



PRIMARY AGRICULTURAL COOPERATIVE SOCIETIES (PACS) AND SUSTAINABLE DEVELOPMENT GOALS (SDGS): A STUDY IN KARNATAKA, INDIA

Mr. Arpith T A¹, Prof. Ishwara P²

¹Research Scholar, Department of Commerce, Mangalore University, Mangalore,

²Professor & Dean, Department of Commerce, Mangalore University, Mangalore,

Article DOI: <https://doi.org/10.36713/epra15206>

DOI No: 10.36713/epra15206

ABSTRACT

Purpose: The purpose of this study was to meta-analyse the effects of agricultural cooperatives in Dakshina Kannada, both historically and currently. In assessing the economic impact on farmers for revenue generation and cost savings, it looks for success factors and obstacles.

Methodology: The research evaluates PACS contributions, problems, and member perspectives on SDGs covering 2010–11 to 2022–23 using a variety of methods, including desk review, financial analysis, literature review, surveys, interviews, and case studies.

Findings: A study found that NITI Aayog is how India commits to the SDGs. PACS in Karnataka are highly engaged members that have difficulties with accurate quantification. The key to success in the future is customised tactics and improved organisational capabilities.

Practical Implication: NITI Aayog and PACS should work together more, data quantification techniques should be improved, strategies should be customised for local conditions, member engagement should be encouraged, capacity building should be facilitated, and supportive policies should be supported.

KEYWORDS: Sustainable Development Goals, PACS, NITI Aayog, Micro-level, Collaboration, Member Engagement, Capacity Building, Quantification Methods.

1. INTRODUCTION

The Co-operative Societies Act was introduced in 1904, marking the beginning of the Co-operative Movement in India. It has undergone a significant amount of evolution and is now entering the new millennium with many aspirations. Covering almost 96% of rural India, it has more than 7,94,866 cooperative societies with more than 29,07,60,537 members (National Cooperative Database, 24.11.2023). Since the founding of the first Primary Agricultural Cooperative Credit Societies (PACS) in India, numerous agricultural and rural development projects and programmes have been implemented by the federal and state governments through the use of this cooperative institutional network. As a result, cooperative institutions—particularly PACS—have had a significant influence on national programmes like the Public Distribution System (PDS), the white revolution, and the green revolution effect even reaches the micro level, where PACS and other cooperatives have made a substantial contribution to the advancement of the Sustainable Development Goals (SDGs). This research paper examines the specific contributions made by Karnataka's sampled PACS to the village-level realisation of the SDGs.

2. INDIA AND SUSTAINABLE DEVELOPMENT GOALS

The Global Goals, sometimes referred to as the Sustainable Development Goals (SDGs), are an international appeal for coordinated efforts to end poverty, save the environment, and promote world peace and prosperity. They complement and broaden the scope of the Millennium Development Goals (MDGs), which were established in 2001 with the aim of eradicating poverty, hunger, and inequality. They are composed of 17 intergovernmental goals and 169 targets. With a focus on modern issues such as economic inequality, innovation, sustainable consumerism, peace and justice, and climate change, the SDGs highlight the interdependence of these goals and provide guidelines that can be tailored to the specific needs of each nation. A strong social economy, an engaged civil society, a stable and accountable

business sector, a supportive international cooperation, and a well-run state are all necessary for the successful attainment of the SDGs.

3. PACS AND SDGS: A STUDY IN KARNATAKA, INDIA

The SDG India Index Baseline Report and Dashboard, which covers 13 of the 17 SDGs for States and UTs (with the exception of Goals 12, 13, 14, and 17 in 2018), was developed in partnership between NITI Aayog and UN India. The strategies and Action Plans in the vision document are designed with this report's input. Karnataka is rated as a "Performer" and comes in third place with an overall SDG Index Score of 64, which is between 36 and 88 for the projected SDG-2030. This score is juxtaposed with that of Tamil Nadu (66), Himachal Pradesh (69), and Kerala (69). The table that follows provides specific performance information for Karnataka across all SDGs. 3.1.

