

Growth and Performance of Primary Agricultural Credit Cooperatives in India

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Abstract- *This study examines the growth and performance of Primary Agricultural Credit Cooperatives (PACS) in India from 2002–03 to 2022–23, with particular emphasis on their structural expansion, capital performance, and loan operations. Using secondary data collected from NAFSCOB reports and other official sources, the study applies the compound annual growth rate (CAGR) method to analyze trends in the number of PACS, membership composition, capital formation, deposits, borrowings, working capital, loan disbursement, recovery performance, and over dues. The findings reveal that, although the number of PACS has remained relatively stagnant over the long term, membership and financial indicators, such as share capital, reserves, deposits, and working capital, have shown moderate and sustained growth. Loan demand and disbursement have expanded significantly, reflecting the growing importance of PACS in agricultural credit delivery. However, rising over dues during certain phases and declining borrower participation raise concerns about credit discipline and inclusiveness, particularly among marginalized social groups. The study concludes that, while PACS remain vital grassroots institutions within India's cooperative credit structure, strengthening governance, improving financial sustainability, and enhancing social inclusion are essential to ensuring their long-term effectiveness in promoting agricultural and rural development.*

Keywords: Primary Agricultural Credit Societies (PACS), Cooperative Credit, Agricultural Finance, Capital Performance, Loan Performance, Rural Development, Financial Inclusion.

I. INTRODUCTION

Agriculture is the backbone of the Indian economy and a major driver of its prosperity. According to the census, approximately 70 per cent of the population resides in rural areas and depends, directly or indirectly, on agriculture for their livelihood. Therefore, agricultural development in India is of great importance. The cooperative movement in

India has taken deep roots across various sectors and is making a significant contribution to agricultural and economic development. The primary Agricultural cooperative credit societies play a significant role in agricultural development and are considered pillars of agricultural development in India. Primary Agricultural Cooperative Credit Societies are actively engaged in providing integrated services to farmers and serve as points of dissemination for technology and improved cultivation practices. It is expected to increase farmers' prosperity by providing better services, particularly through technological interventions.

The sources of agricultural finance can be divided into two categories: Institutional finance and non-institutional finance. Institutional finance consists of cooperatives, scheduled commercial banks and regional rural banks, Primary Agricultural Credit Cooperative Societies (PACS) provide mainly short and medium-term loans, and Primary Cooperative Agricultural and Rural Development Banks (PCARDBs) provide long-term loans for agriculture. Non-institutional finance comprises moneylenders, landlords, and others.

A Primary Agriculture Co-operative Credit Society (PACS) is a basic unit and the smallest cooperative credit institution in India. It operates at the grassroots level (gram panchayat and village levels). The Cooperative Credit Act was passed on 25th March 1904. Since then, these societies have played a significant role in providing short-term, medium-term, and long-term loans to farmers.

II. SIGNIFICANCE OF PRIMARY AGRICULTURE CREDIT SOCIETY

- For the uninitiated, a PACS is the first building block of the century-old cooperative banking system of India.

- PACS can play a colossal role in bringing farmer communities closer to credit, inputs, market and value addition.
- No commercial bank branch can ever come close to providing the kind of services a Primary Agriculture Credit Society (PACS) can.
- PACS can also play a major role by integrating its warehouse with the physical and financial supply chain of agro-commodities in the upcoming Garmin Agriculture Markets (GrAMs) or large warehouses in the private sector.

