

DAIRY DEVELOPMENT DEPARTMENT PLAN SCHEME : 2021-22

STRENGTHENING QUALITY CONTROL LABS

PART A – ONGOING SCHEMES 2404-00-109-95



PLAN OUTLAY – Rs 400.00 LAKH

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01. INTRODUCTION

Agriculture is the primary source of livelihood for about 58% of India's population. Gross Value Added (GVA) by agriculture, forestry and fishing was estimated at Rs. 19.48 lakh Crore in the year 2021-22. Growth in GVA in agriculture and allied sectors stood at 4% in FY20. The Indian food industry is poised for huge growth, increasing its contribution to world food trade every year due to its immense potential for value addition, particularly within the food processing industry. Indian food and grocery market is the world's sixth largest, with retail contributing 70% of the sales. The Indian food processing industry accounts for 32% of the country's total food market, one of the largest industries in India and is ranked fifth in terms of production, consumption, export and expected growth. India is expected to achieve the ambitious goal of doubling farmers income by 2022. The agriculture sector in India is expected to generate better momentum in the next few years due to increased investment in agricultural infrastructure such as irrigation facilities, warehousing and cold storage.

Agriculture and allied sectors hold a significant position in any development process with its role in engaging and employing people, providing food and ensuring food security and raw materials. Agriculture is a pivotal sector for the economy to achieve the Sustainable Development Goals (SDG) of no poverty, zero hunger, and good health and well-being. With decline in the size of land holdings in agriculture, the State has to focus on production, productivity, and profitability to attain the SDG targets and sustainability in agriculture. Agricultural performance is subject to year to year fluctuations because of vagaries of nature as well as price volatility. The agricultural sector in Kerala has undergone significant structural changes in the form of decline in share of Gross State Domestic Product indicating a shift from the agrarian economy. The natural disaster that hit the State in the form of floods and landslide wreaked havoc, affecting agricultural sector the most. Crops were most heavily affected, contributing to 88 per cent of the total loss and damage to the sector. Kerala's growth rate in 2019-20 is lower than the rate in 2018-19. The lagged effects of 2018 and 2019 floods, recessionary national and international economy, onset of Covid-19 pandemic towards the end of last quarter of 2019-20 are the reasons for the slow growth. In fact, recessionary economic conditions at the national and international level were visible from 2019 onwards. This has been further aggravated by the Covid-19 pandemic. Though some signs of recovery are slowly discernable, State Governments have to face specific difficulties to

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recovery. Despite the low growth in 2019-20 and financial constraints, Kerala has made significant advancements in promoting growth of productive forces in the economy. The Government of Kerala has reinforced its thrust to support innovation, strengthen information technology and continued its commitment towards social welfare and protection and gender equality.

Share of agriculture and allied sectors in GVA/GSVA National and State level, at constant prices 2011-12, from 2013-14 to 2019-20, in per cent

Year	Share of agriculture and allied sectors in total GVA (India)	Share of agriculture and allied sectors in GSVA (Kerala)
2013-14	17.8	12.37
2014-15	16.5	11.92
2015-16	15.4	10.74
2016-17	15.2	9.96
2017-18	15.1	9.60
2018-19	14.6	8.83(P)
2019-20	n.a	8.03(Q)

Economic Review - 2020

Animal Husbandry is a vital sector for ensuring a more inclusive and sustainable agriculture system and plays a pivotal role in the economic development of the country by enhancing farmers' income. It also provides gainful employment in the rural sector particularly among the landless farmers, small and marginal farmers, women, and weaker sections. It acts as both a supplementary and complementary enterprise.

Livestock sector plays a multi-faceted role in socio-economic development of rural households. Livestock rearing has significant positive impact on equity in terms of income and employment and poverty reduction in rural areas as distribution of livestock is more egalitarian as compared to land. In India, over 70 percent of the rural households own livestock and a majority of livestock owning households are small, marginal and landless households. Small animals like sheep, goats, pigs and poultry are largely kept by the land scarce poor households for commercial purposes due to their low initial investment and operational costs. In the recent decade, demand for various livestock based products has increased significantly due to increase in per capita income, urbanization, taste and preference and increased awareness about food nutrition. Livestock sector is likely to emerge as an engine for agricultural growth in the coming decades. It is also considered as a potential sector for export earnings.

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In the national perspective, the livestock sector contributes 16 per cent of the income of small farm households as against an average of 14 per cent for all rural households and provides livelihood to two-third of the rural community. It also provides employment to about 8.8 per cent of the population in India and percentage of area used for all types of livestock farming was 1.69 per cent. Our country has vast livestock resources and contributes 4.11 per cent of GDP and 25.6 per cent of total agricultural GDP. (*Economic Review : 2020*). The rural women play a significant role in animal rearing and are involved in operations namely, feeding, breeding, management, and health care. The livestock sector has emerged as one which generates employment and income security to women through micro enterprises. Women constitute 71 per cent of the labour force in livestock farming. In dairying, 75 million women are engaged as against 15 million men, while in the case of small ruminants, the sharing of work with men is almost equal. The need for technology upgradation, skill enhancement through capacity building programmes is felt across the sector.

As per **20th Livestock Census (2019)**, the total livestock population of the country is 535.78 million showing an increase of 4.6 per cent over Livestock Census 2012. It includes 302.79 million bovine population (which includes cattle, buffalo, mithun, and yak) which recorded an increase of 0.93 per cent over the previous census. The total number of cattle in the country is 192.49 million showing an increase of 0.8 per cent over the previous census.

Livestock and Poultry Population in India, in lakh

Sl. No.	Species	17th Livestock Census 2003	18th Livestock Census 2007	19th Livestock Census 2012	20th Livestock Census 2019	Growth Rate 2012-19
1	Cattle	185.2	199.1	190.9	192.49	0.83
2	Buffalo	97.9	105.3	108.7	109.85	1.0
3	Yaks	0.1	0.1	0.1	0.058	-24.67
4	Mithuns	0.3	0.3	0.3	0.39	30
	Total Bovines	283.4	304.8	300.0	302.79	0.92
5	Sheep	61.5	71.6	65.07	74.26	14.12
6	Goat	124.4	140.5	135.2	148.88	10.12
7	Pigs	13.5	11.1	10.3	9.06	-12.04
8	Other animals	2.2	1.7	1.48	0.79	-46.62
	Total Livestock	485	529.7	512.05	535.78	4.63
9	Poultry	489	648.8	729.2	851.81	16.81

Source: Annual Report 2018-19, Department of Animal Husbandry, Dairying and Fisheries, GoI, 20th Livestock Census (2019)

In **Kerala, the livestock sector** is prominent and one of the fastest growing sectors of the rural economy. The share of livestock in Gross State Value Added (GSVA) at constant prices from the agriculture sector shows a marginal decrease from 26.97 per cent in 2018-19 to 26.67 per cent in 2019-20. Though GSVA at constant prices from the sector has increased in absolute numbers, its share in

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total GSVA of the State has declined marginally from 2.38 per cent in 2018-19 to 2.14 per cent in 2019-20.

As per 20th Livestock Census (2019), the livestock population in the State was 38.36 lakh. Details of species-wise livestock and poultry population in Kerala is as below

Livestock and poultry population in Kerala, in lakh population

Species	2012	2019	Percentage variation from 2012 to 2019
Cattle	13.28	13.42	1.02
Buffalo	1.02	1.01	-0.71
Sheep	0.01	0.01	0
Goat	12.46	13.59	9.07
Other animals	12.11	10.33	-14.69
Total Livestock	38.88	38.36	-1.34
Poultry	238.45	298.18	25.05
Total	277.34	336.54	21.35

Source : Livestock Census : 2019

In Kerala, two-third of dairy animals are available in 7 districts of Palakkad, Thrissur, Ernakulam, Kozhikode, Kollam, Thiruvananthapuram and Kannur (*Source : Dairying in Kerala – A Statistical Profile – NDDDB*).

The district wise cattle / buffalo population as per latest census report is as below

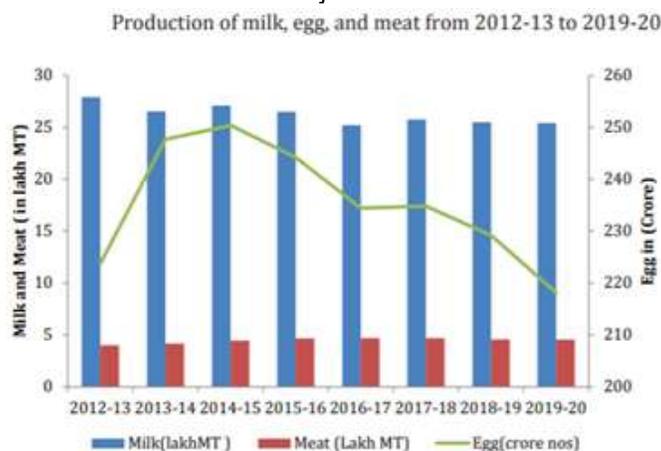
District Wise Population Live Stock Census 2019		
District	Cattle (No.)	Buffalo (No.)
Alappuzha	79370	5726
Ernakulam	108061	10029
Idukki	97395	5067
Kannur	91687	2446
Kasaragod	73968	1506
Kollam	110542	8658
Kottayam	81074	6163
Kozhikode	94248	3915
Malappuram	87035	15077
Palakkad	166952	9743
Pathanamthitta	61157	3260
Thiruvananthapuram	98822	5041
Thrissur	111932	20520
Wayanad	79753	4353
Grand Total	1341996	101504

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Source : Livestock Census Report : 2019