Table: 3.1 Performance of Karnataka across all SDGs

Source: NITI Aayog, 2018

Category Karnataka	SDG Goal	Score Karnataka	Rank
Front Runner(65-9)	SDG 3: Good Health and Well-being	69	5
	SDG 4: Quality Education	76	5
	SDG 7: Affordable and Clean Energy	77	5
	SDG 8: Decent Work and Economic Growth	72	11
	SDG 10: Reduced Inequalities	68	16
	SDG 15: Life on Land	88	8
	SDG 16: Peace, Justice and Strong Institutions	74	12
Performer(50-64)	SDG 1: No Poverty	52	17
	SDG 2: Zero Hunger	54	11
	SDG 6: Clean Water and Sanitation	62	14
	SDG 9: Industry, Innovation and Infrastructure	57	7
Aspirants (0-49)	SDG 5: Gender Inequality	43	6
	SDG 11: Sustainable Cities and Communities	36	16
	Karnataka (All Goals)	64	3

A number of Sustainable Development Goals are met or exceeded by Karnataka, including Goal 3 (Good Health and Well-Being), Goal 4 (Quality Education), Goal 7 (Affordable and Clean Energy), Goal 8 (Decent Work and Economic Growth), Goal 10 (Reduced Inequalities), Goal 15 (Life on Land), and Goal 16 (Peace, Justice, and Strong Institutions). In these sectors, the state is seen as a leader. Karnataka is a performer in Goal 1 (No Poverty), Goal 2 (Zero Hunger), Goal 6 (Clean Water and Sanitation), and Goal 9 (Industry, Innovation, and Infrastructure), although there is still space for development in these areas.

The state is considered an aspirant in Goal 5 (Gender Equality) and Goal 11 (Sustainable Cities and Communities), with lower rankings indicating the need for focused attention. Therefore, it is evident that prioritizing efforts in achieving Gender Equality (Goal 5) and fostering Sustainable Cities and Communities (Goal 11) should be a primary focus based on the available data.

4. COOPERATIVES AND SUSTAINABLE DEVELOPMENT GOALS

As a movement with enormous potential for transformation, cooperatives ought to be at the centre of the international development agenda that seeks to realise the Sustainable Development Goals (SDGs). The cooperative sector hasn't had a significant impact on conversations about the SDGs at the macro and micro levels, despite being present and having a vast reach. All of the industries that support the SDGs, which define the course that the world must take towards sustainable development, currently include cooperatives. Cooperatives have not continuously taken the lead in national and international discussions, despite their innate focus on members and local concerns. According to the International Labour Organization's study (ILO), this lack of proactive involvement explains cooperatives' comparatively low visibility and acknowledgment in the conversation around the post-2015 development agenda. Numerous causes can be contributed to this phenomenon.

A restricted understanding of cooperatives' actual and potential involvement in promoting sustainable development has resulted from a lack of research on the subject.



- Cooperatives frequently deflect attention from more general sustainable development issues by concentrating primarily on topics that are personally relevant to their members.
- One reason cooperatives have a little role in these conversations is that they don't take the initiative to connect with national and international objectives.
- There are prevailing opinions that cooperatives would not be suitable as general development institutions, even though they might be used as means of carrying out government programmes.

Nevertheless, cooperatives can play a major role in bringing about the Sustainable Development Goals (SDGs) since they provide as institutional venues for user groups and grassroots democracy. Recognising the equal significance of the three developmental components—economic, social, and environmental—is the cornerstone of the Sustainable Development Goals (SDGs). Since cooperative organisations are associations as well as enterprises, they naturally deal with social and economic issues. It is explicitly stated in the 7th Cooperative Principle, "Concern for Community," that cooperatives actively work to promote the sustainable development of their local communities. Furthermore, a broad range of economic activities are covered by the SDGs, including housing, health, education, industry, agriculture, and consumption. They also touch on important world issues like gender, employment, equality, poverty, climate change, and peace. Given their active participation in various economic sectors, cooperative institutions have the potential to significantly contribute to all of the SDGs, and their influence is closely aligned with the global challenges that the SDGs aim to address.

The distinctive characteristics of the cooperative model, such as its emphasis on community involvement, cooperation among cooperatives, and democratic and solidarity values, place cooperatives in a unique position to effectively support coordination at the local, national, and international levels of activity. To further strengthen the cooperative movement's critical role in implementing the SDGs, strong collaborations both inside and between cooperative organisations are recommended as a critical tactic. Acknowledging the potential of cooperatives in India offers a great chance to work efficiently towards SDG achievement.