III. REVIEW OF LITERATURE

Bansal, S. N., et al. (2012), examine the key features and strategies of these reforms in short-term rural credit cooperatives in India, the performance of PACS from the pre-reform period to the post-reform period. Membership per PACS has increased substantially and consistently over the three time periods, from 972 in 1993-94 to 1281 in 2003-04, and reached a high of 1298 in the most recent year of evaluation, 2010-11. The number of borrowers declined in 2003-04 but later revived in 2010-11. The working capital of each PACS has increased substantially, rising from 17 lakhs in 1993-94 to almost 59 lakhs in 2003-04, and then to 154 lakhs in 2010-11. The reserves held per PACS have more than doubled across all study periods. Deposits and borrowings of the PACS have expanded significantly over time. The same is true for loans and advances issued and outstanding, as well as the amount of over dues per PACS. Memane A. S. (2012), in his paper, evaluates the performance of these agriculture co-operative societies and describes the progress of primary agriculture cooperative societies during the years 2000-01 to 2009-10 in India. The study finds that the Primary Agriculture Co- operative credit societies, total numbers of members were increased, and there is significant thing found that the SC membership are rapidly increased in that decade, Total borrowing, total deposits and working capital also increased and Overall the performance of primary agriculture co-operative societies has shown not much better but good performance in the scene of progress and development. In Shinde Popat Krishna's (2013) study, we analysed the growth of PACS in agricultural credit in India from 2006-2007 to 2010-

2011 using CAGR and a graphical comparison method. The study reveals that the aggregate performance of the PACS in India during the study period has increased. Loan-issuing capacity and recovery capacity increased slightly; the number of societies in Profits and Total Profit in India increased, whereas the number of PACS in Profits and Total Losses in India decreased during the period of study. Even the percentage of overdue loans has decreased during the study period. Pooja Nivedita (2019) examined the number of societies at the national level, which decreased from 95633 in 2008-09 to 93367 in 2015-16. However, in 2016-17, it increased to 95,595, and in 2017-18, it decreased to 95,238. On average, PACS decreased by 1.74% in India from 2008-09 to 2017-18.

IV. OBJECTIVES AND METHODOLOGY OF THE STUDY

The present study was carried out with broad objectives as follows:

- To examine the growth of the number of PACS and Memberships in India
- To analyze the Capital Performance of the Primary Agricultural Credit Cooperatives in India
- To study the Loan Performance of the Primary Agricultural Credit Cooperatives in India.

The study used secondary data collected from websites, published articles, books, the Department of Cooperation, government reports, and NAFSCOB websites. The data analysis is carried out by the compound growth model, and the various findings from secondary data have been summarized as follows:

Data Analysis and Discussion

PACS play a crucial role in improving the economic and social conditions of the general population in India. PACS provide short- and medium-term loans to members or farmers at reasonable interest rates to meet a variety of needs. They are providing credit to farmers for agricultural purposes on economically favorable and easy terms. PACS is the foundation of the Cooperative Credit System, on which the superstructure of the short-term cooperative credit system is built. The performance of PACS has been analyzed with various components in the following tables.

Table - 1: Number of PACS and Memberships in India from 2002-03 to 2022-23

(In 000)

Year	Total No. of PACS	Total Membership	SC	ST
2002-03	112309	123552.01	33183.54	12020.86
2003-04	105735	135410.85	30613.87	11888.92
2004-05	108779	127406.42	30934.33	11799.30
2005-06	106384	122575.91	30578.71	11664.16
2006-07	93224	125792.32	29457.55	11127.37
2007-08	94950	131529.55	29725.02	11199.48
2008-09	95633	132349.90	28495.11	10127.12
2009-10	94647	126419.14	26081.88	10514.89
CAGR	-2.63	0.20	-2.59	-2.29
2010-11	93413	121224.48	15384.51	9806.92
2011-12	92432	113595.62	20340.36	10058.51
2012-13	93448	127467.79	19203.43	10330.25
2013-14	93042	130119.64	18232.52	9324.45
2014-15	92789	121087.81	16715.63	9300.97
2015-16	93367	127321.84	14941.91	8986.26
2016-17	95595	131235.40	14998.21	9316.48
2017-18	95238	130547.38	14883.12	9442.64
2018-19	95995	132029.47	14732.25	9080.38
2019-20	95509	138157.55	15886.00	9087.33
CAGR	0.39	1.48	-2.36	-1.14
2020-21	102559	137168.94	14182.71	8481.53
2021-22	104266	169169.97	17918.84	19526.88
2022-23	106955	160378.75	17759.21	19254.15
CAGR	2.12	8.13	11.90	50.67
Total CAGR	-0.22	0.84	-4.28	0.22

