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Mapping Milk Procurement in Maharashtra: District-Level Patterns and Institutional Dynamics

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Abstract

Milk procurement plays a critical role in shaping rural livelihoods, dairy-sector development, and the organization of agricultural supply chains in India. However, aggregate state-level trends often conceal substantial spatial, institutional, and seasonal differences in procurement systems. This study examines the district-level patterns, institutional dynamics, procurement sources, and seasonal variation of milk collection in Maharashtra during FY2022-23 to FY2024-25. Using district-level milk procurement data, the study distinguishes procurement by private, cooperative, and government sectors, as well as by intra-district, inter-district, and inter-state sources. The analysis also examines the spatial concentration of procurement, sectoral dominance, dairy-plant distribution, milk-shed dynamics, and seasonal fluctuations.

The findings show that total milk procurement increased from approximately 9.00 million metric tonnes in FY2022-23 to 11.07 million metric tonnes in FY2024-25, although the annual growth rate moderated from 12.84% to 9.0%. Private dairies dominated procurement, accounting for an average of 71.7%, compared with 28.3% for cooperatives, with the private share increasing from 70.0% to 72.8% during the study period. Procurement was predominantly localized, with approximately 67.5% sourced within districts. In FY2024-25, Ahilyanagar, Pune, and Kolhapur together accounted for 50% of intra-district procurement, while the top ten districts contributed approximately 90%. Considerable institutional heterogeneity was observed: Kolhapur and Jalgaon remained cooperative-dominant, whereas Dharashiv, Satara, Nasik, and Solapur exhibited strong private-sector dominance. Transitional patterns were evident in districts such as Pune, Sangli, and Ahilyanagar. Seasonal analysis revealed a consistent summer decline and post-monsoon and winter recovery in procurement, associated with variations in fodder availability, climatic conditions, and livestock productivity. The findings demonstrate that Maharashtra's dairy procurement system is increasingly private-sector driven but remains strongly shaped by historical cooperative institutions, infrastructure, milk-shed geography, and regional conditions. The study highlights the need for region-specific policies, stronger cooperative capacity, improved procurement infrastructure, and more equitable institutional development across Maharashtra's dairy sector.

Keywords: Milk procurement; Dairy sector; Maharashtra; Private dairy; Cooperative dairy; Milk sheds; Seasonal variation.

Mapping Milk Procurement in Maharashtra: District-Level Patterns and Institutional Dynamics

1. Introduction

Dairying has emerged as a critical pillar of India's rural economy, contributing not only to nutritional security but also to income generation, employment, and regional economic stability. As the largest agricultural commodity by value, milk has consistently accounted for a growing share of both rural and urban food expenditure. Between 1983 and 2009–10, the share of dairy products in monthly per capita food expenditure increased from 11.5% to 14.9% in rural areas and from 15.7% to 18.4% in urban areas (Kumar et al., 2014). According to the latest Household Consumption Expenditure Survey (HCES) 2023–24 by NSO/MoSPI, milk and milk products account for 8.44% of total MPCE in rural areas and 7.19% in urban areas, with average monthly spending of ₹350 and ₹500 respectively, indicating a sustained rise in the consumption of milk and milk products in India (NSSO, 2024). Today, dairying supports over 80 million rural households, with women comprising approximately 70% of the workforce (Pandey et al., 2024), underlining its inclusive growth potential.

The transformation of the dairy sector is closely associated with the White Revolution of the 1970s, which, under the leadership of Verghese Kurien, catalyzed institutional reforms through Operation Flood and the cooperative model (Kurien, 2012). These interventions linked producers to markets, removed exploitative intermediaries, and established decentralized procurement and distribution networks. India transitioned from a milk-deficient country to the world's largest milk producer by 1998, surpassing the United States (Crotty, 1986). In 2023–24, India produced 239.2 million tonnes of milk, contributing 25% of global production, with a per capita availability of 471 grams/day (PIB, 2025a). The sector grew by 63.56% over the past decade, reflecting its vital role in agricultural growth and food systems transformation.

Despite this aggregate success, several systemic and spatial disparities persist (Sri et al., 2024). Productivity differentials across states, inadequate cold-chain infrastructure, prevalence of livestock disease, and concerns over milk quality continue to impede equitable sectoral development (P Sankar & Govindharaj, 2021; Sri et al., 2024). Furthermore, the decentralized

nature of agricultural governance in India implies that state-level dynamics, policies, and institutional mechanisms significantly influence sector performance (Glendenning & Babu, 2011; Patil et al., 2025). While national assessments offer broad trends, they often mask inter and intra district variations that are critical for understanding the efficiency and equity of procurement systems. However, Recent initiatives under the framework of White Revolution 2.0, such as the Rashtriya Gokul Mission, Animal Husbandry Infrastructure Development Fund (AHIDF), and National Animal Disease Control Programme (NADCP), have sought to modernize the sector through technology integration, digital livestock management (e.g., the e-Gopala app), genomic breeding, and climate-resilient practices (Malik et al., 2024; PIB, 2025b). These programs aim to address productivity bottlenecks while also enhancing resilience and sustainability. However, their impact is mediated by regional institutional capacities and infrastructural disparities (Manjunath & Kannan, 2017).

Maharashtra constitutes a critical case for examining dairy procurement systems due to its historical role in cooperative dairy development, its substantial contribution to national milk output, and its pronounced intra state heterogeneity. The state played an important role in consolidating cooperative institutions during and after Operation Flood, with district milk unions and the Maharashtra Rajya Sahakari Dudh Mahasangh strengthening decentralized procurement and producer integration (Kurien, 2012; Scholten, 2010). Maharashtra is among the leading milk producing states in India, contributing approximately 6 to 7 percent of national milk production and ranking among the top ten milk producing states in recent years (DAHD, 2025). The state also represents a mixed procurement structure in which cooperative institutions coexist with private dairy processors and informal market channels, reflecting broader transformations in India's dairy economy. While cooperatives continue to account for a substantial share of organized milk procurement, the expansion of private dairies has introduced differentiated procurement channels and price transmission mechanisms (Kaushik et al., 2023; Singh et al., 2001). In addition, regional variations in chilling infrastructure, veterinary outreach, and rural road connectivity shape spatial participation and seasonal procurement stability (Manjunath & Kannan, 2017; NDDB, 2025). Collectively, these institutional, infrastructural, and environmental contrasts make Maharashtra a methodologically robust setting for analysing how regional capacities mediate procurement efficiency and spatial equity within the dairy sector.

This study aims to investigate the institutional mechanisms, regional disparities, and seasonal dynamics of milk procurement in Maharashtra. By analyzing procurement data at the district level, the study provides insights into the spatial and temporal organization of dairy supply chains, with implications for policy design, infrastructure planning, and inclusive rural economic development.

2. Data

Milk procurement in Maharashtra follows a structured and multi-channel system, beginning at the level of the primary producers, namely the dairy farmers. For the procurement of the milk, farmers typically engage with one of three institutional avenues for selling their milk: private buyers, government agencies, or cooperative societies. Each of these sectors operates on distinct procurement mechanisms, offering varying incentives, pricing structures, and levels of institutional support.

The procurement process is further categorized into three spatial scales: Intra-District collection, which involves the aggregation of milk within the district of origin or in the local areas; Inter-District collection, which refers to the movement of milk across districts but within Maharashtra; and Inter-State collection, wherein milk is sourced from outside the state. These categories are disaggregated by sector, offering a detailed picture of the geographic flow of milk within and beyond state boundaries, as discussed in detail in the subsequent sections of the report.

On the distribution side, the dataset captures the sale of sealed packaged milk across the three sectors, along with wholesale sales within Maharashtra and Inter-State sales beyond its borders. A significant portion of the collected milk undergoes processing and transformation, resulting in a range of dairy products such as curd, ghee, butter, paneer, milk powder and other products. These activities are undertaken by both private and cooperative processors, along with the Mahanand Dairy, operated by the government.

An important aspect of this supply chain is the inter-organizational transfer of milk, particularly from cooperative units to Mahanand. These transfers facilitate the integration of decentralized procurement systems into a centralized processing and distribution network, thereby enhancing

supply chain efficiency and market reach. Overall, this system reflects a complex but coordinated structure of milk collection, processing, and sale, shaped by sectoral dynamics and institutional arrangements across the state.

3.1 Total Milk Collection in Maharashtra

To estimate total milk procurement, reported average daily milk collection values were multiplied by the number of days in each respective month. The resulting monthly totals were aggregated to derive financial year-wise procurement estimates for FY2022-23, FY2023-24, and FY2024-25. Milk procurement in Maharashtra exhibited a consistent upward trend over

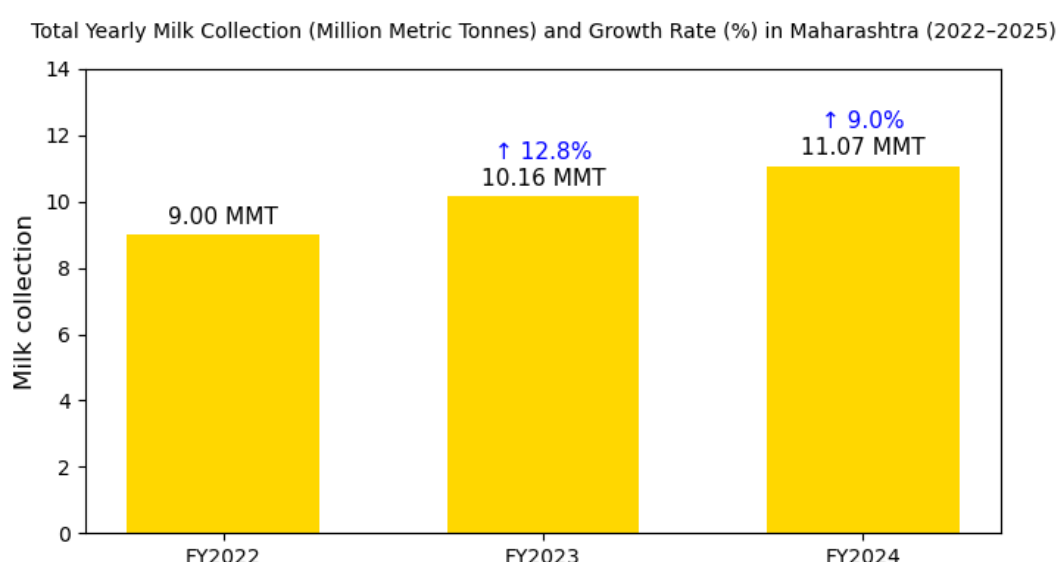


Figure 1: Total Yearly Milk Collection (Million Metric Tonnes) and Growth Rate (%) in Maharashtra (2022–2025). *Note: FY2022-23 refers to the period from April 1, 2022, to March 31, 2023. Same applies to other Financial Years mentioned.*

the study period (Figure 1). Total procurement increased from approximately 9.00 million metric tonnes (MMT) in FY2022-23 to 10.16 MMT in FY2023-24, registering a year-on-year growth of 12.84 percent. In FY2024-25, procurement further increased to 11.07 MMT, although the annual growth rate moderated to 9 percent. The findings indicate sustained expansion in milk procurement, while the declining growth rate suggests a moderate deceleration in year-on-year increase. Procurement during the study period accounted for a substantial share of total milk production in Maharashtra, indicating the expanding scale and institutional reach of organized dairy procurement systems in the state.

3.2 Milk Collection by Sectors

Between FY2022-23 and FY2024-25, milk procurement in Maharashtra remained predominantly driven by the private sector, which accounted for an average of 71.7 percent of total procurement, while cooperatives contributed 28.3 percent (Figures 2A and 2B). The government sector contributed only a negligible share to total procurement during the study period. Over time, the private sector's share increased marginally from 70 percent in FY2022-23 to 72.8 percent in FY2024-25, whereas the cooperative sector's share declined from 30 percent to 27.2 percent. These trends indicate the growing dominance of private dairy procurement networks in Maharashtra and suggest an increasing shift toward market-oriented procurement systems, with cooperatives continuing to play an important but relatively smaller role in organized milk collection.