5. STATEMENT OF THE PROBLEM

Indian states where cooperative development has advanced the most is Karnataka. The Karnataka government claims that cooperatives in the region are essential to the advancement of the downtrodden and destitute. At the primary level, 45,926 cooperative societies in a variety of sectors are listed with the Registrar of Cooperative Societies in Karnataka. These societies support a wide range of groups, including hill tribes, farmers, milk producers, fishers, and others, meeting their material and non-material needs. With 6,040 Primary Agricultural Credit Societies (PACS), the backbone of Karnataka's cooperative system, function at the village level and have direct contact with members across the state. PACS is well-positioned to meet the financial and non-financial needs of the agricultural and non-farm sectors thanks to its vast institutional network, infrastructure, and rural outreach. Interestingly, more over 30% of members are current debtors, demonstrating a consistent level of involvement in PACS matters. The fact that 21 District Credit Cooperative Banks and PACS in the state have given interest-free loans totaling Rs 16,500 crore to 22 lakh farmers is a noteworthy accomplishment. A number of Sustainable Development Goals (SDGs) have benefited from these successes. By utilising these institutions' methodical capability, villages may be able to make significant and quantifiable contributions to the SDGs, which may enable the government to declare certain regions to have attained the SDGs. Even though PACS has a beneficial impact on Karnataka, it is important to understand how PACS addresses the smaller SDG needs. This is demonstrated by these macro-level developments. To improve PACS's contribution to SDG attainment in Karnataka, it is essential to investigate stakeholders' perspectives of the relationship between PACS functions and SDGs and to pinpoint the difficulties encountered on a local level. As such, the purpose of this research is to shed light on these problems as well as related ones.

6. OBJECTIVES OF THE STUDY

This research aims to assess how sampled PACS contribute to achieving micro-level Sustainable Development Goals (SDGs) and an analysing the operational performance of designated PACS, examining their impact on SDGs, assessing members' viewpoints regarding PACS' role in SDGs, and identifying the challenges faced by the chosen PACS in SDG achievement.

7. REVIEW OF LITERATURE

Prior research has highlighted the critical function cooperatives, such as PACS, play in advancing grassroots sustainable development [1]. It has been acknowledged that cooperative credit institutions have the ability to empower rural people and reduce poverty [2]. Aligning collaborative efforts with more general development goals requires an understanding of the specific role that PACS play in achieving the micro-level SDGs. highlights how important PACS



is to achieving financial inclusion and giving rural communities access to credit, which helps to fulfil SDGs 1 and 8 (Decent Work and Economic Growth) [3] and no poverty. PACS's capacity to support rural economic growth and farmer empowerment, which is consistent with the overarching objectives of poverty alleviation and economic development. Describe in detail PACS's agricultural concentration and how it affects SDG 2 (Zero Hunger) [4]. The authors highlight how PACS can ensure food security by giving farmers access to timely and reasonably priced loans for growing crops and other related activities. This, in turn, promotes sustainable agriculture and addresses issues related to hunger [5]. explores the social aspect of PACS and how it relates to SDGs 10 (Reduced Inequalities) and SDG 5 (Gender Equality). According to the study, PACS actively promotes gender equality and the lessening of social and economic inequalities within its operational areas by interacting with women members and marginalised groups in society. The significance of evaluating operational efficiency for long-term impact is highlighted by scholarly publications on the cooperative sector [6][7]. Examined how PACS complies with SDG 13 (Climate Action) as it relates to the environment. According to the report, PACS helps lessen the effects of climate change locally by supporting eco-friendly projects and sustainable farming methods. Analysing PACS's financial data and business plans will highlight their operational advantages and disadvantages, which will affect how well they can support the SDGs [8]. Research has been done on how cooperative credit institutions relate to the Sustainable Development Goals (SDGs), with a focus on how they support livelihoods, financial inclusion, and sustainable agriculture [9]. Since PACS are essential to the cooperative framework, they should have a big impact on SDG results. Emphasise the value of member viewpoints in determining how well cooperatives perform in accomplishing development objectives. Analysing members' perceptions of PACS's role in the SDGs offers important insights into the outreach and social impact of these organisations [10].

Previous studies have indicated that cooperative credit institutions encounter difficulties when putting development strategies into practice [11]. To improve PACS's efficacy in achieving the SDGs, it is imperative to recognise and tackle PACS-specific issues. Draw attention to PACS's financial difficulties, such as its tiny budget and resource limitations [12]. These limitations prevent the extension of services to fully fulfil the various SDGs and the efficient implementation of credit programmes. talked about the difficulties in educating and raising awareness. PACS's outreach may be hampered by low financial literacy and service awareness, which could affect their capacity to support SDG-related projects, especially those pertaining to health and education [13].

Limited investigation of the use of PACS in reducing climate change (SDG 13) and a thorough evaluation of their operational effectiveness are examples of research gaps. In the literature, member perspectives on PACS's involvement in the SDGs and a methodical understanding of the variety of difficulties PACS faces are still understudied.

