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Potential of Joint Liability Groups (JLGs) for the Sustainability of Dairy Industry: Case of three Co-operatives in Kerala

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ABSTRACT

The milk production in Kerala is almost static for the last few years, and the major reasons for this are the increased cost of production and the reduction in the number of dairy animals. Due to scarce resources, small-scale farmers are challenged to raise funds to increase the herd size. One way to solve the problem is to mobilise resources through collaboration with community-based organisations such as Joint Liability Groups (JLGs) formed under the dairy cooperatives. The present research investigated the impact of establishing JLGs under the ambit of dairy cooperatives and providing finance for purchasing dairy animals. The case study examined three dairy cooperatives in the Wayanad district and observed a significant rise in milk procurement within the societies through the establishment of JLGs.

Keywords: Milk Production; Joint Liability Group; Dairy Cooperative; Bank; Cases; Kerala

INTRODUCTION

Resources are essential for implementing food security measures in every nation, and agriculture is undoubtedly a substantial consumer of them. Dairy farming, an allied agricultural sector is crucial in ensuring food security and livelihood security by providing direct and indirect support. The primary resources required for dairy farming are land, capital, fodder (green and dry), compounded cattle feed, human labour, veterinary services and marketing network, the availability of which varies and contrasts among the different states of India. The state of Kerala, with a rich tradition of agriculture, is now blighted by decreased crop profitability owing to increased input costs, labour shortage, high

land price, and uneconomic size of operational holdings. Compared with agricultural crops, the milk production of the state had shown a steady growth till 2015-16; however, the same has been dwindling for the last eight years, as given below in Table 1 (Economic Review, 2015:2024)

Table 1: Annual Milk Production and Per Capita Milk Availability in Kerala

Year	Annual Milk Production in Lakh Tonnes	Per Capita Milk Availability in grams
2015-16	26.50	211
2016-17	25.20	200

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Year	Annual Milk Production in Lakh Tonnes	Per Capita Milk Availability in grams
2017-18	25.76	203
2018-19	25.48	200
2019-20	25.44	198
2020-21	25.34	197
2021-22	25.32	196
2022-23	25.80	198
2023-24	25.32	197

Also, the state's in-milk crossbred cattle population has significantly reduced from 8.35 lakh in 1997-98 to 6.08 lakh by 2022-23 (Basic Animal Husbandry Statistics, 2023). Paradoxically, this happens in a state like Kerala, where over 93% of milch cows are crossbreds. Furthermore, the state is seeing a worrisome escalation in the cost of milk production, which significantly impacts milk production efficiency. A study funded by the Kerala Cooperative Milk Marketing Federation in November-December 2022 reported that the average net cost of milk production was ₹ 46.33 per litre (Jayadevan and Franco, 2022) as against a study in 2020 by George et al. published in 2022, which calculated the average cost of milk production to be ₹ 27.49 per litre.

Dairy Cooperatives and Farmers: The greener part of the dairy ecosystem of Kerala is the robust network of primary dairy cooperative societies present throughout the state. These primary dairy cooperatives are mainly milk procurement agencies intended to collect milk and pay its price to the members. They also take up allied activities like input services (distribution of cattle feed, dry fodder, mineral mixture, etc.) and

implementation of departmental/union schemes and development programmes. They also market milk locally to a limited extent. Though cooperatives are people's organisations, their interventions in strengthening dairy farmers at the grassroots level and creating sustainability are constrained.

The dairy farming system in Kerala is a smallholder enterprise, with 87% of the cattle population owned by marginal farmers, a sizeable number of whom are members of the state's dairy cooperative system. They are characterised by nominal resources of land, capital, feed, fodder and family labour, affecting the sustainability of dairy farming in the long run with lower productive efficiency (the ability of the farm to utilise the limited resources optimally and attain maximum production output as milk, dung, urine etc) and allocative efficiency (the ability of the farm to maximise profits by equating the marginal revenue product with the marginal cost of inputs ensuring optimal resource allocation).

