STATUS PAPER

DEPARTMENT OF ANIMAL HUSBANDRY - STATUS PAPER

World over today milk is a symbol of healthy life. Livestock and bird-based food are again the most desired delicacy round the globe. Milk, meat and egg are the big three pillars on which modern global food delicacies are built up.

Indian subcontinent and perhaps the *God's own country,* Kerala, have the distinction to have 90% of its population as lovers of non vegetarian food, while for the entire community of state, milk is a must, though the quantity used is not very high.

Among the agencies mandated by the state Govt. to patronize and protect the interest of the most colourful domesticated fauna, animal husbandry department is the largest and the oldest.

During the British era, veterinary services were concentrated around the horse care, and little attention was extended in the care of indigenous cattle, fowls, pets etc. Food and farming were least patronized areas during the imperialist regime and it was treated often as a native affair and was left to Rajas and provincial governments to look after.

The famine commission, which looked into the shaky state of affairs in the farming sector even characterized ox as the most important component in the agriculture sector as it was inseparable for conducting all farming operations and transporting the produce from fields to *shandies* and markets.

Devastating famines compelled the British to give a sympathetic look to the farming sector to undertake some sort of a development mainly due to international pressure. As a part of the same, princely states and provinces were directed to take action by the monarch's representative at Delhi. Based on the same, in 1936 itself Madras Government gave shape to a Veterinary department de-linking it from the Department of Agriculture.

Cochin State had a Veterinary department at the formation of the Travancore- Cochin state in the year 1952. In Travancore, the first Veterinary hospital was inaugurated by the Maharaja in the year 1905 at Trivandrum. It was followed by the emergence of more Veterinary Dispensaries in different important towns. In 1908, when an agriculture department was formed for the State, veterinary and fisheries centers of Travancore were brought under the same. Livestock and poultry always got a great place of prominence in the farming sector and were treated as integral part of agricultural development. Eggs collected from the state were sent to places like Delhi, Calcutta and Colombo. Travancore- Cochin state when formed had 52 veterinary institutions and had artificial insemination facilities commenced

in the year 1952 itself and the key farm centers were opened at Trivandrum, Kottayam, Ernakulam and Ollukara using semen of Sindhi breed. The cross breeding in vogue at that time was grading up of local cows with Sindhi bulls and Murrah buffaloes.

When Kerala was formed in 1956, the state had only 39 veterinary hospitals, 14 veterinary surgeons and 43 stockmen.

The growth of the department during the last half a century was chiefly due to the great mandates it got from the state. The summary of the mandates could be gauged from the following tasks entrusted.

- Strengthening the livestock population of the state in terms of both the number and quality.
- Increasing the production of milk, egg and meat.
- Creating more self-employment opportunities in the Animal Husbandry sector.
- Assisting weaker sections of the society to enhance their income level.
- Eradication and control of animal diseases.
- Conduct scientific studies into relevant aspects of livestock rearing.
- Collection and analysis of data and information on the Animal Husbandry sector of the state.
- To equip the farmers with modern scientific practices in animal husbandry.
- Veterinary public health by control of diseases of zoonotic importance.
- Transfer of technology from lab to land.

During the last 50 years Animal Husbandry Department has made very significant growth.

- To its credit, Department has 2638 institutions under the state Directorate of Animal Husbandry. Out of the same 852 are Veterinary Dispensaries and 213 are Veterinary Hospitals headed by qualified veterinary graduates and post graduates.
- Apart from this, 47 Veterinary Poly Clinics, 14 District Veterinary Centres, 9 Mobile Clinics, and 1 Motor Boat Clinic are functioning with specialist veterinary surgeons and Para-veterinary staff.
- Artificial Insemination programme has another 1358 centres manned by qualified para-veterinary staff.

Vet care facilities & infrastructure associated with the same available in Kerala deserve very special review, observation and analysis for framing future developmental exercises like 24 hour vet care, vet care at the farmers' doorstep etc. Utility of the infrastructure built up step by step must be made capable to meet the several challenges faced by the state especially in the light of shrinking availability of natural resources like water, cultivable land, pasture land, on one side, and the unchecked fast growing needs of the society for more quality food at a nominal

price through out the year, on the other. The Department holds a great responsibility in this crucial activity. This has to be accomplished without causing any damage to the environment and it should at the same time attract the younger generation to the sector. Consumers demand for quality food is perhaps growing very fast making all visionary studies proving wrong. More over in a state where urban-rural differentiation is far disappearing, livestock rearing, poultry rearing and various activities associated in the same too deserve different kinds of models suited to different kinds of situations. A modern development, apart from the traditional dairy and poultry farmers, a new cross section of the community in non-farming sector is coming forward to join the sector after finding this as a good avocation. This is a welcome addition, but they must be given all support so that they will get established in the enterprise and here we must induct most modern methods in production and marketing sectors.

A) Major functions of State Animal Husbandry Department

- Protective and promotional care of domesticated animal and bird population encouraging the farmers to maintain the production and expand it based on market needs.
- Special health care actions connected with the above sector and planning, formulation, and implementation of various schemes associated with development programmes.
- Regulatory functions
- Conducting Quinquennial Livestock Census.
- Leading coordinator of all activities in the sector.
- Implementation of Animal Husbandry programmes of the 3-tier local self government institutions.

B) General Administration

Director of Animal Husbandry is the Head of the Department and the entire functioning of the dept are planned and guided and administered by the Directorate of Animal Husbandry stationed at Vikas Bhavan, Trivandrum

The institutions under the direct control of the Head quarters of Animal Husbandry are given below

- Chief Disease Investigation Office, Palode
- Epidemiological Cell, Thiruvananthapuram
- Institute of Animal Health & Veterinary Biologicals, Palode
- Animal Disease Control Project Office, Thiruvananthapuram
- Special Livestock Breeding Programme-Head Qrtrs, Thiruvananthapuram
- Central Hatchery, Chengannur
- Avian Disease Diagnostics Lab, Thiruvalla

- Cattle sterility office, Aluva
- Rinderpest Eradication Scheme, Head Quarters, Palakkad
- Livestock Management Training Centres at Mundayad, Malampuzha, Aluva, and Kudappanakkunnu, Kottiyam, Thalayolapparambu
- State laboratory for Livestock, Marine and Agricultural products.

The staff pattern is given in the annexure.

At the district level, the activities of the department are under the administrative & technical control of the District Animal Husbandry Officer (Joint Director) who reports directly to the Director of Animal Husbandry. The main thrust areas of the activities of the department are listed below.

- Strengthening the livestock and domesticated bird population in terms of both number and quality so as to meet the fast growing needs of the community.
- Increase the sustainable production of milk, egg and meat
- Creating more self employment in the sector
- Helping the weaker sections of the society to raise their income levels
- Attracting new entrepreneurs to the sector
- Control of animal & bird diseases
- Conduct scientific studies on relevant activities
- Implementation of various development programmes under the V year plan and Centrally sponsored programs, providing technical support to the programs launched by the various public and private sector agencies according to the facilities available
- Providing field level extension support
- Providing practical and theoretical training to the farmers, voluntary agencies, and entrepreneurs.
- Moulding policies connected with development of the sector by linking various agencies involved in the sector.
- Maintenance of veterinary public health by control of zoonotic diseases.

As a part of the Democratic Decentralization, Panchayati Raj act came into existence on Oct 2nd 1995, the following institutions were handed over to Zilla Panchayat. District Animal Husbandry Office, District Veterinary Centre, Regional Artificial insemination centres, Mobile farm aid units, Clinical Labs & Mobile Veterinary Hospitals, Pig breeding units, Livestock farms except Kudappanakkunnu, Poultry farms at Kottayam, Idukki, Malappuram, and Kozkikkod, Goat farms at Attappadi and Komeri.

Calf feed subsidy scheme, Intensive Cattle Development Project sub centres, Veterinary Dispensaries, Veterinary Hospitals are handed over to Grama Panchayats. Veterinary Poly Clinics functioning in Grama Panchayats have gone to Block Panchayats. Intensive Cattle Development Project sub centres, Veterinary Hospitals, Veterinary Poly Clinics situated in municipal and corporation areas were handed over to municipalities and corporations.

Directorate of Animal Husbandry is the Chief custodian holding the responsibility for planning and implementing all activities connected with the sector, which includes guiding the planning processes at different levels, monitoring the progress of implementation, review of implementation, concurrent evaluation of ongoing schemes and evaluation of completed schemes.

Animal Husbandry department - Vital sectors of action

1. Disease eradication programmes

- Rinderpest eradication scheme: Kerala is now recognized internationally a state, which has accomplished 100% eradication of the serious disease Rinderpest. The activity commenced in 1965 as a centrally sponsored plan scheme is continued with all vigour even now. 18 regular check posts, 6 vigilance units, 2 mobile wings, 2 mass vaccination squads are engaged in the work, and more than 6 lakhs animals are inspected in the check posts every year. The national project on Rinderpest eradication has declared our state as free from Rinderpest from 1/3/1988 and the International committee OIE approved this provisional freedom on 27th may 2004.
- Goreksha Project: A joint venture programme implemented by Government of Kerala, Government of India and NDDB. The basic objective is conversion of state into a disease control zone. Being a state with immense possibilities for export for meat, this aspect forms a major area of activity of the department.
- Assistance for animal disease control: Control of animal disease mean strategy immunization cover, diagnostic laboratories, biological production centres, disease surveillance, monitoring, forecasting, information communication campaigns and equipping the technical staff. Over and above this, it also includes control of emergent and exotic diseases.
- Disease investigating and Control: Globally this has emerged as a major item of veterinary work. Investigating the causes of disease outbreaks happening in different part of the world may affect us due to the various travel and transport facilities exist. The main objectives of the scheme are disease investigation for outbreaks, referral support for diagnosis, co-ordination of activities, research on diseases, and surveillance and training. This work is gaining more and more importance as animal and domesticated bird diseases are becoming a great health threat to the community.

- Disease diagnosis: Diagnosis and control of various avian diseases has attained a great importance at the National and international level. Kerala being a state with 90% of the population interested in non-vegetarian food such diagnostic laboratory complexes are a must. The **activities include screening of birds, PM diagnosis of diseases in poultry, disease** investigation, feed analysis, examination of milk, dung, skin etc for detailed studies and extension education are the activities undertaken by this centre. The importance of the activities called for wide expansion for avoiding major health hazards to the community.