Source: Annual reports of NAFSCOB

Figure - 1: Number of PACS and Memberships in India from 2002-03 to 2022-23

(In 000)

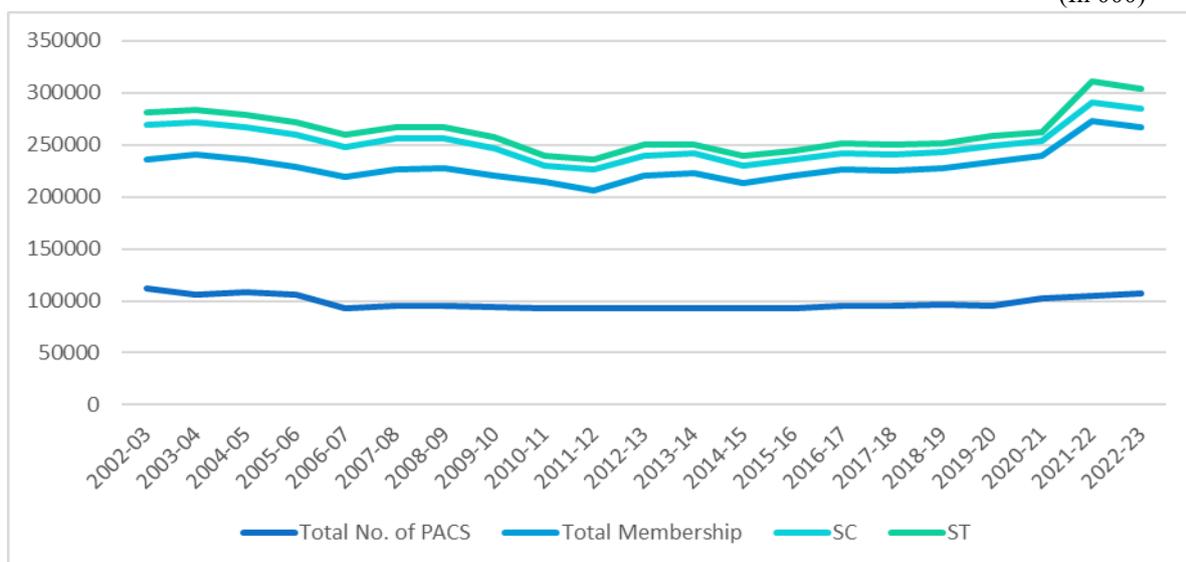


Table 1 presents the Primary Agricultural Credit Societies (PACS) in India from 2002–03 to 2022–

23, revealing structural changes, uneven growth patterns, and significant social-group-wise

variations in membership. The total number of PACS shows long-term stagnation and a marginal decline, with a Total CAGR of -0.22% over the entire period. From 2002-03 to 2009-10, PACS numbers declined sharply (CAGR -2.63%), reflecting consolidation, the liquidation of non-viable societies, and institutional weaknesses. The 2010-11 to 2019-20 period shows relative stability, with a modest positive CAGR (0.39%), indicating policy efforts toward revival. A stronger recovery is evident from 2020-21 to 2022-23 (CAGR 2.12%), likely attributable to government initiatives such as PACS computerization, financial inclusion drives, and cooperative sector reforms. Despite recent growth, the inability to sustain expansion highlights operational inefficiencies, regional disparities, and governance challenges within the cooperative credit structure.

The same table clearly shows that total membership grew marginally over the long term (Total CAGR 0.84%), but this masks sharp inter-period fluctuations: Membership remained nearly stagnant from 2002-03 to 2009-10 (CAGR 0.20). Growth accelerated from 2010-11 to 2019-20 (CAGR 1.48), reflecting increased reliance on institutional credit. A significant surge occurred from 2020-21 to 2022-23 (CAGR 8.13), possibly due to digitization, expanded outreach, and pandemic-era policy support.

Despite this improvement, the disproportionate growth in membership relative to PACS numbers suggests increasing pressure on existing societies and potential dilution of service quality. The table above also clearly shows that Scheduled Caste (SC)

membership has been in persistent long-term decline, with a Total CAGR of -4.28%, raising serious concerns about social inclusiveness. SC membership declined from 2002-03 to 2009-10 (-2.59%) and from 2010-11 to 2019-20 (-2.36%). Although there was a sharp increase from 2020-21 to 2022-23 (CAGR 11.90), this recent growth appears corrective rather than transformative.