Milk Production - India continued to be the largest milk producing country in the world. At the national level, the milk production has increased from 17.63 crore tonnes in 2017-18 to 18.77 crore tonnes in 2018-19 registering a growth of 6.5 per cent, sustaining the trend over the past three decades. The per capita availability of milk has been increasing in India over the years and increased to 394 gram in 2018-19. The highest per capita availability is in Punjab (1181 gram per day) followed by Haryana (1087 gram per day). The highest producer of milk is Uttar Pradesh with 16.3 per cent of total milk production in the country, followed by Rajasthan (12.6 per cent). The species-wise milk production shows that nearly 35 per cent of total milk production is contributed by indigenous buffaloes followed by 26 per cent by cross-bred cattle. The indigenous cattle contribute 11 per cent of the total milk production. Goat milk shares a contribution of 3 per cent in the total milk production across the country. The total requirement of milk in Kerala in 2019-20 was 33.22 lakh MT, but the supply was only 25.42 lakh MT resulting in a deficiency of 4.65 lakh MT milk. This necessitated an import of 3.15 lakh MT. Out of 25.42 lakh MT of milk produced in the State, major share was produced by cross bred cows (93.25 per cent). [Source : Economic Review : 2020]

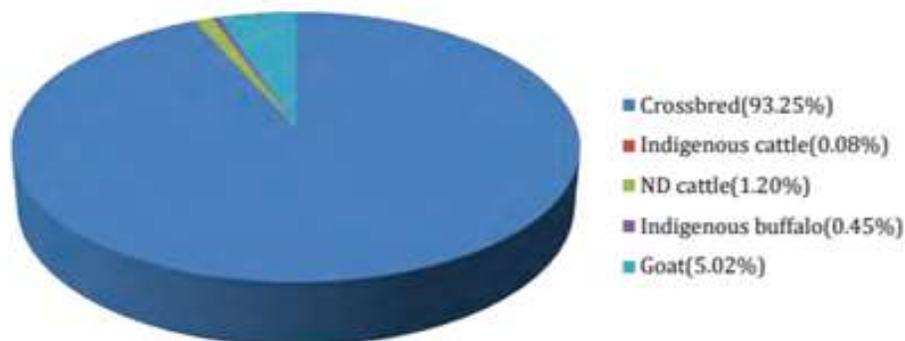


Indigenous cows produced only 1,949 lakh MT of milk (0.08 per cent). The production of milk from goat was 1.28 lakh MT (5.02 per cent). The rest was contributed by non-descript cattle, indigenous buffalo and non-descript buffalo. Details of species-wise milk production in Kerala in 2019-20 is provided in as below

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Species-wise milk production in Kerala, 2019-20



Source : Economic Review 2020

The natural calamities of 2018 and 2019 by way of hurricane floods and now the impacts of Covid 19 pandemic have all had a very negative impact on the stability of dairy sector of the state. The state is striving hard to overcome the disastrous situation and regain the lost glory which the state gained during the period from 2016-17 onwards. In spite of the adversities like flood calamities of 2018, 2019 and the prevailing Covid 19 pandemic impacts, it's a sign of relief that the productivity of milch cattle in Kerala is high as a result of an effective cross breeding policy in the state. 94% of cattle population is crossbreds with an average milk production of 10.22 litre per day which is second best to Punjab in the country. Economic Review 2020 reports reveal that the milk production during the year 2019-20 is 25.42 LMT.

5.94 Lakh Metric Tons of milk (16.27 lakh litre per day) was procured through Dairy Co-operatives during the year 2016-17, whereas 6.79 Lakh Metric Tons of milk (18.61 lakh litre per day) is the corresponding figure for the year 2019-20. At the same time the milk procurement through Dairy Co-operatives of the state have marked a record figure during the year 2021-22. For the first time ever in the history of the state, the per day milk procurement through Dairy Co-operatives crossed 20 lakh litre per day during the month of Oct, 2020. During the month of Dec, 2020, the per day procurement reached an all-time high figure of 21.33 lakh litre per day. During the year 2021-22, the average milk procurement of milk through Dairy Co-operatives is around 19.32 lakh litre per day. This hike is a positive indicator as far as the Animal Husbandry and Dairy Development activities of the state is concerned and is a narration of the various development activities undertaken by the Government to nurture the Sector.

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The enactment of FSSAI since 2006 created awareness among consumers regarding the concept of 'good food every day' and the law affirmed food business operators to ensure the best to their consumers. In 2011, FSSAI has introduced new food safety standards for milk and milk products and also enacted new regulations for licensing and registration of food businesses.

The Director of Dairy Development Department is the State Registering authority of Dairy Co-operative societies in Kerala. In align with FSSR 2011, department has initiated various awareness programmes to producers, food business operators and consumers regarding importance of hygiene, sanitation and assuring milk and milk products quality. Department conducted intensive training programmes in connection with new FSSR regime. Since the Dairy Development Department is the competent authority for quality maintaining agency in the matter of milk and milk product, the department should have sufficient testing laboratories with adequate and modern testing equipment. There are 3643 DCS registered under this Department. The Department is having 14 quality control units working in the districts. Each Quality Control Unit is attached with a lab for physical, chemical and microbiological analysis of market milk. It is the duty of the Dairy Department to ensure safe and wholesome milk to the consumers in the state. The Department safeguards the public health through continuous monitoring of the quality of milk and milk products marketed in the state during the last so many years. The present quality control labs at the districts are to be upgraded to meet the testing requirements under FSSR, 2011.

Kerala's milk production has increased over the last few years from the annual production of 25.2 lakh metric tonnes in 2016-17 to almost 25.42 lakh metric tonnes by the end of 2019-20. However the microbial quality of the milk produced in the state is low compared to that produced in the developed countries and even in comparison to some milk producing states.

Milk being the perfect food which has to be produced and handled under hygienic conditions to ensure the safety of the consumers as well as to prevent spoilage. The food safety and standards regulations 2011 has also laid down several measures to ensure the safety of the milk produced in the farms. The scheme envisages assisting the dairy farmers of the state to purchase hygiene kits and renovate their cattle farms especially the floor which would enable to ensure that the microbial load of the milk is minimized and would prevent losses to the farmers through spoilage of milk. Department is also focusing various steps to keep the milk as fresh as possible, when it reaches dairy plants in the organised sector and thus to the consumer. Department is taking steps to assure quality of milk through BMC units installed across the state.

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Besides being a health hazard, contamination of milk can lead to huge economic losses. Contamination occurs at different levels: at farm level, during collection and storage, and at processing centres. Milk contains many essential nutrients, such as carbohydrates, proteins, lipids, minerals and vitamins and therefore acts as an ideal medium for rapid proliferation of harmful micro-organisms. Milk needs to be protected from all possible sources of microbial contamination and various types of disease organisms.

Milk testing and quality control is an essential component of any milk processing industry irrespective of its handling volume. Milk being made up of 87% water and is prone to adulteration by unscrupulous middlemen and unfaithful producers for getting higher value. Moreover, its high nutritive value makes it an ideal medium for the rapid multiplication of bacteria, particularly under unhygienic production and storage at ambient temperatures.

Besides ensuring the quality of milk being procured at farm level, milk transported, handled, stored, chilled/processed at Dairy Co-operatives, the Dairy Development Department is committed to ensure the availability of fresh, adulterant free and pure milk to the consumers of the state. The Quality control activities of the Department are channelled through the following department level institutions

- NABL Accredited State Dairy Lab, Pattom, Thiruvananthapuram
- Regional Dairy Labs at Kottayam, Alathur and Kasargod.
- District Level Quality Control Units headed by Quality Control Officers
- Check Post Labs at Meenakshipuram (Palakkad), Aryankavu (Kollam) and Parassala (Thiruvananthapuram)
- Mobile Quality Control Labs

2. OBJECTIVES

The proposed scheme is aimed to

- Assurance of quality of milk and milk product especially during festival season to ensure consumer well being
- To undertake special quality control drives throughout the state.
- To undertake a 3 month long intensive quality control cum awareness drive throughout the state
- To establish permanent milk testing facility at selected check post of Kerala.
- Assist modernisation and strengthening of existing laboratories in the state and to create new testing labs
- To improve the infrastructure and testing facilities of State Dairy Lab

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- Accreditation of existing laboratories under IS 17025 (NABL)
- Improve testing facility at DCS with Bulk Milk Chilling Centres
- Improve the overall hygiene of BMCC
- Providing assistance to DCS with BMCC for ensuring effective effluent treatment mechanism
- Providing hygienic milk production kit to selected districts.
- Provide assistance to DCS for purchasing BMCC cleaning and sanitising agents
- Provide assistance to DCS for completing missing link in the procurement line
- Provide need based assistance to DCS with BMCC for ensuring quality milk procurement, chilling, storing and transportation.
- Assistance for improving farm level hygiene in Commercial Dairy Farms
- Specialised quality control training to department officials and DCS personnel
- Assistance to Regional Dairy Labs at Alathur, Kottayam and Kasargod.
- Assistance for infrastructure development and expansion activity of NABL accredited State Dairy Lab at Thiruvananthapuram.
- To take all possible measures to ensure that superior quality milk (w.r.t sensory, physico-chemical and microbiological quality) is produced at farm level, being handled at different levels, chilled / processed at different chilling / processing units and being marketed in the state and hence ensuring fresh and safe milk to consumers.

3.0 QUALITY CONTROL PROGRAMMES AND STATE BUDGET PROVISIONS 2021-22

An amount of Rs 400 lakh is earmarked for implementation of various scheme components under the scheme Strengthening Quality Control Labs.

Included in the budget allocation for the year 2021-21 (Rs 400.00 Lakh), all the 16 scheme components with a Total Cost of Rs 428.275 lakh and Plan Outlay of Rs 400.00 Lakh are ONGOING in nature. Hence as per the existing norms, the Head of Department holds the discretion to extend administrative sanction to those schemes which are On-going in nature with no change in subsidy amount.