2) Veterinary Services

Animal Husbandry department is the sole agency for providing veterinary services in the state. The department could set up a well-established veterinary institution and veterinary work in the entire state, with provision for veterinary institutions in all Panchayats, which is a unique feature for the state. The veterinary services rendered by the department includes:

- Providing essential and life saving drugs and medicines
- Free veterinary services through institutions
- Strengthening the veterinary service centres with modern and sophisticated equipments for disease diagnosis.
- Establishment of laboratory set ups in all institutions
- Conducting infertility clinics/camps in all Panchayats
- Assisting the farmers in scientific rearing of animals and birds
- Disease control programmes

3) Expansion of cross breeding programmes

The entire livestock up gradation programme in the state are accomplished through the animal husbandry department's institutions with the co-operation and assistance of the KLDB. Activities include:

- Providing artificial insemination- Semen free of cost to the farmers
- Creating awareness among farmers in scientific breeding of animals

4) Other major areas covered by the Animal Husbandry department: -

- Biological production programme (Production and supply of biologicals and vaccines required for protecting the livestock and poultry wealth of the state)
- Livestock development program
- Genetic breeding policy

- Intensive cattle development project
- Livestock farms
- Buffalo breeding farm, Kuriotumala
- Cattle sterility centre, Aluva
- Goat rearing schemes

1. Goat Farm Attappadi
2. Goat Farm Komeri & Parassala

- Pig breeding schemes
- Poultry development programs

1. Regional Poultry Farms at -
   Kudappanakkunnu (Trivandrum),
   Kureeppuzha(Kollam),Manarcaud (Kottayam),
   Koovappadi(Ernakulam),
   Malambuzha (Palakkad),
   Sasthamangalam,(Kozhikkod),
   Mundayad (Kannur)
2. District Poultry Farms at
   Kolani (Idukki),
   Athavanadu(Malappuram)

- Central hatchery, Chengannur
- Duck farm, Niranam
- Rabbit rearing programmes

5) Extension and training programme

Intensification of Extension and training programme is still in its infancy. As a part of the same, six Livestock Management Training Centres are functioning at Trivandrum, Aluva, Kannur, Palakkad, Thalayolapparambu and Kottiyam for imparting training dairy farming; goat, pig, and duck farming, broiler production, layer management, backyard poultry production, quail farming, and chick sexing. In addition, the department has identified and set up temporary training centres in all other districts.

The extension activities of the department includes:

- Conducting off-campus training programmes for farmers and farmers' organizations.
- Conducting seminars

- Utilization of print and electronic media for technology dissemination
- Setting up of touch screen kiosk
- Conducting farmers' study tours

Major other extension activities are in the massive efforts undertaken in Preventive Medicine sector.

- Preventive inoculation to entire livestock and poultry population
- Prophylactic vaccination in FMD, RD, Duck plague, PPR, Swine Fever etc
- Gorekha camps done to identify elite cows
- Infertility camps
- Inspection and certification of livestock and marine products
- Department has a laboratory set up to assist the above activities

6) Implementation of farmer friendly programmes

- Special Livestock Breeding Programme – To assist the farmers in scientific rearing of crossbred calves, with the objective of bringing down the age of maturity and inter calving period. Selected calves are provided feed, vet care and insurance support at subsidized rates
- Cattle insurance
- Vidarbha package – Rehabilitation package sanctioned by Government of India for the suicidal prone districts of the Kasargod, Wayanad, and Palakkad.
- Tsunami rehabilitation package – for the Tsunami affected districts, by providing livelihood support for the livestock farmers.
- Rashtriya Krishi Vikas Yojana Schemes – For the overall agricultural development in the state by providing livestock related support activities.

7) New innovative schemes

- Establishment of animal welfare clubs in schools.
- Provision for interest subsidy for bank loans availed by livestock farmers.
- Integrated livestock development project – Providing all livestock inputs (cows, buffaloes, goats, chicken, turkey, ducks, fodder production support etc) to a single farmer
- Integrated poultry development project – with the objective of supplying laying poultry to the BPL families in the state.

State Animal Husbandry department's role as a development agency

Animal Husbandry activities have grown very much more than the care of domesticated animal and bird population as was understood few decades back. Its an integral part of major economic development contributing 24.72 % Agricultural GDP of India, which is also a major component assuring continuously quality and concentrated food items, maintaining and increasing the health status of masses. Above all its vigilant regulatory function keeps the nation free of several diseases and acts as a vital watching agency keeping an alert on the invasion of several animal and bird borne diseases into this part of the country from any part of the globe.

Investment on this sector and other associated agencies deserve importance equal to the nation's super alert activities associated with defense preparedness as they form a mighty strength lending part of the much hailed food security preparedness.

KEY PROGRAMMES TO BE UNDER TAKEN DURING 2009-2010 UNDER

Animal Husbandry Department

During this current year the Plan budget provision is Rs. 7116.10 Lakhs.

Component	**Number of schemes**	**Amount in Lakh**
1. State schemes		
a. Revenue	Dept. - 16	4459.00
	PSU - 4	650.00
	Total - 20	**5109.00**
b. Capital	4	620.00
2. Centrally sponsored scheme	10	387.00
3. One time Additional central assisted programme	1	1000.00
Total	**35**	**7116.00**

The important activities to be undertaken under different schemes are

1. Strengthening and toning up of Veterinary services – 1200 lakhs

- ❖ Supply of Life saving and essential drugs will be continued to be supplied through Veterinary institutions. Rs. 7 Crore is earmarked for this purpose. Out of this Rs. 1.97 Crore will be used for purchase of medicines for this year and the balance for settlement of last years invoices.
- ❖ District Veterinary Centers and Veterinary polyclinics will be strengthened and modernized with advanced diagnostic equipments like ultra sound scanners, endoscopy units etc.
- ❖ 200 Veterinary institutions in rural areas will be provided with new buildings to render quality and better services with help of NABARD assistance under RIDF.
- ❖ Control of diseases of zoonotic importance will be under taken in campaign model with public support.
- ❖ Sub clinical mastitis a condition in which farmer faces loss of production their by lead to economic loss. A pilot project for control of sub clinical Mastitis will be undertaken.
- ❖ Massive vaccination programmes against Foot and Mouth disease and diseases of economical and National importance among livestock and poultry will be continued.
- ❖ Production of essential pharmaceuticals, which are needed to the veterinary institutions, will be under taken.
- ❖ A Freeze dryer for production of freeze dried vaccine production will be procured to Institute of Animal Health and Veterinary Biological Palode.
- ❖ Rabies diagnostic facilities will be established at Regional Labs at Thriuvalla and Palakkad.
- ❖ Ambulatory services will be made functional in two districts of Thiruvananthapuram and Palakkad.
- ❖ Infrastructural facilities of Veterinary institutions will be strengthened and improved for which an amount of Rs. 5 Crore is set aside under capital Head of amount.

2. Biological Production Complex. Rs. 190 lakh

- ❖ Production of ongoing vaccines for livestock and poultry will be under taken.
- ❖ Up-gradation of the Institute to GMP standards.
- ❖ Strengthening of R&D activities.

- ❖ Strengthening of experimental animal unit.
- ❖ Biological waste management in compliance with PC act.

3. Expansion of Cross Breeding Facilities Rs. 556.3 lakhs

- ❖ In order to improve the conception rate of Artificial Insemination small containers will be provided to 25 institutions on a pilot basis.
- ❖ Goat Artificial Insemination will be extended to 500 more centers during this year.
- ❖ Field studies have rendered results that deworming of recently calved animals will have increased production. During this year 4.5 lakh milch animals will be dewormed.
- ❖ In order to tackle and reduce infertility problems and there by increase our internal production infertility camps will be undertaken through 500 Local Self governments, 1000 camps (500 LSG X 2 camps) will be undertaken.
- ❖ Strengthening of Cattle Sterility Laboratory at Aluva will be undertaken
- ❖ Payment of cost of frozen semen to KLD Board.

4. Cattle Farms Rs. 50 lakh

- ❖ Modernization of Jersey Farm vithura could be initiated for which an amount of Rs. 199.95 Lakh has been provided for construction of cattle shed to house 150 animals.
- ❖ Calves that re born in Departmental farms will be reared with special care by providing calf starters, probiotics etc and will be sold to farmers either as pregnant heifers or milch cows at normal rates 500 female calves will be reared.
- ❖ Conservation of indigenous breeds will be undertaken through departmental farms.
- ❖ Purchase of parent stock.
- ❖ Purchase of feed and fodder, fodder production etc.

5. Goat Farms – Rs. 15 lakh

- ❖ The goat farm Parassala was provided with Rs. 52.539 lakh for strengthening and modernization with an aim to propagate Malabari breeds of goats and to render training to farmers on goat raring. Construction of new goat shed to house 200 goats and irrigation facilities will be undertaken.

- ❖ Attapady Black goats will be conserved and popularized.
- ❖ 100 Satellite Malabari goat units will be established.
- ❖ Purchase of parent stock, cost of feed fodder and fodder development Medicine vaccine, equipments etc.

6. <u>Pig Farms Rs. 30 lakh</u>

- ❖ Pig Breeding Kappad will be strengthened to rear parent stock animals for which an amount of Rs. 21.70 lakh has been sanctioned.
- ❖ Assistance for establishing 65 pig fattening units will be undertaken.
- ❖ Purchase of parent stock and maintenance of sheds cost of Medicine vaccines, equipments etc.
- ❖ Installation of biogas Plant.

7. <u>Rabbit Farms Rs. 5 lakh</u>

- ❖ Purchase of parent stock and maintenance of shed and cages.
- ❖ Purchase of feed, vegetables, medicines and equipments.

8. <u>Duck & Quail Farms Rs. 20 lakh</u>

- ❖ 1800 families will be provided with assistance for 10 ducklings unit as part of backyard duck promotion.
- ❖ Purchase of feed, Feed ingredients, feed additives, parent stock including native breeds, medicines etc.
- ❖ Assistance to farmers for Quail Farming 50 beneficiaries will be assisted.

