

DAIRY DEVELOPMENT DEPARTMENT

ANNUAL PLAN: 2022-23



PART A

**CATTLE FEED SUBSIDY SCHEME – ONGOING
SCHEME: 2022-23**

HEAD OF ACCOUNT: 2404-00-102-79-33-00-P-V

TOTAL PLAN OUTLAY: Rs.500.00 Lakhs

PART A PLAN OUTLAY: Rs.257.00 Lakhs



PART A - Cattle Feed Subsidy Scheme - 2022-23



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03.	Budget Outlay
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04.01.	Natural Feed Components
05.	Expected benefits
06.	Monitoring & Evaluation
07.	Conclusion



PART A - Cattle Feed Subsidy Scheme - 2022-23



01. Introduction

Agriculture sector plays a strategic role in Kerala's economy. It has also contributed to a structural change in the economy. However, in recent years, the agriculture sector in Kerala has been facing challenges with respect to growth because of risks and uncertainties arising out of variability in climate, fluctuations in commodity prices and constraints in marketing the produce. The Gross State Value Added (GSVA) from agriculture declined from 12.37 per cent in 2013-14 to 9.44 per cent in 2020-21.

The Covid-19 pandemic in 2020-21 affected Kerala's agricultural sector in multiple ways. Fall of demand and disruption of supply chains resulting in major income losses for the farmers, lack of availability of workers especially migrant workers, affecting the functioning of a number of processing units in agriculture, income losses for agricultural institutions in the public sector, and the adverse impact on the export-oriented spices and the plantation crops of the global trade slowdown contributed to losses in the agricultural sector.

The all-India growth rate of agriculture and allied sectors has been fluctuating (Table.1). In 2020-21, growth in agriculture, forestry and fishing declined to 3.6 per cent from 4.3 per cent growth in 2019-20.

Table 1: Growth rate in GVA in agriculture and allied sectors in India, 2013-14 to 2020-21

Year	Growth rate per annum (%)
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Source: National Accounts Statistics, 2021

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The share of crops, livestock, forestry and fishing sectors in Gross Value Added (GVA) of the country has been declining continuously since 2013-14. However, in 2020-21, as per the provisional estimates of national income, the share has increased to 16.38 per cent (Table 2). When most sectors were under significant stress during the Covid-19 pandemic, the agriculture sector was somewhat insulated. This could be due to the timely exemption of farming



activities, uninterrupted harvesting, and smooth flow of commodities during the period.

The performance of the agriculture sector in the State showed an improvement in 2020-21 over 2019-20. According to data from the Directorate of Economics and Statistics (DES), year 2020-21 showed an increase in the share of agriculture and allied sectors in total GSVA (at constant 2011-12 prices) of the State. It increased from 8.38 per cent in 2019-20 to 9.44 per cent (Table 2). The contribution by crop sector also increased from 4.32 to 4.96 percent during the period.

Table 2: Share of agriculture and allied sectors in GVA/GSVA National and State level, constant prices 2011-12

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
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Source: National Accounts Statistics 2021, GoI; Directorate of Economics and Statistics, GoK
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Livestock sector is an important subsector of agriculture and plays a prominent role in the socio-economic development of the country. The sector plays a significant role in generating employment in rural areas, particularly among landless, small, and marginal farmers and women, besides providing nutritious food to millions of people.

About 20.5 million people in India depend upon livestock for their livelihood. The 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 livelihoods to two-thirds of the rural community. It also provides employment to about 8.8 percent of the population in India. The percentage of area used for all types of livestock farming in India was 1.69 per cent. As per the estimates of National Accounts Statistics (NAS) 2020, the contribution of livestock in total agriculture and allied sector GVA (at constant prices) has increased from 28.63 per cent in 2018-19 to 29.35 per cent (2019-20). The contribution of the livestock sector was 4.35 per cent of total GVA in 2019-20.

Rural women play a significant role in animal rearing and are involved in operations such as, 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 up gradation and skill enhancement through capacity building programmes are felt across the sector.

India's livestock sector is one of the largest in the world. As per the 20th Livestock Census (2019), the total livestock population in 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 (cattle, buffalo, mithun and yak), an increase of 0.93 per cent over the previous census. The total number of cattle in the country is 192.49 million in 2019, showing an increase of 0.8 per cent over the previous census.

In Kerala, the livestock sector is prominent and is one of the fastest growing sectors in the rural economy. The share of livestock in Gross State Value Added (GSVA) at constant prices from agriculture sector shows an increase from 27.8 per cent in 2019-20 to 28.21 per cent in 2020-21. Its share in total GSVA of the State has also increased by 2.66 per cent in 2020-21.

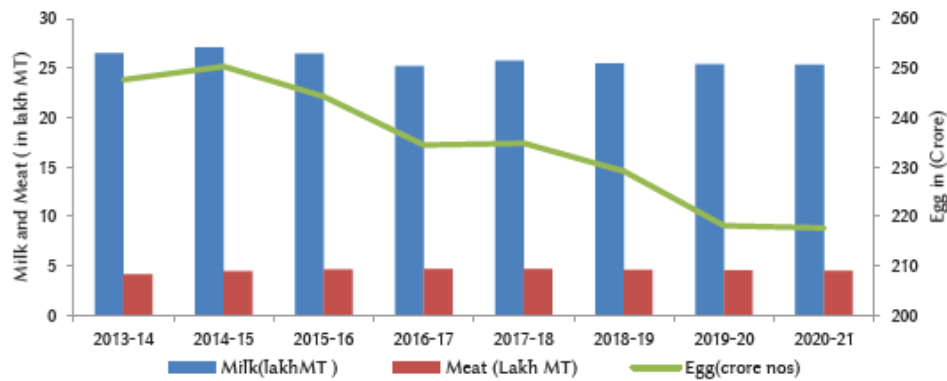
As per the 20th Livestock Census, the livestock population in the State was 38.36 lakh. The reason for decline is the reduction in the population of other animals, especially domestic dogs, rabbits, donkeys, and elephants (which form the major share) by 14.69 percent. The poultry population is 298.18 lakh, which accounts for 3.5 per cent of total poultry population in the country. The sector registered 25 per cent increase over the previous census. The growth rate of poultry population in Kerala is higher than the growth rate recorded at the national level (16.81 per cent).