SQC LABS-OC : Rs 364.00 lakhs
(2404-00-109-95-34-OC-3 OTHER ITEMS)

SQC LABS-WAGES-CONSOLIDATED PAY : Rs 28.00 Lakhs
(2404-00-109-95-02-Wages-4-Consolidated Pay)

SQC LABS-WAGES-CONSOLIDATED PAY : Rs 8.00 Lakhs
(2404-00-109-95-02-Wages-5-Daily Wages)

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The Government has already granted sanction for deployment of essential technical staff and non technical staff in State Dairy Labs, Regional Dairy Labs and Check Post Labs. As per the approved orders, an amount of Rs 79.2 lakh is required for engaging contract staff (Wages – Consolidated Pay) and Rs 10.00 lakh as Daily Wages.

The additional requirement under the sub head : 2404-00-109-95-02-Wages-4-Consolidated Pay (Rs 51.2 Lakhs) & additional requirement under the sub head : 2404-00-109-95-02-Wages-5-Daily Wages (Rs 2.00 lakh) will be re-appropriated from SQC Labs – OC (2404-00-109-95-94-34-OC-3 Other Items)

4. FINANCIAL OUTLAY

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STRENGTHENING QUALITY CONTROL LABS : 2021-22						
H.O.A : 2404 - 00 - 109 - 95						
SI.NO	SCHEME COMPONENTS	No. of Proposed Units	ONE UNIT		TOTAL UNITS	
			Total	Unit Subsidy	Total	Total Subsidy
			Rs in Lakh	Rs in Lakh	Rs in Lakh	Rs in Lakh
A. SQC LABS - OC : 2404-00-109--95-34-OC-3 OTHER ITEMS						
1	Special quality control testing drive - Onam Drive	1	7.000	7.000	7.000	7.000
2	Quality Awareness Programme	200	0.100	0.075	20.000	15.000
3	Consumer Interface Programme	14	0.100	0.100	1.400	1.400
4	Quality Control / Food Safety Training for Department Officers / DCS personnels	1	5.000	5.000	5.000	5.000
5	Clean Milk Production Kit to 3 selected districts	300	0.043	0.030	12.900	9.000
6	Assistance for improving farm level hygiene at farm level	20	1.500	0.750	30.000	15.000
7	Need Based Assistance to DCS for improving the quality control activities	15	0.500	0.375	7.500	5.625
8	Setting up of advanced milk testing facility and completion of missing link for DCS	10	1.000	0.750	10.000	7.500
9	Assistance for State Dairy Lab, Tvm	Lumpsum			150.000	150.000
10	Assistance for 3 Regional Labs (Kottayam, Alathur and Kasargod)	Lumpsum			21.000	21.000
11	Assistance for existing Check Post Labs (Meenakshipuram / Aryancavu / Parassala check Post)	Lumpsum			40.000	40.000
12	Assistance for District QC Labs	Lumpsum			28.000	28.000
13	Assistance for Mobile QC labs	Lumpsum			4.000	4.000
14	Documentation Charges	Lumpsum			2.275	2.275
SUB TOTAL - 2404-00-109-95-34-3 OTHER ITEMS		Lumpsum			339.075	310.800
B	2404-00-109-95-02-04 Consolidated Pay	Lumpsum			79.200	79.200
C	2404-00-109-95-02-05 Daily Wages	Lumpsum			10.000	10.000
GRAND TOTAL 2404-00-109-95		Lumpsum			428.275	400.000

1. Savings in any scheme component can be utilized for meeting the expenditure pertaining to any other scheme component cited above
2. The savings of scheme components can also be utilised for meeting the expenditure pertaining to infrastructure development of State Dairy Lab for which administrative sanction has already been obtained during previous years

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5. SCHEME PROPER

5.1 SPECIAL QUALITY CONTROL TESTING DRIVE - ONAM DRIVE

UNITS	NO OF UNITS	UNIT COST (Rs)	UNIT SUBSIDY (Rs)	TOTAL COST (Rs in Lakh)	TOTAL SUBSIDY (Rs in Lakh)
Lump sum	1	700000	700000	7.00	7.00

During festival seasons, especially during Onam, the demand for milk in the state increases and lot of milk reaches the state from neighbouring states. Unscrupulous traders take this as an opportunity to make huge profit by supplying inferior quality and adulterated milk. This is a major threat to public health, as many of the chemicals added to milk as adulterants or preservatives are hazardous in nature. In order to prevent such practices, special quality testing drives are conducted throughout the state during Onam season. Milk Quality Information Centres are also set up in all districts headquarters where the quality of all brands of milk marketed is tested. Facilities are provided for daily testing samples of milk brought by public and providing results then and there.

To prevent the entry of adulterated and low quality milk into the state, special camps with laboratory facilities are set up at the five major check post (**Walayar, Meenakshipuram, Kumili, Aryankavu and Parassala**) of the state through which majority of the milk flows into the state. The samples from vehicles are taken and those found adulterated or of low quality are denied entry into the state and actions can be initiated against the offenders. For the above activities an amount of Rs.7.00 lakh is to be set apart from this plan fund. Components under this category are appended below.

S1 no.	Particulars	Amount (Rs)
1	A room at the check post for arranging lab facilities. Rent @Rs.1500/day x 7days	10,500
2	Conveyance for transportation of equipment, samples, officials etc. vehicle hiring charges @Rs.2500/day x 7 days	17,500
3	Camp office near the check post for the use of officials on duty. Rent @Rs.2000/day x 7days	14,000

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4	Purchase of testing kits for preservatives and adulterants @Rs.2100, Glass ware (test tubes, pipettes, sample bottles) , Chemicals and reagents for various tests, vessels for storing water, mixing and heating samples etc	28,000
5	Miscellaneous charges, printing formats, internet (USB Modem with 3G / 4G SIM card & recharge amount), stationary, fax, phone courier charges, food & refreshment charges etc	24,000
6	TOTAL OUTLAY FOR ONE CHECK POST (1+2+3+4+5)	94,000
7	FOR 5 CHECK POSTS	4,70,000
8	For setting up milk quality information centre's at all district head quarters Rs 15000 x 14 districts	2,10,000
9	Preparation, Monitoring and supervisory charges including arranging of conveyance for directorate officials	20,000
GRAND TOTAL (7 + 8 + 9)		7,00,000

*** Savings in any one component may be utilized for any other component**

#Check posts details are as follows

- **Walayar (Palakkad district)**
- **Meenakshipuram (Palakkad district)**
- **Kumili (Idukki district)**
- **Aryankavu (Kollam district)**
- **Parasala (Thiruvananthapuram district)**

5.2 QUALITY AWARENESS PROGRAMME - Rs 15.000 LAKHS

Quality Awareness Programme (QAP) is an ongoing programme organized with the help of Dairy Co-operatives, NGOs and other farmer groups to create awareness among the milk producers in maintaining the quality of milk and milk products produced and marketed in the state. It helps the farmers to get better price and in maintaining good quality of milk pooled at the society level. Since the Food Safety and standards Act 2006 has been implemented in the state the Hygienic milk production at source has to be ensured. Food safety incidents often originate in the early stages of the production chain starting from the health of

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the animal, environment in which milk is produced, farm management practices etc. Though it is necessary to control all the factors in each step of the production chain for producing safe and wholesome milk, thrust should be at farmer level as contamination at that level is at a high degree, which plays the key role in the final quality of the product. The farmer should be made aware of the potential sources of contamination, its hazards, quality factors, hygienic practices, practices for quality improvement etc. through the awareness programme.

The QAP will provide an opportunity to the farmers to become familiarized with the FSSAI requirements. Priority may be given to elite progressive farmers, the newly registered societies and DCS pouring inferior quality of milk to the concerned regional milk unions. The District Quality Control officer under the guidance of the District Dairy Development officer will be responsible for organizing the programme. The topic selected for discussion / demonstration shall be need based and shall suit the specific requirement of the region / DCS / farmers selected. 200 programmes are to be organized in the state during 2021-22. The programme consists of arranging discussions and demonstrations regarding the importance of hygienic handling of milk, good milking practices, maintenance of cold chain and better management practices which would result in the improved chemical and microbial quality of raw milk and fetching better price for the producers at farmer level. The services of Dairy Training Centre and/or external faculty can be utilized for maximizing the effectiveness of the QAP. The expected cost for conduct of QAP is Rs 10,000 per QAP. Rs 7500/- per QAP (maximum) or 75 % of the cost whichever is the less, shall be the Plan Fund assistance for the conduct of QAP. The expenditure over and above the plan assistance shall be the contribution from host Dairy Co-operative.

A minimum of 40 farmers are expected to attend each QAP. The assistance is meant for meeting the expenditure for publicity, hall arrangement, training materials, arranging the demonstrations, discussion, remuneration for external faculty, classes, light refreshment, etc.

5.2.1 Financial Outlay

QUALITY AWARENESS PROGRAMME				
No. of Programmes	Cost per QAP	Plan Fund per QAP	Total Cost	Total Plan Fund
	Rs	Rs	Rs in Lakh	Rs in Lakh
200	10,000	7500	20.00	15.000

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5.3. CONSUMER INTERFACE PROGRAMME - Rs. 1.40 LAKHS

Being perishable commodities milk and milk products need day-to-day and prompt quality checking starting from the procurement stage to the end user. The producers as well as the consumers are to be made aware of the quality standards and regulations regarding milk and milk products. The consumers have to be safe guarded from unscrupulous traders entering the market to make a quick profit. For this Consumer Interface programmes are to be conducted for providing a forum for the consumers to interact with the producing dairies and officials to air their views and suggestions.

Consumer Interface Programme (CIP) is an important programme organized once in a year in each district as a special drive during Onam season or other festival season to create awareness among the consumers about the quality of milk and possible adulterants and precautions to be taken to avoid health hazards. It is organized with the help of line institutions preferably at district or any taluk headquarters. Milk quality information centres will be set up at all district headquarters where information regarding the quality of different brands of milk marketed in the district will be made available to the general public through electronic and print media. Samples of milk brought by the consumers or general public will be tested free of cost and result made available to them. Seminars will be organized with the help of consumer organizations / residents association to create awareness about the quality of milk and milk products. It is conducted by the Quality Control Officer of the respective district. In the state, 14 CIP will be conducted at a cost of Rs 10,000/ - per programme. The assistance is meant for meeting the expenditure for publicity, hall arrangement, training materials, arranging the demonstrations (Lab setting charges), honorarium to external faculty / technocrat, refreshment charges etc. Exhibitions/ demonstrations shall be organized for better interaction.