9. <u>Expansion of poultry farms and poultry production Rs. 70 lakh</u>

- ❖ Emu and Turkey farming will be popularized in our state.
- ❖ Central Hatchery Chengannur will be strengthened to house more parent stock so that more chicks can be distributed to farmers. For construction of grower house, construction of sick room, mortality pit etc. an amount Rs, 30.30 lakh was provided.
- ❖ Purchase of feed, feed ingredients, feed additives, medicines parent stock etc.
- ❖ Revival of Egger Nurseries 28 egger units will be assisted.

- ❖ Promotion of backyard Poultry Rearing 5000 backyard poultry units will be established.

10 Special Livestock Breeding Programme Rs. 850 lakh

- ❖ A scheme through which subsidized feed, insurance and health care is provided to cross bred calves either up to 28 months or first calving whichever is earlier. The animals reared under the scheme arrive at early maturity and early calving and have better production 21000 female crossbred calves and 2000 buffalo calves will be enrolled in the current year.

11. Modernization & E. Governance Rs. 22 lakh

- ❖ Upgrading / Replacing the existing old systems at the directorate and purchase of peripherals and consumables.
- ❖ AMC / repair charges of computers, printers, UPS, Photocopiers, EPABX, Fax.
- ❖ Purchase of computers and accessories
- ❖ Project preparation charges / Consultancy charges / Software development for Farms & OP registration in clinics.

12. Extension & Training Rs. 205 lakh

- ❖ Block level interactions between farmers and technicians will be taken up as part of transfer of technology to the grass root levels. Group discussions / interaction session with technical groups will be organized.
- ❖ A National Level Livestock show will be organized in our State with active participation and representation from other parts of our country.
- ❖ Study tours to elite farmers will be undertaken within and outside our state to premier institutions like IVRI, NDDB, and AMUL etc. so as to expose them the different managemental practices undertaken and to have interaction with such institutions.
- ❖ Programmes to develop love and sympathy towards animals as well develop habit of earning while learning animal welfare clubs will be organized in 100 schools.
- ❖ As a pilot project in two selected Panchyaths will be adopted and all the farmers will be selected and will be provided with inputs for different Animal Husbandry activities as they prefer. This scheme will be implemented with the association of Local Self Government.
- ❖ Three Regional exhibitions will be organized so as to provide information and awareness about this sector to farmers, public and children.

- ❖ Training of Farmers / Officer / students will be undertaken.
- ❖ Animal welfare clubs will be organized in 100 selected schools. The objective of the programme is to develop love and sympathy towards animals as well as developing habit of earning to students.
- ❖ Class with Kit Programme – This is a Special Extension support programme proposed for 400 selected Commercial Dairy Farmers of the state who own more than 5 cows.

13. Integrated Poultry Production Programme (ACA) Rs. 1000 lakh

- ❖ With an aim to achieves self sufficiency in egg production a massive scheme will be taken up through which 3 layer birds of 60 days old will be supplied to 20 lakhs BPL families. As the first step 5.5 lakh BPL families will be benefited during this current financial year for which an amount of Rs. 10 Crore is earmarked. It is anticipated to produce 30 Crore more egg in a year. The amount will be provided as one time additional Central assistance.

14. Food Security Scheme through integrated approach – Rs. 900 lakh

- ❖ Rs. 9 Crore is earmarked as part of food security for promotion of integrated farming practices and promotion of Veterinary services.

15. Scheme on subsidy on interest for Bank loans. Rs. 25 lakh

- ❖ A pilot programme in which subsidy will be provided to true farmer the aim of the programme is to promote livestock farming (Cattle & Buffalo) whether large scale or small scale **by providing subsidy on interest for the bank loans availed by them as part of recognition of their effort / success and to popularize and encourage livestock farming** their by to achieve self sufficiency in milk production. The subsidy will be either the amount of interest paid or to a maximum of Rs. 5000/ per beneficiary.

16. Assistance to PUSs – Rs. 650 lakh

i.	Assistance to KSPDC-2403-190-94	- Rs. 185.0 lakh
ii.	Assistance to MPI-2403-190-93	- Rs. 75.0 lakh
iii.	Assistance to KFL-2403-190-86	- Rs. 290.0 lakh
iv.	Poultry Dev project to KSPDC for food security-2403-190-87	- Rs. 100.0 lakh

17. Animal Disease control programme Rs. 215 lakh

Under this project foot and mouth disease vaccination was started for all susceptible animals (cattle buffalo, goat, sheep and pig) from 2004 onwards. Since there is no financial assistance from

NDDB from this year onwards, the project has to be run from the contributions from the Government of Kerala and form the available interest of corpus fund of the project. During this year it is envisaged to undertake the VIth round of ADCP vaccination.

Cost of vaccine4s for 20 lakhs does - Rs. 140.00 lakhs

Cost of logistics - Rs. 35.00 lakhs

Contribution to corpus fund - Rs. 40.00 lakh

18. Capital Head of accounts – Rs. 620 lakh

i. Vety services & Health-4403-101-99 - Rs. 500 lakh

ii. Biological production-4403-101-97 - Rs. 20 lakh

iii. Cattle & Buffalo Development-4403-101 - 99-Rs. 20 lakhs

iv. Extension and training-4403-101-97 - Rs. 80 lakhs

CENTRALLY SPONSORED SCHEMES

100% CSS

1. National Programme for Rinderpest Eradication – Rs. 50 lakh

This is a continuing scheme, which aims at total eradication of Rinderpest from the state as part of the National Rinderpest Eradication Programme. The provision is meant for the expenditure to be incurred as per the guidelines issued by Government of India.

Present Status – under the scheme stock route Search, village Search programmes, awareness programmes, Zero surveillance, diagnosis of Rinderpest like disease re carried out all over the state.

2. Conservation of threatened Livestock breeds – small ruminants, Pack animals, Poultry & other Species – Rs. 5 lakh

Government of India has introduced a new project under 10th plan to conserve the near extinct and threatened breeds using modern scientific conservation tools like cryo preservation of semen/ Ova/Embryo. Breeds of goats like Attapady black, Malabari and various indigenous breeds of ducks can be conserved though this scheme.

3. Livestock Census – Rs. 50 lakhs

The outlay is meant for the completion of 18th livestock census as per the guidelines issued government of India.

4. Foot and Mouth-CP-Rs. 100 lakhs

As already identified, this programme will be implemented in the district of Thiruvananthapuram, Kollam and Pathanamthitta districts as per the guidelines of GOI. New districts if selected for implementation by GOI will also be included. Required equipments, instruments, publicity and campaign expenses, materials storage, cold chain transportation etc will be met with.

80% CSS

1. Expansion of Poultry and duck Farm – Rs. 20 lakh

Outlay is to implement Schemes for strengthening poultry and duck farms as per the guidelines of GOI. The parent stocks will be purchased and maintained. The good quality germplasm will be made available for farmers.

75% CSS

1. Assistance to states for control of animal diseases (ASCAD) Rs. 138.8 lakhs

The scheme envisages for control of major animal diseases by providing strategic immunization cover, strengthening of important diagnostic laboratories and biological production centers, take up disease surveillance, monitoring and forecasting, information and communication campaigns and equipping of technicians.

- ❖ Up gradation to GMP/GLP standards.
- ❖ Strategic vaccination programmes will be taken up against major identified livestock and poultry disease as to the need. Disease like PPR in goats and Rainkhet disease in poultry and duck Plague in ducks are identified under this control programe.
- ❖ Collection, compilation and analysis of data's on incidence of animal diseases will be carried out and bulletins will be published in bi-lingual. Disease-monitoring and forecasting will be tone up and to initiate appropriate preventive measures well in advance.
- ❖ Training to veterinarians and para veterinarians will be conducted through premier institutions within and outside state.
- ❖ Information and campaign programmes regarding the significance of inoculation programmes to farmers, social organizations will also be taken up under this scheme.
- ❖ Control of new and emerging diseases.

2. National Fodder Production Programme Outlay Rs. 4 lakhs

The scheme is to promote fodder production by building up fodder production in departmental farms. The scheme will be implanted as per the guidelines of GOI.

50% CSS

AH Statistics and sample survey – Rs. 80 lakhs

1. The scheme is for continuing the integrated sample survey for the estimations of production of various livestock products and for taking up new service and for launching special studies. The outlay is to meet the staff cost and other expenses connected with survey.