The prolonged decline suggests systemic barriers, including limited access to credit, socioeconomic exclusion, and possible migration away from agriculture among SC households. Scheduled Tribe (ST) membership follows a highly uneven trajectory: negative growth in the first two phases (-2.29% and -1.14%) indicates marginalization and weak cooperative penetration in tribal regions. An exceptionally high CAGR of 50.67% from 2020-21 to 2022-23 reflects a sudden expansion, likely driven by targeted government programs and inclusion initiatives. However, the overall Total CAGR of just 0.22% suggests that long-term inclusion of ST communities remains fragile and policy-dependent rather than structurally embedded. Finally, the table above highlights a cooperative credit system that is numerically stable but socially uneven: growth in PACS and total membership in recent years is encouraging but not yet robust or inclusive. Declining SC participation over most of the study period points to deep-rooted inequities. The sharp recent rise in ST membership, while positive, raises questions about sustainability and about the extent to which it reflects actual credit access rather than nominal enrollment.

Table - 2: Capital Performance of Primary Agricultural Credit Cooperatives in India from 2002-03 to 2022-23 (Rs. In Lakhs)

Year	Share capital	Govt. Share	Reserves	Deposits	Borrowing	Working Capital	Borrowers (In 000)
2002-03	495337.00	61,867.00	324549.00	1912023.00	3027791.00	6114243.00	63879.00
2003-04	516642.00	62,963.00	323094.00	1814253.00	3425718.00	6204685.00	51265.00
2004-05	557136.00	62,072.00	362569.00	1897604.00	4024949.00	7540741.00	45070.00
2005-06	564425.00	62,192.35	364776.00	1956119.00	4101760.00	7338667.00	46076.00
2006-07	613841.00	64,765.00	490043.00	2348407.00	4371449.00	7995869.00	47910.00
2007-08	659665.00	62,858.00	438718.00	2544926.00	4784787.00	8810685.00	51079.00
2008-09	700732.00	60,256.00	488850.00	2624538.00	4893844.00	9458488.00	46219.00
2009-10	714841.82	65621.77	533020.92	3528606.65	5176389.98	13519151.83	59799.58
CAGR	5.73	0.32	7.93	8.95	7.56	10.27	-0.67
2010-11	755116.53	61736.62	690443.98	3723815.87	5400009.63	14422189.92	52387.59

2011-12	828009.66	65578.16	771577.00	5025278.68	8883556.87	16050796.88	44885.51
2012-13	986830.90	76677.00	864794.92	6711309.77	9335915.91	28081643.31	49532.66
2013-14	978880.40	74370.18	913549.58	8189490.64	9583580.31	21242917.19	48081.20
2014-15	1106828.69	83406.00	1060658.60	8461632.91	9998011.03	22371056.74	49857.65
2015-16	1128111.04	79819.77	1216207.30	10106547.89	11269029.19	20130441.20	46214.19
2016-17	1411215.50	82924.30	1886031.24	11588420.43	12483095.20	23996699.25	52171.50
2017-18	1414199.58	80739.27	1979970.62	11963232.52	12833322.27	24356250.99	50690.22
2018-19	2281655.46	132330.65	1937850.15	13301035.83	13892245.12	29655362.45	51058.58
2019-20	2299417.00	64926.13	2074693.30	16547604.27	13857109.15	32532183.13	52554.27
CAGR	12.91	3.65	14.82	15.90	8.93	7.00	0.74
2020-21	1911500.13	89970.94	2319568.85	17092216.56	14304401.44	33471841.03	53652.77
2021-22	1979162.52	86598.29	2296225.03	17638958.51	17237362.79	36989567.73	48347.80
2022-23	2219052.59	88851.10	2637482.21	19723883.89	20132855.86	40937731.38	49228.27
CAGR	7.74	-0.62	6.63	7.42	18.64	10.59	-4.21
Total	8.61	2.35	12.44	14.72	9.72	10.44	-0.10