5.3.1 Financial Outlay

CIP (14 No.s) X Rs 10000 / CIP = Rs. 1.40 Lakh

5.4 QUALITY CONTROL / FOOD SAFETY TRAINING FOR DEPARTMENT OFFICERS / DCS PERSONNELS - Rs 5.00 lakh

The Dairy Department is actively involved in monitoring the quality aspects of milk from procurement point to the point where it ultimately reaches the consumer. The organoleptic, physico-chemical and microbiological quality of milk produced, processed, handled and marketed has to be within the standards considering the acceptance level and also from legal point of view. The MBR time of milk procured at DCS level and Dairy level is found to be significantly low. This

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has to be redressed so as to ensure safe production and consumption of milk. The quality control activities of the department are streamlined through the quality control officers of individual districts. The quality control activities are delegated to the DESU level through the Dairy Extension Officers. All the 14 districts are equipped with fully equipped quality control labs and most of the districts also have Mobile Quality Control Units. The raw milk samples from farm level, DCS samples, BMCC milk samples, milk samples from BMCC cluster units, market milk etc are being tested on a routine basis. Moreover it is expected that the dairy department be vested with the legal authority for collecting samples of milk and milk products for analysis.

The Department is presently equipped with a full-fledged STATE DAIRY LAB attached to the Directorate of Dairy Development at Thiruvananthapuram. The lab is NABL accredited. The said lab is equipped with sophisticated and modern equipment for analysing the quality of milk, milk products, water and cattle feed samples. 3 regional labs one each at Kottayam, Alathur and Kasargod. The regional lab at Alathur, Palakkad also carries out quality analysis of milk and milk products on a regular basis.

It is the need of the hour that the department officials be trained to carry out modern testing methods for testing of milk, milk products, water and cattle feed samples.

The scheme envisages providing training and exposure to selected department level officers (and also selected DCS personnel) in the field of quality analysis of milk, milk products, water and cattle feed samples. Specialised training for SDL officials, department officials at regional labs, state lab-Alathur shall be undertaken in this scheme component.

Training can be imparted at various institutions like

- NDRI, Karnal
- CIFT, Kochi
- Centre for Analysis and Learning in Livestock and Food (CALF)
- CEPC Lab, Kollam
- SDL, Dairy Department, Tvm
- Other accredited labs in the field of dairy and food analysis

Training in the field of ISO auditing to selected dairy department officials can also be taken up under this scheme component.

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QUALITY CONTROL / FOOD SAFETY RELATED TRAINING FOR DEPT OFFICIALS / DCS PERSONNELS		
SI.NO	PARTICULARS	AMOUNT (Rs in lakh)
1	Training Fees	5.00
2	Training Materials	
3	Rent, Rates, Taxes	
4	Travelling Expenses / Daily Allowances	
5	Food and Accommodation	
6	Miscellaneous / Other expenses	
GRAND TOTAL		5.00

05.05 CLEAN MILK PRODUCTION KIT / HYGIENE KIT TO 3 SELECTED DISTRICTS – Rs 9.00 LAKH

Kerala's milk production has increased over the last few years from the annual production of 21 Lakh metric tonne in 2005 -06 to 25.42 Lakh metric tonne in 2019-20. However the microbial quality of the milk produced in the state is low compared to that produced in the developed countries. Milk being the perfect food has to be produced and handled under hygienic conditions to ensure the safety of the consumers as well as prevent spoilage. The conditions in the small and medium farms where the majority of milk is produced are far from satisfactory. The food safety and standards Act 2006 has also laid down several measures to ensure the safety of the milk produced in the farms. The scheme envisages assisting the dairy farmers of the state to purchase hygiene kits and renovate their cattle farms especially the floor which would enable to ensure that the microbial load of the milk is minimized and would prevent losses to the farmers through spoilage of milk.

Besides being a health hazard, contamination of milk can lead to huge economical losses. Contamination occurs at different levels: at farm level, during

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collection and storage, and at processing centres. Milk contains many essential nutrients, such as carbohydrates, proteins, lipids, minerals and vitamins and therefore acts as an ideal medium for rapid proliferation of harmful microorganisms. Milk needs to be protected from all possible sources of microbial contamination and various types of disease organisms. When the milk is secreted from the udder, it is almost sterile. The employment of hygienic practices at the time of milking is therefore one of the first and most important steps in clean milk production.

‘Clean Milk’ is generally defined as “milk drawn from the udder of healthy animals, which is collected in clean dry milking pails and free from extraneous matters like dust, dirt, flies, hay, manure etc. Clean milk has a normal composition, possesses a natural milk flavor with low bacterial count and is safe for human consumption”.

05.05.01 BENEFITS OF CLEAN MILK PRODUCTION

Advantages of Clean Milk Production can be summed as

- Clean milk is safe for human consumption and free from disease producing microorganisms.
- Clean milk has a high keeping quality.
- Clean milk has a high commercial value.
- Clean milk can be transported over long distances without spoilage.
- Clean milk is a high quality base product for processing, resulting in high quality dairy products.

Contamination and Control Measures at Farm Level

Potential sources of contamination of milk are dung, water, utensils, soil, feed, air, milking equipment, the animal and the milker her/himself. Contamination of milk can occur at the following levels:

- Animal shed and environment.
- The Animal
- Milker and milking routine
- Milking equipment
- Storage and transport

The Sources of contamination are:

Faecal contamination from soiled animals : especially teats, udders and tails; bacterial contamination from poor milking practices, soiled hands,

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soiled equipment and failure to clean and disinfect teats prior to milking; contamination due to failure to detect abnormal milk (mastitis pathogens, blood and clots); physical contamination, especially from defective components in milking machines and bulk tanks, dust, bedding materials, dung, insects and animal hair; bacterial contamination from inadequate cleaning and disinfection of milking equipment and bulk milk tanks; chemical contamination from veterinary product residues, cleaning chemicals and use of non-food-grade materials in farm equipment coming in contact with milk.

Animal shed and environment :

The animal shed is one of the main sources of contamination. At the same time however, a good shed protects against micro-organisms as it keeps out other animals, people, wind, rain and excessive heat, all increasing the danger of contamination. Mud, urine, dung, and feed residues should regularly be removed from the shed. The shed should have proper drainage, sufficient light and ventilation.

The milking area of the shed needs special hygienic attention. The floor of the milk shed should be swept with clean water, and disinfected with one percent bleaching powder solution. So in Kerala condition, it is very necessary to ensure a clean floor which adverse the proliferation of microbiological hazards.

The Animal :

The animal itself is one of the most significant sources of contamination, care and management of the animal and its health is therefore the starting point for clean milk production.

The skin of the animal provides a large surface for possible contamination. Long hairs on the flanks, hind legs, tail and udder need to be clipped at frequent intervals. If washing of animals is not practiced regularly as is observed in most cases, at least grooming of the animals should be done to keep the hair and dust away from milk. The udder is the part of the animal nearest to the milk and needs to be washed before each milking, and dried with a clean cloth or towel.

Milker and Milking Routine

In the case of hand milking, the danger of contamination coming from the milker is higher as compared with machine milking. The milker should therefore be free from contagious diseases. A good milking routine prevents contamination of the

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milk. A consistent milking method at regular intervals, fast but gentle and complete milking, and sanitary methods during milking are all important aspects. After milking, the teats can be dipped or sprayed with a gentle antiseptic solution to prevent the entry of microbes via teat canal and leading to infection.

Milking Equipment

Dirty milking equipment is one of the main sources of contamination of milk. About 15 minutes before milking, milking equipment should be rinsed with a sanitizing solution. In this way, dust and contamination will be removed. Milking equipment should also be thoroughly cleaned after use because any milk residues in the equipment will allow microorganisms to grow rapidly. The utensils and equipment used during milking need to be of standard quality. They should be made up of acceptable, non-absorbent, corrosion-resistant material and should be easy to clean. The utensils and equipment should not have any joints or open seams and should be free from dents, rust etc. The milking utensils and equipment should be thoroughly cleaned and sanitized after each milking. An acceptable, non-toxic and non-corrosive cleaning and bactericidal agent should be used for cleaning and sanitation.

05.05.02 ABOUT THE PROJECT

This proposal envisages providing hygiene kits to 300 progressive dairy farmers from selected districts to ensure the food safety at farm level.

The items are follows:-

- California mastitis kit (CMT Kit)
- Teat cup and iodine solution
- Towel , Disinfecting and cleaning agent
- SS 304 Milking Bucket / milking pail -10 litre capacity - 16/18 gauge thick
- Grooming Brush

The Scheme pertaining to the year 2021-22 shall be implemented in the districts of Kannur, Palakkad and Idukki

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05.05.03 OBJECTIVE OF THE SCHEME

- To create awareness among dairy farmers regarding the importance of hygienic milk production
- To prevent losses due to spoilage of milk due to unhygienic conditions in the farm
- To prevent spread of disease through milk by proper production and handling methods
- To produce high quality milk suitable for value addition
- To ensure better price to farmers.

05.05.04 BENEFICIARIES AND SELECTION

300 progressive farmers who rear more than 2 milch animals from selected districts shall be beneficiaries of this project. Those dairy farmers who pour milk to Dairy Co-operatives shall be given priority while finalizing the select list of beneficiaries. Primary application shall be submitted at concerned Dairy Extension Service Unit. After field level inspection, the ranked beneficiary list shall be forwarded to concerned Quality Control Officer. Based on the district target and allocation from Directorate, the Quality Control Officer, based on the ranked list from various DESU's shall finalize the district level ranked beneficiary list for this programme.