2. Professional efficiency development (State Veterinary Council) Rs 20 Lakh

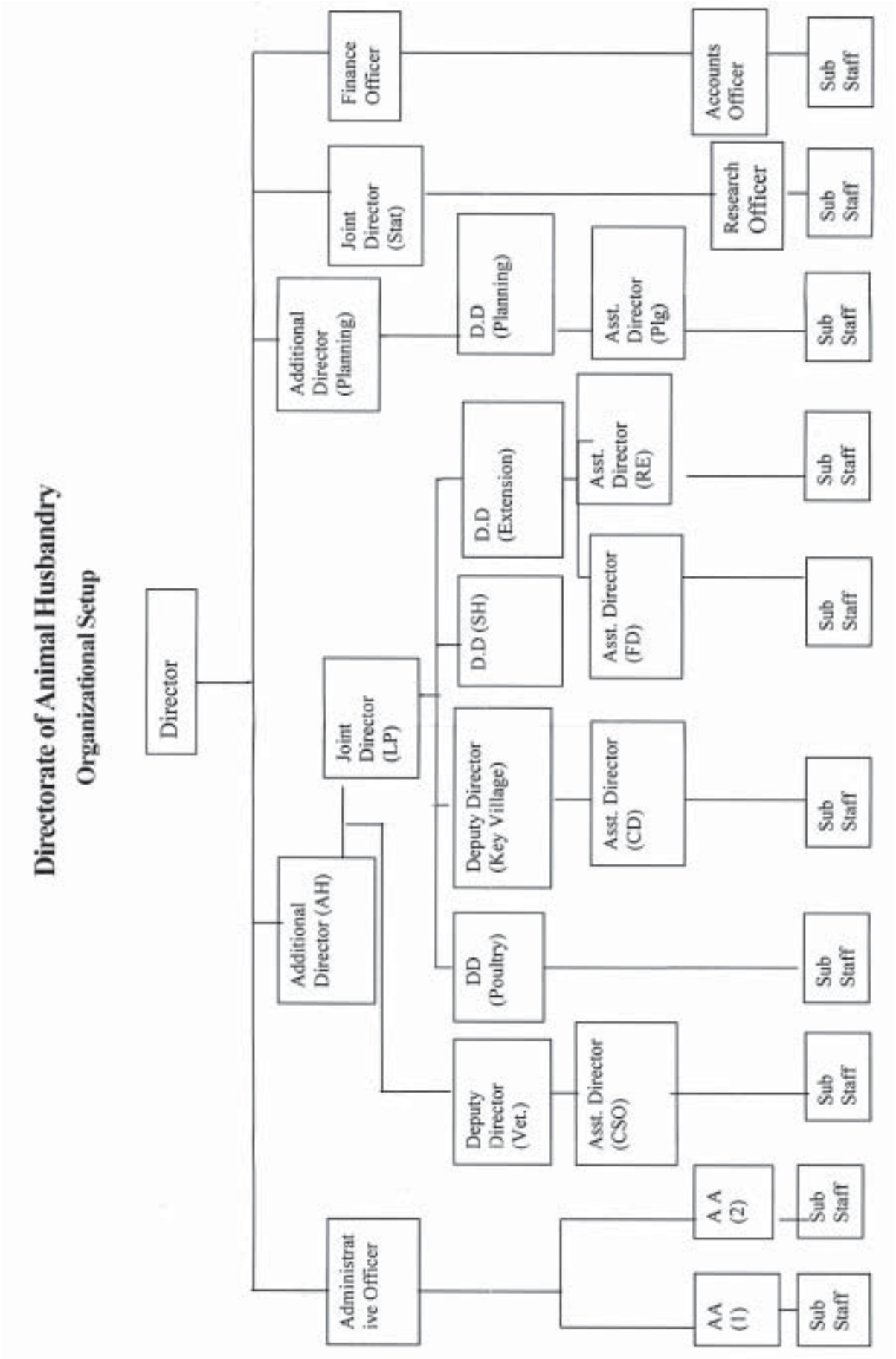
The registration of Veterinary practioners and regulation of Veterinary practices in the State will be continued. The outlay is towards the State share as staff cost, office expenses, maintenance vehicle, buildings etc. a portion of the outlay will utilized for training programmes to Veterinarians as part of Continuing Veterinary education programme. A well-equipped library will be established. Expenditure on electricity, water, tax, propulsion charges etc will be from this provision.

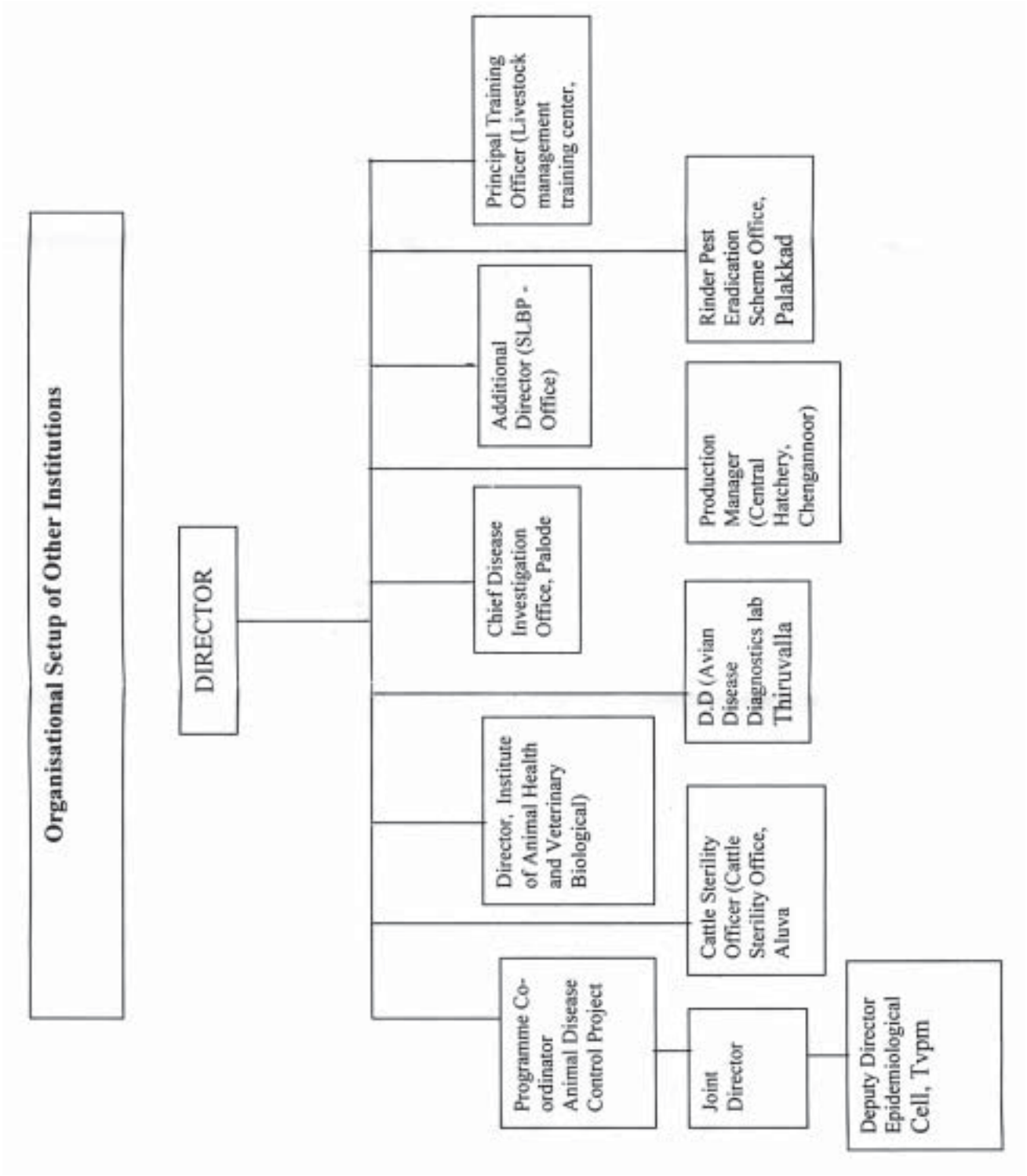
As far as Centrally sponsored programmes are concerned proposals have been submitted to GOI. Release awaited.

Sl. No.	Name of the Insitution	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Eranakulam	Thrissur	Palakkad	Malappuram	Kohikode	Wayanad	Kannur	Kasargode	total
1	A.D.C.P District Office		1													2
2	Artificial Insemination Centre							1	1							2
3	Artificial Insemination Sub Centre			5				1	1							7
4	Buffalo Breeding Farm		1													1
5	Clinical Laboratory	1	1		1		1	1		1	1	1		1		9
6	Cattle Sterility Office							1								1
7	Calf Feed Subsidy Scheme		1		1	1				1		1				5
8	Chief Disease Investigation Lab	1														1
9	Central Hatchery				1											1

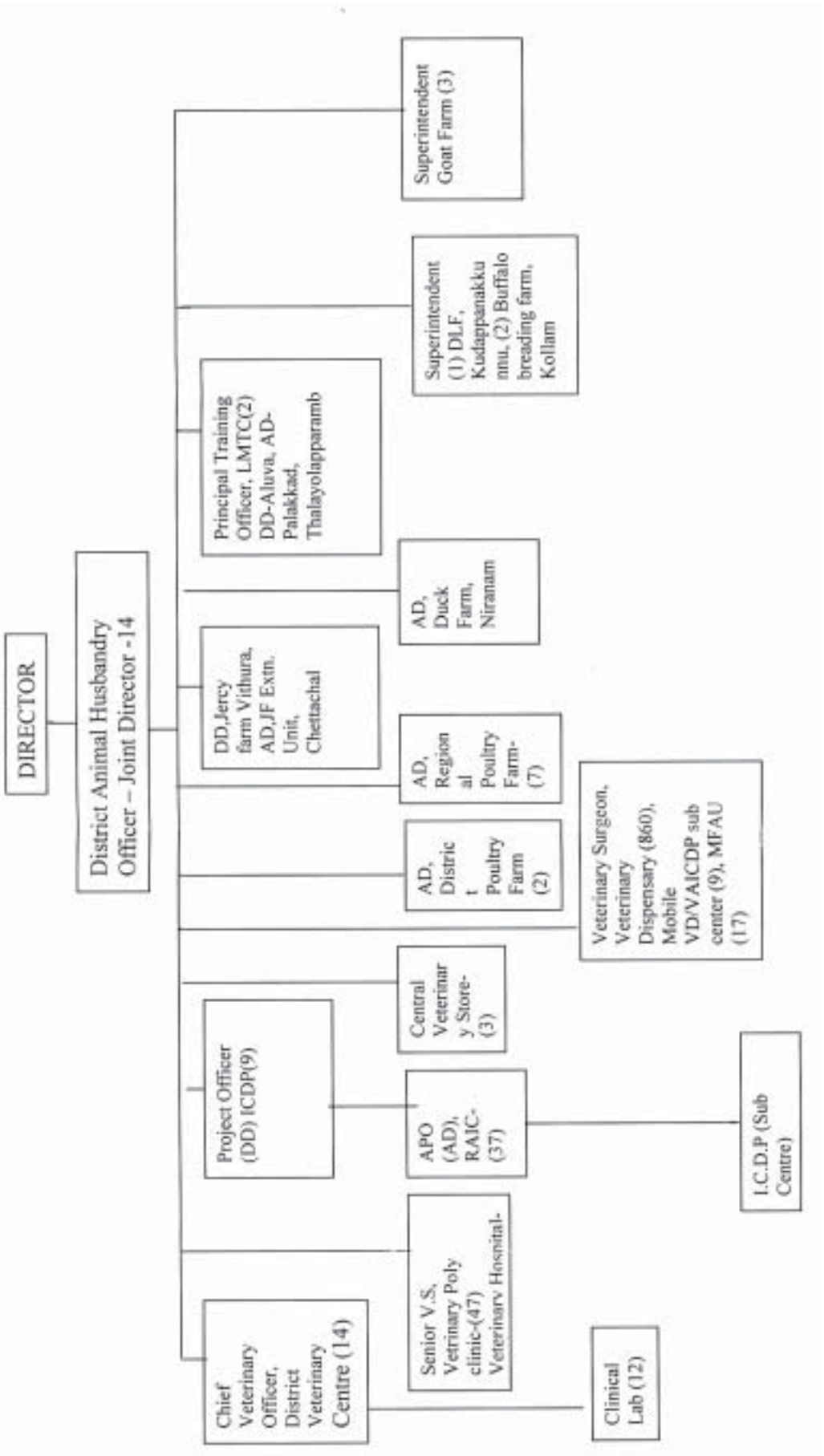
10	Chick Sexing School	1			1											2
11	Central Veterinary Store	1							1			1				3
12	Diagnostic clinical Laboratory												1		1	2
13	District Livestock Farm	1														1
14	Duck Farm			1												1
15	District Animal Husbandry Office	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
16	Disease Free Zone Units	1	1	1												3
17	Directorate of Animal Husbandry	1														1
18	District Poultry Farm						1					1				2
19	District Veterinary Centre	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
20	Epidemiological Cell	1														1
21	Feed Compounding Factory				1											1
22	Feed Testing Lab				1											1
23	Goat Farm	1								1				1		3
24	ICDP Office	1	1	1			1	1	1	1		1		1		9
25	ICDP Sub Centre's	147	147	94	65	83	60	85	98	95	116	86	72	135	61	1344
26	IPD Block							1								1
27	Institute of Animal Health and Veterinary Biologicals	1														1
28	Jersey Farm	1														1
29	Jersey Farm Extension Unit	1														1
30	Kerala State Veterinary Council	1														1
31	Livestock disease Control Office	1														1
32	Livestock Disease Control check post														1	1
33	Livestock Marine Products Inspection Lab							1								1
34	Livestock Management Training Centre	1				1		1						1		5
35	Mobile Farm Aid Unit	1		1	1	2	2	1	1	3	2		1	2		17