Source: Annual reports of NAFSCOB

Figure - 2: Capital Performance of Primary Agricultural Credit Cooperatives in India from 2002-03 to 2022-23 (Rs. In Lakhs)

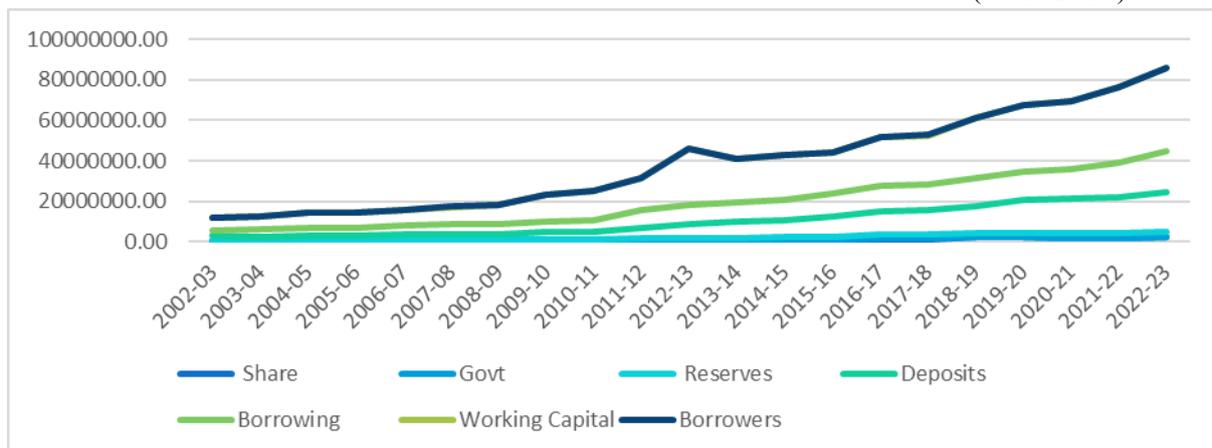


Table 2 presents the capital performance of Primary Agricultural Credit Cooperatives in India from 2001-02 to 2022-23. During the first phase (2002-03 to 2009-10), these cooperatives exhibited moderate, stable growth in capital-related indicators. Share capital increased steadily at a CAGR of 5.73 per cent, reflecting gradual member participation, while government contributions remained almost stagnant (0.32 per cent), indicating limited direct fiscal support. Reserves and deposits grew at 7.93 per cent and 8.95 per cent, respectively, signalling improved financial strength and depositor confidence. Borrowings also rose at a moderate pace (7.56 per cent), supporting expanding credit operations. Consequently, working capital grew robustly at 10.27 per cent. However, the number of borrowers declined marginally (-0.67 per cent), suggesting

limited outreach or consolidation of lending activities during this period.

The second phase (2010-11 to 2019-20) marked a period of accelerated financial expansion for PACS. Share capital growth strengthened significantly to 12.91 per cent, supported by increased member equity and policy initiatives. Government share capital improved modestly (3.65 per cent), while reserves expanded sharply by 14.82 per cent, indicating improved profitability and internal resource generation. Deposits rose substantially, with a CAGR of 15.90 per cent, emerging as the primary source of funds. Although borrowings continued to grow (8.93 per cent), their relative dependence declined. Working capital growth moderated to 7.00 per cent, though absolute levels increased sharply. Notably, the number of borrowers

grew marginally (0.74 per cent), indicating a slight improvement in credit outreach during this phase. In the third phase (2020-21 to 2022-23), PACS continued to expand, though funding patterns shifted. Share capital growth moderated to 7.74 per cent, while government contribution declined marginally (-0.62 per cent), reflecting reduced state participation. Reserves and deposits grew by 6.63 per cent and 7.42 per cent, respectively, indicating sustained financial stability. Borrowings, however, rose sharply by 18.64 per cent, suggesting increased reliance on external funds to support credit

expansion. This contributed to a strong rise in working capital (10.59 per cent). Despite financial growth, the number of borrowers declined significantly (-4.21 per cent), suggesting consolidation of lending, larger loan sizes, or a focus on financially stronger members rather than expanding the borrower base. Overall, the table shows a consistent strengthening of PACS's capital base over the long run, driven mainly by deposits and reserves, while the decline in borrowers raises concerns about the inclusiveness and outreach of cooperative credit institutions.