To meet the rising demand for milk, the state must boost farmer-level dairy activities and attract new entrepreneurs. If dairy farmers can maximise the output by optimising inputs at their market price, scaling up is possible (Jacob and Ambily, 2020). This necessitates prudent and meticulous use of their primary resources, viz., land, capital, and labour. Here comes the role of community based organizations which are driven by the community organization theory (Ross, 1955) where a community identifies the needs, develops the will to address them, finds resources and takes action. It's a collaborative effort involving individuals and agencies, to address issues at the grassroot level, where powerless people cooperate to address shared concerns. Resource mobilisation and action are the key components in this theory. Community-based organisations like Self-Help Groups (SHGs), Joint

Liability Groups (JLGs), Neighbourhood Groups (NHGs), etc. aid marginal farmers to access and use the available resources to improve their livelihood. Their link with microcredit through these organisations shall facilitate the integration of financial, institutional and human resources for building the potential of their primary enterprise

Joint Liability Groups: A Joint Liability Group (JLG) is an informal group of 4-10 individuals coming together to avail bank loans individually or through a group mechanism against a shared guarantee (Reserve Bank of India, 2014). Most of the time, the members of a JLG engage in a similar type of economic activity. The difference between Self-Help Groups (SHGs) and JLGs is that when SHGs are saving-oriented groups (borrowing power is determined based on their savings), JLGs are credit-oriented groups (primarily formed to avail bank loans). Group saving shall be an optional activity for JLGs. Important to note is that since registration under any Societies Act, State Cooperative Act, or partnership firm is not mandatory for SHGs vide Circular RPCD. No. Plan BC.13/PL-09.22/90-91 dated July 24th, 1991, of the Reserve Bank of India (Reserve Bank of India, 2016); the same applies to JLGs too. The members shall offer a joint understanding to the bank to enable them to take loans. The quantum of credit is not linked to group savings, and banks do not insist on collaterals against their loans to JLGs (NABARD, 2018).

Under the auspices of dairy cooperatives, the formation of JLGs (Joint Liability Groups), NHGs (Neighbourhood Groups), etc., shall serve as a model for encouraging milk producers to mobilize capital and utilize it collectively to produce milk sustainably. The success of the 'Kudumbashree' SHG model in Kerala, which aims to empower women, will serve as a guiding example. This model has around 4.6 million members in over 3 lakh NHGs (Rajagopal, 2020). With resemblance in its

governance structure, the dairy cooperatives can act as Area Development Societies (ADSs) with Neighbourhood Dairy Groups (NHDGs)/JLGs working under them as base units having 4-10 producer members. The dairy cooperatives shall promote and train the groups and assist them in the qualifying process of saving and internal lending (not mandatory). They may be introduced to credit institutions to open accounts and avail loan facilities. Additionally, dairy cooperatives can serve as financial intermediaries through lending to JLGs and financing from the NABARD, banks, and other financial institutions. The Union Government has also remodelled several flagship schemes to include community-based organisations functioning under the dairy sector, focusing on women empowerment.

Growing Relevance of JLGs in Kerala's Dairy Scenario: District-level officials from the Dairy Development Department of the Government of Kerala in Wayanad have advocated for establishing JLGs since the start of this century. In 2010, the department officially registered them, replacing the Brahmagiri Development Society, an NGO that received State Government financial support to facilitate the implementation of the Brahmagiri Dairy Project. They established JLGs specifically for men's and women's organisations with the assistance of NABARD. *Kudumbashree* (a women's empowerment and poverty eradication programme implemented by the State Poverty Eradication Mission (SPEM) of the Government of Kerala) initiated the formation of JLGs for crop cultivation and allied agricultural activities, including dairying, in the district in 2009 in addition to NHGs. The JLGs assisted dairy producers in gaining access to credit facilities that permitted the purchase of cattle without the requirement of collateral. *Kudumbashree* also promoted milch cow rearing, calf rearing, and male and female buffalo rearing through their NHGs. Though registered under different

agencies, the activities of the JLGs consisting of dairy farmers were streamlined and monitored by the dairy cooperatives in the district. Training and production support services were provided to the JLGs by the development departments, NABARD, and local self-government institutions, while the dairy cooperatives extended marketing support. A study reported that about 417 JLGs undertaking dairy farming activities were functional under dairy cooperatives at Wayanad district (JICA, 2014). No further data or impact study was available on this. In the light of the mentioned conditions, it was worth probing on the effect of these JLGs in dairy development of the district and hence a study was undertaken to ascertain the impact of these community-based organisations on milk production at the dairy cooperative level.