8. METHODOLOGY

This study's research technique is intended to achieve the stated goals. In order to evaluate how the sampled PACS contribute to the micro-level Sustainable Development Goals (SDGs), a desk review will be carried out, which will entail gathering and examining current reports, research findings, and documents pertaining to the sampled PACS. To assess the operational effectiveness of selected PACS, financial analysis will be used to look at metrics including membership, deposits, working capital, loans outstanding, profit, and business diversification. In order to comprehend the larger context of how cooperative societies, and specifically PACS, contribute to SDGs both domestically and globally, a literature review will examine secondary sources. Members of a sampling PACS will be surveyed and interviewed in order to have a qualitative understanding of their opinions of the cooperative's involvement in the SDGs. Through a case study investigation that looks at particular reports and recorded issues faced by the chosen PACS, challenges related to SDG achievement will be identified. In order to provide a thorough knowledge of the long-term contributions and problems of the sampled PACS in the context of SDGs, the study will span the years 2010–11–2022-23-23.

9. ANALYSIS AND DISCUSSION

9.1 Performance of Primary Agricultural Credit Societies over a decade in India

Primary Agricultural Cooperative Societies (PACS) serve as the fundamental elements of the short-term cooperative lending structure at the local level. These communities work directly with rural, mostly agricultural borrowers, lending money and overseeing the repayment schedule. Apart from their banking operations, PACS are essential to marketing and distribution processes. As the main pillar of the cooperative credit system, PACS play an important role in the chain of command, serving as the conduit between final debtors and higher-level lenders such as Scheduled Commercial Banks, the Reserve Bank of India (RBI), and the National Bank for Agriculture and Rural Development (NABARD). Table 9.1 displays the key agricultural credit societies' ten-year performance.

**Table 9.1: Performance of primary agricultural credit societies over a decade**

Co-operative societies number, membership and financial position of primary Co-operative agriculture & rural development banks 2020-21 (As on 31st March 2020)								
State	Societies (no.)	Membership ('000 no.)	Share capital	Reserves	Deposits	Borrowings	Working	Loans issued during the year (Amount ₹ Million)
1	2	3	4	5	6	7	8	9
Haryana	19	741	1094	97	4	20756	30075	1308
Himachal Pradesh	1	23	53	5	149	630	1032	223
Karnataka	177	1146	1550	2113	2160	15026	19295	4997
Kerala	63	1351	2673	4419	1884	47330	46176	20475
Punjab	89	838	1522	5606	0	23924	39102	6467
Rajasthan	36	1233	965	6412	62	14484	20690	1292
Tamil Nadu	180	1245	3042	4636	955	9268	17902	8777
West Bengal	24	353	654	2275	3786	10053	17838	1599
Total	589	6930	11555	25563	9002	141472	192110	45138
Source: As sourced by National Bank for Agriculture and Rural Development from concerned PCARDBs								
NA-Not Available								
No PCARDBs in the states: Assam, Bihar, Chhattisgarh, MP, Maharashtra, Odisha, Gujarat, J&K, Manipur, Tripura, UP & Puducherry								
\$ Figures indicate 'Average working fund'								
CO-OPERATIVE SOCIETIES NUMBER, MEMBERSHIP AND FINANCIAL POSITION OF PRIMARY CO-OPERATIVE AGRICULTURE & RURAL DEVELOPMENT BANKS 2020-21 (As on 31st March 2020)								
(Amount ₹ Million)								
State	Societies	Membership (000 no)	Share capital	Reserves	Deposits	Borrowings	Working Capital \$	Loans issued during the year
1	2	3	4	5	6	7	8	9
Haryana	19	740	1076	101	5	20735	30058	1684
Himachal Pradesh	1	24	64	5	196	888	1239	357
Karnataka	177	1178	1550	2240	2160	14805	21831	4871
Kerala	63	2056	2673	4419	1884	47330	NA	NA
Punjab	89	832	759	3806	3566	23321	42760	6635
Rajasthan	36	1281	978	6602	87	15016	21294	2951
Tamil Nadu	NA	NA	3042	4636	955	9268	NA	NA
West Bengal	24	339	686	2949	4598	10255	16702	2282
Total	409	6450	10828	24758	13452	141618	133884	18780
Source: As sourced by National Bank for Agriculture and Rural Development from concerned PCARDBs								
NA-Not Available								
No PCARDBs in the states: Assam, Bihar, Chhattisgarh, MP, Maharashtra, Odisha, Gujarat, J&K, Manipur, Tripura, UP & Puducherry								
\$ Figures indicate 'Average working fund'								

Source: Cooperative societies - statistical year book India 2020

**9.2 Performance of Primary Agricultural Credit Societies over a decade in Karnataka.**

As of the 2022–2023 fiscal year, 6,040 PACS were operational in Karnataka. Cooperative organisations actively promote frugal living and saving among their members and patrons. They offer short-term crop loans and medium-term investment loans for a variety of agricultural and associated purposes, including micro-irrigation, land development, and animal purchases. In addition, PACS finances income-generating initiatives for joint liability groups (JLGs) and Self Help Groups (SHGs), as well as other non-farm sector endeavours, such as home construction. Notably, PACS are integral to the way government projects are implemented.