Table - 3: Loan Performance of Primary Agricultural Credit Cooperatives in India from 2002-03 to 2022-23 (Rs. In Lakhs)

Year	Total Demand	Total Loan Issued	Total Loan Outstanding	Total Collection	Total Over Dues
2002-03	4034069.84	3399586.39	4241124.42	2505133.17	1542322.82
2003-04	4423677.00	3511923.55	4387282.12	2794159.99	1629517.01
2004-05	477852.55	3921172.34	4878545.75	3173304.65	1605222.58
2005-06	5097047.70	4291959.34	5177866.42	3550324.89	1547622.81
2006-07	5411272.36	4961275.10	5862015.42	3836073.17	1575291.04
2007-08	6729295.08	5764247.97	6566638.49	3835932.00	2400348.13
2008-09	8463398.53	5878674.15	6404424.24	4669763.67	3793653.91
2009-10	9549659.68	7493753.97	7647982.58	5597258.61	3952401.07
CAGR	22.83	11.85	8.73	11.10	15.41
2010-11	9024035.70	9130382.26	8776794.26	6754322.61	2269759.58
2011-12	9074797.92	10730023.28	9124321.07	6644439.14	2430363.10
2012-13	5538521.61	16190915.99	13939870.94	11708975.01	3829562.60
2013-14	15585309.49	17141955.84	13005385.91	12622125.68	2963193.81
2014-15	15962581.10	15905029.14	14722557.36	12383522.54	3579058.56
2015-16	16978313.55	10808235.00	15848725.14	13989400.86	2988912.69
2016-17	20046383.16	20066783.90	17045925.25	14717084.98	5329298.18
2017-18	19674993.87	20732177.85	16962967.93	14883449.87	4791544.00
2018-19	20390338.54	20589484.21	11504805.63	15195052.45	5195286.09
2019-20	22814066.63	21455317.51	21236020.86	15798051.00	7016015.63
CAGR	13.69	8.57	7.18	9.66	11.65
2020-21	25107669.84	22944341.24	21686159.37	7852690.81	7254979.03
2021-22	17836855.26	15313692.41	15970023.77	12700564.16	5136291.10
2022-23	20846069.16	20049090.84	18884183.00	16441896.83	4404172.33
CAGR	-8.88	-6.52	-6.68	44.70	-22.09
Total CAGR	12.59	10.79	8.76	10.14	7.50

Source: Annual reports of NAFSCOB

Figure - 3: Loan Performance of Primary Agricultural Credit Cooperatives in India from 2002-03 to 2022-23