While considering the data on the GSVA in the livestock sector, the overall growth pattern in the last decade shows that there was period of growth between 2011-12 and 2014-15, and then a decline. In real terms, there was an absolute decline in the GSVA by ₹20,388 crore between 2014-15 and 2018-19. There was a moderate pickup of growth in the first year of the 13th Five Year Plan, but the heavy floods of 2018 and 2019 resulted in a sharp fall of GSVA in 2018-19 and 2019-20.

Milk production: India continues to be the largest milk producing country with 20.17 per cent share in total milk production in the world in 2019-20. At the national level, the milk production has increased from 18.78 crore tonnes in 2018-19 to 19.84 crore tonnes in 2019-20 registering a growth of 5.64 per cent, sustaining the trend over the past three decades. The highest five milk producing States are Uttar Pradesh (16.06 per cent), Rajasthan (12.89 per cent), Madhya Pradesh (8.62 per cent), Gujarat (7.71 per cent), and Andhra Pradesh (7.69 per cent), which together contributes 52.96 per cent of total milk production in the country. Kerala ranks 14th position among the major milk producing states in India. The per capita availability of milk has been increasing in India over the years and is 406 gram per day in 2019-20. The highest per capita availability is in Punjab (1,221 gram per day) followed by Haryana (1,115 gram per day).



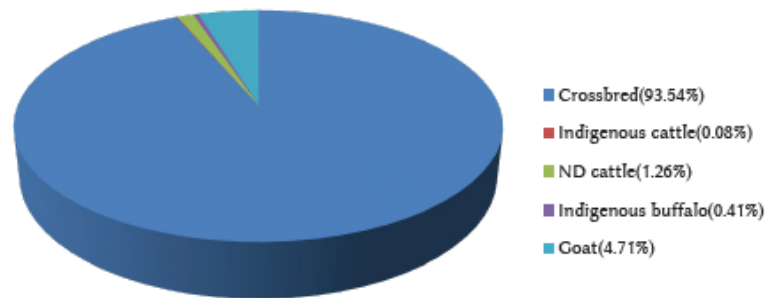
Production of milk, egg and meat from 2013-14 to 2020-21



The species wise milk production shows that nearly 35 per cent of total milk production is contributed by indigenous buffaloes followed by 28 per cent by cross bred cattle. The indigenous cattle contribute 10 per cent of the total milk production. Goat milk shares a contribution of 2.95 per cent in the total milk production across the country.

The total requirement of milk in Kerala in 2020-21 was 33.37 lakh MT, but the supply was only 25.34 lakh MT resulting in a deficiency of 8.03 lakh MT milk. This necessitated an import of 2.51 lakh MT. Out of 25.34 lakh MT of milk produced in the State, major share was produced by cross bred cows (93.54 per cent). Indigenous cows produced only 0.319 lakh MT of milk (1.26 per cent). The production of milk from goat was 1.19 lakh MT (4.71 per cent). The rest was contributed by non-descript cattle, indigenous buffalo and non-descript buffalo.

Species wise milk production in Kerala in 2020-21



Source: Animal Husbandry Department, GoK 2021

Even though the herd sizes are low, productivity of cattle in Kerala is higher than the national average. The average milk yield per animal in India for exotic or crossbred animal is 7.9 kg and for indigenous or non – descript animals is 3 kg per day. The corresponding figures for Kerala are 10.2 kg per day and 3 kg per day respectively. The productivity of 10.2 kg per day in Kerala for exotic/crossbred animals was the second highest among the Indian states after Punjab (13.4 kg per day). This advantage for Kerala was due to the high percentage of exotic/crossbred animals in the population compared to other states.



5.94 Lakh Metric Tonnes of Milk (16.27 Lakh Litre per Day) was procured through Dairy Co-operatives during the year 2016-17, whereas 7.12 lakh Metric Tonnes of Milk (19.5 lakh litres per day) is the corresponding figure for the year 2020-21. 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 21 lakh litre per day during the Financial Year 2021-22 (Highest Recorded Procurement on December 2021 and it was 21.84 LLPD). 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.

01.02. Dairy Co-operative sector in Kerala as the back bone of dairying activities

The Dairy Co-operatives are the backbone of the Dairy industry in the country and situation is not different in Kerala with the DCS providing a ready market and steady price to the Dairy farmers. As on date, there are 3634 DCS in the state which collects milk twice a day from their farmers and pays the milk value based on the quality (fat% and SNF %). Out of the total registered 3634 DCS, 3350 DCS are functional and remaining 282 DCS are dormant.

In Kerala, 5 lakh out of 70 lakh families are dependent solely on livestock for their livelihood, while another 5 lakh depend on livestock as a subsidiary means for supporting their livelihood. More than 55 per cent of bovine keepers maintain 2-3 cow units, while about 32 per cent maintain one-cow units. More than 60 per cent of livelihood enterprises set up by Kudumbasree are in the Animal Husbandry sector. Out of 37 lakh women in the suburbs of the poverty line, 70 per cent opted for enterprises in the animal husbandry sector, as the major basis of livelihood. It indicates that further progress in the livestock sector would directly be reflected in the balanced development and up-liftment of the rural economy. The Kerala Dairy Co-operative sector has become self-sufficient during the end of the year 2020-21.

The state which was importing around 6 lakh litres per day during the year 2015-16, instead, now is sending excess milk to neighbouring states for milk powder conversion. It is highly significant to note that there was around 30% hike in milk procurement during the period from 12th FYP to 13th FYP. It is also noteworthy that annually around Rs 2849.56 Crore is being distributed as price of milk alone to dairy farmers in the Kerala Dairy Co-operative Sector. Around 10.2 lakh man-days of employment generation is being created every year in the Kerala Dairy Co-operative Sector. During the last five years 134 Dairy Co-operatives have been newly registered and 133 dormant Dairy Co-operatives have been revived and made functional.