These groups also market agricultural supplies including fertiliser, seeds, and small pieces of machinery. Furthermore, under the Public Distribution System (PDS), a number of PACS operate Fair Price Shops (FPS), Common Service Centres, Agro Service Centres, and Agri Clinics. Given this, a performance analysis of the sampled PACS is carried out, considering specific performance measures.

Table- 9.2: District-wise list of PACS of the State of Karnataka.

Sl. No.	Name of the district	No of Cooperative Societies	No of PACS
1	BANGALURU URBAN	2776	46
2	BANGALURU RURAL	1127	78
3	RAMANAGAR	1334	101
4	BAGALKOT	1989	284
5	BELGAUM	6111	1318
6	BELLARY	1568	197
7	BIDAR	1305	188
8	CHIKMAGALUR	616	129
9	CHITRADURGA	1028	165
10	DAVANAGERE	1456	181
11	HASSAN	1977	228
12	DHARWAD	1076	165
13	GADAG	1083	179
14	HAVERI	1323	231
15	KALABURAGI	1543	231
16	YADGIR	871	108
17	KODAGU	342	76
18	KOLAR	1609	104
19	CHICKBALLAPUR	1575	159
20	MYSURU	2526	201
21	CHAMARAJNAGAR	820	105
22	MANDYA	2217	235
23	NORTH KANARA	941	179
24	RAICHUR	1288	140
25	KOPPAL	829	125
26	SHIMOGA	1268	176
27	SOUTH CANARA	871	122
28	UDUPI	681	57
29	TUMKUR	2222	242
30	VIJAYAPURA	1554	290
TOTAL		45926	6040

Source: Cooperative Statistics 2022 – 2023

**Table-9.3: Business Performance of PACS in Karnataka**

Year	Number of PACS	No. of Members	No. of Borrowing members	Deposits	Loan Disbursed
2019-20	5,546	4267	10070.72	28093.45	28492.57
2020-21	5,658	4928	12559.30	32323.85	33478.12
2021-22	5,658	4928	11619.69	36993.17	33631.44
2022-23	6,040	4172	14803.55	35127.25	40532.00

Source: Co-operative Society Report (PACS). 2022-23

Table- 9.4: Performance of Short Term, Medium Term and Long-Term Credit

Year	Type of Loan	Target	Achievement	Percent
2021-22	Short term	19370.00	19396.24	100.14
	Medium term	980.00	1128.35	115.14
	Long term	460.00	447.20	97.22
2022-23 (November)	Short term	22337.00	12697.77	56.85
	Medium term	1131.00	630.35	55.73
	Long term	532.00	151.91	28.55

Source: Co-operative Societies Report (PACS). 2022-23

Table - 9.5: Recovery of loans in Co-operative Sector

Type of loan	2018-19	2019-20	2020-21	2021-22	2022-23 (Nov) (Tentative)
Short term	90.93	92.00	96.23	96.65	93.47
Medium term	82.00	78.32	90.44	88.25	71.28
Long term	55.23	40.02	69.59	58.04	22.00

Source: Co-operative Societies Report (PACS) 2022-23

10. CONCLUSION

The Sustainable Development Goals (SDGs) are something that India is determined to achieve, and NITI Aayog serves as the nation's high-level supervision and framework organisation. It emphasises how organisations in the public, commercial, and cooperative sectors have a common obligation to support the accomplishment of these goals. The many roles of Primary Agricultural Credit Societies (PACS) are emphasised by Karnataka's field-level experiences. Because they actively promote economic democracy and provide excluded people greater control, these cooperative organisations are at the foundation of sustainable development. Because of its high level of member involvement, which is fuelled by greater awareness of the goals, Sample PACS is able to maintain its financial viability and contribute directly to the achievement of SDGs 1, 2, 8, 10, and 15, as well as indirectly to all other goals.

In-depth investigation is required in order to precisely quantify this contribution using measures developed by the Karnataka State Development Policy Council. According to the inclusive tagline, "No one to be left behind," PACS is recognised for being a key player in stopping the marginalisation of women, other marginalised groups, and other individuals. To effectively implement the SDGs at the village level, sample PACS' organisational capabilities can be further enhanced. However, given that every PACS is unique, tailored strategies are necessary to achieve the greatest results in particular circumstances.

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