METHODOLOGY

A case study approach was employed to comprehend how the formation of JLGs at the level of dairy cooperatives facilitated the purchase of cows and increased milk procurement. This approach was followed because on initial survey, it was found that many of the JLGs had become defunct by the present time; and hence was presumed that an enquiry at the individual dairy cooperative level shall give detailed information on the pros and cons of JLG formation. Three dairy cooperatives from among those which started JLGs were randomly selected from the only three block panchayaths of the district – Panavally Dairy Cooperative from Mananthavady block, Thariode Dairy Cooperative from Kalpetta Block and Kabanigiri Dairy Cooperative from Panamaram block. The data on JLGs, funding agencies and milk production were collected and documented. Additionally, information on the limitations and suggested remedies concerning the functioning of JLGs was gathered from the officials of the dairy cooperatives.

FINDINGS AND DISCUSSION

The data on the milk production of Wayanad district over the years were collected from secondary sources (Table 2), showing a steady increase. Though studies on the impact of JLGs have not yet been documented, the increase shall not ignore its effects as one among different reasons and stands as testimony.

Table 2: Milk Production in Wayanad District of Kerala

Year	Annual Milk Production (in thousand MT)
2001-02	92.36
2003-04	73.20
2004-05	71.02
2006-07	101.90
2007-08	102.70
2008-09	101.43
2009-10	93.20
2010-11	122.10
2011-12	116.50
2012-13	122.20
2013-14	111.60
2019-20	137.94*
2021-22	130.98**
2022-23	134.27**

Source: *Dairying in Kerala- A Statistical Profile 2016, NDDB*

* Animal Husbandry Department data, 2021** Dairy Development Department 2023-24

The surplus production of milk in Wayanad district, which was 24,027 LPD (Litres per Day) during 2013-14 (DAHD statistics, 2015) increased to 1, 65,563 LPD during 2021-22 (Dairy Development Department Annual Plan,

2022-23). This shows the perpetual increase in milk production of the district; the surplus milk collected through dairy cooperatives is sold in the neighbouring districts of the Malabar Milk Union and transferred to other milk deficit Unions of the Kerala Cooperative Milk Marketing Federation.

Cases of JLG Impact in Wayanad district

Panavally Dairy Cooperative

Panavally Ksheerolpadaka Sahakarana Sangham Ltd. No. W(33) D – APCOS (Anand Pattern Cooperative Society) of Mananthavady block was registered in 2004 and started with a meagre milk collection of only 34 litres daily. The procurement of the dairy cooperative had grown only to 600 litres by 2015-16. During this period, under the guidance of the Dairy Development Department, 10 JLGs were formed with an average of 5 members (also members of the cooperative) each and secured loans from Canara Bank to purchase dairy animals (one per member) through a quadripartite agreement involving the dairy cooperative, department, JLG and the bank. The interest charged was 13%. The total number of members was 52, and the loan was ₹ 26 lakh. The cooperative facilitated loan repayment by deducting the milk value from the pouring JLG members. The milk procurement of the dairy cooperative, which was about 600 LPD, increased within the next year and reached 1200 LPD during 2021-22 (Figure. 1).

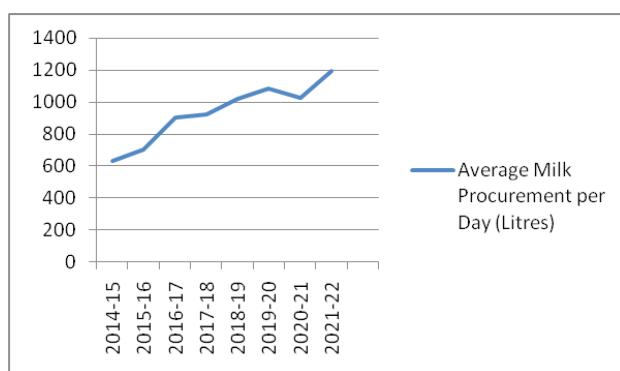


Figure. 1 – Increase in Milk Procurement at Panavally APCOS

The JLG members received an interest subvention (subsidy reducing interest burden on loans) of ₹ 1,20,000/- from the Dairy Development Department. The loan was repaid, but the JLGs are currently inactive due to a lack of monitoring. The Society acknowledges that JLG formation fostered positive relationships between banks and dairy farmers.