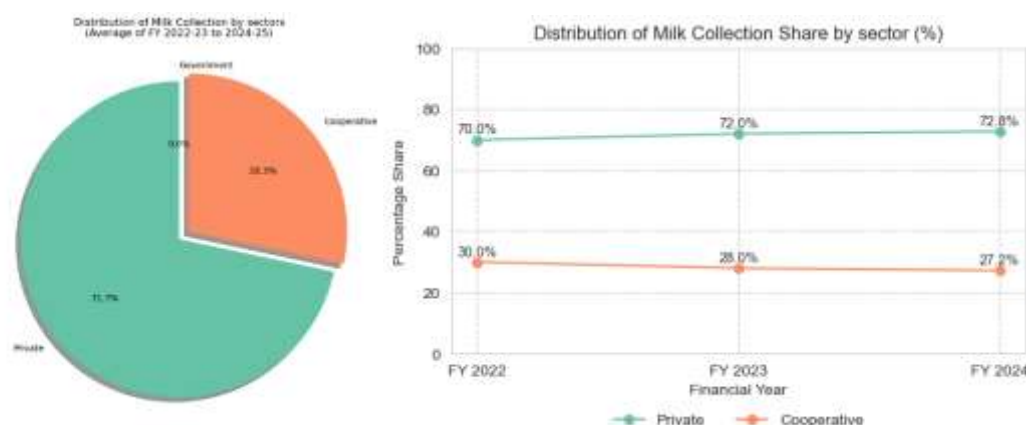


Figure 2: Distribution of milk collection by sector based on the average value (A) and the different financial year from FY2022-23 to FY2024-25 (B).

3.3 Milk Collection by Procurement Sources

Milk procurement in Maharashtra between FY2022-23 and FY2024-25 remained predominantly localized, with an average of 67.5 percent of milk procured within the same district (Figures 3A and 3B). Intra-district procurement increased gradually from 66 percent in FY2022-23 to 69 percent in FY2024-25, indicating the growing importance of localized procurement networks in the state. In contrast, procurement from other districts within Maharashtra declined from 29.4 percent to 27 percent over the same period, while inter-state sourcing remained limited and decreased marginally from 4.5 percent to 3.9 percent.

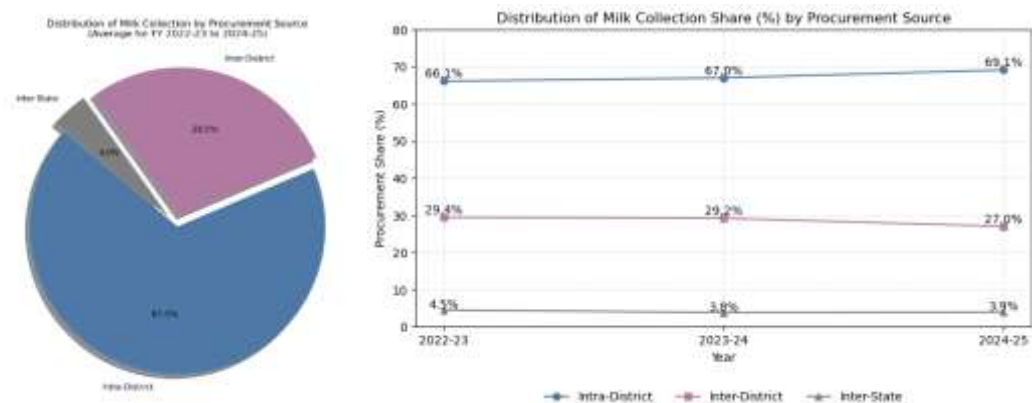


Figure 3: Distribution of milk collection by sources based on the average value (A) and the different financial year from FY2022-23-23 to FY2024-25-25 (B).

3.4 Private and Cooperative Shares Across Milk Procurement Sources, FY2022-23–FY2024-25

Across all three categories of milk procurement (Intra-District, Intra-State, and Inter-State), private institutions consistently maintained a higher share than cooperatives in each financial year from FY2022-23 to FY2024-25 (Figure 4). The dominance was most evident in Intra-State procurement, where the private sector's share exceeded 70 percent throughout the period, rising from 71 percent in FY2022-23 to 76 percent in FY2024-25. In Inter-State procurement, their share increased from 71.7 percent to 74.8 percent, while the cooperative share declined from 28.3 percent to 25.2 percent. A similar pattern was observed Intra-District s, where the private share grew from 63.7 percent to 68 percent and the cooperative share fell from 36.3 percent to 32 percent.

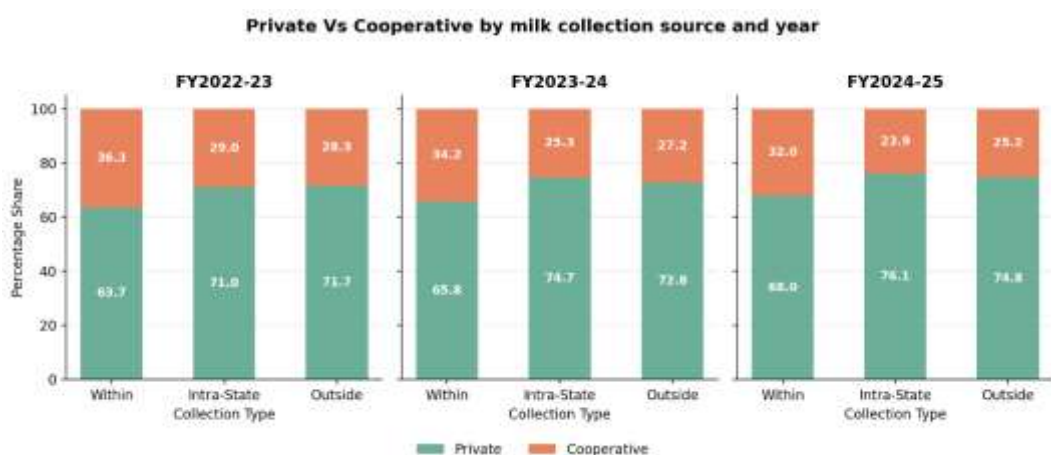


Figure 4: Sectoral Shares (Private vs Cooperative) in Milk Collection by Procurement Sources (FY2022-23-23 to FY2024-25-25).

3.5 District-Wise Distribution of Milk Collection

This analysis evaluates the spatial distribution of milk collection in Maharashtra, disaggregated into three procurement sources: Intra-District collection, Inter-District procurement from other districts within Maharashtra, and inter-state procurement from outside the state. Understanding these patterns is important for identifying district-level collection patterns, highlighting districts that dominate specific procurement categories, and recognizing districts that are underperforming in milk collection across Maharashtra.

3.5.1 Intra-District Collection

Intra-District milk collection in Maharashtra was heavily concentrated in a few key districts (Table 3). In FY2024-25, half (50%) of the state's total Intra-District milk collection came from just three districts: Ahilyanagar (22.4%), Pune (17.5%), and Kolhapur (10.1%). The next 25% was contributed by three more districts: Satara (9.6%), Sangli (9.3%), and Solapur (8.1%). A further next 15% came from four additional districts: Nasik (4.6%), Dharashiv (3.3%), Chhatrapati Sambhajnagar (2.8%), and Jalgaon (1.9%). Thus, these ten districts together accounted for 90% of Maharashtra's total Intra-District milk collection. The remaining 10% was spread thinly across several other districts, many of which collected very small quantities. Notably, five districts reported zero Intra-District milk collection: Gadchiroli, Raigad, Nandurbar, Washim, and Mumbai. The absence or negligible level of Intra-District milk procurement in districts such as Mumbai and Raigad may be associated with high urbanization, limited livestock rearing space, and dependence on external milk supply networks, while districts such as Gadchiroli and Nandurbar may reflect infrastructural limitations, lower dairy commercialization, and weaker integration with organized procurement systems. However, a more in-depth district-level investigation is required to comprehensively understand the structural, infrastructural, and institutional factors underlying these spatial disparities in milk procurement.

3.5.1.1 District-Level Analysis of Intra-District Milk Collection Across Sectors

Table 2 presents the percentage share of milk collection contributed by districts within Maharashtra's cooperative and private sectors for fiscal years 2022 and 2024. The table categorizes districts by cumulative contribution thresholds of 50%, 75%, and 90%, highlighting key districts that dominate milk collection within their own boundaries. This detailed

breakdown helps reveal the spatial concentration and sectoral dynamics of Intra-District milk collection.

3.5.1.1.1 Cooperative sector

In FY2022-23, within the cooperative sector, 2 districts, Kolhapur and Pune, accounted for nearly 50 percent of the total milk collected Intra-District s, contributing 33.84% and 15.12% respectively. By FY2024-25, these same 2 districts maintained their dominant position with an increased combined share. Kolhapur's contribution rose to 36.93%, while Pune's slightly increased to 16.44%. Expanding to the districts contributing to 75 percent of the cooperative collection, 4 districts contributed in FY2022-23: Kolhapur, Pune, Ahilyanagar (14.80%), and Sangli (13.60%). In FY2024-25, these 4 districts remained the core contributors, with Ahilyanagar's share stable at 14.96%, but Sangli's share declined notably from 13.60% to 10.75%. To reach 90 percent of the cooperative milk collection, 9 districts contributed in FY2022-23, adding Jalgaon (5.66%), Solapur (3.89%), Beed (3.87%), Satara (2.90%), and Nasik (1.6%) to the previous four. In FY2024-25, 8 districts contributed to 90 percent of the total, with similar districts except one fewer, as some smaller shares shifted. Beed's share decreased from 3.87% to 3.09%, Solapur from 3.89% to 3.58%, and Satara from 2.90% to 2.71%, while Nasik's share slightly increased from 1.6% to 1.66%.

Overall, the cooperative sector's milk collection remains concentrated in a small group of districts. Kolhapur showed a consistent upward trend, increasing its share by over 3 percentage points, while Sangli experienced the most notable decline among the larger contributors. Other districts showed marginal changes, indicating stability in the cooperative milk collection landscape with a few districts gradually gaining or losing prominence.

3.5.1.1.2 Private sector

In FY2022-23, within the private sector, 2 districts, Ahilyanagar and Pune, together accounted for nearly 44 percent of the total milk collected Intra-District s, contributing 28.89% and 15.43% respectively. By FY2024-25, these same 2 districts continued to dominate, although Ahilyanagar's share declined to 24.99%, while Pune's slightly increased to 17.86%. Expanding to the districts contributing to 75 percent of the private milk collection, 5 districts contributed in FY2022-23: Ahilyanagar, Pune, Satara (13.55%), Solapur (11.84%), and Sangli (7.56%). In FY2024-25, these 5 districts remained dominant, with Satara's share decreasing from 13.55% to 11.99%, Solapur from 11.84% to 9.61%, and Sangli increasing from 7.56% to 8.86%. To

reach 90 percent of private sector collection, 12 districts contributed in FY2022-23. These included the previous 5 districts plus Nasik (4.79%), Dharashiv (3.73%), Chhatrapati Sambhajnagar (1.12%), Bhandra (2.30%), Nagpur (1.73%), Latur (1.07%), and Beed (1.00%). In FY2024-25, 13 districts contributed to 90 percent of the total, with Chhatrapati Sambhajnagar showing a notable increase from 1.12% to 3.21%, Nasik rising from 4.79% to 5.58%, and Dharashiv increasing from 3.73% to 4.43%. Some smaller contributors such as Bhandra and Nagpur saw slight declines.

Several districts in Maharashtra exhibit significant activity in both the cooperative and private milk collection sectors. Notably, Pune and Ahilyanagar stand out as key contributors where both sectors have substantial shares. Pune consistently shows strong participation from cooperatives and private players, while Ahilyanagar leads in the private sector and maintains a stable cooperative presence. Other districts such as Sangli, Satara, and Solapur also demonstrate active roles for both sectors, although the balance between cooperative and private shares varies

Table 2: Intra-District Milk Collection Contribution by Sector (FY2022-23 & FY2024-25).

Category (Cumulative Share)	Cooperative (FY2022-23)	Cooperative (FY2024-25)	Private (FY2022-23)	Private (FY2024-25)
50	Kolhapur (33.84), Pune (15.12)	Kolhapur (36.93), Pune (16.44)	Ahilyanagar (28.89), Pune (15.43)	Ahilyanagar (24.99), Pune (17.86)
75	Ahilyanagar (14.80), Sangli (13.60)	Ahilyanagar (14.96), Sangli (10.75)	Satara (13.55), Solapur (11.84), Sangli (7.56)	Satara (12.00), Solapur (9.61), Sangli (8.86)
90	Jalgaon (5.66), Solapur (3.89), Beed (3.87), Satara (2.90), Nasik (1.60)	Jalgaon (5.52), Solapur (3.58), Beed (3.09), Satara (2.71), Nasik (1.66)	Nasik (4.79), Dharashiv (3.73), Chhatrapati Sambhajnagar (1.12), Bhandra (2.30), Nagpur (1.73), Dhule (0.85)	Nasik (5.58), Dharashiv (4.43), Chhatrapati Sambhajnagar (3.21), Bhandra (1.80), Nagpur (1.45), Dhule (0.99)

3.5.1.2 Distribution of Intra-District Milk Collection by Sectors of Districts Contributing 90 Percent of Procurement

The analysis showed that the private sector accounted for 70.8% of Intra-District milk collection in the top ten districts (Figure 5), while the co-operative sector contributed 29.2%. A similar pattern was observed across all districts, where the private sector's share of total milk collection was slightly higher at 71.7%, reaffirming its clear dominance over co-operatives in milk procurement at both regional and state levels.