DAIRY DEVELOPMENT DEPARTMENT - STATUS OF REGISTERED , FUNCTIONAL & DORMANT DCS									
DISTRICTS	DCS Registered			Dormant DCS			Functioning DCS		
	APCOS	Non APCOS	Total	APCOS	Non APCOS	Total	APCOS	Non APCOS	Total
THIRUVANANTHAPURAM	365	57	422	32	26	58	333	31	364
KOLLAM	287	57	344	20	7	27	267	50	317
PATHANAMTHITTA	191	15	206	33	1	34	158	14	172
ALAPPUZHA	246	17	263	17	2	19	229	15	244
KOTTAYAM	242	23	265	17	1	18	225	22	247
IDUKKI	199	11	210	14	3	17	185	8	193
ERNAKULAM	323	11	334	15	1	16	307	9	316
THRISSUR	224	54	278	30	5	35	194	49	243
PALAKKAD	318	22	340	6	3	9	312	19	331
MALAPPURAM	271	16	287	29	7	36	242	9	251
KOZHIKODE	241	12	253	2	0	2	238	13	251
WAYANAD	55	1	56	0	0	0	55	1	56
KANNUR	169	54	223	3	1	4	166	53	219
KASARGOD	148	5	153	6	1	7	142	4	146
TOTAL	3279	355	3634	222	58	282	3053	297	3350

Out of the total registered 3634 DCS, 3350 DCS are functional and remaining 282 DCS are dormant.

02. Objectives of the Schemes

This scheme is intended to

- Distribute green grass and dried fodder to dairy farmers at subsidized rate through Dairy Co-operatives. 257 Dairy Co-operatives will be assisted at the rate of Rs.1 Lakh per DCS
- Distribute Cattle feed supplement to dairy farmers at subsidized rates
- To adopt 2000 number of good quality calf from Day 01 of birth to 120 days and rearing in a scientific manner

03. Budget Outlay 2022-23 & Plan Write Up Provisions 2022-23

As per the budget provisions 2022-23, under the scheme : CATTLE FEED SUBSIDY PROGRAMME with Head of Account : 2404-00-102-79-33, an amount of Rs 500.00 lakh is benchmarked for the distribution of cattle feeding subsidy based on the quantity of milk poured in Dairy Co-operatives. The Department during the year 2022-23 will be distributing Natural Feed Component at subsidized rate i.e. distributing green grass and dried fodder (Hay, Straw, TMR etc.) at subsidized rate. Further cattle feed mineral supplement will be distributed at subsidized rates and adoption of calves for rearing in a scientific manner also.



03.01. Financial Outlay

CATTLE FEEDING SUBSIDY SCHEME : 2022-23							
SI.NO	COMPONENTS	Units	No. of Units	UNIT COST (Rs)	UNIT SUBSIDY (Rs)	TOTAL COST (Rs in Lakh)	TOTAL SUBSIDY (Rs in lakh)
1	Natural Feed Component (Distribution of green grass and dried feed at subsidized rates to dairy farmers through Dairy Co-operatives)	No. of DCS	257	Lumpsum		600.00	257.00
GRAND TOTAL						600.00	257.00

04. Scheme Proper

04.01. Natural Feed Component - Distribution of Feed Components (Green Fodder & Dried Fodder) at Subsidized rate to Dairy Farmers Through Dairy Co-operatives

In Kerala, when compared to other states, the cost of production of milk is very high. The main factor behind this is the shortage of fodder both green and dry and hence a high dependency on concentrate / compound feeds by dairy farmers for feeding their milch animals. The cost of compound feed available in the market is as high as Rs 1350 per bag of 50 kg. This high feed cost is a limiting factor as far as the profitability of dairy farming is concerned in Kerala. Availability of free land for fodder cultivation and reluctance of dairy farmers to take up extensive fodder cultivation is making the situation worse. The green fodder requirement of the state is about 87 LMT per annum whereas the availability is only 40 LMT per annum. The Gap is around 47 LMT per annum

The feed resources available from existing agricultural practices meet roughly 40% of the dairy industry's requirement of green and dry fodder. With increased crossbreeding, the physical stature of the animals has improved considerably and as a result, the demand for feed and fodder has further increased. Government has been giving special focus on fodder and feed production to bridge the gap in the demand and supply of feed and fodder. The Dairy Development Department is the nodal agency for fodder development activities in the State.

The availability of dry fodder like Hay and Straw is also very low. The dry fodder is mainly entering from neighbouring states of Kerala especially from Tamil Nadu. The paddy straw is being underutilised as a cattle feed in Kerala. No specific mechanism is available and practiced for bridging a regional balance in regard to availability of straw and hay. Moreover the middle man involved in transporting dried fodder across the state border is exploiting the dairy farmers of Kerala by imposing additional charges. The cost of hay in certain season is as high as Rs 15 to Rs 16 per kg. This again is a limiting factor in regard to profitable dairying in Kerala. In districts like Alappuzha and Palakkad where paddy cultivation is popular, the Straw / Hay is mostly discarded on the ground of high conversion cost via labour and transportation cost from paddy field.



Availability, Requirement and Surplus/Deficit of Dry Matter ('000 MT)

Year	Availability	Requirement	Surplus/Deficit
1997	2711.9	8405.9	(-)5694.0
2003	2766.1	7150.2	(-)4384.1
2007	2686.4	6317.0	(-)3630.6
2008	2544.7	6421.0	(-)3876.3
2009	2634.7	6602.0	(-)3967.3
2010	2651.1	6856.0	(-)4204.9
2011	1857.0	7189.0	(-)5332.0

Source: Dairying in Kerala – A Statistical Profile 2016, NDDB

For the sake of reducing the cost of milk production the Department is proposing to deliver subsidized fodder through Dairy Co-operatives to those farmers who are within the Co-operative Umbrella and who are pouring milk to DCS on a regular basis.

The project envisages extending financial assistance to Dairy Co-operatives for distributing fodder, both green fodder (like green grass, legumes, silage etc.) and dried fodder (like straw/hay/TMR, Concentrate cakes etc. other than compounded cattle feed) at subsidized rates to those farmers who pour milk to DCS. Rs 233 lakh is benchmarked for this scheme component.