36	Mobile Veterinary dispensary						1			1		1		1		4
37	Mobile Veterinary Hospital	1	1		1	1		1								5
38	Mobile diagnostic Lab										1					1
39	Motor boat Veterinary Dispensary				1											1
40	Pig Breeding Farm					1										1
41	Pig Breeding Unit	1				1	1	1	1					1		6
42	Poultry Training Institute				1											1
43	Quail breeding Unit				1							1				2
44	Regional Artifical Insemination centre	5	4	3	2	2	4	1	4	3	1	1	1	4	2	37
45	Regional Poultry Farm	1	1			1		1		1		1		1		7
46	R.P. Check post	1	1				3			7	1		2	1	1	17
47	R.P. experimental check Post									1						1
48	R. P. Mobile Unit							1	1							2
49	R. P. Eradication scheme Office									1						1
50	R.P. Mass Vaccination Squad									2						2
51	R. P. Vigilance Unit		1			1	1			1		1		1		6
52	SLBP Head Quarters Project Cell	1														1
53	SLBP Dr. Office	1							1					1		3
54	Swine Husbandry Office							1								1
55	Turkey Farm		1													1
56	Veterinary dispensary	71	54	42	54	59	46	75	89	77	92	72	19	71	35	856
57	Veterinary Hospitals	23	23	14	18	19	9	23	22	15	11	13	6	12	6	214
58	Veterinary Poly Clinics	2	2	3	6	4	2	5	6	4	4	2	2	5		47
		273	**243**	**168**	**158**	**178**	**134**	**205**	**229**	**218**	**232**	**184**	**106**	**241**	**109**	**2678**


Directorate of Animal Husbandry
Organizational Setup
Director
Finance Officer
Accounts Officer
Sub Staff
Joint Director (Stat)
Research Officer
Sub Staff
Additional Director (Planning)
D.D (Planning)
Asst. Director (Plg)
Sub Staff
D.D (Extension)
Asst. Director (RE)
Sub Staff
Joint Director (LP)
D.D (SH)
Asst. Director (FD)
Sub Staff
Additional Director (AH)
Deputy Director (Key Village)
Asst. Director (CD)
Sub Staff
DD (Poultry)
Sub Staff
Deputy Director (Vet.)
Asst. Director (CSO)
Sub Staff
Administrat ive Officer
A A (2)
Sub Staff
A A (1)
Sub Staff


Organisational Setup of Other Institutions
DIRECTOR
Principal Training Officer (Livestock management training center,
Additional Director (SLBP - Office)
Rinder Pest Eradication Scheme Office, Palakkad
Chief Disease Investigation Office, Palode
Production Manager (Central Hatchery, Chengannoor)
D.D (Avian Disease Diagnostics lab Thiruvalla
Director, Institute of Animal Health and Veterinary Biological)
Cattle Sterility Officer (Cattle Sterility Office, Aluva
Programme Co-ordinator Animal Disease Control Project
Joint Director
Deputy Director Epidemiological Cell, Tvpm

Organisational setup of District Animal Husbandry Office



DEPARTMENT OF DAIRY DEVELOPMENT – STATUS PAPER

Structurewise, Budgetwise performance with mandates

Milk though has only lovers in Kerala, its per capita consumption is very low when compared to national standards. Average per capita consumption of milk in India which rules as 246 grams per capita, in Kerala it is only 180 garms. 'Milk though loved was not treated as a common man's drink' is now really a story of the past. The urge for milk and various products of the same are on a steady increase. 100 years ago when an exclusive organization was formed in the state of Travancore for agriculture, cattle care and milk production was 100 given a place of prominence. Some 60 years ago Karachi bulls were reported to have been brought for upgrading the milk yielding capacity of cows. But an exclusive dairy department came into existence only in 1962. The emergence of the department paved way for organizing the cattle breeders under the co-operative umbrella providing market support to the producers and for making quality milk available to the consumers. When K.C.M.M.F was formed in 1979 all the dairy units and its assets were wanded our to the new organization.

Department had a Director, 2 Deputy Directors, 2 Assistance Directors, 2 Dairy Extension officers and other supporting staff. The state was divided in to 2 regions. The most significant change happened at the formation of the transfer of the milk industrial units form the department of Co-operatives to the newly formed Dairy Development Department.

The important mandates bestowed on the newly formed department were,

- Bringing the assistance starving dairy farmer population and their families in the Co-operative fold by organizing milk co-operatives through out the state.
- Promotion of cattle rearing as a paying avocation.
- Promotion of fodder culture and make the dairy farming more economical and profitable.
- Promotion of cross breeding by making available the Artificial Insemination facilities at farmer's doorstep through specially trained cattle improvement assistance through out the state.
- Imparting training to rural women folk in production, processing and marketing of value added products.
- Providing extension services in the fields of deworming, clean milk production, supplying mineral mixture, etc.
- Organization of cattle show, seminars and anti sterility camps.

The department has made phenomenal growth during the last 47 years and has become an integral part of the milk an meat production movement of the state.

The most significant accomplishment is organizing nearly 9.3 lakh members in 318 primary dairy co-operatives. When the department has formed, we had only 150 dairy co-operatives with a membership of 15100 members. Now at present, Director Dairy Development has been designated as the Register of all the co-operatives functioning in dairy sector. This has enabled the department to strengthen its activities and give courage to the Government to accept bold visions like self-sufficiency in milk production and widening the scope of cattle rearing as a massive programme for creating real prosperity in the rural lives.

The present mandated activities could be summarized as follows.

- Creating a statewide network of co-operatives covering the entire state bringing all the dairy farmers and issuing registration to the co-operative societies.
- All aspects regarding functioning of the societies like administration, supervision, inspection, election of board of directors, etc are vested with the department.
- Planning and implementation of various schemes made for providing assistance to dairy farmers.
- Department is the implementing authority of milk and milk products order 1992 (MMPO). The objective is the increased supply of liquid milk of desired quality and to regulate production, processing the distribution of milk and milk products. Any person or dairy plant handling more than 10000 litres of milk per day comes under the order. All persons or dairies handling milk & milk products comes under this order and those dairy plants handling more than 10,000 litres/day has to be registered under MMPO-1992.
- Director and the officers to whom the powers are delegated form the authority to handle arbitration reference cases of over 3000 co-operatives in the sector. They are empowered to pass decree and they also have the authority to execute the decree.
- Organization of quality control network is a major activity gaining more and more importance for making available clean milk eradicating all health hazards.
- Economic milk production combining better quality standards needs green fodder more than any other nutrition rich feed. Kerala with its abundant rivers and river lets has not done much work on the massive production of quality fodder for milk production. One of the important tasks assigned to the department is fodder development by identifying fodder valleys on both sides of the river wherever possible. The Koippuram model identified and proved to be sustainable and ready for a take off to over 100 similar centres.
- Modernizing infrastructure facilities of Dairy Co-operatives by providing automatic milk collection stations, electronic milkotesters, milk analyzers, milk testing chemicals etc.
- Imparting training on various aspects on dairying including fodder development.
- From selection of ideal cows to production of value added products.
- Formulation and implementation of various welfare schemes for improving the entrepreneurial skill and family life.

- Educating the dairy farmers and personal attached to the dairy business through various methods.
- Developing linkages with various academic, technological and financial institutions and bodies.

During the last 4 decades, dairy department has made very significant growth.

- Department has at present 187 number of institutions. Out of the same 152 are dairy extension service units spread over in the entire state. Every Block has one extension unit headed by a qualified (B.Tech Dairy Science) dairy extension officer. He is assisted by 2 Dairy Farm Instructors.
- Apart from this 14 quality control laboratories are functioning at each District Head Quarters with a state level MMPO laboratory at Palakkad. At present all these institutions are functioning without a fullfledged staff structure. The staff attached to other institutions of the department are carrying out the functions.
- 5 Dairy Training Centres each under a Deputy Director. They are assisted by Subject Matter Specialists and Dairy Extension Officers who are the faculty members of the institutions.
- The other 2 important institutions are – Sewage Farm, Valiathura – one of the biggest quality fodder and root slip production centre in South India with a production capacity of over 10000tones per year. Another latest addition to the institutional wealth to the department is the Kerala State Dairy Farmer's Welfare Fund. It has a membership of over 2 lakhs members.
- The real mass base of the department is 9 lakhs members spread over nearly 3400 societies. The biggest challenge in the sector is that among the above 3 lakh members are pouring milk.
- General Administration:

Director of Dairy Development is the Head of the Department; he is also the registrar of all milk co-operatives functioning in the state and the State Registering Authority of MMPO, 1992. The entire functioning of the department are planned, guided, monitor and administered by Directorate of Dairy Development, Thiruvananthapuram.