3.5.1.3 Trends in Public–Cooperative Shares of Intra-District Milk Collection: Districts Contributing 90 Percent of Procurement Analysis

Table 4 presents the public–cooperative share of Intra-District milk collection across the top ten districts of Maharashtra for the years 2022, 2023, and 2024. It tracks how private and cooperative shares shifted over time, helping to identify where each sector gained or lost ground in the competition for milk procurement.

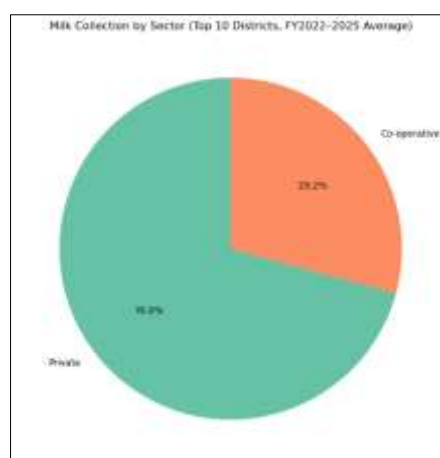


Figure 5: Average Milk Collection by Co-operative and Private Sectors across Districts Contributing 90 Percent of Procurement (FY2022-23–FY2025).

Table 3: Proportional share of districts in milk collection in FY2024-25.

Category (Cumulative)	Intra-District	Inter-District	Inter-State
50	Ahilyanagar (22.4), Pune (17.5), Kolhapur (10.1)	Pune (51.3)	Thane (56.6)
75	Satara (9.6), Sangli (9.3), Solapur (8.1)	Thane (19), Raigad (4.4), Satara (4.2)	Kolhapur (19.5)

90	Nasik (4.6), Dharashiv (3.3), Chhatrapati Sambhajnagar (2.8), Jalgaon (1.9)	Ahilyanagar (7.6), Raigad (4.4)	Nagpur (8.7), Solapur (5.5)
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3.5.1.3.1 Cooperative Sector

The cooperative sector records a higher share of Intra-District milk collection primarily in a few districts. Kolhapur stands out with exceptionally high cooperative shares, from 91.7% in FY2022-23 to 93.8% in FY2024-25. Jalgaon also maintains a strong cooperative presence, holding 81.1% in FY2022-23 and 74.9% in FY2024-25. Sangli shows a notable cooperative share, reaching 70.6% in FY2024-25. Regarding the trend over time, the cooperative sector share is increasing in Kolhapur, moving from 91.7% to 93.8%, and in Sangli, where the share rises significantly from 44.4% to 70.6% between FY2022-23 and FY2024-25. These districts demonstrate a strengthening cooperative presence in milk collection during this period.

Table 4: Public-Cooperative Share of Intra-District Milk Collection of Districts Contributing 90 Percent of Procurement (FY2022-23 & FY2024-25).

District	FY2022-23		FY2023-24		FY2024-25	
	Cooperative	Private	Cooperative	Private	Cooperative	Private
Ahilyanagar	18.6	81.4	18.7	81.3	17.0	83.0
Pune	30.3	69.7	27.3	72.7	24.0	76.0
Kolhapur	91.7	8.3	92.6	7.4	93.8	6.2
Satara	8.7	91.3	7.4	92.6	7.2	92.8
Sangli	44.4	55.6	37.0	63.0	29.4	70.6
Solapur	12.8	87.2	16.0	84.0	11.3	88.7
Nasik	13.0	87.0	13.1	86.9	9.3	90.7
Dharashiv	1.0	99.0	1.3	98.7	0.6	99.4
Chhatrapati	38.1	61.9	20.9	79.1	13.3	86.7
Jalgaon	81.1	18.9	79.8	20.2	74.9	25.1

Note: Districts are arranged in descending order based on the total Intra-District milk collection.

3.5.1.3.2 Private Sector

The private sector holds a higher share of Intra-District milk collection in most districts across all three years. Districts such as Satara, Dharmabad, Nasik, Solapur, Ahilyanagar, Pune, and Chhatrapati Sambhajnagar consistently record private shares above 70%, with some like Dharmabad (99.0%-99.4%), Satara (91.3%-92.8%), and Nasik (87.0%-90.7%) exhibiting especially high levels. When considering the trend over time, the private sector share is increasing in several districts. Specifically, Ahilyanagar (from 81.4% to 83.0%), Pune (from

69.7% to 76.0%), Satara (from 91.3% to 92.8%), Solapur (from 87.2% to 88.7%), Nasik (from 87.0% to 90.7%), Dharmabad (from 99.0% to 99.4%), and Chhatrapati Sambhajnagar (from 61.9% to 86.7%) all show a rising private sector milk collection share over the period from FY2022-23 to FY2024-25.

3.5.1.4 Seasonal Patterns of Milk Procurement in Districts Contributing 90 Percent of Procurement

Since information on the origin of milk procurement outside district boundaries was not available, the analysis focuses on intra-district collection, which accounts for approximately 67.5 percent of Maharashtra's total milk procurement. Figure 5 presents seasonal milk collection trends for districts that together contribute about 90 percent of total procurement in the state over FY 2022 to FY 2025, with collection aggregated across four seasons: Winter (January–February), Summer (March–June), Monsoon (July–September), and Post-Monsoon (October–December).

Across most districts, a consistent seasonal pattern is evident. Collection is generally lowest during the summer season, reflecting constraints related to higher ambient temperatures, reduced fodder availability, and animal stress during the pre-monsoon and early monsoon months. Procurement recovers during the Monsoon season and rises further through the post-monsoon period. Winter consistently records the highest or near-highest seasonal averages across most districts and financial years, reflecting improved fodder availability and favourable climatic conditions for milk production. This broad seasonal rhythm is observed across all three financial years, though the magnitude of seasonal variation differs by district.

High-volume districts such as Pune, Ahilyanagar, and Kolhapur dominate overall procurement and display clear seasonal amplitudes. Pune shows the sharpest inter-annual growth, with collection rising substantially from FY 2022-23 to FY 2024-25 across all seasons, and a pronounced gap between summer lows and Post-Monsoon and Winter highs. Ahilyanagar exhibits relatively stable seasonal patterns with consistently high collection across all seasons and limited inter-annual fluctuation. Kolhapur displays a smoother seasonal curve, with a

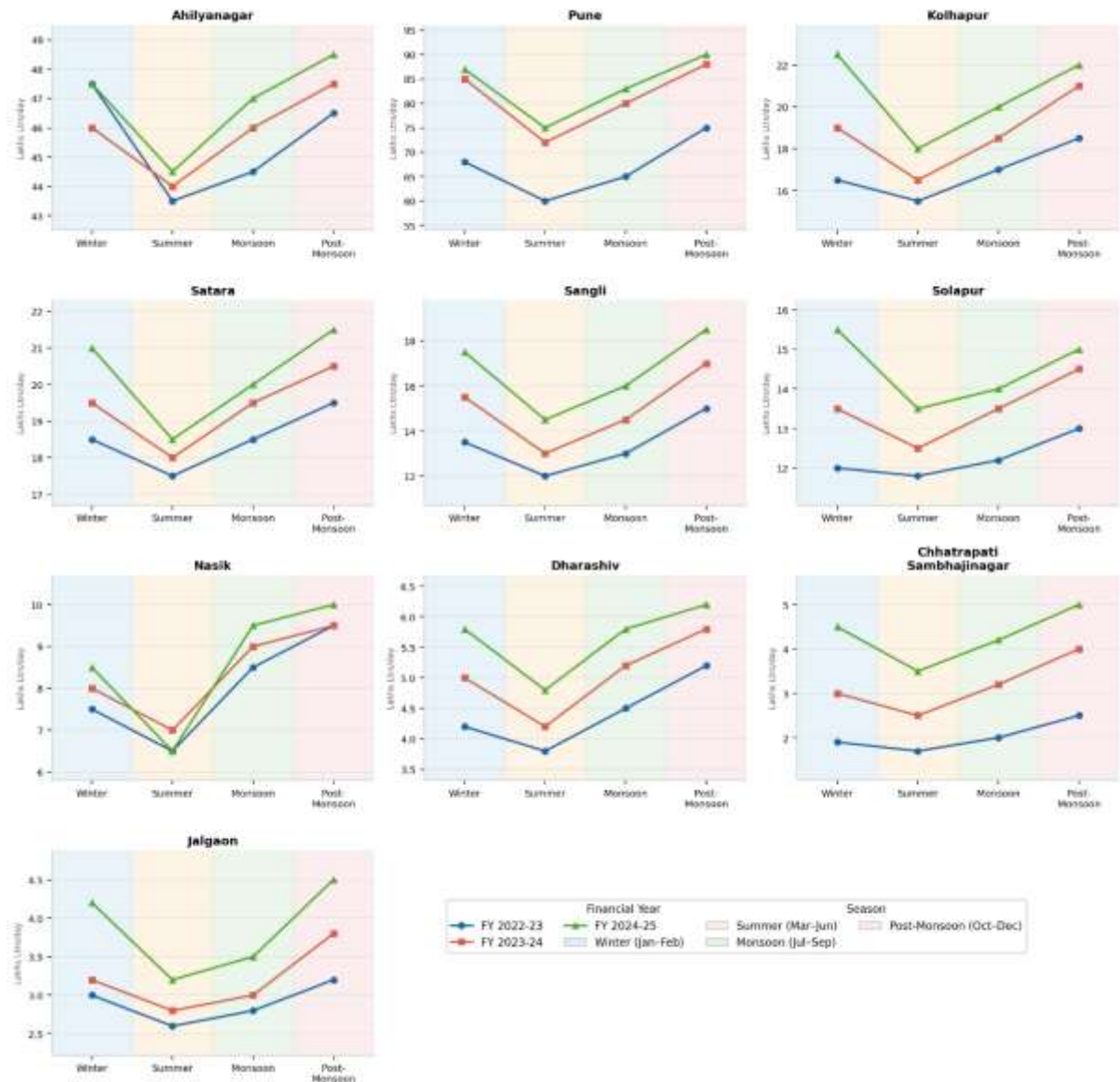


Figure 5: Seasonal trend of total milk procurement from 2022 to 2024 in the top 10 milk-collecting districts of Maharashtra, accounting for 90% of Intra-District collection.

steady rise from Summer through Post-Monsoon and modest inter-annual increases. Mid-volume districts including Satara, Sangli, and Solapur follow similar seasonal trajectories at lower absolute levels. Satara and Sangli both record marked summer troughs and stronger

Post-Monsoon and Winter recovery, while Solapur shows a more gradual and steady seasonal increase with comparatively muted fluctuations. Lower-volume districts such as Nasik, Dharashiv, and Jalgaon exhibit smaller absolute seasonal amplitudes but display visible summer dips and post-monsoon recovery consistent with the broader state pattern. Chhatrapati Sambhajanagar stands out for its strong inter-annual growth across all seasons, rising sharply

from FY 2022-23 to FY 2024-25, though its within-year seasonal variation remains relatively limited, indicating that overall procurement expansion rather than seasonal responsiveness characterizes this district's trajectory.

3.5.2 Inter-District Collection

Milk procurement from other districts within Maharashtra in FY2024-25 showed a strong concentration in a handful of districts (Table 3). More than half (51.3%) of the state's total Inter-District procurement came from Pune alone. The next 25% came from Thane (19.0%), Raigad (4.4%), and Satara (4.2%). The next 15% was from Ahilyanagar (7.6%) and Kolhapur (3.9%). Together, these six districts accounted for 90% of Maharashtra's total Inter-District milk procurement. The remaining 10% was spread thinly across 13 other districts, many of which procured very small amounts. Fifteen districts reported zero Inter-District procurement: Parbhani, Ratnagiri, Wardha, Washim, Mumbai, Nandurbar, Nanded, Akola, Jalna, Gadchiroli, Bhandara, Beed, Chhatrapati Sambhajinagar, Amravati, and Yavatmal.

3.5.3 Inter-State Collection

In FY2024-25, the movement of milk from one district to another within Maharashtra was dominated by a few major contributors (Table 3). The largest share came from Thane, contributing 56.6% of the total. The next 25% was sourced from Kolhapur (19.5%) and Nagpur (8.7%). The next 15% came from Solapur (5.5%), Sangli (4.1%), and Pune (3.1%). Together, these six districts accounted for over 95% of the state's total outside-state procurement. The remaining share was contributed by Raigad (2.5%), while 27 districts reported zero procurement from outside the state, including Nashik, Parbhani, Ahilyanagar, Ratnagiri, Satara, Sindhudurg, Wardha, Washim, Nanded, Mumbai, Akola, Jalgaon, Hingoli, Gondia, Gadchiroli, Chandrapur, Buldhana, Dharashiv, Bhandara, Beed, Chhatrapati Sambhajinagar, Amravati, and Yavatmal.