04.01.02. FINANCIAL OUTLAY

Particulars	Rate of Subsidy	Max Subsidy Amount permissible for One DCS (Rs)	No. of DCS	Amount (Rs in Lakh)
Distribution of Fodder (Green and/or Dry) at subsidized rates	Rs 3/Kg for green fodder like green grass, legumes, silage etc Rs 4/kg for dried fodder like Hay / Straw, TMR etc	1,00,000	257	257.00

During the period from 2016-17 to 2020-21, this scheme component was included in the Scheme : Assistance to Dairy Co-operatives with H.O.A 2404-00-195-94-34-OC. During the year 2021-22, as per the direction from The Government Secretary, AH and Dairying, the Department has proposed the Scheme Component : Distribution of subsidized scheme component (green grass and dried feed



components) to Dairy Farmers through Dairy Co-operatives under the scheme :
Cattle Feeding Subsidy with H.O.A 2404-00-102-79-33

- The assistance shall be based on the District wise allotment from Directorate to District Offices
- The scheme is not intended for subsidizing the concentrate / compound feed
- The DCS will have to submit an application in prescribed form to the concerned DESU.
- Based on the application received from DESU with proper recommendations, district wise selection of the beneficiary DCS for feed assistance shall be made by a committee formed at District HQ with The Deputy Director of concerned district as Convener and Technical Assistance, Quality Control Officer, 2 No. of Dairy Extension Officer and 1 Dairy Farm Instructor from the district (nominated by The Deputy Director of concerned district) as the members of the committee.
- The Deputy Director holds the authority to select more than one DCS coming under a particular block for implementation of this scheme.
- The list of beneficiary DCS selected shall be forwarded by the concerned Deputy Director to The Directorate, Dairy Development for final approval.
- Selected DCS will have to arrange for the purchase of Green Fodder and Dry Fodder from available sources by meeting mandatory procedures. Only those DCS which have the financial stability for making advance payment for purchase of Feed commodities need to be selected. The selection committee shall also ensure that the selected DCS is having infrastructure facilities for temporary storage of Feed Commodities.
- The rate of subsidy shall be Rs 3 per kg for Green Fodder like green grass, legumes, silage etc and Rs 4 per Kg for Dry Fodder like straw, hay, TMR, concentrate cakes etc. Feed components other than compounded cattle feed of feed plants can be considered under the category of Dry Fodder
- The maximum permissible subsidy amount for a DCS shall be Rs 1,00,000/- (Under unavoidable situations, more than one unit shall be sanctioned to a particular DCS but with the written permission of The Director, DDD)
- Maximum subsidy amount permissible to an individual beneficiary farmer shall be Rs 7000/-
- The beneficiary DCS shall distribute subsidized green fodder and/or dry fodder to dairy farmers of nearby DCS also. The Deputy Director shall ensure that maximum numbers of farmers are benefited from this scheme component.
- Preference shall be given to those DCS which are already involved in distribution of Green /or Dry feeds to pouring members.
- Subsidy shall not be extended to DCS for the quantum of green fodder and/or dry fodder distributed prior to the selection order of District Deputy Director to the beneficiary DCS.
- The Deputy Director shall take the help and support of Regional Unions / KCMMF for implementation of this scheme component, if needed.
- The DCS shall distribute the Green Grass and/or Dry Fodder at subsidized rate to dairy farmers. The beneficiary contribution, subsidy amount and total cost for each beneficiary shall be properly recorded in DCS. The Secretary of beneficiary DCS shall ensure that Bill shall be issued to individual beneficiary farmers. Necessary entries shall be made in stock register, Day book and other relevant registers of the DCS



- The Secretary of beneficiary DCS after completion of the scheme component shall submit the subsidy claim letter, B.O.D resolution, Green and/or Dry feed distribution statement, individual bills to the concerned DESU. The Dairy Farm Instructor concerned as per the instructions from concerned Deputy Director and Dairy Extension Officer shall verify the authenticity of statements submitted by The Secretary of the beneficiary DCS. The block level officers shall ensure and confirm that necessary entries are made in all the relevant registers of the DCS.
- The officers concerned shall ensure that district / block level propaganda is given for the programme
- The Dairy Extension Officer shall be responsible for DESU level implementation of the Programme. The Deputy Director of concerned district shall co-ordinate, monitor and implement the programme at district level.
- The Deputy Director (Planning), Directorate of Dairy Development shall be in charge of state level implementation and co-ordination of the programme.

Registration Fees – Rs 170 per beneficiary DCS

05. Expected Benefits

- Components are aimed at ensuring the socio economic stability of dairy farmers in the state
- Decreased milk production cost and increased profitability
- Milk production and procurement will be enhanced
- More dairy farmers will be brought under the cooperative umbrella.
- Reduction in the cost of milk production and the investment in dairy production is facilitated
- Encouragement to new entrepreneurs
- Domestic daily average milk procurement will be increased.

01. CALENDAR OF ACTIVITIES

Sl.NO	ACTIVITY	TIME FRAME
1	Administrative Sanction	Before 25.04.2022
2	Propaganda for the programme	Before 15.05.2022
3	Selection of beneficiaries	Before 10.06.2022
4	Distribution of cattle feed (compounded CF, Green Grass, Dried Fodder)	Before 15.07.2022
6	Release of Subsidy to beneficiary DCS / CF firms	Before 15.08.2022
7	Evaluation of the programme	Before 10.09.2022



06. Monitoring & Evaluation

The Dairy Extension Officer shall be responsible for block level implementation of the programme. The District Dairy Development Officer of each District shall closely monitor at every stage of implementation. Director, Dairy Development Department will evaluate the progress of implementation periodically with the assistance of the planning wing at Directorate.

07. Conclusion

The scheme will help to reduce the feed cost and thus will reduce the cost of production of milk and hence an increased profitability from dairying activities .