Registration Fees – Rs 170 per beneficiary

05.05.05 SCHEME COMPONENTS AND FINANCIAL OUTLAY

HYGEINE KIT FOR CLEAN MILK PRODUCTION			
COMPONENTS	TOTAL COST	PLAN FUND	BEN. CONTR.
	<i>Rs</i>	<i>Rs</i>	<i>Rs</i>
California mastitis kit (CMT Kit)	500	350	150
Teat cup and iodine solution	400	280	120
Towel , Disinfecting and cleaning agent	600	420	180
Stainless steel Milk carrying Bucket / milking pail etc.- SS 304 - 10 Litre -16/18 gauge thick	2,500	1,750	750
Grooming Brush	300	200	100
GRAND TOTAL	4300	3000	1300

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Savings in any one component can be utilized for meeting the expenditure pertaining to any other component detailed above.

NO. OF UNITS	UNIT COST	UNIT SUBSIDY	TOTAL COST	TOTAL PLAN OUTLAY	BEN. CONTR.
	Rs	Rs	Rs in Lakh	Rs in Lakh	Rs in Lakh
300	4300	3000	12.90	9.00	3.90

The Hygiene Kit / Clean Milk Production Kit shall be distributed by M/s Indian Immunologicals Ltd, a subsidiary of National Dairy Development Board. The Department will also have the option to arrange the kit through other sources purchased after following the existing standard store purchase rules.

05.06 ASSISTANCE TO COMMERCIAL DAIRY FARMERS FOR IMPROVING THE MILK HYGIENE AT FARM LEVEL AND FOR MAINTENANCE OF COLD CHAIN (WITH LINKAGE THROUGH DCS)

- Rs 15.00 LAKHS

During the last decade, in Kerala there has been a shift from subsistence farmer (rearing 1 to 2 milch animals) to mini dairy units / commercial farms / entrepreneurs who rear more than 5 milch animals. More and more young entrepreneurs are coming to this sector. It is a need of the hour that those farmers need to be encouraged to produce quality milk in the farm and dispose good quality milk.

Objective

The scheme is envisaged to assist 20 numbers of dairy farmers / entrepreneurs for implementation of hygiene improvement practices in their commercial farms and for maintenance of cold chain. The assistance shall be need based.

The items that will be assisted under this scheme component are

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- Purchase of Stainless Steel Milk Can (SS 304 grade with 40 litre Capacity)
- Purchase of Clean Milk Production Kit like SAAF Kit, California mastitis Kit, disinfectants, farm cleaning solutions, milch animal grooming brush etc
- Repair / Maintenance of Cattle Shed Floor
- Purchase of Stainless steel can, Milking pail, other utensils useful in Dairy Farms
- Purchase of Cow Mat
- Installation of automatic drinking bowl
- Purchase of Pressure Washer for cleaning of cattle shed
- Purchase of Milking Machine
- Purchase of insulated PUFF boxes
- Installation / Repair of biogas plant
- Purchase / Repair of mini cooling systems for chilling raw milk at farm level
- Insulation of transportation vehicle for transporting milk from farm to nearest DCS / collection centre
- Purchase of power generation system including solar panel
- Installation of fly trap, environmental cooling systems and other stress managing equipment.
- Purchase of slurry pump
- Farm level Milk mini cooling systems
- Any other farm level hygiene enhancement systems, not included above, but with the prior approval of the Deputy Director on the basis of a project report recommended by the concerned Dairy Extension Officer

Beneficiaries

The beneficiaries shall be 20 numbers of commercial dairy farmers / entrepreneurs who meet the following conditions

- a. Shall rear not less than 5 number of milch animal
- b. The average milk production in the farm shall be not less than 50 litre per day
- c. The beneficiary shall be a member / non-member of nearby DCS (mandatory), but pouring milk to DCS
- d. It is mandatory that the selected beneficiary is pouring a significant quantity of milk produced in the farm to the nearby DCS

Implementation

The Quality Control Officers shall be the district level Implementing Officer of this scheme component.

Based on the directions from the concerned Quality Control Officer, application shall be invited at block level from elite and progressive farmers by giving wide

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publicity for the scheme. The application shall be routed through the DCS to the DESU. The Dairy Farm Instructors, in tune with the directions of the Dairy Extension Officers shall scrutinize the applications and conduct necessary field level inspections. Details of short listed beneficiaries with proper certifications and recommendations of DESU Level Officer shall be forwarded to the Quality Control Officer for final selection.

The beneficiary shall have the freedom to select one or more components listed above for assistance according to his need for enhancing farm level hygiene enhancement. The financial assistance shall be released directly to the beneficiary as DBT mode. The beneficiary shall submit relevant purchase document to the Quality Control Officer through the Dairy Extension Officer concerned. The release of subsidy shall be based on proper inspection of items purchased/installed and after verification of documents submitted.

The beneficiary shall execute an agreement in stamp paper worth the amount as detailed in Govt. norms in regard to proper maintenance of the items purchased.

The registration fees shall be Rs 250/- per beneficiary

Financial Outlay

The assistance shall be Rs 75,000/- (max) or 50 % of the actual cost. In case of savings in the allotted fund to districts / DESU, more number of beneficiaries shall be assisted. However the total subsidy per beneficiary shall not exceed Rs 75,000/-.

ASSISTANCE TO COMMERCIAL DAIRY FARMERS FOR IMPROVING THE MILK HYGIENE AT FARM LEVEL AND FOR MAINTENANCE OF COLD CHAIN						
Sl. No.	No. of Units	Unit Cost Rs.	Unit Subsidy Rs.	Total Cost (Rs in lakh)	Plan Fund (Rs in lakh)	Beneficiary Fund (Rs in lakh)
1	20	1,50,000	75,000	30.00	15.00	15.00
Gross Amount (Rs. in Lakh)				30.00	15.00	15.00

05.07 NEED BASED ASSISTANCE TO DCS WITH BMCC FOR

IMPROVING QUALITY CONTROL ACTIVITIES

- Rs 5.625 Lakh

In order to ensure microbiological quality of milk, maintenance of cold chain has to be ensured from farm to consumer points. With a view to improve the bacteriological aspect, the dairy department with the help of the regional unions have upgraded numerous Dairy Co-operatives to Bulk Milk Chilling Centres (BMCC). The BMCC's have ensured that the milk collected at farm level is to be chilled to a temperature below 4°C meeting the guidelines of FSSR. This helps to arrest the bacteriological multiplication and thereby ensuring the quality of milk. This cold chain will be ensured subsequently by chilling and storage of milk in DCS, transportation of milk to processing dairies in insulated tankers, marketing the packed milk by maintaining the cold chain.

In order to improve the quality control activities, the quality testing facilities available at the BMCC has to be improved. An improved lab facility has to be established at the BMCC's. This will help to continuously monitor the quality of milk received from farmers and also milk received by route from the nearby cluster DCS. At present the DCS with BMCC is incurring huge amount for purchase of cleaning and sanitising agents. Also the effluent treatment mechanism presently available at BMCC has to be improved.

In order to meet the FSSR requirements and ensure safe milk consumption, the quality of milk at farm level has to be improved. Progressive farmers have to be motivated for ensuring the hygiene level at production level. Assisting farmers for purchase of farm cleaning cum sanitising materials will ensure production of milk with superior quality. The scheme envisages assisting the DCS with BMCC and also progressive dairy farmers of the state for improving the milk testing facilities, maintaining hygienic environment at farm level and BMCC's and also other aspects which will enhance the Physico-chemical and microbiological aspects of milk.

This scheme is aimed at providing need based assistance for improving the overall functioning of the cluster BMCC

Need based assistance for following components shall be included.

- ✓ Breakdown / regular maintenance of BMCC
- ✓ Installations for up gradation of existing facilities of BMCC
- ✓ Purchase of cleaning / sanitising agents
- ✓ Meeting electricity charges
- ✓ Non recurring wages connected with operation of BMCC
- ✓ Other overhead charges
- ✓ Meeting AMC charges of BMCC

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- ✓ Meeting expenditure for implementing FSSA requirements in BMCC
- ✓ Any other item not specified above, but with the approval of The Deputy Director of concerned district

(A detailed project report shall be submitted along with application detailing the justification for the item requested for assistance)

05.07.01 BENEFICIARY

The beneficiary shall be those BMCC which handles **more than 200 lpd on an average**. Preference shall be given for Cluster BMCC's

Registration Fees – Rs 250 per beneficiary DCS

05.07.02 FINANCIAL

Scheme is meant for assisting 15 DCS with BMCC. Preference shall be given to those DCS having higher installation capacity and that links more neighbouring DCS. The assistance shall be 75 % of the cost incurred subject to a maximum of Rs 37,500 per BMCC.

NEED BASED ASSISTANCE TO DCS FOR IMPROVING QUALITY						
Sl. No.	No. of Units	Unit Cost Rs.	Unit Subsidy Rs.	Total Cost (Rs in lakh)	Plan Fund (Rs in lakh)	Beneficiary Fund (Rs in lakh)
1	15	50,000	37,500	7.500	5.625	1.875
Gross Amount (Rs. in Lakh)				7.500	5.625	1.875

05.08 ASSISTANCE FOR SETTING UP OF ADVANCED MILK TESTING FACILITY AND FOR ENSURING HYGIENIC MILK RECEPTION, STORAGE, PROCESSING AND HANDLING BY DAIRY CO-OPERATIVES - Rs 7.500 lakh

In order to improve the quality control activities, the quality testing facilities available at the DCS has to be improved. An improved lab facility has to be established at the DCS especially those DCS where the milk procured, handled,

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transported and marketed are high. Especially the milk testing facility at those DCS with BMCC and Cluster BMCC have to be effective and efficient. This will help to continuously monitor the quality of milk received from farmers and also milk received by route from the nearby cluster DCS.

A lab with advanced facilities in the DCS will ensure quality of procured milk from farmers and also from cluster societies that pour milk in to that particular DCS / BMCC. A fully fledged lab equipped to test the sensory, physicochemical and microbiological quality of milk shall be ensured.