However, inspite of the added responsibilities and functions under various developmental activities, no new posts were sanctioned and the Directorate stil functions with the skeleton staff structure available as on the Eighties. This is a serious issue demanding immediate attention.

The staff pattern is given in the annexure.

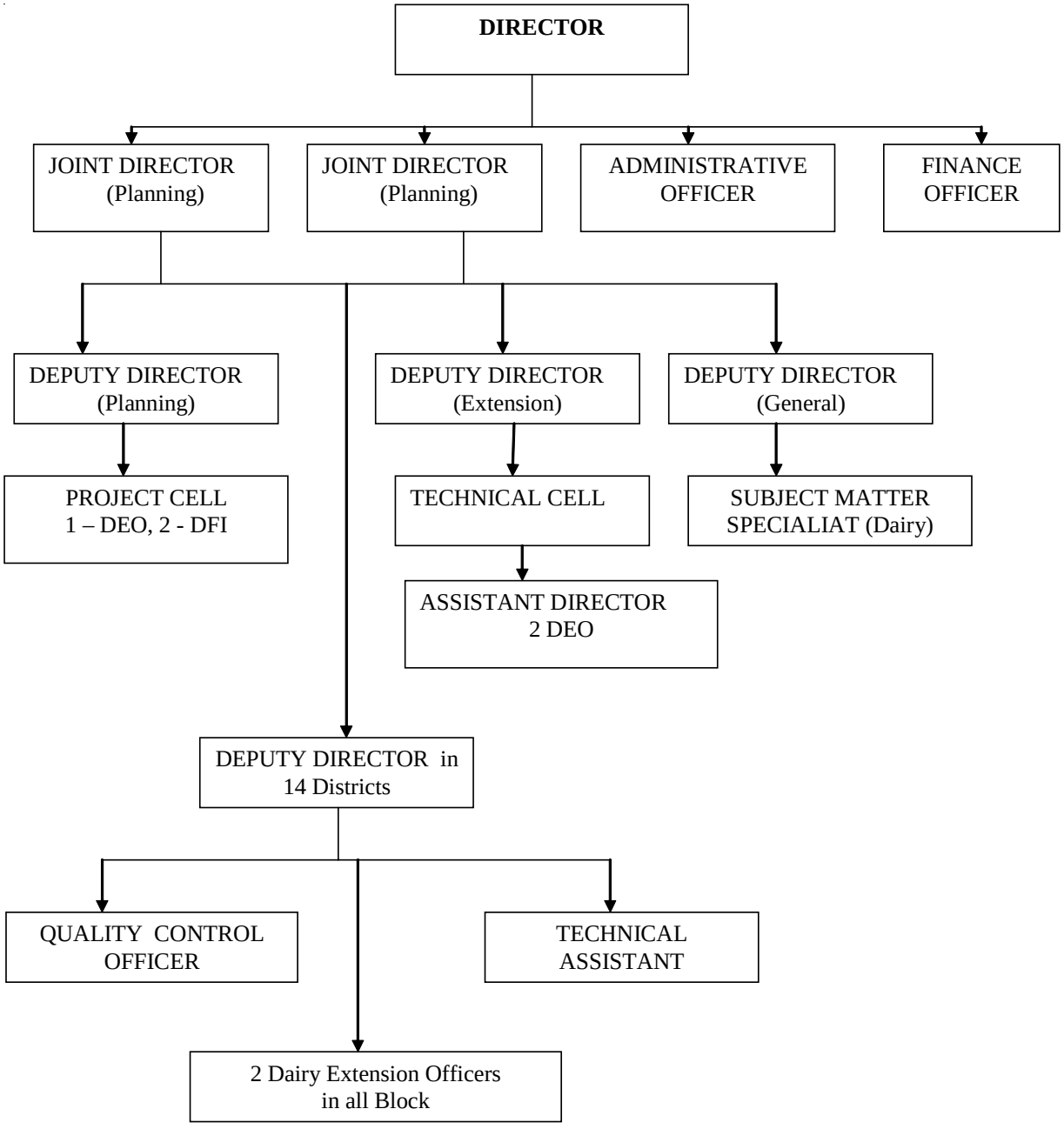
At the district level, the activities of the department are under the administrative and technical control of the Deputy Director, who reports directly to the Director of Dairy Development. As a part of the democratic Decentralization, the following institutions were handed over to Zilla Panchayath.

1. Deputy Director of Dairy Development's Office.

2. Assistant Director/Quality Control officer with Quality Control lab.

Dairy Extension Service Units functioning at the Block Level are handed over to the concerned Block Panchayats as a part of the Democratic Decentralization.

One of the biggest lacuna experienced is the lack of a department as unit with a qualified officer at the Panchayat level for framing, guiding and implementing very important programmes like Heifer rearing, nutrition rich feeding scheme fodder production, laying out demonstration, and other individual oriented dairy development activities to be done in co-operation with the N.G.O's, social service and farmer's organization.



Staff Strength

Sl.No.	Name of Post	No. Sanctioned	Present strength	Male	Female
1	Director	1	0		
2	Joint Director	2	2	1	1
3	Deputy Director/Principal, Dairy Training Centre	23	23	19	4
4	Administrative Officer	1	1	1	
5	Administrative Assistant	1	1		1
6	Finance Officer	1	1		1
7	Assistant Director/Subject Matter Specialist/Vice Principal	33	33	27	6
8	SMS Co-operation	5	5	5	
9	Dairy Extension Officer	176	163	88	75
10	Senior Superintendent	20	20	13	7
11	Junior Superintendent	6	6	2	4
12	Fair copy Superintendent	1	1	1	
13	Dairy Farm Instructors	269	193	96	97
14	Head Clerk	14	14	11	3
15	Statistical Assistant	2	2	2	
16	U.D.Clerk	96	96	66	30
17	L.D.clerk	97	97	68	29
18	Typist (U.D/L.D/Spl.Grade)	34	32	9	23
19	Confidential Assistant	3	3		3
20	Artist	1	1	1	
21	Lab Technician	12	5	5	
22	Lab Assistant	7	7	6	1
23	Agriculture Assistant	2	2	2	

24	Driver	28	16	16	
25	Film Operator	5	5	5	
26	Watchman	12	5	5	
27	Record Attender	1	1	1	
28	Clerical Attender	1	1	1	
29	Attender	4	4	3	1
30	Peon	134	122	91	31
31	Cleaner	1	1	1	
32	Binder	2	2	1	1
33	Duplicating Machine Operator	1	1	1	
34	Pump Operator	1	1	1	
35	Full time Sweeper	3	3		
36	Part time Sweeper	44	41	3	3
	Total	**1044**	**911**	**484**	**330**

Plan Allotment for 2009-10

Sl.No.	Head of Account		Amount (Lakhs)	Proposed Date of Submitting DPR for AS
1.	**RDE&AS**			
	2404-00-102-96		75	30.04.09
2.	**SIQ & CMP**			
	2404-00-201-83		200	
3.	**Cattle Feed Subsidy**			
	2404-00-102-79		275	30.04.09
4.	**Strengthening of QC Labs**			
	2404-00-109-95		10	15.05.09
5.	**Milk Shed Development Programme**			
	2404-00-109-93-34-OC	590.00	600	30.04.09
	2404-00-109-93-04-(1)Tour TA	6.75		
	2404-00-109-93-05-OE	1.85		
	2404-00-109-93-45-POL	1.40		
6.	**Modernisation of DCS**			
	2404-00-195-94		60	15.05.09
7.	**Fodder Development**			
	2404-00-800-84-34-OC	194.18	200	15.04.09
	2404-0-800-84-04(1)Tour TA	4.00		
	2404-00-800-84-05 OE	0.82		
	2404-00-800-84-45-POL	1.00		
8.	**Support to KDFWFD**			
	2404-00-800-79		30	30.04.09
9.	**Extension Activities of KLDB**			
	2404-00-190-99		35	
10.	**Conservation & Improvement of Malabari Goat**			
	2404-00-190-95		11	

11.	**Assistance for KLDB for Conducting R & D on Fodder & Fodder Seed Production**		
	2404-00-190-94	15	
12.	**KLDB-Support to conduct training in AH Activities**		
	2404-00-190-93	10	
13.	Assistance to KCMMF		
	2404-00-190-91	150	
14.	**Assistance to MRCMPU for Providing Cattle Feed During Summer Season**		
	2404-00-190-90	65	
15.	**Assistance for KLDB**		
	2404-00-190-89	200	
	GRAND TOTAL	**1936**	

2008-2009

NON-PLAN	
Budget Allocation (Including SDG)	18,07,24,000
Expenditure	17,13,18,000
Resumpted	94,06,000
PLAN	
Budget Allocation (including SDG) Capital provision	29,24,36,000
Expenditure	23,00,48,000
Resumpted	6,23,88,000

Functional Linkage within the department and other institutions

Different dairy extension service units functioning at the block level function as the implementing hands of the department. Kerala Dairy Farmers Welfare Board is another board functioning under the guidance of the Department officers several welfare scheme. Other institutions include LSG's functioning under Grama Panchayats and Block Panchayats through which different dairy development schemes are implemented.

Intra and Inter departmental co-ordination

Intra departmental co-ordination includes co-ordination of the activities at the block level by the district offices and that at the district level by the directorate. Several dairy extension service units at the block level also implement various projects and schemes of Local self governments. Kerala dairy farmers welfare fund board also has got functional linkage with the department.

Linkage with various departments – state-central governments, corporation, neutral organization, public or private sector development agencies

Sisters departments include Animal Husbandary, Agricultural departments.

ATMA & SAMETI

Dairy Department goes hand in hand with the ATMA programmes of Agriculture Department. SAMETI is also an approved center for deputing staff for training from the department.

KLDB – Funds from the Central Government to KLDB are routed through Dairy Development Department.

KLDB also supplies seeds required for fodder schems of the Department.

Department being the administrative department is also supposed to do close monitoring of the activities of all primary dairy co-operatives and KCMMF.

Director is also the State Registering Authority as per MMPO-1992. All the dairies handling more than 10,000 litre of milk has to be registered under MMPO. The authority has got the power to carry out periodic inspection of the premises in which manufacture or process of business in milk or any milk product is carried on.