Thariode Dairy Cooperative

Registered in 1974, the Thariode Dairy Cooperative of Kalpetta block of Wayanad established 6 JLGs with 5 – 6 members each in 2014-2015 and obtained loans from Canara Bank for its members to buy dairy animals. With 28 people, the loan amount received was ₹ 14 lakh at a 9% interest rate. A ₹ 3.5 lakh capital subsidy was also given to them by NABARD.

Moreover, the JLGs were also given revolving funds to meet recurring expenses. The effect was an increase in procurement of nearly 200 LPD in the cooperative within one year (Figure. 2).

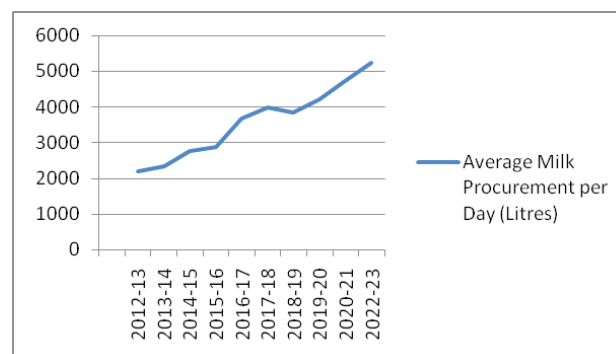


Figure. 2 – Increase in milk procurement at Thariode APCOS

The cooperative made monthly repayments using the milk value of its members. The JLGs remained functional even after the COVID-19 pandemic but became debilitated as many members quit dairying.

Kabanigiri Dairy Cooperative

The Kabinigiri Dairy Cooperative of Panamaram block of Wayanad has been functioning since 1991. From 2014-15, they

started forming JLGs under them with the support of the Dairy Development Department till 2017-18, as given below (Table 3).

Table 3: Details of JLGs of Kabanigiri APCOS

Year	No. of JLGs started	Total no. of members	Loan amount (₹)	No. of animals purchased
2014-15	11	63	63,00,000	68
2015-16	6	28	28,00,000	28
2016-17	5	25	25,00,000	25
2017-18	2	12	12,00,000	15
Total	24	128	1,28,00,000	136

Within four years, 24 JLGs were formed with 128 dairy farmer members (average of 5-6). 136 dairy cows were bought using loans from Canara Bank, totalling ₹ 1.28 crore. A few members also received capital subsidies from NABARD. As seen in Fig. 3, this led to a daily rise in milk procurement in the cooperative of almost 1000 litres during 2013-14. After the first set of animals was purchased, the average daily collection, which was close to 2000 litres in 2013-14, grew to 2300 litres. The current daily collection is 3113 litres, although the rise was not substantial throughout the COVID period.