The scheme envisages at assisting DCS for establishing milk testing lab / improving the quality of milk procured, handled, chilled / processed and transported at / from DCS, by giving assistance for installing drip savour, can conveyors, can washer, can scrubber, dumb tanks etc. Any activity that enhance / ensure quality procurement, chilling, storing, processing, and marketing of milk / milk products can be taken up in this scheme components.

This is also been observed in many of the BMCCs lacking a dump tank in procurement line. This has led to increased manpower in handling more milk volume and also resulting erroneous sampling due to lack of a proper composite sampling procedure.

The fund shall be used for

- ✓ Establishing a new lab at DCS (preferably those DCS with BMCC/Cluster BMCC) with milk testing facilities
- ✓ Purchase of milk testing chemicals, equipment and other lab related utensils
- ✓ Improving the infrastructure facility at existing lab of DCS
- ✓ Assisting for purchase of advanced milk testing equipment, glass wares, utensils etc
- ✓ For establishing /repair / maintenance of RMRD
- ✓ Establishing drip savour, can conveyors, can washer, can scrubber, dumb tanks etc in DCS especially those DCS with BMCC
- ✓ Installation of load cell, flow meters for ensuring correctness of quantity of milk procured and despatched.
- ✓ Installation of drip savour, fly traps, U.V light, any other missing components to ensure environmental hygiene.
- ✓ Purchase of dump tank of matching volume and pump for completing the missing link in pooling milk.
- ✓ Effluent treatment related activities of the DCS.
- ✓ Training for DCS personnel's engaged in milk procurement and processing.
- ✓ The assistance shall be Need based in Nature.
- ✓ Any other items, not specified above, but with the prior sanction of The Deputy Director, based on a detailed project report by the DCS with proper recommendations by The DEO of concerned DESU can be taken up.

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05.08.01 FINANCIAL ASPECT

NO. OF PROPOSED UNITS	UNIT COST (Rs in lakhs)			COST FOR TOTAL UNITS (Rs in lakhs)		
	TOTAL	UNIT SUBSIDY	BEN. CONT	TOTAL	SUBSIDY	BEN. CONT
10	1.000	0.750	0.250	10	7.50	2.50
GRAND TOTAL				10.00	7.50	2.50

A detailed project report shall be attached along with the application of the DCS applying for assistance

05.08.02 BENEFICIARY

The beneficiary shall be those DCS with an average milk collection of minimum 200 lpd. (average of last 6 months). Preference shall be given to DCS which handles more milk per day and also those DCS with BMCC and Cluster BMCC

Registration Fees – Rs 500 per beneficiary DCS

05.08.03 IMPLEMENTATION AND MONITORING

The Deputy Director of concerned district shall be the sanctioning authority. A committee consisting of Deputy Director, Quality Control Officer and concerned Dairy Extension Officer and President of the beneficiary society shall evaluate periodically and monitor the progress of the implementation.

05.09 ASSISTANCE FOR NABL ACCREDITED STATE DAIRY LAB AT PATTOM, THIRUVANANTHAPURAM – Rs 150.00 LAKH

State Dairy Laboratory is one of the initiatives of Government of Kerala with the help of Central Government aided fund, under the flag ship of Dairy Development department, to assure the quality of milk and milk products being consumed in our state. The concept of creation of state run Dairy Laboratory is of first in its nature in India. This centralized laboratory was inaugurated on 21.04.2010 and occupies state of art imported machineries to cater the various microbiological and chemical analysis of milk and milk products. In addition to this, Lab also analyses the quality of cattle feed and the water including packaged drinking water.

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Laboratory carries out all the testing activities in accordance with the international standard ISO 17025 satisfying the needs of the customer. SDL is a part of Dairy Development Department and has a well-defined and documented organizational structure in order to identify potential conflicts of interest and prevent an involvement or influence on the testing activities of the laboratory. It is the policy of SDL, that, the laboratory shall not engage in any activity that may endanger its independence of judgment and integrity, in relation to its testing activities.



05.09.01 SCOPE OF ACTIVITIES

ISO 17025:2017 NABL ACCREDITATION NABL ACCREDITATION FOR 96 PARAMETERS in Chemical and Microbiology divisions

- ISO 9001:2008 CERTIFIED
- CALIBRATION OF GLASSWARES

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➤ TRAINING PROGRAMS

05.09.02 CHEMICAL DIVISION

- Analysis of Milk and its products including curd, ghee, milk powder, peda, cheese, paneer, ice cream, condensed milk, flavoured milk, yoghurt, chakka , shrikhand, butter, Khoa.
- Analysis of water according to IS 10500 and IS 14543 including packaged drinking water
- Cattle feed analysis as per BIS standards.

Sophisticated Equipment and related Tests in Chemical Division Chemistry

❖ **High Performance Liquid Chromatography**

Analysis of Aflatoxin M1 in milk, Aflatoxin B1 in cattle feed, Veterinary drug residues in feed, melamin in milk powder, vitamins

❖ **Gas Chromatography**

Pesticide residues in milk, water and Fatty acid profiling in ghee

❖ **UV Spectrophotometer**

Urea in Cattle feed, metals in milk and water

❖ **Atomic Absorption Spectrophotometer**

Analysis of metals like iron, copper, Zinc, including heavy metals like lead, Cadmium in food and water

❖ **Automated Equipment (Soxtec, Fibertec)**

Determination of Crude fat & Fiber, protein ,urea in Cattle feed

❖ **Real Time PCR machine** : A1- A2 casein in milk & its products

❖

05.09.03 MICROBIOLOGY DIVISION

Analysis of Milk and its products including Dahi, ghee, milk powder, cheese & cheese products, Yoghurt ,Ice –cream, etc.by determining the parameters as per IS standards.

Qualitative Analysis of water as per IS:10500 and IS:14543including potability of drinking water

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All parameters essential for analysing the quality of packaged drinking water including *Vibrio cholerae*, *Salmonella*, *Shigella*.

Sophisticated Equipment and related Tests in Microbiology Division

- **TEMPO** - Rapid enumeration of microbial count including total viable count, coliforms, staphylococcus, Enterobacter in food
- **VIDAS** - Rapid determination of pathogens like *E.coli*, *Salmonella*, *Campylobacter*, *Listeria* in food
- **UV Chamber**

Determination of fluorescence of Pseudomonas species



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05.09. 04 DETAILS OF SAMPLE COLLECTION

SAMPLE	2016 -17	2017 - 18	2018 - 19	2019-20	2020-21
Cattle feed	236	306	186	212	103
Milk & Milk Products	264	209	134	88	22
Water	32	80	198	210	207
Calibration	1160	137	1799	1296	1378
TOTAL	1,692	732	2,317	1806	1710

05.09.05 INCOME GENERATION

YEAR	AMOUNT (RUPEES)
2016-17	1,73,448
2017- 8	4,51,766
2018-19	9,97,138
2019-20	9,32,234
2020-21	9,50,386

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SDL is equipped to analyse 90 parameters for ensuring the quality of Milk, Milk Products, Water and Cattle Feed. In future, the SDL will also be serving as an advanced training centre for department officials and other personnel.

At present the SDL is headed by Joint Director (SDL) / Quality Manager. The Quality Manager is assisted by an Assistant Director (Head of Division), Analyst-Microbiologist (permanent -1, Contract basis-2) and Analyst-Chemical (Permanent-1, Contract basis-2).

Availability of permanent technical persons to conduct various tests in the SDL is a major constraint. Hence 4 Analyst are proposed to be appointed during the year 2021-22 with a consolidated pay of Rs 30,000 per month. A support staff with a consolidated pay of Rs 15,000 per month will be appointed on contract basis during the year 2021-22.

The amount of Rs 16.20 lakh required for engaging contract staff (Wages – Consolidated Pay) will be met from the Sub Head : 2404-00-109-95-02-Wages-4 Consolidated Pay

The amount required for engaging manpower on daily wages (Wages – Daily Wages) will be met from the Sub Head : 2404-00-109-95-02-Wages-5 Daily Wages . The additional requirement under the sub head : 2404-00-109-95-02-Wages-4-Consolidated Pay (Rs 51.2 Lakhs) & additional requirement under the sub head : 2404-00-109-95-02-Wages-5-Daily Wages (Rs 2.00 lakh) will be re-appropriated from SQC Labs – OC (2404-00-109-95-94-34-OC-3 Other Items)

In case of expansion of scope of NABL Accredited State Dairy Lab or significant increase in number of samples, additional technical manpower shall be engaged.

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Completing the pending electrical modification work of State Dairy Lab, Pattom

The infrastructure development of State Dairy Lab was phased and the initial expansion works started during the year 2016-17. Included in the plan 2017-18, as per the administrative sanction order referred as 2 above, Rs 32.00 lakh was included for the installation of an Electrical Transformer. Due to technical reasons, the Department could not implement the installation of electrical transformer during the year 2017-18, 2018-19 and also 2019-20.

Under Plan 2018-19, as per administrative sanction order (G.O.(Rt.) No. 49/2018/DD dated 14.06.2018), Rs 140.00 lakh was sanctioned for the Stage III infrastructure development of State Dairy Lab. Under the same, sanction was received for implementation of following electrical works (General Electrical Installation – Rs 54,18,402/-, Servo Stabilizer - Rs 3,26,700/-, 200 KVA Generator - Rs 16,72,500/-, Lightning protection and surge protection – Rs 9,19,535/-, Fire Protection System – Rs 34,08,923/-). But due to the unexpected delay in completion of civil works of State Dairy Lab, the electrical work could not be taken up during the year 2018-19 and 2019-20.