FUNCTIONAL DETAILS

1. Administrative department of Dairy Co-operatives
2. Director is the Registrar of Dairy Co-operatives as per KCS Act 1969.
3. State Registering Authority of MMPO.
4. Supervision and Inspection of MMPO dairies
5. Implementing department of all dairy development department of the state
6. Central fund to KLDB & KCMMF is also routed through the department

Infrastructure, Schemes with funding details

Department has got its Directorate at Pattom, Trivandrum, District Offices of the Deputy Directors at the District Level, Block Level Dairy Extension Service Units and Sewage Farm and five Dairy Training centres are also functioning in the Department. Due to shortage of staff in the Panchayat level it is quite impossible to implement the schemes effectively at Panchayat level.

FIB (Farm Information Bureau)

The department also has got an Assistant Director deputed to FIB which enables the department to publish news, items and features related to dairying.

Funding

a) State plan schemes - funds are provided by the state government for implementing various approval of the department.

b) Centrally sponsored schemes – the funds from the Central Government are routed to various unions KLDB through Dairy Development Department.

Approved Centres for deputing staff for training

- Extension Education Institute, Hyderabad
- Avadi Training Centre, Chennai.
- IRMA
- NDDB

List of Farmers Organization

3000 dairy co-operatives spread all over the State.

Conclusion

In order to attain self sufficiency in milk production the department proposes the following.

I) Conduct a complete survey of the Dairy sector to assess the current situations regarding,
   a. Cattle population
   b. Milk production
   c. Average yield/animal
   d. Average quality of milk at farm level
   e. Milk consumption
   f. Extent of fodder cultivation
   g. Quality of milk being marketed through the unorganized sector, etc.

II) Provide cattle feed subsidy to farmers based on the quantity of milk poured by them in DCS (at least 33% of the cost of cattle feed may be subsidized)

III) Heifer leany units to be encouraged to make good quality high yielding animals available in the State for prospective entrepreneurs.

IV) Fodder development to be taken up in a massive scale and assistance for farmers to be take up fodder cultivation to be increased.

V) Mechanization of small and medium Dairy farms by providing assistance to purchase, Milky machines, chaff cutter, shiny pumps and other items based on their needs.

VI) Loans to dairy sector to be made available at lower rate of interest. Financing institution to provide loan to dairy farmers should be set up using the resume funs of Dairy Co-operatives.

VII) The area of operation of the 3 regional unions to be restructured as follows to maintain a balance and manage regional surplus. TRCMPU – Thiruvananthapuram, Kollam, Pathanamthitta, Alappuzha and Idukky.

ERCMPU – Kottayam, Ernakulam, Thrissur and Palakkad, MRCMPU – Malappuram, Kozhikode, Wayanad, Kannur and Kasargode.

VIII) Technical Audit of the Dairies, Regional Union and Dairy Co-operative Societies to be conducted.

IX) Procurement of Milk by Dairy Co-operative Societies to be automated and a net work to be created between the Dairy Co-operative Societies and departmental offices.

X) The Dairy Department should be strengthened by providing sufficient posts so as to make it possible for the implementation and monitoring of schemes to be made effective.

KERALA LIVESTOCK DEVELOPMENT BOARD - STATUS PAPER

1.0 Introduction 1.1. General

The Indo-Swiss Project Kerala, and the Bull Station, Dhoni of the Dairy Development Department were integrated in 1976 to form the Kerala Livestock Development Board Ltd., a fully Government owned company.

The main objectives of the Board are:

- to provide inputs required for cattle breeding in line with the breeding policy of the State
- to promote fodder production under field condition in support of economic milk production
- to offer training courses in animal husbandry and fodder production.
- to develop Malabari goats through the supply of selected breeding stock and,
- to produce and supply good quality piglets for breeding and fattening.

To fulfill these objectives, the Board established breeding farms, regional semen banks, fodder farms, training centre etc. The breeding programme was first launched in the cattle breeding centre at Mattupatti under the aegis of the Indo-Swiss Project Kerala. The results and achievements, after proper evaluation, were put to wider application throughout Kerala in a phased manner with a view to enhance milk production. Frozen semen technology was introduced by the Board for the first time in India during 1965 and was subsequently perfected for large scale application under tropical conditions.

The Board was the first agency in India to start a Sire Evaluation Programme for crossbred bulls under field conditions as early as 1977. A computerised data processing system to monitor the programme was established during 1983.

The Board could identify and develop a number of high yielding fodder varieties suitable for the different agro climatic conditions in the State. The production of seeds of the selected varieties of tropical grasses and legumes has been taken up in a large scale by the Board with the participation of farmers. Package of practices for adoption under different farming systems were introduced.

Realising the need for training and retraining of the various categories of personnel engaged in the operation of cattle production programmes, the Board organises short duration "learning by doing" training courses from the year 1975 onwards. Now, two fully fledged training centres equipped with the latest teaching aids and accessories, are functioning at Mattupatti and Dhoni.

The activities of the Board are backed up by Research and Development (R and D) programmes. This includes applied research in animal management, animal breeding, frozen semen technology, reproductive management, AI operations, selection of suitable fodder species, seed production technology, management of information system etc.

Complementary to the existing A.I. and breeding programme for the crossbred cattle of Kerala, the Board, during the year 1990, started the Multiple Ovulation and Embryo Transfer (MOET) programme. The programme is being continued with an intention of producing superior bull calves in the KLDB farms and also supplying of superior embryos for the field embryo transfer programme of the Animal Husbandry Department.

2.0 Responsibilities of the technical wings 1.2. Responsibilities

The activities of the Board are carried out by the two technical wings viz: Animal Husbandry and Agriculture. The major responsibilities of the Animal Husbandry wing are:

- Management of around 750 heads cattle in 4 livestock farms.
- Production of 80 crossbred young bulls annually through a systematically laid out nominated mating of the elite cows with proven bulls.
    - Procurement of about 80 superior male calves, born for elite cows mated to proven bulls from the farmer's herd in the milk recorded area.
    - Selection and management of about 160 breeding bulls.
    - Management of about 20 pedigreed Murrah buffalo bulls for semen production.
    - Production of about 3.0 million doses of frozen semen annually.
    - Quality control of the semen.
    - Applied research on cattle breeding and frozen semen technology.
    - Implementation of the breeding policy of the state aimed at the creation of a new breed of cattle, by way of supplying frozen semen of suitable genetic makeup under a definite bull rotation programme.
    - Supply of about 1.6 million doses of frozen semen (cattle and buffalo) to about 2700 AI centres spread across the state through the 7 Regional Semen Banks.
    - Sale of around 1 million doses of frozen semen outside the State.
    - Production and supply of 0.5 million litres of liquid nitrogen (LN) annually to 2700 AI centers for storage and preservation of semen.
    - Study on the production and reproduction parameters of about 3000 crossbred cows in the field every year through an established milk recording system.
    - Evaluation and selection of young crossbred bulls through the progeny testing scheme.
    - Training in various fields of cattle production.
    - Liaison with the Department of Animal Husbandry for the successful implementation of the breeding programme of the state.
    - Application of the Embryo transfer technique in the bull production programme.
    - Embryo production from selected cows for field programmes.
    - Management of a herd of about 550 Malabari goats and supplying high quality breeding stock to the farmers.
    - Building up of breeding stock required for producing about 10000 piglets for supplying to the farmers.

The Agriculture Wing of the Board is responsible for :

- Fodder production in the Board farms as per requirements.
- Management of various resources in the farm like water supply, electricity etc
- Conduct of trials for the selection of suitable varieties of grasses, legumes and fodder trees.
- Management trials with selected fodder varieties.
- Production of foundation seeds from the selected fodder varieties in the Board farms and seed multiplication in the field through the registered seed growers.
- Procurement, testing, quality control, processing, storage of fodder seeds and formulation of seed mixtures for different requirements.
- Marketing of seeds through various developmental agencies.
- Promotion of fodder and fodder seeds, demonstration of the package of practices, follow up and feed back.
- Liaison with other agencies of the State in the field of fodder development.
- Training in various fields of fodder production.

3.0 Research and Development1.3. Research and Development

Applied research on all aspects of crossbreeding in cattle, frozen semen, fodder production, fodder seed production, fodder seed storage & processing are being carried out. The following are the major fields in which trials are undertaken.

- Selection of cows according to individual performance on production, reproduction and growth.
- Selection of bulls based on the various aspects of semen production.
- Studies on the reproductive performance of crossbred bulls.
- Dilution methods for semen processing in cattle, buffaloes, bucks and boars.
- Field studies on the productive and reproductive performance of crossbred cows.
- Setting up of effective models for sire evaluation under field conditions.
- Studies on the computation of lactation yields from part lactation records.
- Studies on the genetic gain through crossbreeding.
- Embryo technology for genetic improvement.
- Developing methodology for freezing of buck and boar semen.
- Studies on the selection of suitable fodder varieties for different agroclimatic conditions.

- Effect of sperm concentration on fertility using frozen semen
- Studies on fodder seed production.
- Quality control systems for fodder seeds.
- Different management practices for fodder production in Kerala.

4.0 Achievements1.4 Achievements

The Board has emerged as a model organisation in designing and implementation of a planned crossbreeding programme under tropical conditions. The Sunandini breed was evolved from a foundation stock of zebu and taurus cattle through systematic selection. Today, the Board has grown as the largest frozen semen producer in the country. The field AI programme using deep frozen semen, which started in a modest way during 1967-68 was expanded in a phased manner, and by end of March 2001, the Board was supplying frozen semen to 2788 AI centres covering the entire state. Accurate sire selection methods like progeny testing were employed by the Board from as early as 1977. MOET is being used in the bull production programme of the Board since 1992, complementary to the existing selection programme. The goat unit, started on an experimental basis during the year 1990 at Kulathupuzha was later transferred to Dhoni and further expanded. Freezing of buck semen was taken up on an experimental basis during the year 1995. Consequent to its success, frozen semen doses from breeding bucks are being distributed free of cost among the selected AI centres of the State, though on a small scale.

A pig breeding centre has been established by the Board at Puthoor in Thrissur district for supplying breeding stock for satellite breeding units and quality piglets for finishing farms. This unit successfully functioned till 2006 and has now been closed down as per Government order due to pollution problem.