DAIRY DEVELOPMENT DEPARTMENT

ANNUAL PLAN: 2022-23



PART B: NEW/MODIFIED SCHEMES

CATTLE FEED SUBSIDY SCHEME – NEW / MODIFIED SCHEME: 2022-23

HEAD OF ACCOUNT: 2404-00-102-79-33-00-P-V

TOTAL PLAN OUTLAY: Rs.500.00 Lakhs

PART A PLAN OUTLAY: Rs.243.00 Lakhs



PART B - Cattle Feed Subsidy Scheme - 2022-23



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05.	Expected benefits
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PART B - Cattle Feed Subsidy Scheme - 2022-23



01. INTRODUCTION

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due to the timely exemption of farming activities, uninterrupted harvesting, and smooth flow of commodities during the period.

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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 up gradation and skill enhancement through capacity building programmes are felt across the sector.

India's livestock sector is one of the largest in the world. As per the 20th Livestock Census (2019), the total livestock population in 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 (cattle, buffalo, mithun and yak), an increase of 0.93 per cent over the previous census. The total number of cattle in the country is 192.49 million in 2019, showing an increase of 0.8 per cent over the previous census.

In Kerala, the livestock sector is prominent and is one of the fastest growing sectors in the rural economy. The share of livestock in Gross State Value Added (GSVA) at constant prices from agriculture sector shows an increase from 27.8 per cent in 2019-20 to 28.21 per cent in 2020-21. Its share in total GSVA of the State has also increased by 2.66 per cent in 2020-21.

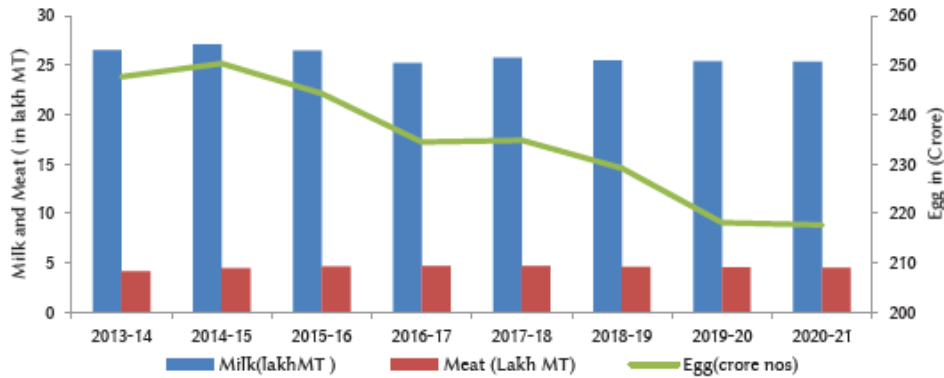
As per the 20th Livestock Census, the livestock population in the State was 38.36 lakh. The reason for decline is the reduction in the population of other animals, especially domestic dogs, rabbits, donkeys, and elephants (which form the major share) by 14.69 percent. The poultry population is 298.18 lakh, which accounts for 3.5 per cent of total poultry population in the country. The sector registered 25 per cent increase over the previous census. The growth rate of poultry population in Kerala is higher than the growth rate recorded at the national level (16.81 per cent).

While considering the data on the GSVA in the livestock sector, the overall growth pattern in the last decade shows that there was period of growth between 2011-12 and 2014-15, and then a decline. In real terms, there was an absolute decline in the GSVA by ₹20,388 crore between 2014-15 and 2018-19. There was a moderate pickup of growth in the first year of the 13th Five Year Plan, but the heavy floods of 2018 and 2019 resulted in a sharp fall of GSVA in 2018-19 and 2019-20.

Milk production: India continues to be the largest milk producing country with 20.17 per cent share in total milk production in the world in 2019-20. At the national level, the milk production has increased from 18.78 crore tonnes in 2018-19 to 19.84 crore tonnes in 2019-20 registering a growth of 5.64 per cent, sustaining the trend over the past three decades. The highest five milk producing States are Uttar Pradesh (16.06 per cent), Rajasthan (12.89 per cent), Madhya Pradesh (8.62 per cent), Gujarat (7.71 per cent), and Andhra Pradesh (7.69 per cent), which together contributes 52.96 per cent of total milk production in the country. Kerala ranks 14th position among the major milk producing states in India. The per capita availability of milk has been increasing in India over the years and is 406 gram per day in 2019-20. The highest per capita availability is in Punjab (1,221 gram per day) followed by Haryana (1,115 gram per day).



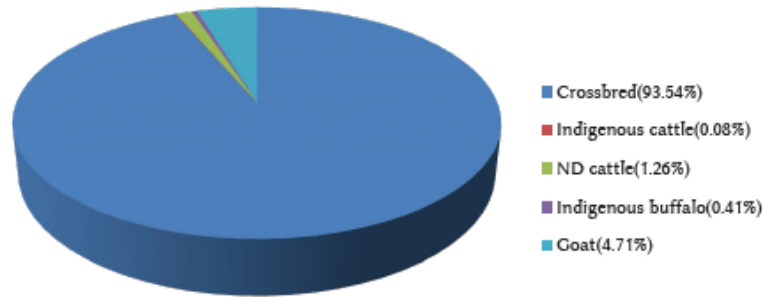
Production of milk, egg and meat from 2013-14 to 2020-21



The species wise milk production shows that nearly 35 per cent of total milk production is contributed by indigenous buffaloes followed by 28 per cent by cross bred cattle. The indigenous cattle contribute 10 per cent of the total milk production. Goat milk shares a contribution of 2.95 per cent in the total milk production across the country.

The total requirement of milk in Kerala in 2020-21 was 33.37 lakh MT, but the supply was only 25.34 lakh MT resulting in a deficiency of 8.03 lakh MT milk. This necessitated an import of 2.51 lakh MT. Out of 25.34 lakh MT of milk produced in the State, major share was produced by cross bred cows (93.54 per cent). Indigenous cows produced only 0.319 lakh MT of milk (1.26 per cent). The production of milk from goat was 1.19 lakh MT (4.71 per cent). The rest was contributed by non-descript cattle, indigenous buffalo and non-descript buffalo.