During this year, the civil portion of SDL up-gradation has already been completed. The modified State Dairy Lab can be made fully functioning only if the electrical up-gradation is completed including installation of an electrical transformer, Electrical Stabiliser, Generator and allied fittings. The M/s Kerala Police and Housing Construction Corporation Ltd vide proposal No. KPHCC/1419/OD/2018 dated 04.11.2020 has submitted a detailed estimate for completion of electrical installations and modifications. The estimated cost is coming to Rs 103.638 lakh (Rupees One Hundred and Three Lakh Sixty Three Thousand and Eight Hundred Only). Based on the request from the Department vide Letter No. No. DDDKER/10475/2020-D1 dated 30.11.2021, the Government vide order No. G.O.(Rt.) No. 27/2021/DD dated 18.03.2021 has granted permission to complete the electrical modifications pending for SDL, Tvm with a plan outlay of Rs 103.638 lakhs from the budget provisions of 2020-21. Since the order was received only during 18.03.2021, the work could not be completed during the year 2020-21. The Department has already signed M.O.U with M/s Kerala Police Housing Construction Corporation Ltd during the last week of March, 2021. The said component (Electrical Modification at SDL, Tvm including installation of electrical transformer) can be considered as an on-going scheme component during the year 2021-22, and the amount proposed by M/s KPCC and sanctioned by Government vide G.O.(Rt.) No. 27/2021/DD dated 18.03.2021 is included as an on-going component in the DPR 2021-22

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05.09.06 FINANCIAL OUTLAY – SDL, TVM

SI. No	PARTICULARS	TOTAL COST / PLAN FUND
		(Rs in Lakh)
1	Electrical Modifications including installation of electrical transformer in SDL, TVM (approved vide G.O.(Rt.) No. 27/2021/DD dated 18.03.2021)	103.638
2	Purchase of testing equipment for analysis of milk, milk products, water and cattle feed samples	13.000
3	Purchase of glassware, chemicals, certified materials, media etc.	10.000
4	Annual Maintenance Charges for testing equipment, electronic gadgets, website etc.	5.000
5	Repair and Maintenance charges, Rent, Rate and Taxes	4.000
6	NABL accreditation and renewal charges	4.000
7	Insurance and other allied charges	3.000
8	Infrastructure development, Purchase / Repair of computers, printers and other electronic gadgets	2.000
9	New Software Development Charges and software maintenance charges for SDL, Tvm	4.000
10	Other direct and indirect expenses for ensuring the smooth functioning of SDL, Tvm	1.362
GRAND TOTAL		150.00

Savings in any sub scheme component cited above can be utilised for meeting the expenditure pertaining to any other scheme component specified in 05.02.06

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05.10 ASSISTANCE FOR REGIONAL DAIRY LABS AT KOTTAYAM, ALATHUR AND KASARGOD – Rs 21.00 Lakh

Department had aimed to set up regional laboratories at different parts of State to assist and support District labs under Quality Control Officers. In the financial year 2013-14, sanction had been accorded to construct 2 regional laboratories at Kasargod and Kottayam Districts. Both the regional labs have become functional and during the year 2018-19, the labs are all set for starting analysis of milk, milk products, water and cattle feed samples.

05.10.01 Details of fund sanctioned till date for newly started regional labs at Kasargod and Kottayam

The fund allotment to 3 Regional Dairy Labs till date is as follows

REGIONAL DAIRY LAB - KOTTAYAM		
ANNUAL PLAN	AMOUNT	ORDER NO.
	(Rs in Lakh)	
2013-14	57.7939	GO(Rt) No. 2093/2013/AD dated 28.11.2013
2014-15	37.91123	GO(Rt) No. 1606/2014/AD dated 30.08.2014
2015-16	128.83	GO(Rt) No. 1995/2015/AD dated 02.12.2015
2016-17	15	GO(Rt) No. 60/2016/AD dated 12.07.2016
2017-18	5	GO(Rt) No. 63/2017/AD dated 13.06.2017
2018-19	5	GO(Rt) No. 49/2018/AD dated 14.06.2018
2019-20	12.4	GO(Rt) No. 81/2019/AD dated 01.07.2019
2020-21	11.8	GO(Rt) No. 42/2020/DD dated 22.06.2020
GRAND TOTAL	273.73513	

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REGIONAL DAIRY LAB - KASARGOD		
ANNUAL PLAN	AMOUNT	ORDER NO.
	(Rs in Lakh)	
2013-14	192.20231	GO(Rt) No. 2093/2013/AD dated 28.11.2013
2014-15	70	GO(Rt) No. 1606/2014/AD dated 30.08.2014
2015-16	37.18	GO(Rt) No. 1995/2015/AD dated 02.12.2015
2016-17	30	GO(Rt) No. 60/2016/AD dated 12.07.2016
2017-18	20	GO(Rt) No. 63/2017/AD dated 13.06.2017
2018-19	5	GO(Rt) No. 49/2018/AD dated 14.06.2018
2019-20	9.4	GO(Rt) No. 81/2019/AD dated 01.07.2019
2020-21	15.4	GO(Rt) No. 42/2020/DD dated 22.06.2020
GRAND TOTAL	379.18231	

REGIONAL DAIRY LAB - ALATHUR		
ANNUAL PLAN	AMOUNT	ORDER NO.
	(Rs in Lakh)	
2019-20	9.4	GO(Rt) No. 81/2019/AD dated 01.07.2019
2020-21	11.8	GO(Rt) No. 42/2020/DD dated 22.06.2020
GRAND TOTAL	21.2	

05.10.02 Financial support to Regional Dairy Labs at Kottayam, Alathur and Kasargod

An amount of Rs 21.00 lakh is proposed to be included for assisting the functioning and development activities at Regional Dairy Labs (Kottayam, Alathur

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and Kasargod). This amount is in addition to the provision for providing wages (Consolidated Pay & Daily Wages)



REGIONAL DAIRY LAB – KASARGOD



REGIONAL DAIRY LAB - KOTTAYAM

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05.10.02 FINANCIAL ASSISTANCE – ASSISTANCE FOR REGIONAL DAIRY LABS

SI.NO	PARTICULARS	REGIONAL LAB - KOTTAYAM	REGIONAL LAB - ALATHUR	REGIONAL LAB - KASARGOD
		AMOUNT (Rs In Lakh)	AMOUNT (Rs In Lakh)	AMOUNT (Rs In Lakh)
1	Purchase of Chemicals, reagent, media, glasswares etc for routine analytical purpose	2	2	2
2	Setting up of work station, racks for labs, Almarah etc	1	1	1
3	Training Charges / Meeting expenses / Charges for calibration	1	1	1
4	Installation of testing equipments for testing of milk, milk products, water and cattle feed	2	2	2
5	Other Expenses	1	1	1
GRAND TOTAL		7	7	7

** Saving on any one component may be utilized for any other component mentioned above*

REGIONAL DAIRY LAB	No. of months	ANALYST @ Rs 30,000 per month	TRAINEE ANALYST @ Rs 17500 per month	TECHNICAL SUPPORT @ Rs 15000 per month	TOTAL (Rs in Lakh)
		No.	No.	No.	
RDL-KOTTAYAM	12	0	2	1	6.00
RDL-ALATHUR	12	0	2	1	6.00
RDL - KASARGOD	12	1	2	1	9.60

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GRAND TOTAL	12	1	6	3	21.60
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The wages (Consolidated Pay and Daily Wages) shall be met from the sub head under 2404-00-109-95-02-4 consolidated pay and 2404-00-109-95-02-5 Daily Wages respectively. The budgeted amount under this sub head is Rs 28 lakh for meeting wages-consolidated pay and Rs 8 lakh as wages-daily wages which is not sufficient enough to meet the expenses pertaining to payment of wages (consolidated pay & daily wages) to contract staff at various quality checking labs. Hence the department will be applying for re-appropriation of fund (Rs 400 lakh) from the major head 2404-00-109-95-34-3 other items to the sub head 2404-00-109-95-02-4 consolidated pay and 2404-00-109-95-02-5 daily wages.

05.11 ASSISTANCE FOR EXISTING MILK TESTING CHECK POST LABS AT MEENAKSHIPURAM, ARYANKAVU & PARASSALA - Rs 40.00 Lakhs

For the purpose of ensuring the quality of milk crossing the border, and to ensure availability of safe milk to consumers of the state, the department has started permanent milk testing facility at selected check posts of Kerala.

The permanent milk testing lab at Meenakshipuram started functional during the year 2017-18 and the lab at Aryancavu check post started during the year 2018-19

Both the labs are functioning 24 X 7. Shift system (3 shifts) is followed at both Meenakshipuram check post lab and Aryancavu check post lab.

The milk vehicles carrying raw milk, processed milk and milk sachets are checked for sensory qualities, physico-chemical qualities and microbiological qualities. The samples are also tested to detect the presence of adulterants, neutralisers and preservatives

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ITEM	2018-19		2019-20		2020-21	
	MEENAKSHIP-URAM CHECK POST	ARYANKAVU CHECK POST	MEENAKSHIP-URAM CHECK POST	ARYANKAVU CHECK POST	MEENAKSHIP-URAM CHECK POST	ARYANKAVU CHECK POST
NO. OF VEHICLES	19,587	7,279	22,354	10,145	1,186	5,240
NO. OF SAMPLES TESTED	50,356	12,869	51,270	19,964	23,930	9,185
QUANTUM OF MILK TESTED (LTR)	11,91,014	564	11,72,18,853	7,11,44,650	7,09,91,312	3,90,18,346
SUB STANDARD MILK (QTY IN LTR)	12,278	0	1,1168.3	2,955	662	0
ADULTERATED MILK (QTY IN LTR)	0	7,741	2,1575	0	0	0

It is proposed to allot an amount of Rs 40.00 lakh for the infrastructure development, expansion of milk testing facilities, for meeting overhead expenses, meeting expenditure pertaining to payment of wages to technical staff on contract wages (both consolidated wages and daily wages) etc.