A few districts played prominent roles across multiple milk collection streams, highlighting their strategic importance in Maharashtra's dairy sector. Pune accounted for 17.5% of Intra-District collection and a substantial 51.3% of Inter-District collection. Ahilyanagar contributed 22.4% of Intra-District collection and 7.6% of Inter-District collection. Kolhapur recorded 10.1% of Intra-District and 19.5% of inter-state collection, while Satara's share comprised 9.6% of Intra-District and 4.2% of Inter-District collection. Thane overwhelmingly dominated

inter-state collection at 56.6% and also contributed 19.0% to Inter-District collection. These overlaps reflect a marked concentration of milk collection activity in a small cluster of districts.

As the names of the districts from which Maharashtra's districts collected milk for Inter-District collection, as well as the state or district names for outside-state collection, were missing in the dataset, this represented a limitation of the study. Consequently, further analysis focused solely on Intra-District milk collection to provide a clearer understanding of sectoral performance among private and cooperative players in the next section.

As of now, we have micro-level data for only four districts. While this provides useful preliminary insights, it limits the scope of the analysis. For a more comprehensive understanding and to draw district-wise comparisons, micro-level data from other districts will be required. In addition, a primary survey of dairy farms and farmers is necessary to understand milk production practices, challenges, and variations at the ground level. Expanding the dataset along with primary survey inputs will improve the accuracy, robustness, and generalizability of the findings.

3.6 Sectoral distribution of milk procurement by society

The district-level analysis reveals that Maharashtra's milk procurement system is institutionally heterogeneous, with clear variation in the relative dominance of cooperative and private procurement structures. Rather than functioning as a uniform procurement system, districts exhibit distinct institutional configurations shaped by historical cooperative development, private dairy expansion, processing infrastructure, and procurement competition. Broadly, the districts examined in this study can be grouped into two major institutional categories: cooperative-dominant districts and private-dominant districts, with some districts exhibiting transitional or mixed characteristics.

3.6.1 Cooperative-Dominant Districts

Kolhapur and Jalgaon represent districts where cooperative institutions continue to maintain substantial control over milk procurement in Maharashtra (Tables 4). In these districts, cooperative procurement networks remain historically entrenched and institutionally consolidated, supported by long-standing producer unions, established milk routes, and

relatively strong farmer linkages. Compared to highly privatized districts, procurement systems in these regions remain more centralized and organizationally stable.

Kolhapur represents the strongest case of cooperative dominance in Maharashtra. Across FY2022–23 to FY2024–25, cooperatives consistently accounted for more than 90 percent of total procurement, increasing from 91.7 percent in FY2022–23 to 93.8 percent in FY2024–25, while the private sector remained below 10 percent throughout the study period. A total of 20 dairies and cooperative societies operated in the district, including 6 cooperative societies and 14 private dairies (Table A3). However, procurement remained highly concentrated under one dominant district-level cooperative union, which alone accounted for nearly 75–90 percent of cooperative procurement during FY2024–25. Although private dairies were numerically larger, their procurement contribution remained relatively limited and fragmented.

Jalgaon also retained a predominantly cooperative procurement structure, although private participation increased gradually over time. The cooperative share declined from 81.1 percent in FY2022–23 to 74.9 percent in FY2024–25, while the private share increased from 18.9 percent to 25.1 percent during the same period (Table 4). The district's procurement network consisted of 1 cooperative union, 3 registered private dairies, and 5 unregistered private processors and collection centres (Table A10). Unlike Kolhapur's highly stable cooperative dominance, Jalgaon exhibited a relatively more competitive procurement environment characterized by the growing role of private and unregistered processors. Nevertheless, cooperative institutions continued to retain overall procurement control through established district-level collection networks and relatively stable farmer participation.

3.6.2 Private-Dominant Districts

Dharashiv represented the most extreme case of privatized procurement in Maharashtra. Across FY2022–23 to FY2024–25, private dairies consistently accounted for nearly 99 percent of total milk procurement, while cooperative participation remained negligible (Table 4). The district's procurement network consisted of two cooperative centres and 53 private dairies and processors, yet approximately 90 percent of private procurement was concentrated among just 24 private dairies, with cooperative institutions maintaining only a marginal presence through a single centre (Table A8). Procurement activity was also highly fragmented across multiple private operators rather than concentrated within a single dominant processor.

Satara and Nasik similarly demonstrated strong private sector dominance. In Satara, private procurement exceeded 92 percent throughout the study period, while cooperative procurement remained below 8 percent (Table 4). The district contained a total of 99 dairies and cooperative societies including both registered and unregistered operators, though approximately 90 percent of private procurement was accounted for by 45 private dairies, with only 5 cooperative societies driving the bulk of cooperative collection, indicating an extensive competitive procurement environment (Table A4). Nasik exhibited a comparable pattern, with private procurement consistently accounting for more than 90 percent of total collection. The district's procurement structure was relatively diversified, with 5 cooperative societies and 41 private dairies and collection centres, of which 19 private dairies and 2 cooperative societies accounted for the bulk of procurement (Table A7).

Solapur also displayed strong private dominance, with private dairies accounting for approximately 89 percent of total procurement during FY2024–25 (Table 4). Unlike cooperative-dominant districts, procurement in Solapur was distributed across 107 dairies and cooperative societies comprising 4 cooperative societies and 103 private dairies, though approximately 90 percent of private collection was driven by just 61 private dairies, creating a relatively decentralized procurement structure (Table A6). Cooperative procurement remained concentrated under one major union, with just 2 cooperative societies accounting for the bulk of cooperative collection, but contributed only a limited share to overall district collection.

Aurangabad demonstrated one of the clearest transitions toward private sector consolidation during the study period. The private share increased steadily between FY2022–23 and FY2024–25, while cooperative procurement declined correspondingly (Table 4). The district's procurement system increasingly resembled other privatized districts, with one cooperative union and 33 private dairies and collection centres, of which 13 private dairies alone accounted for approximately 90 percent of private procurement, with large private processors supported by networks of medium and small dairies operating across overlapping procurement zones (Table A9).

Pune, Sangli, and Ahmednagar represented transitional procurement systems where both cooperative and private institutions continued to maintain important roles, although the balance progressively shifted toward private procurement. In Pune, private procurement increased steadily during the study period, supported by the expansion of both large processors and smaller collection networks, with a total of 48 private dairies and 5 cooperative societies active in the district, of which 17 private dairies and 4 cooperative societies accounted for approximately 90 percent of their respective sectoral procurement (Table A2). Sangli exhibited

a notable transition from cooperative-led procurement toward increasing private sector dominance, driven by the rapid growth of registered and unregistered dairies across a total of 18 private dairies and 24 cooperative societies, with just 5 private dairies and 9 cooperative societies responsible for approximately 90 percent of their respective procurement (Table A5). Ahmednagar, despite retaining some cooperative presence through 4 cooperative societies and 9 private dairies, with 3 private dairies and 3 cooperative societies accounting for approximately 90 percent of their respective sectoral collection, remained heavily private-dominated, with private dairies accounting for more than four-fifths of total procurement throughout the study period (Table A1).

3.6.3 Spatial Distribution of Dairy Plants and Milk Shed Dynamics

The spatial distribution of dairy plants across Maharashtra highlights clear regional disparities in procurement infrastructure and institutional dominance (Figure 6). Major clusters of both cooperative and private dairy plants are concentrated in western and northern districts such as Kolhapur, Sangli, Satara, Pune, Ahilyanagar, Nasik, and Jalgaon, which also correspond to the state's major milk procuring regions. Cooperative plants remain strongly concentrated in historically established dairy belts, particularly in Kolhapur and Jalgaon, where long-standing producer unions and organized collection networks continue to support cooperative dominance. In contrast, private dairy plants are more widely dispersed across districts such as Pune, Ahilyanagar, Satara, Solapur, and Chhatrapati Sambhajanagar, reflecting the expansion of private procurement systems and increasing institutional competition in Maharashtra's dairy sector.

The procurement geography of Maharashtra is better understood through the lens of milk shed areas, which refer to the spatial zones from which individual processing plants draw their raw milk supply, rather than administrative district boundaries alone. What matters is not simply where milk is produced, but which plant it flows to and under what institutional arrangement. Major cooperative processors, including district-level unions and Mahanand, operate well-defined milk sheds anchored in their historical collection territories, particularly in Kolhapur and Jalgaon where cooperative entrenchment remains strong. Private processors, by contrast, are not bound by such territorial conventions and have expanded their milk sheds into districts such as Pune, Ahilyanagar, Satara, and Solapur, often overlapping with existing cooperative catchment zones.

This overlap is most evident in transitional districts such as Pune, Ahilyanagar, Satara, and Sangli, where both cooperative and private plants operate in close proximity and their milk sheds intersect. Such spatial competition likely intensifies farmer-level procurement rivalry, contributing to volatility in sectoral procurement shares and shifts in farmer allegiance over time. Districts like Satara and Solapur, where private procurement exceeds 88 percent, demonstrate how private milk shed expansion into historically mixed zones can progressively displace cooperative procurement. Conversely, Kolhapur illustrates how strong cooperative infrastructure and entrenched milk shed loyalty can resist private encroachment even when private plants operate nearby.

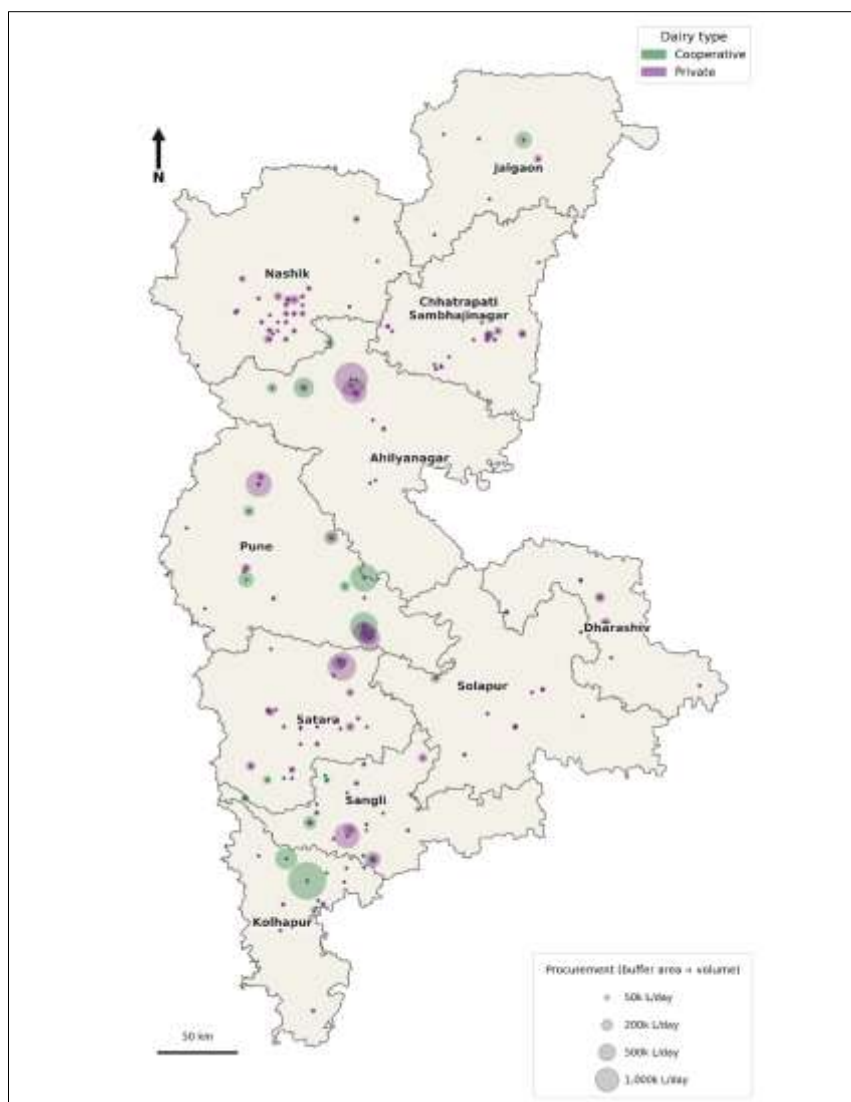


Figure 6: Spatial Distribution of Major Cooperative and Private Dairy Plants in the Top Milk Procuring Districts of Maharashtra, 2025

The dominance of private players across much of Maharashtra, however, is not fully explained by plant location or milk shed geography alone. Structural factors including better farmgate prices, faster payments, proximity to urban demand centres, higher chilling and processing capacity, and the flexibility of unregistered dairies in procurement terms have enabled private processors to expand their milk sheds into weakly cooperative zones. Several eastern and less urbanized districts display relatively sparse dairy infrastructure of either type, indicating weaker integration into organized procurement systems overall. Understanding these spatial dynamics therefore requires examining not only where plants are located, but also why farmers in particular milk shed zones choose or are compelled to align with private rather than cooperative channels.