Species wise milk production in Kerala in 2020-21



Source: Animal Husbandry Department, GoK 2021

Even though the herd sizes are low, productivity of cattle in Kerala is higher than the national average. The average milk yield per animal in India for exotic or crossbred animal is 7.9 kg and for indigenous or non – descript animals is 3 kg per day. The corresponding figures for Kerala are 10.2 kg per day and 3 kg per day respectively. The productivity of 10.2 kg per day in Kerala for exotic/crossbred animals was the second highest among the Indian states after Punjab (13.4 kg per day). This advantage for Kerala was due to the high percentage of exotic/crossbred animals in the population compared to other states.



5.94 Lakh Metric Tonnes of Milk (16.27 Lakh Litre per Day) was procured through Dairy Co-operatives during the year 2016-17, whereas 7.12 lakh Metric Tonnes of Milk (19.5 lakh litres per day) is the corresponding figure for the year 2020-21. 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 21 lakh litre per day during the Financial Year 2021-22 (Highest Recorded Procurement on December 2021 and it was 21.84 LLPD). 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.

01.02. Dairy Co-operative sector in Kerala as the back bone of dairying activities

The Dairy Co-operatives are the backbone of the Dairy industry in the country and situation is not different in Kerala with the DCS providing a ready market and steady price to the Dairy farmers. As on date, there are 3634 DCS in the state which collects milk twice a day from their farmers and pays the milk value based on the quality (fat% and SNF %). Out of the total registered 3634 DCS, 3350 DCS are functional and remaining 282 DCS are dormant.

In Kerala, 5 lakh out of 70 lakh families are dependent solely on livestock for their livelihood, while another 5 lakh depend on livestock as a subsidiary means for supporting their livelihood. More than 55 per cent of bovine keepers maintain 2-3 cow units, while about 32 per cent maintain one-cow units. More than 60 per cent of livelihood enterprises set up by Kudumbasree are in the Animal Husbandry sector. Out of 37 lakh women in the suburbs of the poverty line, 70 per cent opted for enterprises in the animal husbandry sector, as the major basis of livelihood. It indicates that further progress in the livestock sector would directly be reflected in the balanced development and up-liftment of the rural economy. The Kerala Dairy Co-operative sector has become self-sufficient during the end of the year 2020-21.

The state which was importing around 6 lakh litres per day during the year 2015-16, instead, now is sending excess milk to neighbouring states for milk powder conversion. It is highly significant to note that there was around 30% hike in milk procurement during the period from 12th FYP to 13th FYP. It is also noteworthy that annually around Rs 2849.56 Crore is being distributed as price of milk alone to dairy farmers in the Kerala Dairy Co-operative Sector. Around 10.2 lakh man-days of employment generation is being created every year in the Kerala Dairy Co-operative Sector. During the last five years 140 Dairy Co-operatives have been newly registered and 120 dormant Dairy Co-operatives have been revived and made functional.



DAIRY DEVELOPMENT DEPARTMENT - STATUS OF REGISTERED , FUNCTIONAL & DORMANT DCS									
DISTRICTS	DCS Registered			Dormant DCS			Functioning DCS		
	APCOS	Non APCOS	Total	APCOS	Non APCOS	Total	APCOS	Non APCOS	Total
THIRUVANANTHAPURAM	365	57	422	32	26	58	333	31	364
KOLLAM	287	57	344	20	7	27	267	50	317
PATHANAMTHITTA	191	15	206	33	1	34	158	14	172
ALAPPUZHA	246	17	263	17	2	19	229	15	244
KOTTAYAM	242	23	265	17	1	18	225	22	247
IDUKKI	199	11	210	14	3	17	185	8	193
ERNAKULAM	323	11	334	15	1	16	307	9	316
THRISSUR	224	54	278	30	5	35	194	49	243
PALAKKAD	318	22	340	6	3	9	312	19	331
MALAPPURAM	271	16	287	29	7	36	242	9	251
KOZHIKODE	241	12	253	2	0	2	238	13	251
WAYANAD	55	1	56	0	0	0	55	1	56
KANNUR	169	54	223	3	1	4	166	53	219
KASARGOD	148	5	153	6	1	7	142	4	146
TOTAL	3279	355	3634	222	58	282	3053	297	3350

Out of the total registered 3634 DCS, 3350 DCS are functional and remaining 282 DCS are dormant.

02. OBJECTIVES OF THE SCHEMES

This scheme is intended to

- Distribute green grass and dried fodder to dairy farmers at subsidized rate through Dairy Co-operatives. 257 Dairy Co-operatives will be assisted at the rate of Rs.1 Lakh per DCS
- Distribute Cattle feed supplement to dairy farmers at subsidized rates
- To adopt 2000 number of good quality calf from Day 01 of birth to 120 days and rearing in a scientific manner

03. BUDGET OUTLAY 2022-23 & PLAN WRITE UP PROVISIONS 2022-23

As per the budget provisions 2022-23, under the scheme : CATTLE FEED SUBSIDY PROGRAMME with Head of Account : 2404-00-102-79-33, an amount of Rs 500.00 lakh is benchmarked for the distribution of cattle feeding subsidy based on the quantity of milk poured in Dairy Co-operatives. The Department during the year 2022-23 will be distributing Natural Feed Component at subsidized rate i.e. distributing green grass and dried fodder (Hay, Straw, TMR etc.) at subsidized rate. Further cattle feed mineral supplement will be distributed at subsidized rates and adoption of calves for rearing in a scientific manner also.

According to Plan Write Up approved by G.O.K, Only Subsidized feed component is on-going scheme components. The Head of the Department (Director, Dairy Development Department) had already issued administrative sanction orders vide proceedings No. DDDKER/1453/2022-D3 dated 11.05.2022.



02 Scheme proposed to be implemented during the year 2022-23 is Scheme with Modification/New Schemes. Hence proposal for the scheme for the year 2022-23 with Total Plan Outlay of Rs.243 Lakh is submitted for the working group approval.