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PERMANENT MILK TESTING LABORATORY – ARYANKAVU, KOLLAM DISTRICT



PERMANENT MILK TESTING LABORATORY – PARASSALA, TVM DISTRICT

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05.11.01 Financial assistance to Permanent Milk Testing Labs at Meenakshipuram, Aryankavu and Parassala

Item	Meenakshipuram Check Post	Aryankavu Check Post	Parassala Check Post
	(Rs in Lakh)	(Rs in Lakh)	(Rs in Lakh)
Purchase of Chemicals, Reagent, media, glassware etc for routine analytical purpose	9	9	7
Setting up of work station, racks for labs, Almarah etc	2	2	2
Rent, Rate and Taxes	1	1	1
Lab maintenance charges	2	2	2
Grand Total	14	14	12

Savings in any scheme sub component listed above can be utilised for meeting the expenditure pertaining to any other scheme sub component.

Depending upon the requirement, the Director, DDD holds the discretion to re-allot the total proposed amount of Rs 40.00 lakh between the Meenakshipuram, Aryankavu and Parassala check post.

Manpower requirement of Check Post Labs

QUALITY CONTROL LAB	No. of months	ANALYST @ Rs 30,000 per month	TRAINEE ANALYST @ Rs 17500 per month	TECHNICAL SUPPORT @ Rs 15000 per month	TOTAL (Rs in Lakh)
CHECK POST LAB - MEENAKSHIPURAM	12	1	4	1	13.80
CHECK POST LAB - ARYANKAVU	12	1	4	1	13.80
CHECK POST LAB - PARASSALA	12	1	4	1	13.80
GRAND TOTAL	12	3	12	3	41.40

Savings in any scheme sub component listed above can be utilised for meeting the expenditure pertaining to any other scheme sub component

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The above amount required for manpower requirement (Wages – Consolidated Pay) shall be met from the sub head 2404-00-109-95-02 Wages – Consolidated Pay.

The budgeted amount under this sub head is Rs 28 lakh for meeting wages-consolidated pay and Rs 8 lakh as wages-daily wages which is not sufficient enough to meet the expenses pertaining to payment of wages (consolidated pay & daily wages) to contract staff at various quality checking labs. Hence the department will be applying for re-appropriation of fund (Rs 400 lakh) from the major head 2404-00-109-95-34-3 other items to the sub head 2404-00-109-95-02-4 consolidated pay and 2404-00-109-95-02-5 daily wages.

5.12 ASSISTANCE TO DISTRICT QUALITY CONTROL LABS

– Rs 28.00 LAKHS

The quality control unit labs at district level under the control of Assistant Directors / Quality Control Officers of the district are the epi-centre for Quality control activities in the district and block level. The quality control labs at district level are equipped with facilities to analyse the sensory, physico-chemical and microbiological quality of milk being produced at farm level, being transported, stored, chilled and / or processed at DCS level and also marketed in the district. The Quality Control Officers are assisted by Lab attenders and also Lab Assistants to carry out QC activities in the district. The Quality Control Officers also act as Nodal Officers for KDFWF activities. The main activities at QC units are as detailed below.

- a. In charge of the quality control activities of the district
- b. Sampling and testing the quality of milk at farm level, DCS level and market samples
- c. Assisting the Deputy Directors and organising and co-ordinating the quality control drives organised by the Department at district level
- d. Quality assurance activities at BMCC level
- e. Organising cluster BMCC meetings
- f. Nodal Officer for KDFWF activities in the district
- g. Guiding the Dairy Extension Officers for taking measures to ensure quality milk production, handling, processing and marketing at DESU level
- h. Organising Quality Awareness Programmes and Consumer Interface Programmes in the district
- i. Co-ordination with P & I units of regional unions for ensuring quality control programmes in DCS and other production cum marketing pockets.
- j. To organise and undertake special quality assurance programmes initiated by the Department.

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SI.NO	ITEM	RATE PER DISTRICT (Rs)	PLAN PROVISION FOR 14 DISTRICTS (Rs in Lakh)
1	Purchase of testing equipment / chemicals / reagents / testing media / rapid adulterant detection kit / utensils/ glassware / Purchase of face mark, disinfectants, hand sanitizers etc. for distribution to Dairy Co-operatives as Covid 19 Pandemic Relief measures	70,000	9.80
2	Calibration of testing equipment	7,000	0.98
3	Rent, Rate and Taxes	5,000	0.70
4	Preparation of brochure, leaflets and other publication related to quality control activities	6,000	0.84
5	Meeting expenditure pertaining to fuel charges (related to QC activities), repair and maintenance of vehicle assigned to QCO for effective QC activities	35,000	4.90
6	Purchase and/or repair of computers/printers, Purchase/Refilling of printing toners etc in the QC unit.	37,000	5.18
7	Cluster BMCC meeting charges (limited to Rs 3000 per meeting)	24,000	3.36
8	Telephone charges, Internet charges, Photostat charges etc	14,000	1.96
9	Miscellaneous expenditure	2,000	0.28
GRAND TOTAL		2,00,000	28.00

Savings in any sub scheme component cited above can be utilised for meeting the expenditure pertaining to any other scheme component specified above

5.13 ASSISTANCE TO MOBILE QUALITY CONTROL UNITS – Rs 4.00 Lakh

All the districts are attached with a mobile quality control lab. The mobile lab is equipped with milk quality testing equipment, utensils, facilities for performing rapid adulterant kit tests, facilities for cleaning testing utensils, glass wares etc

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The mobile quality control unit is an integral part of the quality assurance facility of the dairy development department. The Mobile QC unit is under the control of the district level Quality Control Officer.

The scheme component with a plan outlay of Rs 4.00 lakh is intended for

1. Enhancing the infrastructure and testing facility of the Mobile Quality Control Units in 14 district
2. Alterations in the vehicle so as to ensure an effective make over to Mobile QC unit.
3. Purchase of chemicals, testing materials, testing equipment for the Mobile QC unit.
4. To meet the expenses pertaining to fuel charges for effective use of Mobile Quality Control Unit.

The allotment of amount shall be in a need based manner to various districts. Quality Control officers shall forward a detailed request detailing the fund needed for efficient and effective use of Mobile QC labs under their control.

5.14 IMLEMENTATION, MONITORING AND DOCUMENTATION CHARGES

Rs 2.275 lakh is included as implementation, documentation and monitoring charges

PART B – STRENGTHENING QC LABS – WAGES – CONSOLIDATED PAY

2404-00-109-95-02-WAGES-4 Consolidated Pay

OFFICE	No. of months	ANALYST @ Rs 30,000 per month	TRAINEE ANALYST @ Rs 17500 per month	TECHNICAL SUPPORT @ Rs 15000 per month	TOTAL (Rs in Lakh)
		NO.	NO.	NO.	
STATE DAIRY LAB	12	4	0	1	16.20
REGIONAL LAB- KOTTAYAM	12	0	2	1	6.00
REGIONAL LAB- ALATHUR	12	0	2	1	6.00

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REGIONAL LAB - KASARGOD	12	1	2	1	9.60
CHECK POST LAB - MEENAKSHIPURAM	12	1	4	1	13.80
CHECK POST LAB - ARYANKAVU	12	1	4	1	13.80
CHECK POST LAB - PARASSALA	12	1	4	1	13.80
GRAND TOTAL	12	8	18	7	79.20

PART C – STRENGTHENING QC LABS – WAGES – DAILY WAGES

2404-00-109-95-02-WAGES-4 Daily Wages

An amount of Rs 10.00 lakh is required under this sub head

The wages (Consolidated Pay and Daily Wages) shall be met from the sub head under 2404-00-109-95-02-4 consolidated pay and 2404-00-109-95-02-5 Daily Wages respectively. The budgeted amount under this sub head is Rs 28 lakh for meeting wages-consolidated pay and Rs 8 lakh as wages-daily wages which is not sufficient enough to meet the expenses pertaining to payment of wages (consolidated pay & daily wages) to contract staff at various quality checking labs. Hence the department will be applying for re-appropriation of fund (Rs 400 lakh) from the major head 2404-00-109-95-34-3 other items to the sub head 2404-00-109-95-02-4 consolidated pay and 2404-00-109-95-02-5 daily wages.

6.0 IMPLEMENTATION AND MONITORING OF THE SCHEME

The Dairy Extension Officer shall be responsible for block wise implementation of the programme. Unless otherwise specified the Quality Control officers shall implement the district level programme with the guidance of the concerned Deputy Director of the district. The Joint Director, SDL shall monitor, evaluate and report the progress of the activities related to State Dairy Lab. Tvm. The Joint Director (Planning), The Deputy Director (Planning) and The Technical Cell, Directorate with the guidance of The Deputy Director (Extension) shall monitor and periodically evaluate the progress of the various scheme components. The Director, Dairy Development shall be the authority for state wide implementation of the scheme components under this scheme.

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7.0 CALENDER OF ACTIVITIES

Implementation Stages	Time Limit
Propaganda for the programme	before 01.05.2021
Advertising	before 10.05.2021
Inviting applications	before 10.06.2021
Scrutiny of application	before 10.07.2021
Selection of beneficiary / beneficiary DCS	before 15.08.2021
Publishing select list	before 20.08.2021
Completion of scheme component	before 10.12.2021
Evaluation / Monitoring	Before 31.12.2021
Sanction of plan assistance	before 10.01.2022

8.0 CONCLUSION

The various components detailed in the plan project for the financial year 2021-22 are aimed at improving the physico-chemical and microbiological quality of milk and to ensure cold chain mechanism to envisage the concept of from farm to fork of Total Quality Management system. The scheme components are aimed at improving the quality assurance mechanism of the Department at various strata. The testing labs like labs at DCS, QCO level labs, Mobile QC units, Regional Dairy Labs, Check Post Labs, State Dairy Lab will be strengthened and will ensure maximum efficiency and effectiveness. Safe and Fresh milk to consumers will be ensured. The projects also focussed to assure the safety of consumers by assuring the quality of milk and milk products marketed in our state too. Provisions are included for advanced training for department level staff in the area of quality control activities.

The implementation of the programme will definitely help to improve the quality of milk procured and consumed. Also it will help to follow FSSR guidelines.



MINI RAVINDRADAS

(PEN NO. 494248)

DIRECTOR

DAIRY DEVELOPMENT DEPARTMENT