3.7 Summary Statistics

Table 5 presents district wise summary statistics on intra district milk procurement in Maharashtra for FY 2024 to 25. Panel A reports the relative contribution of selected districts to total intra district milk collection, the sectoral composition of procurement between private and cooperative channels, and the extent of institutional presence within each district. Panel B reports summary measures on procurement levels, variability, market concentration, and seasonality separately for private and cooperative procurement.

Panel A shows that intra district milk collection is unevenly distributed across districts. Ahilyanagar contributes the largest share at 22.4 percent, followed by Pune at 17.5 percent. Together, these two districts account for nearly 40 percent of total intra district milk procurement. Kolhapur, Satara, Sangli, and Solapur form a second tier, each contributing between 8 and 10 percent, while Nasik, Dharashiv, Chhatrapati Sambhajnagar, and Jalgaon individually contribute less than 5 percent.

The procurement structure varies substantially across districts. Private procurement dominates in most districts, accounting for more than 80 percent of milk collection in Ahilyanagar, Satara, Solapur, Nasik, Dharashiv, and Chhatrapati Sambhajnagar. Dharashiv exhibits near complete private dominance, with private procurement accounting for 99.4 percent of total collection. In contrast, Kolhapur shows strong cooperative dominance, with cooperatives accounting for 93.8 percent of procurement. Jalgaon also displays a cooperative oriented structure, with nearly three quarters of procurement routed through cooperatives. Sangli presents a relatively mixed structure, with both private and cooperative channels having a significant presence.

Institutional presence, measured by the number of private dairies and cooperative societies, also differs markedly across districts. Private dairies outnumber cooperative societies in most districts, particularly in Solapur, Satara, Dharashiv, and Nasik. However, the number of institutions contributing to approximately 90 percent of procurement is considerably smaller than the total number of registered entities. This indicates that procurement within both private and cooperative sectors is concentrated among a limited subset of actors in each district. For instance, in districts with a large number of private dairies such as Solapur and Satara, a relatively small group of private institutions accounts for the bulk of milk collection.

Panel B provides further insight into procurement levels, variability, concentration, and seasonality. Mean daily milk procurement is highest in Ahilyanagar and Pune, consistent with their large shares in total milk collection. Districts such as Kolhapur, Satara, and Sangli show moderate mean daily procurement levels, while Nasik, Dharashiv, Chhatrapati Sambhajnagar, and Jalgaon record relatively lower volumes. All 10 districts together account for 90 percent of intra district milk collection in Maharashtra. The coefficients of variation indicate differences in temporal stability across procurement channels. In most districts, private procurement exhibits lower coefficients of variation than cooperative procurement, suggesting relatively more stable daily procurement levels over time. Exceptions are observed in districts such as Pune and Nasik, where cooperative procurement shows comparatively low variability. Herfindahl Hirschman Index values indicate substantial variation in milk collection concentration across districts and sectors, with higher HHI values reflecting greater market concentration. Cooperative procurement is highly concentrated in several districts, with very high HHI values observed in Chhatrapati Sambhajnagar, Dharashiv, Solapur, and Nasik, indicating dominance by one or very few cooperative agencies. Private procurement generally exhibits lower concentration levels; however, relatively high private sector concentration is evident in districts such as Sangli and Jalgaon.

Seasonal patterns differ between procurement channels and across districts. Private procurement peaks are more frequently observed during monsoon and immediate post monsoon months, including July, August, and September. In contrast, cooperative procurement peaks tend to occur during late winter and early summer months, particularly April to June, although some districts such as Kolhapur and Jalgaon record cooperative peaks in December. These differences highlight variation in the timing of procurement intensity across institutional forms.

4. Conclusion

This study demonstrates that Maharashtra's dairy procurement system is characterized by strong regional concentration, increasing private sector dominance, and substantial institutional heterogeneity across districts. Although overall milk procurement increased steadily during FY2022–23 to FY2024–25, the expansion was driven primarily by private procurement networks, which accounted for nearly three quarters of total milk collection by the end of the study period. Procurement activity also remained highly localized, with most milk sourced within district boundaries and concentrated in a limited number of high procurement districts such as Ahilyanagar and Pune. At the same time, procurement structures varied considerably across regions. Cooperative dominance persisted in districts such as Kolhapur and Jalgaon due to historically entrenched unions and stronger producer integration, whereas districts such as Dharashiv, Satara, Nasik, and Solapur exhibited overwhelming private sector control characterized by fragmented and competitive procurement networks.

The study further reveals that milk procurement in Maharashtra is shaped not only by institutional structure but also by infrastructure distribution, milk shed dynamics, and seasonal supply conditions. Procurement networks were closely associated with the spatial concentration of dairy plants, chilling centres, and processing infrastructure, indicating that procurement is largely plant-driven rather than strictly district-bound. Seasonal analysis showed consistent winter procurement peaks and summer troughs, reflecting variations in fodder availability, climatic conditions, and livestock productivity. Overall, the findings suggest that Maharashtra's dairy sector is undergoing a gradual transition from cooperative-led procurement toward increasingly privatized and competitive procurement systems. These patterns highlight the need for region-specific policy interventions aimed at strengthening cooperative capacity, improving procurement infrastructure, and ensuring balanced and equitable growth within the state's dairy economy.

Table 5: Summary table of districts with sectors contributing to 90 percent of Intra-District milk procurement in Maharashtra state.

Panel-A

District	% Share in Intra-District Milk Collection	% Private Procurement (FY 2024-25)	% Cooperative Procurement (FY 2024-25)	No. of Private Dairies (FY 2024-25)	No. of Cooperative Societies (FY 2024-25)	No of private ~90% Procurement (March-FY 2024-25)	No of Cooperative ~90% Procurement (March-FY 2024-25)
Ahilyanagar	22.4	83.0	17.0	9	4	3	3
Pune	17.5	76.0	24.0	48	5	17	4
Kolhapur	10.1	6.2	93.8	14	6	6	2
Satara	9.6	92.8	7.2	86	14	45	5
Sangli	9.3	70.6	29.4	18	24	5	9
Solapur	8.1	88.7	11.3	103	4	61	2
Nasik	4.6	90.7	9.3	38	4	19	2
Dharashiv	3.3	99.4	0.6	53	2	24	1
Chhatrapati Sambhajanagar	2.8	86.7	13.3	29	1	13	1
Jalgaon	1.9	25.1	74.9	8	2	5	1

Panel-B

District	Mean Daily Milk Procurement	Standard Deviation	Coefficient of Variation (Private)	Coefficient of Variation (Cooperative)	Herfindahl-Hirschman Index (Private)	Herfindahl-Hirschman Index (Cooperative)	Peak Month (Private)	Peak Month (Cooperative)
Ahilyanagar	39.1	1.7	0.08	0.22	2605	2561	September	June
Pune	29.7	2.1	0.14	0.06	1106	2858	December	April
Kolhapur	17.1	1.6	0.07	0.90	2105	6516	August	December
Satara	16.4	0.7	0.17	0.14	675	2677	February	February
Sangli	15.9	0.9	0.18	0.11	3803	1504	February	April
Solapur	13.7	0.7	0.07	0.17	160	7439	September	April
Nasik	7.8	0.5	0.09	0.04	580	6381	July	June
Dharashiv	5.6	0.4	0.08	0.05	683	7601	September	May
Chhatrapati Sambhajanagar	4.7	0.6	0.04	0.09	1011	10000	March	April
Jalgaon	3.2	0.4	0.09	0.24	3529	10000	February	December

4. Limitation

This study has certain limitations that should be acknowledged. The absence of origin level information for inter district and inter-state procurement restricts a complete mapping of milk flow networks across regions. Since the micro level analysis focuses only on intra district milk procurement, nearly 30 percent of total milk collection, routed through inter district and inter-state channels, is not captured in the detailed institutional assessment. In addition, the sources of milk collection for both cooperative and private dairies are not examined due to data unavailability, limiting insight into procurement linkages and supply chain structures. The analysis relies primarily on secondary procurement records and does not incorporate primary survey data from farmers, which constrains understanding of production practices, pricing mechanisms, and farmer level incentives. A more in-depth study based on comprehensive primary data collection would therefore be necessary to better understand sourcing patterns, institutional behavior, and the broader implications for farmer welfare and market efficiency.

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Appendix

Table A1: Monthly Distribution of Milk Procurement Contributions (%) among Cooperative Registered Private, and Unregistered Private Societies in Ahilyanagar District (April 2024 – March 2025).

Name of Sangh/Project	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
Cooperative												
Sangh 1	56.9	56.0	54.6	0.0	55.3	63.4	62.9	63.1	0.0	64.3	17.2	0.0
Sangh 2	15.7	15.2	14.8	0.0	14.8	17.5	18.6	19.0	0.0	19.4	43.9	52.2
Sangh 3	0.0	0.0	0.0	0.0	1.3	1.4	0.9	0.6	0.0	0.0	1.4	1.8
Sangh 4	27.4	28.8	30.6	0.0	28.6	17.6	17.7	17.3	0.0	16.2	37.5	46.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Private												
Project 1	46.6	48.2	46.3	0.0	49.0	49.2	53.2	52.8	52.7	50.6	29.7	46.6
Project 2	4.8	4.8	4.5	0.0	4.5	5.0	6.1	5.9	5.9	5.6	3.2	5.1
Project 3	0.8	0.8	0.8	0.0	0.8	0.9	0.0	0.0	0.0	0.0	0.0	1.4
Project 4	20.4	19.7	18.9	0.0	19.4	20.4	0.4	0.3	0.4	0.3	0.6	0.4
Project 5	1.7	1.4	2.7	0.0	0.0	0.0	0.0	0.2	0.6	0.7	0.3	0.6
Project 6	19.0	18.3	20.2	0.0	20.2	18.6	27.4	28.3	30.6	33.1	23.1	35.7
Project 7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 8	5.6	5.6	5.3	0.0	4.8	4.6	7.0	7.2	7.3	7.0	41.8	6.5
Project 9	1.2	1.2	1.2	0.0	1.3	1.4	0.1	0.1	0.1	0.1	0.0	2.2
Project 10	0.0	0.0	0.0	0.0	0.0	0.0	5.8	5.2	2.5	2.6	1.2	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: The names of the projects or unions have been intentionally hidden to maintain confidentiality.

Table A2: Monthly Distribution of Milk Procurement Contributions (%) among Cooperative and Private Societies in Pune District (April 2024 – March 2025).