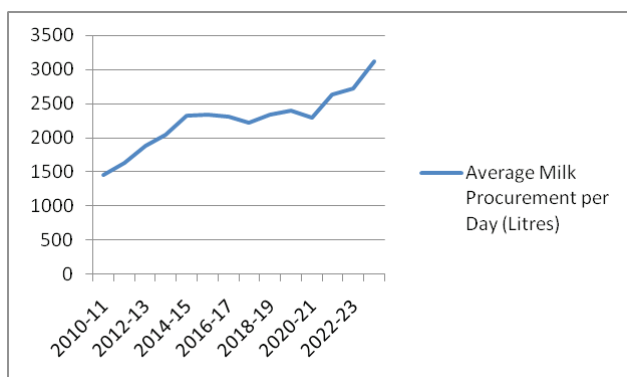


Figure. 3 – Increase in milk procurement at Kabanigiri APCOS

Advantages of JLG formation

Based on the case studies mentioned above, it can be inferred that JLGs positively contributed to the increased dairy animal population in Wayanad district. The animals were brought in from nearby states and districts, which had the beneficial effect of increasing milk production. Due to financial constraints, those members who were hesitant to increase the herd size could find trouble-free funds to purchase animals, facilitating the percolation of credit to the resource-poor dairy farming sector. The milk procurement in the dairy cooperatives increased making them financially more stable and serving the dairy community better. The payment of loans was effectively done through milk value deduction, the best option for both the farmer member and the lending bank. The members also received subsidies from the Dairy Development Department and NABARD as their schemes were clubbed with the JLGs, which effortlessly aided these agencies in finding beneficiaries for their schemes. The JLGs resulted in efficient resource mobilisation and can be viewed as a replica to

generate investment in primary production sectors through a basic democratic approach.

Constraints and Suggestions

Though there were noticeable advantages of JLG formation, a few drawbacks require attention, as suggested by the authorities of the dairy cooperatives monitoring them. The group's primary focus confining only to the purchase of dairy animals, higher interest rates of loans, lack of sufficient subsidy from NABARD or line departments to most of the JLGs and drop-outs; in the long run, weakening the groups were the major criticisms, which need to be addressed satisfactorily. The worst part was the negligence shown by a few members of the groups in repaying the loans, which affected others as the liability was on a joint basis. The suggestion was to alter the groups with the characteristics of SHG having regular savings and deposits with financial institutions, continuing with the individual lending norms of JLG at a minimal interest rate.

New Initiatives

Given the constructive role of JLGs in increasing milk production and the urgent requirement to augment the stagnant milk production, the Government of Kerala during 2021-22 issued instructions to register 'Ksheerashree' JLGs throughout the state under the Dairy Development Department for men/women/mixed groups with the proposed activities of dairy farming, fodder cultivation, inputs distribution, value addition etc. The financial sources are Dairy Department schemes, bank loans, Kissan Credit Card, Central Government schemes, etc. The groups are also eligible for registration in the MSME portal to avail their schemes. Since registration is not mandatory, the SHGs/JLGs can be directly formed under the dairy cooperatives, and NABARD, in their field-level studies, has featured the positive impacts of the

same (DAY-NRLM, 2017). Many of the Primary Agricultural Credit Cooperative Societies, Farmer's clubs, Regional Rural Banks, NGOs, etc., co-opted by NABARD, have transformed into Self-Help Promoting Institutions (SHPI), promoting SHGs and forging credit linkages with them (NABARD, 2022).

Potential activities of JLGs under Dairy Cooperatives

The JLGs operunder major dairy cooperatives have many options for effectively managing resources at the local level and facilitating efficient operations. The list below has been generated with input from milk producers and officials from the Dairy Cooperatives and the State Dairy Development Department.

- A to Z handholding support for the JLG members, including training, skill teaching and extension classes
- Loan facilities from banks for animal purchase, shed construction, biogas plants etc.
- Loan facilities within the group (internal loan) for immediate needs like medical treatment of cattle, insurance and any other unforeseen expenses.
- Fodder cultivation on leased land, common property resources, fallow lands, canal bunds, etc.
- Bulk purchase and storage of dairy inputs like cattle feed, dry fodder, silage, mineral mixture etc., for cost-effectiveness.
- Community milking system (manual/machine) to reduce milking costs and ensure quality milk production
- Value addition at the JLG level and sales directly or through the dairy cooperative network.

- Efficient utilisation of cow dung and urine and allied income-generating activities apart from milk production and processing

CONCLUSION

The future of Kerala's dairying rests on how well the marginal farmers tactfully handle their scanty resources. To scale up their dairy chores, they could start community-based groups like SHGs and JLGs (for men and women separately), which are informal forms of local group development that already have a lot of examples. It's time for dairy cooperatives to join with SHGs or JLGs since each can be seen as a "micro-dairy society." The case studies demonstrate the success of community organization theory by ensuring shared power, members given the tools they need, and internal and external resources getting managed well. Moving forward in this direction requires the active participation of dairy cooperatives guided by the government departments and the apex dairy federation. The officials of both cooperatives and govt. departments should be well-informed and motivated to create awareness among farmers throughout the state and encourage the registration of these community based institutions for future dairy development.

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