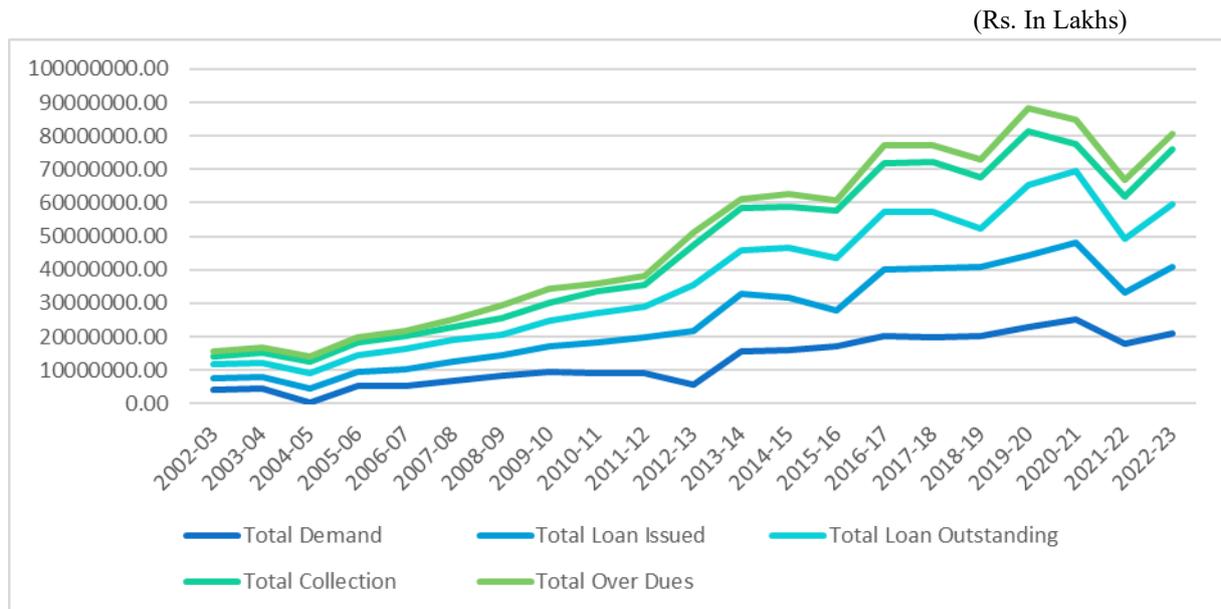


Table 3 presents the loan performance of Primary Agricultural Credit Cooperatives (PACS) in India and shows a clear expansionary trend over the long period from 2002-03 to 2022-23, though marked by fluctuations. During the first phase (2002-03 to 2009-10), total demand and loan issuance increased steadily, reflected in high CAGRs of 22.83 per cent and 11.85 per cent, respectively. This period indicates rising credit needs in the agricultural sector and improved outreach of PACS. Total collections also grew consistently, suggesting relatively stable recovery performance, although over dues rose at a CAGR of 15.41 per cent, pointing to emerging repayment stress alongside credit expansion.

In the second phase (2010-11 to 2019-20), the scale of operations expanded significantly, with sharp increases in total demand, loans issued, and outstanding amounts. Total demand crossed ₹20,000,000 lakhs by 2019-20, while loan outstanding also rose substantially, reflecting deeper credit penetration. However, this phase also witnessed growing concerns regarding asset quality. Over dues increased sharply, reaching over ₹7,000,000 lakhs in 2019-20, and their CAGR (11.65 per cent) outpaced that of loan outstanding (7.18 per cent). Although collections remained strong, the widening gap between demand and collections indicates rising repayment challenges within the cooperative credit structure.

The third phase (2020-21 to 2022-23) reflects volatility, largely influenced by economic disruptions and policy interventions. While total demand and loan issuance declined at negative CAGRs, collections recorded a sharp positive growth (44.70 per cent CAGR), suggesting

intensified recovery efforts and possibly restructuring or policy support measures. Over dues declined significantly, indicating some improvement in repayment performance during this short period. Overall, the total CAGR for the study period indicates moderate yet steady growth in demand, lending, and collections, alongside comparatively lower growth in over dues. This suggests that while PACS have expanded their lending role over time, maintaining credit discipline remains a persistent challenge.

V.CONCLUSION

The study concludes that Primary Agricultural Credit Cooperatives (PACS) have continued to play a pivotal role in strengthening India’s rural credit delivery system, particularly in supporting small and marginal farmers. Over the study period, PACS exhibited moderate but sustained growth in membership, capital base, and loan operations, indicating resilience and relevance within the cooperative credit structure. While capital performance and loan disbursement expanded steadily—driven mainly by deposits, reserves, and increased credit demand—persistent challenges remain regarding inclusiveness and credit discipline. Declining borrower participation in recent years, rising overdues during expansionary phases, and uneven membership growth across social groups point to structural and governance constraints. Nonetheless, recent improvements in recovery performance and renewed growth in PACS numbers and membership suggest that policy initiatives, digitization, and institutional reforms are yielding

positive results. Strengthening governance, enhancing outreach to marginalized communities, and improving financial sustainability are essential for PACS to function as truly inclusive and effective grassroots financial institutions in India's agricultural economy.

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