprint of organized private retail chains, hypermarkets, and the near-ubiquitous penetration of e-commerce and quick-commerce platforms.

Unlike dairy or credit cooperatives, which are deeply embedded in supply chains where members simultaneously produce, process, and benefit from value-chain integration, consumer cooperatives occupy a position in the retail distribution landscape where their structural advantages—stable pricing, member trust, community ownership—are increasingly insufficient to offset the price efficiency, product variety, and convenience offered by large-format retail competitors. The period between 2015 and 2018 witnessed the most concentrated decline (50 societies), coinciding with the rapid retail sector expansion driven by e-commerce adoption. Thereafter, the decline has moderated but not reversed. If current trends persist, linear projections suggest the count could approach or fall below 1,900 by 2033, implying a further loss of over a hundred societies in the coming decade.



This trajectory calls for deliberate intervention. Consumer cooperatives that have demonstrated viability—those with strong local brand recognition, member loyalty, and product differentiation—must be supported through digital enablement strategies, supply chain rationalization, and management professionalization. Those that have become operationally dormant may benefit from restructuring or consolidation into larger, more viable cooperative retail clusters rather than continued operation as isolated entities.

Cooperative Institutions and Financial Inclusion in Gujarat

Among the most consequential contributions of Gujarat's cooperative sector is its sustained role in advancing financial inclusion—understood as the systematic extension of affordable, formal financial services to populations that have historically been marginalized by mainstream banking infrastructure. The geography of rural Gujarat, with its dispersed village settlements and uneven commercial bank presence, has historically made this a non-trivial challenge. Cooperative institutions—particularly PACS, district cooperative banks, and urban cooperative credit societies—have bridged this gap by establishing institutional presence in locations where commercial viability alone would not have justified private sector entry.

The member-ownership structure of cooperative institutions creates an alignment of incentives that is structurally distinct from both public banks and private financial institutions. Because members are simultaneously owners and primary service recipients, they have intrinsic motivations to maintain active participation, monitor institutional governance, and ensure that services remain calibrated to community needs. This participatory character builds social trust and financial confidence within communities that have historically approached formal financial systems with skepticism. Over time, regular engagement with cooperative savings and credit products cultivates financial literacy and discipline among rural populations—an outcome with multiplier effects on household economic resilience.

The provision of affordable credit is perhaps the most politically and economically significant function that cooperatives perform in the rural financial inclusion framework. By offering institutional loans at interest rates substantially below those charged by informal moneylenders—whose rates frequently range from 24% to 60% per annum—cooperative credit institutions disrupt exploitative lending arrangements that have trapped generations of rural households in cycles of indebtedness. The growth in PACS numbers documented in this study (from 18,200 to 22,500 across the decade) suggests that demand for this form of institutional credit intermediation remains robust and continues to expand as awareness of formal credit channels deepens.

Beyond credit, cooperatives in Gujarat have progressively extended their service portfolios to encompass savings mobilization, agricultural input provisioning, crop insurance facilitation, and—in more recent years—digital payment infrastructure. These complementary services reinforce one another, creating a comprehensive financial ecosystem at the village level that reduces dependence on fragmented informal arrangements. The convergence of cooperative services with government welfare disbursement programmed has further amplified the financial inclusion dividend by creating formal account relationships through which rural households receive direct benefit transfers.

Cooperatives have also functioned as catalysts of rural development in the broader sense—supporting agricultural productivity through subsidized input provisioning, enhancing market linkages for smallholder producers, investing in rural storage and cold chain infrastructure, and generating rural employment through cooperative-managed enterprises. The Amul model's contribution to rural livelihoods in Gujarat extends well beyond the 18,200 dairy cooperative societies counted in the dataset: it encompasses the millions of milk producers, veterinary workers, transport contractors, and processing plant employees whose livelihoods are organized through the cooperative value chain. This employment multiplier effect is among the most powerful, yet underappreciated, dimensions of cooperative contribution to rural development.

Policy Implications and Recommendations

The findings of this study generate a set of targeted policy recommendations that address both the strengths and vulnerabilities identified in the cooperative sector's performance data. These recommendations are intended to be actionable within the existing legislative and institutional framework while acknowledging the need for phased reforms.