03.01. Financial Outlay

CATTLE FEEDING SUBSIDY SCHEME : 2022-23							
SI.NO	COMPONENTS	Units	No. of Units	UNIT COST (Rs)	UNIT SUBSIDY (Rs)	TOTAL COST (Rs in Lakh)	TOTAL SUBSIDY (Rs in lakh)
1	Milk Replacer & Calf Starter - Adoption of Female Calf upto 4 months	Number	2000	6200	4650	124	93.00
2	Distribution of cattle feeding supplement / mineral mixture at subsidized rates	Keramin Organic & Gouvit Chelated	157895			205.2629	150.00
2.a.	Keramin Organic	Mineral Mixture (No.)	78949	110	80	86.8439	63.16
2.b.	Gouvit Chelated	Minerals & Vitamins (No.)	78946	150	110	118.419	86.84
GRAND TOTAL						329.26	243.00

04. SCHEME PROPER

04.01. DISTRIBUTION OF CATTLE FEEDING SUPPLEMENT/MINERAL MIXTURE AT SUBSIDIZED RATE PLAN OUTLAY - ₹. 150 Lakhs

04.01.01. Introduction

The scheme also envisages providing feed supplements like Mineral mixture and vitamins to ensure that the milk production does not drop and the animals does not suffer from mineral / vitamin deficiency due to lack of sufficient green fodder during the summer months. The project envisages distributing feed supplement ‘Mineral supplement (Govit Chelated – 78,946 Kg) products of Indian Immunological Limited (a wholly owned subsidiary of the National Dairy Development Board) and ‘Keramin Organic’ (78,949 Kg) product of Kerala Feeds Limited to farmers pouring milk at Dairy Co-operatives (DCS) in the state. The products “Keramin Organic” and ‘Gouvit / Govit Chelated’ available in 1 kg packs shall be distributed among the beneficiaries.

Keramin Organic - Young calves: 15-20 gms/day/calves

Heifers/non-lactation animals: 25-50 gms/day/animals

Lactating cows and buffaloes: 50-100 gms/day/animal

Depending upon the level of milk production.

Kerala Feeds Limited is manufacturing mineral mixture containing all the essential minerals required by the dairy animal in required quantities. Kerala Feeds has a standard Mineral mixture as per BIS specification having chelated trace minerals having higher bio-availability intended for high producing animals called KERAMIN ORGANIC.



PART B - Cattle Feed Subsidy Scheme - 2022-23

Govit /Govit Chelated – Contains highly significant qualities of Vitamins like Vit A, Vit D3, Vit E, Vit K, Vit B etc. Chelated minerals are used for supporting normal growth, stabilizing bipolar disorder, building strong muscles and bones, and improving immune system function and overall health. Chelated minerals as dietary supplements that are superior to other mineral supplements and chelated minerals are used more easily by the body (more bioavailable) than non-chelated minerals.

The beneficiaries shall be selected from among the blocks in district by the concerned Deputy Director based on the quantity of milk poured during the month of April 2022.

04.01.02 Financial Details

CATTLE FEEDING SUBSIDY SCHEME : 2022-23							
SI.NO	COMPONENTS	Units	No. of Units	UNIT COST (Rs)	UNIT SUBSIDY (Rs)	TOTAL COST (Rs in Lakh)	TOTAL SUBSIDY (Rs in lakh)
1	Distribution of cattle feeding supplement / mineral mixture at subsidized rates	Keramin Organic & Gouvit Chelated	157895			205.2629	150.00
1.a.	Keramin Organic	Mineral Mixture (No.)	78949	110	80	86.8439	63.16
1.b.	Gouvit Chelated	Minerals & Vitamins (No.)	78946	150	110	118.419	86.84
GRAND TOTAL						205.26	150.00

The rates are inclusive of all taxes, transportation charges and other allied charges.

04.01.03 Working of the Scheme

Proper publicity of the scheme will be done by Dairy Extension Officers who will distribute feed supplements through Dairy Co- operatives. 3634 Dairy Co- operatives are working in the state. Dairy Co-operatives will supply 1 kg packets of Keramin Organic and Vitamin Supplement (Gouvit / Gouvit Chelated) to interested farmers by discounting 75% of its cost. 25% of the cost will be collected as beneficiary contribution by the DCS and submitted to DEO of the block as Demand Draft in favour of M/s Indian Immunological Ltd & M/s Kerala Feeds Limited. M/s Indian Immunological Ltd & Kerala Feeds Limited will supply the item to each district and the Deputy Director will release the subsidy portion upon receipt of invoice from the company.

The Director shall be the authority for target allocation to various districts

04.01.04. Expected Benefits of the Scheme

- Improves milk production
- Improve reproduction efficiency of male and female animals
- Improves growth and development in calves and heifer hence early puberty.
- Improves feed intake
- Improves immunity
- Improves general health of the animal



04.02. MILK REPLACER & CALF STARTER - ADOPTION OF FEMALE CALF UPTO 4 MONTHS

The health of a calf directly affects the reproductive capacity as well as the milk production. The initial months in a calf's life are of the utmost importance as it forms the foundation for a high milk-yielding animal.

In the recent past, many measure and techniques were being adopted for productivity enhancement, but calf nutrition was often neglected. Adult animals that are well fed are still unable to yield high quantities of milk. This is because these animals were not well-fed during their crucial stages of growth, thus, resulting in poor reproductive capacity and poor milk production.

To tackle this situation, milk producing breeds should be given special attention to their health and nutrition especially during calf-hood. The purpose to promote calf rearing programmes is to develop high-quality milch animals of a desired weight that not only promote high volumes of milk per day, but also a longer duration of lactation per year.

In Kerala, it is estimated that around 4 lakh calf are born every year of which 2 lakh are female calf. Most of these calves are underfed and in malnutrition state. Scientific calf rearing practices are rarely practiced. Proper deworming schedule and feeding pattern to young calves are ignored.

Out of the 2 lakh female calf, the Department of Animal Husbandry, G.O.K is adopting around 80,000 to 90,000 calves per year under the SLBP programme. The SLBP programme has contributed immensely to the production potential and quality of milch animals in the state.

The SLBP programme is adopting calf from the age of 4 month onwards which means that the vital period of day 1 to day 90 is ignored. This will deny tapping the genetic potential of the calf.