Name of Sangh/Project	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
	Cooperative											
Sangh 1	26.0	26.8	31.7	26.3	28.2	30.1	28.8	28.5	28.6	28.9	28.4	31.2
Sangh 2	36.4	37.9	40.1	35.4	37.4	38.1	36.6	38.7	39.0	38.2	39.1	40.9
Sangh 3	12.0	11.1	6.4	14.6	8.6	7.3	11.4	8.2	8.1	10.0	10.5	6.6
Sangh 4	24.1	23.0	20.7	22.5	24.6	23.2	21.9	23.3	22.2	20.8	19.9	19.3
Sangh 5	1.5	1.2	1.1	1.2	1.2	1.3	1.2	1.3	2.1	2.0	2.2	2.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Private											
Project 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.8	16.8
Project 2	14.3	14.4	14.8	14.1	21.0	19.7	16.8	19.3	18.7	18.8	1.7	1.7
Project 3	7.0	5.0	5.9	11.0	12.9	12.4	12.5	11.9	13.1	8.4	8.4	7.2
Project 4	6.9	7.0	6.6	5.7	5.7	5.4	16.3	14.8	14.2	18.2	18.1	17.9
Project 5	22.6	23.0	23.0	21.3	21.5	26.8	22.8	23.4	22.4	22.9	23.8	25.0
Project 6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.9
Project 7	17.7	16.4	16.0	15.2	5.4	5.0	4.2	3.7	3.9	4.0	4.3	4.6
Project 8	1.9	2.2	2.3	2.1	2.2	2.1	1.7	1.7	1.8	1.9	2.0	2.0
Project 9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 11	4.8	4.9	4.3	3.4	3.8	2.7	3.3	3.5	3.9	4.0	3.8	3.1
Project 12	0.7	0.7	0.6	0.5	0.6	0.6	0.5	0.5	0.4	0.4	0.6	0.9
Project 13	3.4	3.5	3.2	3.6	3.6	3.4	2.9	2.8	2.9	2.9	3.0	3.0
Project 14	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.0	0.0
Project 15	3.7	3.5	3.8	3.3	2.7	3.1	2.8	2.8	2.7	2.9	1.9	1.9
Project 16	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 17	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.8	0.9	0.9	0.9	0.9
Project 18	1.4	1.2	1.3	1.2	1.3	1.2	1.0	0.9	0.9	0.9	0.9	1.0
Project 19	0.8	0.8	0.8	1.1	1.1	1.0	0.9	0.9	0.9	0.9	0.9	0.9
Project 20	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Project 21	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4
Project 22	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Project 23	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Project 24	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Project 25	0.9	0.9	1.0	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.8

Project 26	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Project 27	0.8	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.5	0.5	0.5	0.6
Project 28	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.6	0.7	0.7
Project 29	0.7	0.6	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.6
Project 30	1.8	1.9	1.9	1.7	1.5	2.0	1.9	2.0	1.9	1.3	1.3	1.3
Project 31	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Project 32	0.7	0.7	0.7	0.8	0.9	0.8	0.7	0.7	0.7	0.6	0.7	0.7
Project 33	0.9	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.8	0.6	0.6	0.8
Project 34	0.8	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.7	0.7	0.7
Project 35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Project 36	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Project 37	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Project 38	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3
Project 39	0.6	0.6	0.6	0.6	0.7	0.8	0.6	0.6	0.5	0.5	0.6	0.9
Project 40	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Project 41	0.3	0.3	0.3	1.1	1.1	1.6	1.5	1.6	1.6	1.6	1.5	1.3
Project 42	0.9	0.9	1.0	1.0	1.0	1.0	0.8	0.1	0.9	0.9	0.9	0.7
Project 43	0.5	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5
Project 44	0.0	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Project 45	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Project 46	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.5	0.1	0.5
Project 47	0.2	2.6	2.6	2.4	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 48	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: The names of the projects or unions have been intentionally hidden to maintain confidentiality.

Table A3: Monthly Distribution of Milk Procurement Contributions (%) among Cooperative, Registered Private, and Unregistered Private Societies in Kolhapur District (April 2024 – March 2025).

Name of the Sangh / Project	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
	Cooperative											
Sangh 1	89.4	89.6	89.8	74.4	74.1	74.4	72.2	72.3	72.9	74.2	75	75
Sangh 2	10.4	10.2	10.1	24.7	24.9	25.5	26.4	26.4	25.9	25.7	24.6	24.7
Sangh 3	0	0	0	0.3	0.3	0	0	0	0	0	0.3	0.3
Sangh 4	0.2	0.2	0.2	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1
Sangh 5	0	0	0	0.6	0.6	0	0	0	0	0	0	0
Sangh 6	0	0	0	0	0	0	1.3	1.2	1.2	0	0	0
Total	100	100	100	100	100	100	100	100	100	100	100	100
Registered	Private											
Project 1	0	0	0	19	16.7	7.7	22.3	24	21.8	24	31.8	21.8
Project 2	0	0	0	3.9	3.5	5.5	5.9	5.6	5.3	5.4	6.9	4.6
Project 3	0	0	0	0.3	12.9	0	0	0	0	0	0	0
Project 4	0	0	0	0	0	0	2.4	2.3	3.2	3.5	4.1	2.6
Project 5	42.4	29.7	29.8	19.1	16.5	25.1	0	0	0	0	0	0
Project 6	7.2	5	4.9	0	0	0	0	0	0	0	0	0
Project 7	0	0	0	0	0	0	0	0	0	0	0	0
Total registered	49.6	34.7	34.6	42.4	49.6	38.3	30.6	31.8	30.3	33	42.8	29
Unregistered												
Project 8	0	0	0	5.1	4.4	6.6	9.9	9.4	8.6	8.8	11.7	7.1
Project 9	50.4	65.3	65.4	29.4	25.8	30.8	32.5	32.4	31.3	28.9	35.3	26.9
Project 10	0	0	0	0	0	0	0	0	0	0	0	0
Project 11	0	0	0	14.6	13	20.1	22.4	22	20	21.7	0	19.1
Project 12	0	0	0	2.9	2.5	4.2	4.6	4.3	5.1	5.2	6.9	17.9

Project 13	0	0	0	5.6	4.7	0	0	0	0	0	0	0
Project 14	0	0	0	0	0	0	0	0	4.8	2.5	3.4	0
Total unregistered	50.4	65.3	65.4	57.6	50.4	61.7	69.4	68.2	69.7	67	57.2	71
Total	100	100	100	100	100	100	100	100	100	100	100	100

Note: The names of the projects or unions have been intentionally hidden to maintain confidentiality.

Table A4: Monthly Distribution of Milk Procurement Contributions (%) among Cooperative Registered Private, and Unregistered Private Societies in Satara District (April 2024 – March 2025).

Name of Sangh/Project	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
	Cooperative											
Sangh 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sangh 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sangh 3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sangh 4	6.7	5.3	6.9	7.1	7.6	7.5	7.5	7.2	7.3	7.6	7.6	6.4
Sangh 5	14.2	9.7	10.0	11.1	14.7	14.5	15.1	15.5	15.7	16.5	16.4	13.9
Sangh 6	4.0	4.1	4.1	4.1	3.8	3.8	3.6	3.6	3.6	3.5	2.9	3.7
Sangh 7	3.0	8.0	13.2	13.3	12.1	12.2	12.0	13.1	12.8	12.0	12.4	14.5
Sangh 8	51.5	52.1	48.5	46.8	45.5	45.4	45.6	44.2	44.3	44.3	45.0	44.6
Sangh 9	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3
Sangh 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sangh 11	2.4	2.6	2.4	2.5	2.8	2.7	2.5	2.6	2.4	2.5	2.6	2.8
Sangh 12	13.5	13.6	10.7	10.7	9.0	9.5	8.9	8.9	9.0	8.6	8.2	9.0
Sangh 13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sangh 14	4.3	4.2	3.9	4.0	4.2	4.2	4.4	4.5	4.7	4.8	4.6	4.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Private											
Registered												
Project 1	23.7	25.0	25.1	25.2	21.7	21.6	21.5	21.8	23.0	22.4	21.8	21.4
Project 2	1.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 3	4.5	4.6	4.5	3.9	3.9	3.9	3.9	4.4	4.4	4.4	4.9	5.1
Project 4	2.6	2.6	2.4	2.4	2.6	2.6	2.6	2.8	2.8	2.7	3.7	3.4
Project 5	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 6	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.1	1.1
Project 7	0.7	0.7	0.6	0.7	0.7	0.7	0.6	0.7	0.6	0.6	0.4	0.1
Project 8	2.1	2.1	2.1	2.2	2.3	2.4	2.4	2.4	2.3	2.4	2.4	2.4

Project 9	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.6	0.6	0.6
Project 10	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.4	0.3
Project 11	0.9	0.9	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8
Project 12	1.5	1.7	1.3	1.3	1.3	1.3	1.2	1.2	1.1	1.1	0.8	0.8
Project 13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 14	3.9	3.8	4.0	4.2	4.4	4.4	4.5	4.6	4.5	4.4	4.1	4.5
Project 15	0.9	0.9	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Project 16	3.6	3.7	3.5	3.6	2.9	2.9	3.0	3.0	3.0	3.0	3.0	3.1
Total registered	48.0	48.9	47.8	47.3	43.8	43.1	43.0	44.3	45.0	44.5	44.0	44.0
Unregistered	Private											
Project 17	0.6	0.6	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	1.1
Project 18	3.2	3.2	3.4	3.5	3.7	3.8	3.7	3.8	3.7	3.7	3.8	4.2
Project 19	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3
Project 20	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Project 21	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.8
Project 22	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Project 23	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5
Project 24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Project 26	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
Project 27	3.8	3.9	3.9	4.0	4.2	4.1	4.1	4.1	3.9	3.7	3.6	3.4
Project 28	0.6	0.7	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.3	0.3	0.4
Project 29	1.6	1.6	1.6	1.6	1.8	1.8	1.8	1.8	1.8	1.6	1.6	1.6
Project 30	1.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
Project 31	0.3	0.4	0.3	0.3	0.3	0.2	0.3	0.0	0.0	0.0	0.0	0.0
Project 32	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.7	0.6	0.6	0.6	0.6
Project 33	1.2	1.2	1.3	1.4	1.5	1.5	1.5	1.6	1.7	1.7	1.8	1.8
Project 34	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.5
Project 35	2.3	2.3	2.2	2.3	2.4	2.2	2.2	2.3	2.1	2.1	2.0	1.7
Project 36	1.5	1.5	1.6	1.3	1.3	1.2	1.2	1.3	1.4	1.4	1.6	1.6
Project 37	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Project 38	2.2	2.3	2.3	2.4	2.5	2.6	2.5	2.5	2.4	2.6	2.7	2.4
Project 39	0.7	0.8	0.8	0.7	0.8	0.8	0.8	0.9	0.8	0.8	0.9	0.8
Project 40	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.2	0.2	0.5	0.6	0.5
Project 41	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.5	0.5	0.6
Project 42	0.8	0.9	0.9	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Project 43	1.7	1.8	1.9	1.9	2.0	2.0	2.0	1.9	1.8	1.8	1.8	1.7
Project 44	0.8	0.9	0.9	0.8	0.9	0.9	0.9	0.8	0.8	0.8	0.9	0.8

Project 45	1.2	1.0	0.8	0.8	0.6	0.6	0.7	0.6	0.6	0.8	1.0	0.8
Project 46	2.2	2.2	2.2	2.3	2.4	2.3	2.1	2.6	2.5	2.5	2.2	2.3
Project 47	1.5	1.3	1.1	1.2	1.4	1.4	1.5	1.2	1.4	1.5	1.6	1.7
Project 48	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Project 49	0.3	0.5	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3
Project 50	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5
Project 51	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.6	0.6
Project 52	0.9	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2
Project 53	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 54	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 55	1.8	1.9	1.9	1.9	2.0	2.1	2.1	2.6	2.7	2.6	2.5	2.8
Project 56	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.1	0.2	0.2
Project 57	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	0.8	0.9	0.9	0.9
Project 58	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.5	0.3
Project 59	1.1	1.0	1.1	1.1	1.2	1.2	1.2	1.3	1.2	1.2	1.1	0.5
Project 60	0.5	0.5	0.5	0.7	0.8	0.9	0.9	0.9	0.8	0.8	0.8	0.8
Project 61	0.6	0.6	0.7	0.8	0.8	0.8	0.9	1.1	1.1	1.0	1.0	1.0
Project 62	0.2	0.2	0.2	0.2	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.3
Project 63	0.6	0.7	0.7	0.7	0.8	0.9	0.9	0.8	0.8	0.6	0.6	0.6
Project 64	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Project 65	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
Project 66	0.5	0.6	0.7	0.8	0.8	0.8	0.7	0.7	0.6	0.5	0.5	0.5
Project 67	0.2	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.3
Project 68	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Project 69	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.4
Project 70	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
Project 71	0.4	0.4	0.3	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Project 72	2.0	2.2	2.2	2.3	2.4	2.4	2.3	2.1	2.1	2.4	2.1	2.2
Project 73	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Project 74	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.8
Project 75	1.2	1.1	1.2	1.2	1.3	1.5	1.6	0.6	0.6	0.7	0.8	1.1
Project 76	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Project 77	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.6
Project 78	0.7	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.7
Project 79	0.6	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6
Project 80	0.7	0.7	0.7	0.7	0.8	0.8	0.8	1.0	1.0	1.1	0.6	0.7
Project 81	1.8	1.4	1.3	1.3	0.8	0.9	1.0	0.6	0.8	1.1	1.2	1.4
Project 82	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7

Project 83	2.4	2.5	2.6	2.1	2.3	2.1	1.9	1.3	1.4	1.6	1.7	1.9
Project 84	0.1	0.1	0.1	0.1	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.1
Project 85	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.2
Project 86	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2
Total unregistered	52.0	51.1	52.2	52.7	56.2	56.9	57.0	55.7	55.0	55.5	56.0	56.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: The names of the projects or unions have been intentionally hidden to maintain confidentiality.

Table A5: Monthly Distribution of Milk Procurement Contributions (%) among Cooperative Registered Private, and Unregistered Private Societies in Sanghli District (April 2024 – March 2025).