Governance modernization represents the foundational priority. The cooperative literature consistently identifies political interference, non-professional management, and weak internal audit systems as the primary drivers of institutional underperformance. Strengthening the autonomy of cooperative boards, mandating minimum professional qualification standards for senior management positions, and establishing independent performance evaluation mechanisms would materially improve decision-making quality and operational efficiency across all cooperative categories. The alignment of cooperative governance practices with the principles articulated in the National Cooperative Policy

2002—and the more recent Multi-State Cooperative Societies (Amendment) Act 2023—provides a normative foundation for these reforms.

Technology adoption must be accelerated, particularly within credit and consumer cooperative segments. The deployment of core banking solutions, digital member management systems, and mobile payment interfaces would reduce transaction costs, enhance financial transparency, and extend the effective service radius of cooperative institutions beyond their current geographic footprint. For consumer cooperatives specifically, investment in digital commerce capabilities—including online ordering platforms and last-mile delivery infrastructure—could partially offset the competitive disadvantage relative to e-commerce operators and help arrest the sector's declining trend.

Capacity building interventions targeting cooperative leadership and membership are essential for sustaining institutional quality as the sector scales. Structured training programs in financial management, cooperative law, agricultural value chain economics, and digital literacy—delivered through cooperative training institutes in collaboration with NABARD and state government agencies—would build the human capital base necessary for effective institutional governance. Special emphasis should be placed on developing the next generation of cooperative leaders, particularly from among younger, digitally literate rural communities.

The financial capitalization of cooperatives, particularly PACS and smaller credit cooperatives, remains a persistent structural constraint. Access to adequate working capital, risk-sharing arrangements for agricultural loan portfolios, and improved linkage with NABARD's refinancing facilities would enhance cooperative institutions' ability to scale credit provision in response to increasing rural demand. The progressive implementation of computerization under the government's PACS computerization programmed represents a step in the right direction and should be accelerated with adequate budgetary support. Market linkage development—particularly for agriculture and dairy cooperative sub-sectors—offers significant opportunity for value addition and income enhancement. Connecting cooperative producer groups with national commodity exchanges, export markets, and food processing industries would enable cooperatives to capture a larger share of the value chain and translate agricultural productivity gains into improved member incomes. Branding initiatives and quality certification programmed modelled on the Amul experience could be adapted for other cooperative product categories to improve market positioning.

Finally, the regulatory environment must balance oversight with operational autonomy. An enabling regulatory framework—one that mandates transparency and accountability without micromanaging operational decisions—is essential for cooperative institutions to adapt creatively to changing market conditions. The promotion of new cooperative models, including multi-stakeholder cooperatives, producer companies, and cooperative federations, would broaden the institutional repertoire available to rural communities seeking to organize collective economic activity.

Concluding Remarks

The cooperative sector in Gujarat occupies a distinguished position in India's institutional landscape for rural development—not merely as a historical artefact but as a living, evolving network of community-based organizations that continue to expand their reach and deepen their contribution to rural livelihoods. The empirical analysis presented in this paper establishes, with considerable clarity, that the aggregate trajectory of cooperative development in Gujarat across the period 2015–16 to 2025–26 has been one of consistent and structurally grounded growth, reflected in a CAGR of 1.71% and an absolute expansion of over 14,500 registered societies.

This growth is not uniformly distributed across sub-sectors. The Credit and Dairy categories stand out as the most dynamic segments, driven respectively by deepening rural demand for formal credit intermediation and the continued expansion of the dairy cooperative value chain. Housing and Industrial cooperatives have maintained steady positive trajectories, while the Consumer cooperative segment remains the sector's primary structural concern—its persistent, if gradual, decline signaling a need for substantive modernization rather than incremental adjustment.

The forward-looking dimension of the analysis suggests that the cooperative sector's overall institutional vitality is likely to be sustained into the next decade, with projections indicating a potential crossing of the 96,000-society threshold by 2028–29. However, this aggregate optimism must be tempered by the recognition that the sector faces a pivotal strategic crossroads: the institutional models that served rural Gujarat well through the latter half of the twentieth century may require fundamental

reimagination if they are to remain competitive, relevant, and impactful through the 2030s and beyond. The integration of digital technologies, the professionalization of management, the development of modern market linkages, and the cultivation of a new generation of cooperative leadership are not optional enhancements—they are existential imperatives.

In summation, the cooperative movement in Gujarat remains a powerful vehicle for inclusive rural transformation. Its future significance will be determined less by the scale of its current institutional presence and more by the quality of its adaptive responses to a rapidly changing economic, technological, and demographic environment. The evidence presented in this paper suggests that the foundations for this adaptation exist; the policy and institutional will to accelerate it must now follow.

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