With a mission to develop a good herd for the future, the Dairy Development Department, during the year 2022-23 is implementing CALF ADOPTION PROGRAMME by distributing the Calf Starter and Milk replacer to a newly born animal upto 90 days

The Scheme envisages adopting 2000 selected calf from day 01 of birth to next 90 days. Scientific calf management practices will be ensured for the adopted 2000 number of calf. Scientific feeding practices, with Calf starter and Milk Replacer will be provided for the adopted calf.

04.02.01. Objectives

- To adopt 2000 number of good quality calf from Day 01 of birth to 90 days and rearing in a scientific manner



PART B - Cattle Feed Subsidy Scheme - 2022-23

- The adopted female calf will be transferred to the SLBP of the Animal Husbandry Department of the State Govt and Male calf to Meat Products of India Ltd / Brahmagiri Development Society, Wayanad for meat purpose
- To tap the genetic potential of the new born calf
- To promote scientific calf rearing activities among farmers.

04.02.02. Feeding Schedule of calves

Feeding Schedule of Milk Replacer & Calf Starter for Calves

Age in weeks	Whole Milk (kg)	Commercial Milk Replacer (g)	Calf Starter (g)
Week # 01	Colostrum 1/10 of Body Wt.	Nil	Nil
Week # 02	3	50	Nil
Week # 03	1	150	150
Week # 04	1	250	
Week # 05	Nil	350	400
Week # 06		450	
Week # 07		500	
Week # 08		400	
Week # 09 to 12		400	600

Quantity of Calf Starter and Milk Replacer for 90 Days for a calf

Item	Qty For 90 Days
Milk Replacer	5 bags @ 5 Kg
Calf Starter	1 Bag @ 50 Kg

04.02.03. Financial Outlay

Items	Unit Cost			Project Cost (2000 Calves)		
	Total Cost (₹)	Plan Fund (₹)	Ben. Contribution (₹)	Total Cost (₹ in Lakh)	Plan Fund (₹ in Lakh)	Ben. Contribution (₹ in Lakh)
Milk Replacer	4500	3375	1125	90	67.5	22.5
Calf Starter	1700	1275	425	34	25.5	8.5
TOTAL	6200	4650	1550	124	93	31

Savings in any scheme component shall be utilized for meeting the expenses pertaining to any other scheme component listed above



Note :

- 1. Calf Starter will be supplied by M/s KERALA FEEDS LTD**
- 2. Milk Replacer can be purchased for supply from AMUL or any other Co-operative/ Government Accredited Agencies**

- Registration Fees shall be Rs 160 per selected beneficiary
- An effective propaganda shall be arranged for the Calf Adoption Programme at State Level, District Level, DESU level and DCS level.
- Application in prescribed format shall be received at DESU Level through Dairy Co-operatives
- Only those farmers who have poured minimum of 500 litre of milk during the year 2021-22 shall be eligible for selection under this scheme.
- One farmer shall place application for maximum of 2 animals.
- Beneficiary farmers who own cattle with advanced pregnancy period (above 8 months of pregnancy) as on 01.08.2022 shall be eligible for submitting application forms
- The DESU level application received shall be ranked and the priority list shall be submitted to the Deputy Director with proper recommendations.
- The ranking shall be based on pedigree of the pregnant animal. The health condition of the animal, the peak yield and average yield of milk in the previous lactation, quantity of milk poured in DCS etc shall be considered as parameter while ranking the application.
- The ranked application from DESU level with proper recommendations of the officer concerned shall be forwarded to the concerned Deputy Director.
- Based on the target appropriated from the Directorate, Dairy Development, the Deputy Director shall perform the final selection of animals to be included in the Calf Adoption Programme.
- Final List of selected beneficiaries in prescribed proforma shall be submitted to The Director, Dairy Development Department.
- The Milk Replacer can be purchased by a single DCS in the district and can be epicentre for transfer of milk replacer to other DCS in various blocks of the district.. The Milk replacer can be purchased from AMUL or other Government Accredited Agencies
- The Calf Starter can be purchased from Kerala Feeds Limited and can be distributed to the respective DCS or DESU
- A WCCW shall function as facilitator to the calf adoption programme. He / She shall monitor, record and report to DEO regarding the health parameters of the adopted calf. He shall periodically record the weight, height, girth measurements, details regarding de-worming activities, details regarding



general health of adopted calf etc. The register shall be countersigned by The Secretary of concerned DCS and shall be submitted to the Dairy Extension Officer of concerned DESU

- The female calf adopted after 90 days shall be migrated to the SLBP scheme of the AHD, G.O.K. The formal application with the recommendation of concerned DEO shall be forwarded to the concerned officer of AHD,G.O.K for the same

The male calf adopted after 90 days shall be transferred to Meat Products of India / Brahmagiri Development Society. (Separate guidelines will be issued for the same)

05. EXPECTED BENEFITS

- Components are aimed at ensuring the socio economic stability of dairy farmers in the state
- Decreased milk production cost and increased profitability
- Milk production and procurement will be enhanced
- More dairy farmers will be brought under the cooperative umbrella.
- Reduction in the cost of milk production and the investment in dairy production is facilitated
- Encouragement to new entrepreneurs
- Domestic daily average milk procurement will be increased.

06. CALENDAR OF ACTIVITIES

SI.NO	ACTIVITY	TIME FRAME
1	Administrative Sanction	Before 15.06.2022
2	Propaganda for the programme	Before 15.07.2022
3	Selection of beneficiaries	Before 30.07.2022
4	Distribution of cattle feed (compounded CF, Green Grass, Dried Fodder)	Before 15.09.2022
6	Release of subsidy to beneficiary DCS / CF firms	Before 15.10.2022
7	Evaluation of the programme	Before 10.12.2022

07. MONITORING & EVALUATION

The Dairy Extension Officer shall be responsible for block level implementation of the programme. The District Dairy Development Officer of each District shall closely



monitor at every stage of implementation. Director, Dairy Development Department will evaluate the progress of implementation periodically with the assistance of the planning wing at Directorate.

08. CONCLUSION

The scheme will help to reduce the feed cost and thus will reduce the cost of production of milk and hence an increased profitability from dairying activities .

DIRECTOR