Name of Sangh/Project	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
	Cooperative											
Sangh 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sangh 2	28.7	28.8	29.6	31.0	29.0	29.0	28.5	30.6	31.5	32.1	30.9	31.4
Sangh 3	9.3	9.6	9.7	10.1	10.4	10.5	10.9	10.7	9.8	10.2	10.1	9.7
Sangh 4	4.6	4.6	4.6	4.8	4.6	4.3	4.3	4.1	4.3	4.6	4.8	5.0
Sangh 5	5.6	5.6	5.3	5.0	4.8	5.6	6.0	5.5	4.9	4.8	5.1	4.1
Sangh 6	3.5	4.0	4.1	4.3	4.6	4.5	4.4	4.3	4.3	4.0	3.8	3.7
Sangh 7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sangh 8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sangh 9	8.2	8.2	8.2	7.4	8.8	8.3	8.8	8.5	8.5	7.9	7.6	7.5
Sangh 10	4.2	4.3	4.3	4.6	5.0	4.8	5.6	5.7	5.8	5.7	6.8	6.9
Sangh 11	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.8	0.7
Sangh 12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sangh 13	3.7	3.7	3.3	3.1	2.9	3.0	2.8	2.7	2.6	2.5	2.6	2.5
Sangh 14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sangh 15	16.2	17.1	16.9	17.5	17.2	17.1	17.2	15.9	15.7	15.6	15.7	16.5
Sangh 16	4.7	5.0	5.1	6.0	6.0	6.3	4.9	5.1	5.4	5.3	5.5	5.5
Sangh 17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sangh 18	0.4	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5
Sangh 19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sangh 20	5.0	3.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Sangh 21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sangh 22	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Sangh 23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sangh 24	4.5	4.3	4.0	4.4	4.8	4.8	4.8	5.1	5.6	5.5	5.5	5.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Registered	Private											
Project 1	64.5	57.2	62.5	54.1	57.4	56.0	59.1	57.9	59.2	51.0	57.1	51.6
Project 2	2.3	2.5	1.3	0.6	1.2	1.2	0.3	0.3	0.3	0.3	0.3	0.3
Project 3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 5	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Project 6	1.1	1.6	1.4	1.1	1.2	1.0	0.6	0.7	0.8	0.9	0.7	0.7
Project 7	1.2	1.4	1.0	0.9	0.9	1.1	1.1	0.9	0.8	1.1	0.8	1.0
Project 8	2.9	3.4	3.0	4.4	6.0	6.1	5.8	5.4	5.9	6.9	6.3	7.1
Project 9	0.2	0.3	0.2	4.7	3.0	2.6	2.6	5.4	2.3	3.5	2.3	2.8
Total registered	72.5	66.6	69.6	65.9	69.7	68.1	69.6	70.7	69.3	63.8	67.6	63.6
Unregistered	Private											
Project 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 11	2.1	2.5	1.5	1.0	1.2	1.2	1.2	1.3	1.2	1.3	1.4	1.6
Project 12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 13	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Project 14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 15	3.2	3.4	2.9	2.7	2.7	2.6	2.6	2.4	2.5	2.8	2.5	2.9
Project 16	22.1	27.4	23.7	20.6	20.2	21.6	20.3	19.9	20.4	21.9	16.7	19.0
Project 17	0.0	0.0	2.3	2.1	2.0	1.9	2.0	1.8	1.8	2.0	1.5	1.8
Project 18	0.0	0.0	0.0	7.6	4.0	4.6	4.3	3.8	4.8	8.1	10.2	11.0
Total unregistered	27.5	33.4	30.4	34.1	30.3	31.9	30.4	29.3	30.7	36.2	32.4	36.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: The names of the projects or unions have been intentionally hidden to maintain confidentiality.

Table A6: Monthly Distribution of Milk Procurement Contributions (%) among Cooperative Registered Private, and Unregistered Private Societies in Solapur District (April 2024 – March 2025).

Name of Sangh/Project	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
	Cooperative											
Sangh 1	32.5			24.0	13.7	12.4	11.1	10.1	8.1	8.4	5.5	2.9
Sangh 2	0.5			1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sangh 3	5.5			8.8	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sangh 4	61.4			65.7	84.1	87.6	88.9	89.9	91.9	91.6	94.5	97.1
Total	100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Private											
Project 1	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 2	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 3	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 4	2.2			1.8	1.7	1.7	1.7	1.3	1.3	1.2	1.1	1.1
Project 5	1.2			1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1
Project 6	1.3			1.2	1.1	1.1	1.1	1.2	1.2	1.1	1.1	1.1
Project 7	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 8	0.4			0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4
Project 9	1.7			1.8	2.2	2.2	2.3	2.1	2.1	2.0	1.8	1.8
Project 10	0.7			0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Project 11	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 12	0.9			0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Project 13	2.0			2.3	2.2	2.5	2.4	2.5	2.3	2.4	2.4	2.4
Project 14	0.9			0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Project 15	2.6			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 16	2.6			2.3	2.2	2.2	2.3	2.1	2.1	2.1	2.2	2.2
Project 17	1.9			1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2
Project 18	2.6			2.3	2.2	2.2	2.3	2.1	2.1	2.1	2.3	2.3
Project 19	1.4			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 20	1.7			2.0	1.9	2.8	2.9	2.9	2.6	2.6	2.5	2.5
Project 21	2.6			2.3	2.5	2.5	2.3	2.3	2.1	2.1	2.2	2.2
Project 22	0.8			0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Project 23	1.2			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 24	0.5			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 25	2.0			2.3	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.4
Project 26	0.4			0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4
Project 27	1.4			1.4	1.3	1.7	1.7	1.8	1.8	1.8	1.9	1.9
Project 28	1.0			0.9	0.9	0.9	0.9	0.9	1.0	0.9	1.0	1.0
Project 29	1.8			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 30	0.0			2.3	2.5	2.5	2.5	2.6	2.5	3.0	2.4	2.4
Project 31	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 32	0.0			1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1
Project 33	0.0			0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Project 34	0.0			1.6	1.7	1.7	1.7	1.8	1.7	1.7	1.7	1.7

Total registered	35.8			31.9	31.8	33.2	33.5	33.1	32.5	32.6	32.2	32.2
Unregistered	Private											
Project 35	2.7			2.7	2.8	2.8	2.9	2.9	2.9	2.7	2.5	2.5
Project 36	0.6			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Project 37	1.3			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 38	1.6			1.5	1.5	1.7	1.6	1.6	1.5	1.4	1.3	1.3
Project 39	0.6			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 40	3.1			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 41	0.9			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 42	0.8			0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Project 43	1.4			1.4	1.2	1.2	1.3	1.8	1.8	1.7	1.6	1.6
Project 44	1.7			1.5	1.5	1.5	1.4	1.3	1.2	1.2	1.2	1.2
Project 45	1.0			0.9	0.9	0.9	0.9	0.9	1.0	0.9	1.0	1.0
Project 46	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 47	2.6			2.9	2.6	2.6	2.6	2.7	2.7	2.7	2.4	2.4
Project 48	1.6			1.4	1.3	1.7	1.7	1.8	1.8	1.8	1.8	1.8
Project 49	1.2			1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1
Project 50	2.0			1.9	1.7	1.7	1.6	1.6	1.7	1.7	1.6	1.6
Project 51	1.3			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 52	2.4			1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.3	1.3
Project 53	1.0			1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.3	1.3
Project 54	1.2			1.1	1.2	1.2	1.3	1.3	1.3	1.2	1.3	1.3
Project 55	0.7			0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Project 56	1.2			1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1
Project 57	1.4			1.4	1.3	1.3	1.4	1.3	1.3	1.2	1.2	1.2
Project 58	1.0			0.9	0.9	0.9	0.9	0.9	1.0	0.9	1.0	1.0
Project 59	1.3			1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.3	1.3
Project 60	3.7			3.5	3.4	3.4	3.4	3.5	3.6	3.6	3.4	3.4
Project 61	1.4			1.3	1.8	1.8	1.8	1.8	1.8	2.0	2.3	2.3
Project 62	1.6			1.5	1.7	1.7	1.7	1.4	1.4	1.8	1.8	1.8
Project 63	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 64	1.8			2.3	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.4
Project 65	1.6			1.4	1.3	1.3	1.4	1.4	1.4	1.7	1.7	1.7
Project 66	1.7			2.7	2.6	2.8	2.9	2.3	2.3	2.3	2.4	2.4
Project 67	0.9			0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Project 68	0.7			0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Project 69	1.2			1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1
Project 70	0.4			0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4
Project 71	1.2			1.1	1.0	0.0	1.0	1.1	1.1	0.0	0.0	1.1
Project 72	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 73	1.2			1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1
Project 74	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 75	0.7			0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Project 76	1.2			1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1
Project 77	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Project 78	0.4			0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4
Project 79	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 80	1.3			1.3	2.2	1.7	1.3	1.2	1.2	1.2	1.2	1.2
Project 81	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 82	1.0			0.9	0.9	0.9	0.9	0.9	1.0	0.9	1.0	1.0
Project 83	1.4			1.5	1.5	1.1	1.1	1.2	1.2	1.2	1.2	1.2
Project 84	1.3			1.5	1.7	1.1	1.1	1.3	1.3	1.3	1.3	1.3
Project 85	1.2			1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1
Project 86	1.4			1.2	1.7	1.5	1.5	1.3	1.3	1.3	1.3	1.3
Project 87	1.2			1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1
Project 88	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 89	0.0			1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Project 90	0.0			1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2
Project 91	0.0			1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2
Project 92	0.0			1.2	1.1	1.1	1.1	1.2	1.2	1.1	1.1	1.1
Project 93	0.0			1.2	1.1	1.1	1.1	1.2	1.2	1.1	1.1	1.1
Project 94	0.0			1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2
Project 95	0.0			1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2
Project 96	0.0			1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2
Project 97	0.0			1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2
Project 98	0.0			2.9	2.9	2.9	2.3	2.3	2.3	2.3	2.3	2.3
Project 99	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 100	0.0			1.5	1.5	1.1	1.1	1.2	1.2	1.2	1.2	1.2
Project 101	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 102	0.0			0.0	0.0	1.0	0.0	0.0	0.0	1.1	1.1	0.0
Project 103	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total unregistered	64.2			68.1	68.2	66.8	66.5	66.9	67.5	67.4	67.8	67.8
Total	100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: The names of the projects or unions have been intentionally hidden to maintain confidentiality. Data were not available May-June 2024.

Table A7: Monthly Distribution of Milk Procurement Contributions (%) among Cooperative Registered Private, and Unregistered Private Societies in Nasik District (April 2024 – March 2025).

Name of Sangh/Project	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
	Cooperative											
Sangh 1	0	0	0	0	0	0	0	0	0	0	0	0
Sangh 2	83.2	69.7	67.9	79.0	80.4	79.8	81.5	78.8	77.0	77.3	75.3	76.1
Sangh 3	11.5	19.2	20.9	21.0	19.6	20.2	18.5	21.2	23.0	22.7	24.7	23.9
Sangh 4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sangh 5	5.3	11.1	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total cooperative	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Private											
Project 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 3	7.1	7.0	6.8	6.6	6.6	6.1	6.8	6.5	5.8	5.7	5.3	5.3
Project 4	6.6	6.4	6.4	6.1	6.8	6.5	7.9	7.7	7.2	7.1	6.1	6.3
Project 5	9.4	9.4	9.4	9.2	10.4	10.0	9.4	8.7	8.9	8.8	8.4	8.7
Project 6	2.7	2.7	2.9	2.8	2.9	2.5	3.1	2.9	2.7	2.5	2.1	2.1
Project 7	2.2	2.6	2.6	2.6	2.8	2.6	3.0	2.8	2.8	2.7	2.2	2.3
Project 8	6.4	5.7	6.7	6.8	5.8	5.2	5.7	6.0	6.0	4.4	5.8	4.1
Project 9	2.9	2.8	2.8	5.3	5.5	4.9	5.6	5.2	5.3	5.5	5.3	6.0
Project 10	4.2	4.0	4.1	3.9	4.3	4.0	4.7	4.5	4.7	4.7	4.6	5.1
Project 11	3.4	3.3	3.7	3.5	3.6	2.8	3.0	2.6	2.3	2.5	2.2	2.5
Project 12	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Project 13	3.4	4.4	6.4	4.9	3.6	3.5	4.2	3.8	3.6	3.9	4.2	3.8
Project 14	2.0	2.0	2.0	2.2	2.2	4.5	0.0	4.3	4.4	4.7	4.4	4.0
Project 15	3.4	3.3	3.1	3.0	3.7	3.2	4.2	3.6	3.4	3.6	3.4	3.3
Project 16	1.4	1.4	1.3	1.1	1.1	0.9	1.1	1.3	1.5	1.6	1.4	1.4
Project 17	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Project 18	0.5	0.6	0.6	0.6	0.7	0.6	0.7	0.6	0.6	0.7	0.7	0.7
Project 19	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.2
Project 20	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Project 21	0.6	0.6	0.7	0.6	0.7	0.7	0.8	0.6	0.6	0.5	0.5	0.5
Project 22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 23	0.3	0.3	0.5	0.3	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1
Project 24	13.7	14.0	12.4	12.5	9.9	14.0	11.7	12.5	12.3	14.2	16.9	12.6
Project 25	3.6	3.5	3.3	2.8	3.2	2.9	3.6	3.2	2.9	3.0	3.2	2.7
Project 26	3.3	3.3	3.2	3.2	3.3	2.9	3.9	3.9	3.6	4.0	3.8	3.8
Project 27	2.0	2.3	2.3	1.3	2.2	2.1	3.6	3.1	3.0	3.0	3.5	3.4
Project 28	1.4	1.2	0.9	0.9	1.0	0.9	1.0	0.8	0.7	0.7	0.6	0.6
Project 29	6.1	6.5	6.0	7.0	7.8	7.7	7.4	6.9	8.0	6.7	6.3	9.1
Project 30	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

Project 31	2.4	2.4	1.9	1.8	1.7	1.8	2.1	2.2	2.6	2.2	2.0	2.6
Project 32	0.3	0.3	0.3	0.3	0.5	0.4	0.8	0.8	0.8	0.8	0.8	0.8
Project 33	1.8	1.8	1.8	2.7	1.2	1.1	0.8	0.5	0.2	0.2	0.6	1.0
Project 34	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.3
Project 35	1.1	1.1	1.0	10.3	1.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0
Project 36	3.0	2.8	2.9	2.8	2.8	2.9	3.3	3.2	3.2	3.2	3.1	4.6
Project 37	1.6	1.6	1.5	1.5	1.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0
Project 38	1.4	1.4	1.3	1.3	1.3	1.3	0.0	0.0	1.4	1.2	1.1	1.1
Total Private	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table A8: Monthly Distribution of Milk Procurement Contributions (%) among Cooperative Registered Private, and Unregistered Private Societies in Dharashiv District (April 2024 – March 2025).

Name of Sangh/Project	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
	Cooperative											
Sangh 1	34.5	65.9	32.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sangh 2	65.5	34.1	67.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Private											
Project 1	2.6	2.9	3.1	2.3	4.5	3.8	2.3	2.1	2.2	1.9	1.8	1.5
Project 2	17.0	16.2	14.7	13.5	14.0	12.6	13.5	11.2	10.3	10.6	11.6	15.2
Project 3	2.8	3.1	3.3	3.0	3.1	2.6	3.0	2.8	2.8	2.7	2.4	2.8
Project 4	0.0	0.0	0.0	0.0	4.1	2.4	0.0	2.5	2.5	1.8	3.3	2.8
Project 5	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2
Project 6	7.9	8.5	8.2	7.6	8.6	5.7	7.6	6.1	5.9	6.1	5.9	5.9
Project 7	3.7	3.5	3.8	3.4	3.6	3.0	3.4	3.2	3.2	3.4	3.2	1.9
Project 8	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 9	3.1	3.3	3.9	3.6	3.8	2.9	3.6	3.5	3.5	3.7	3.5	5.4
Project 10	1.0	1.1	1.1	1.0	1.1	0.9	1.0	0.9	0.9	0.9	0.9	1.2
Project 11	2.2	2.3	2.7	2.4	3.1	2.9	2.4	3.0	3.0	3.0	2.9	3.0
Project 12	5.2	3.8	4.4	4.2	3.0	2.8	4.2	3.1	3.1	3.2	3.2	3.1
Project 13	0.8	1.4	0.5	0.5	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.5
Project 14	0.7	0.4	0.6	0.5	0.6	0.5	0.5	0.5	0.6	0.6	0.5	0.4
Project 15	0.7	0.8	0.9	0.7	0.6	0.5	0.7	0.6	0.6	0.6	0.5	0.4
Project 16	0.3	0.2	0.2	0.2	0.8	0.8	0.2	0.8	0.8	0.8	0.7	0.5
Project 17	3.0	3.2	3.8	3.3	6.8	5.8	3.3	5.8	5.8	5.9	5.8	6.1
Project 18	2.7	2.6	2.3	1.7	1.8	1.6	1.7	1.8	1.8	1.9	1.9	2.6
Project 19	5.4	5.6	5.9	5.1	5.1	4.2	5.1	3.7	3.7	3.8	3.8	1.8
Project 20	19.5	2.1	20.1	17.4	18.1	16.1	17.4	16.8	17.1	17.1	17.2	16.4

Project 21	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Project 22	5.0	5.0	4.1	4.2	4.2	3.8	4.2	0.4	4.0	4.2	4.0	2.4
Project 23	1.0	1.2	1.3	1.1	1.2	0.9	1.1	0.0	0.0	0.0	0.0	0.0
Project 24	0.9	0.7	0.8	0.7	0.9	0.7	0.7	0.8	0.8	0.7	0.7	0.1
Project 25	0.1	0.1	0.1	0.1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Project 26	5.8	7.2	8.2	7.4	7.9	5.9	7.4	6.3	6.4	6.5	6.5	5.6
Project 27	0.7	0.7	0.7	0.6	0.8	0.7	0.6	0.7	0.7	0.7	0.7	0.6
Project 28	0.0	0.0	0.0	0.9	1.0	1.0	0.9	0.0	0.0	0.0	0.0	0.0
Project 29	0.0	0.0	0.0	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Project 30	0.0	0.0	0.0	0.2	0.9	0.8	0.2	0.9	0.9	0.9	0.8	0.9
Project 31	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.1	0.3
Project 32	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.4
Project 33	0.0	0.0	0.0	1.7	0.4	0.3	1.7	0.3	0.3	0.3	0.3	0.3
Project 34	0.0	0.0	0.0	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.3
Project 35	0.0	0.0	0.0	0.7	0.5	0.6	0.7	0.6	0.6	0.6	0.6	0.8
Project 36	0.0	0.0	0.0	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.5
Project 37	0.0	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
Project 38	0.0	0.0	0.0	2.4	2.5	1.9	2.4	2.1	2.2	2.0	2.0	2.2
Project 39	0.0	0.0	0.0	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1
Project 40	0.0	0.0	0.0	2.5	3.4	3.0	2.5	3.2	3.2	3.2	3.1	2.4
Project 41	0.0	0.0	0.0	0.0	2.5	2.9	0.0	3.0	3.0	3.0	2.9	2.6
Project 42	0.0	0.0	0.0	0.0	0.7	0.6	0.0	0.6	0.6	0.6	0.3	0.7
Project 43	0.0	0.0	0.0	0.0	1.7	1.4	0.0	1.6	1.6	1.6	1.6	0.6
Project 44	0.0	0.0	0.0	0.0	0.9	0.7	0.0	0.8	0.8	0.8	0.6	0.4
Project 45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
Project 46	0.0	0.0	0.0	0.0	0.6	0.5	0.0	0.6	0.6	0.6	0.6	0.6
Project 47	0.0	0.0	0.0	0.0	0.3	0.7	0.0	0.7	0.7	0.7	0.7	0.6
Project 48	0.0	0.0	0.0	0.0	0.4	0.3	0.0	0.3	0.3	0.3	0.3	0.1
Project 49	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.2	0.2	0.2	0.2	0.5
Project 50	0.0	0.0	0.0	0.0	0.5	0.4	0.0	0.4	0.4	0.4	0.4	0.4
Project 51	0.0	0.0	0.0	0.0	0.9	0.8	0.0	0.8	0.8	0.8	0.9	0.9
Project 52	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Project 53	6.8	4.7	4.9	4.5	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: The names of the projects or unions have been intentionally hidden to maintain confidentiality.

Table A9: Monthly Distribution of Milk Procurement Contributions (%) among Cooperative Registered Private, and Unregistered Private Societies in Chhatrapati Sambhajinagar District (April 2024 – March 2025).

Name of Sangh/Project	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
	Cooperative											
Sangh 1	100	100	100	100	100	100		100	100	100	100	100
Total	100	100	100	100	100	100		100	100	100	100	100
	Private											
Project 1	5.5	5.7	4.7	4.3	3.8	3.8		3.5	3.2	3.2	3.2	3.2
Project 2	5.1	5.1	4.7	4.2	4.4	4.4		3.5	3.3	4.2	3.9	4.1
Project 3	1.2	1.2	1.2	1.2	1.2	1.1		1.1	0.8	0.8	0.7	0.7
Project 4	2.7	2.7	2.5	2.2	2.1	2.1		1.6	1.4	1.7	1.5	1.4
Project 5	21.1	20.9	20.6	18.4	18.5	18.3		16.7	15.3	15.1	14.7	15.2
Project 6	9.0	8.9	8.8	11.0	10.3	10.2		10.1	10.5	9.6	9.5	9.1
Project 7	14.5	14.4	14.4	13.0	12.4	12.6		13.9	11.7	12.0	12.3	11.2
Project 8	2.9	2.8	2.8	2.7	2.6	2.5		2.4	2.0	2.0	2.1	2.0
Project 9	3.3	2.4	2.9	3.2	3.3	3.2		4.0	3.9	3.9	5.9	6.1
Project 10	0.4	0.3	0.7	0.7	0.6	0.6		0.8	0.8	0.7	0.3	0.3
Project 11	21.7	21.4	21.2	19.7	17.9	17.8		17.7	12.0	12.0	11.4	13.0
Project 12	5.1	6.4	5.9	5.3	5.6	5.5		4.0	4.4	4.4	4.2	4.1
Project 13	4.2	3.9	3.9	10.6	9.8	9.7		11.9	2.7	2.7	3.0	2.9
Project 14	3.3	3.9	5.6	3.7	3.8	4.3		3.5	3.1	3.0	3.2	3.2
Project 15	0.0	0.0	0.0	3.5	3.7	3.8		5.1	4.6	4.4	4.2	4.1
Project 16	0.0	0.0	0.0	0.0	0.0	0.0		0.0	2.1	1.9	1.9	2.1
Project 17	0.0	0.0	0.0	0.0	0.0	0.0		0.0	3.3	3.0	2.9	3.0
Project 18	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.5	0.7	0.8	0.7
Project 19	0.0	0.0	0.0	0.0	0.0	0.0		0.0	2.5	2.5	1.6	1.6
Project 20	0.0	0.0	0.0	0.0	0.0	0.0		0.0	1.1	1.1	0.9	0.9
Project 21	0.0	0.0	0.0	0.0	0.0	0.0		0.0	1.3	1.3	1.7	1.3
Project 22	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.8	0.7	0.7	0.7
Project 23	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.7	0.7	0.8	0.7
Project 24	0.0	0.0	0.0	0.0	0.0	0.0		0.0	1.2	1.2	1.1	1.0
Project 25	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.5	0.6	0.6	0.4
Project 26	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.7	0.7	0.7	0.6
Project 27	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Project 28	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.4	0.5	0.6	0.7
Project 29	0.0	0.0	0.0	0.0	0.0	0.0		0.0	5.7	5.4	5.8	5.7
Total	100.0	100.0	100.0	100.00	100.0	100.0		100.0	100.0	100.0	100.0	100.0

Note: The names of the projects or unions have been intentionally hidden to maintain confidentiality. Data were not available for October 2024.

Table A10: Monthly Distribution of Milk Procurement Contributions (%) among Cooperative Registered Private, and Unregistered Private Societies in Jalgaon District (April 2024 – March 2025).

Name of the project	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
	Cooperative											
Sangh 1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sangh 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Private											
Project 1	18.1	19.6	11.7	10.7	9.7	9.7	9.0	10.7	11.1	13.5	13.7	12.3
Project 2	13.1	12.5	7.3	6.7	6.5	6.2	6.1	5.7	6.4	7.0	7.5	7.7
Project 3	15.2	16.5	11.4	11.6	12.0	11.3	11.4	10.5	10.3	9.8	9.4	9.5
Project 4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Registered	46.3	48.7	30.4	29.0	28.2	27.2	26.5	26.9	27.8	30.3	30.6	29.6
	Private											
Project 5	37.4	34.3	58.0	59.4	59.5	60.7	62.1	61.6	60.9	59.2	59.1	59.3
Project 6	4.4	5.1	3.5	4.0	4.1	3.8	3.8	3.5	3.4	3.2	3.0	3.1
Project 7	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.9	0.9	0.8	0.7	0.6
Project 8	1.0	1.0	0.6	0.7	0.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Project 9	7.7	7.1	4.8	4.3	4.9	5.2	5.4	4.8	4.7	4.5	4.6	5.4
Project 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project 11	3.3	3.8	2.6	2.6	2.7	2.5	2.5	2.3	2.3	2.1	2.0	2.0
Project 12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Unregistered	53.7	51.3	69.6	71.0	71.8	72.8	74.6	73.1	72.2	69.7	69.4	70.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: The names of the projects or unions have been intentionally hidden to maintain confidentiality.