In the field of fodder development, the Board has identified and multiplied improved species of grasses and legumes for popularising fodder cultivation. The production of perennial forage seeds by certified seed growers increased from 0.8 MT. in the year 1976-77 to about 15.13 MT during 2000-01. The seed produced is being subjected to strict quality control before marketing.

The technological developments in the field of livestock production and fodder development could be conveyed to the implementing agencies, viz., the state departments and other semi governmental organisations through training programmes in various related disciplines. The livestock development programme being carried out by the Board has attracted the attention of many states and there has been a continuous flow of trainees to the training courses organised by the Board from within and outside of the country.

The Board is one of the four approved testing stations for AI equipments and consumables in India.

The Seed testing laboratory established at Dhoni farm, Palakkad has been declared as the State Seed Testing Laboratory for forage seeds during 2006.

A seed supply system has been standarised by the Seed Unit and the Board is a major supplier quality fodder seeds to a large number of States in India through the Central Minikit Programme. The major achievements of the Board during 2008-09 are presented in Table below:

Sl no	Activities	Achievement 2008 – 09
1	No of Cattle – crossbreds maintained -	648
2	No of Cattle – indigenous breeds maintained – (Puthur farm)	57
3	No of Buffalo Bulls maintained –	9
4	Malabari goats maintained	525
5	Boer goats maintained	111
6	Boer X Malabari goats maintained	11
7	Attappady Black goats maintained	81
8	Pigs maintained (Joint Venture with MPI)	212
9	Frozen Bull Semen produced – crossbreds (doses)	2100115
10	Frozen Bull Semen sold in Kerala – crossbreds (doses)	1603715
11	Premium Bull Frozen Semen sold – crossbreds (doses)	43610
12	Frozen Semen produced – indigenous breeds	24896
13	Buck Semen produced (doses)	47681
14	Buck Semen despatched (doses)	34090
15	Malabari goats sold	97
16	Boer goats sold	17
17	AI centres supplied with Frozen Semen and Liquid Nitrogen (within the State)	2943
18	Fodder production in farms (dry matter in MT)	2534.51
19	Silage produced in farms (dry matter in MT)	245.07
20	Hay produced in farms (dry matter in MT)	444.36
21	Green grass sold from farms (dry matter in MT)	45.50
22	Hay sold from farms (MT)	87.36
23	Fodder seed production – foundation seeds in Kg	182.60
24	Fodder Seeds produced through farmers in Kg	6967
25	Fodder seeds procured in Kg	32000
26	Fodder seeds supplied through Minikit programme in Kg – Kharif season	31000

27	Fodder seeds supplied through Minikit programme in Kg – Rabi season	11250
28	Fodder Seeds sold – out side state (Kg)	1282.50
29	Fodder Seeds sold – inside state (Kg)	886.44
30	Fodder slips sold (nos in lakhs)	48.66
31	Embryos collected	76
32	Persons trained	1397
33	Cows enrolled under milk recording in the Progeny Testing areas	2874
34	Male calves purchased from the field	53
35	Piglets produced	445
36	Pigs sold	184

5.0 Units of KLDB

1. Farms

a. Mattupetty – cattle breeding farm (frozen semen production,bull mother herd), biotechnology division, fodder production & research, Training centre

b. Dhoni - cattle breeding farm (frozen semen production, bull mother herd), fodder production, goat farm
- seed unit, seed farm, fodder research, Training centre

c. Kulathupuzha - cattle breeding farm (frozen semen production, fodder production

d. Puthur - pig breeding (closed down during 2006 as per Government order due to pollution) farm converted to cattle farm where indigenous cattle are maintained

2. Other units

a. Muvattupuzha – cattle breeding & semen supply coordination centre

b. Regional semen banks – for supply of frozen semen to AI (Artificial Insemination) centres - Kannur, Puthupaddy, Dhoni, Chalakudy, Muvattupuzha, Mavellikara, Kulathupuzha

c. Seed production units – production of seeds through farmers Chakkupallam (Idukki district), Palakkad

d. Progeny Testing units - Kattappana, Mavelikara, Vaikom

e. Training centres - Mattupetty, Dhoni, Kulathupuzha

6.0 Land resources – KLDB farms

Farms	Total area (ha)	Arable	Pastures	Afforested	Cash crop	Roads Buildings etc
Mattupatty	**210.15**	30.47	47.62	104.27	-	27.79
Kulathupuzha	**38.60**	17.00	-	7.60	8.00	6.00
Dhoni	**99.32**	63.00	8.00	8.32	8.00	12.00
Puthur	**39.67**	-	-	21.67	5.00	3.00
Total	**387.74**	**10.47**	**55.62**	**141.86**	**31.00**	**48.79**

7.0 Roughage production in farm units

Sl No	Name of farm	Total area (ha)	Total cropped area (ha)	Roughage producti (in DM)
1.	Mattupatty	210.15	78.09	1154.48
2.	Kulathupuzha	38.60	17.00	335.64
3.	Dhoni	99.32	71.00	1001.56
4.	Puthur	39.67	-	43.03
	Total	**387.74**	**166.09**	**2534.71**

Fodder Development Activities in the Board

Introduction

Forages are the main stay of a successful dairy enterprise. The Board gave equal importance for developing the forage resources in the breeding farms established. Forage varieties were introduced from different tropical geographical zones of the world and these varieties were put under test for their adaptation and adaptability in terms of yield, quality aspects, seed producing ability etc in different climatic zones in Kerala. Promising varieties were multiplied and disseminated for fodder development in the State making available quality planting materials in the form of seeds, seedlings, rooted slips, stem cuttings.

The agriculture wing of the Board functions with major responsibilities namely –

- Fodder production to meet the feeding requirement of animals in the Board farms
- Providing inputs – quality planting material of fodder varieties (seeds, seedlings, stem cuttings, rooted slips) for the fodder development programmes
- Undertaking R & D programmes in the field of fodder production
- Imparting training to technicians and farmers

Fodder production in farms

The Board farms – Mattupatty, Kulathupuzha, Dhoni & Puthur have a total extent of 387.74 ha of area and 42.8% of area is under fodder crops. The farms maintain high genetic value breeding stock of cattle, buffaloes and goats. The fodder production system established in these farms is oriented to meet the roughage requirement of the high valued stock through out the year. The system classifies into –

- Production & supply of green grass daily throughout the growing seasons
- Production of surplus green during the growing seasons
- Conserving the surplus green as silage & hay for lean seasons
- Sale of green grass & hay to farmers & institutions

A well defined cropping programme ensures utilisation of various forage crops established and utilisation of the land resources with other agriculture crops – cash crops, horti-crops for gardening and avenue trees as wind breakers with immense timber value.

Table Land utilisation in farms (in ha)

Unit	Total area	Arable	Pastures	Afforested	Cash crop	Roads / Buildings
Mattupatty	**210.15**	30.47	47.62	104.27	-	27.79
Kulathupuzha	**38.60**	17	-	7.6	8	6
Dhoni	**99.32**	63	8	8.32	8	12
Puthur	**39.67**	-	-	21.67	15	3
Total	**387.74**	**110.47**	**55.62**	**141.86**	**31**	**48.79**

Perennial forage crops – grasses, legumes including fodder trees dominate the cropping pattern in all the farms. The land utilisation for fodder production is through maintenance of arable land (leys) and grazing land (pastures). The Mattupatty farm has extensive natural and improved grasslands for grazing and hay making, while the Dhoni station has a limited area of introduced pasture for grazing. Kulathupuzha station, being an exclusive bull station, does not practice grazing and the fodder for daily feeding comes from leys. The animals are fed with green grass, legumes and hay during the flush season. The flush season lasts for about eight months. The surplus green available during the flush season is preserved in the form of silage to be used for dry season feeding. The animals (except breeding bulls) are also let out for grazing in the pasture.

Mattupatty farm comprises of 210.15 ha of area with undulating terrains. The hilltops have been maintained as natural grasslands and developed into productive pastures which are used for grazing. The valley bottoms have been converted by providing subsoil and open drainages into arable lands where perennial grasses and legumes are intensively cultivated. Eucalyptus trees have been planted all along the farm down the slopes as wind breakers. The natural grasslands at Mattupatty have unique grass combinations. The major species found are *Ischaemum indicum, Themeda tremula / triandra, Heteropogon contortus, Chrysopogon asper*, etc. which are well adapted to the local environment. Introduced grasslands have high producing adapted varieties of grasses and legumes introduced through seeding techniques without tilting the soil. The introduced species – *Setaria anceps* cvs Kazungula, Nandi, *Melinis minutiflora, Chloris gayana* cvs Mbarara, Masabha, *Brachiaria ruziziensis / decumbens, Desmodium uncinatum / intortum, Macrotyloma axillare* etc got established with the improvement in soil fertility. Utmost care is taken by way of controlled grazing, timely weeding and application of fertilizer to maintain the grass combinations and their productivity.

The arable land (leys) in the farm is used for grass production which are harvested and fed in the sheds daily. The crops in arable land comprises of *Pennisetum cladestenium* (kikuyu) *Setaria anceps* cvs Kazungula, Nandi, Narok, Solander, *Brachiaria ruziziensis / decumbens,* Hybrid Napier CO3, *Trifolium repens* (white clover), *Trifolium semipilosum* (Kenya white clover), Tall Fescue, Rye grass etc. Sprinkler irrigation is provided during summer months utilising the limited water resources for production of green and to keep alive the crops. Dung and urine along with shed washings are recycled from the sheds to the leys in the form of slurry thereby reducing the use of inorganic fertilizers. This also acts as an eco friendly way of effluent disposal. Surplus production of green grass available in the leys during the 1st monsoon is conserved as silage which form the bulk succulent roughage feed for the cattle during the summer months. Large quantity of silage is made from mixture of tropical grasses in all the farms of the Board.

Dhoni farm of the Board situated in the hot region with an extent of 99.32 ha has leys with perennial high yielding tropical grasses, legumes and fodder trees. The farm rears cattle (bulls, cows, growing stock) and goats of different breeds. The arable land is extensively cultivated for production of fodder for daily feeding of the animals, for conserving as silage and hay. The crops in the arable land comprises of *Brachiaria ruziziensis* (congosignal) / *Brachiaria decumbens* (signal), Hybrid Napier CO3, *Panicum maximum* cv Riversdale (guinea), *Stylosanthes guianensis* cv Schofield (stylo), *Stylosanthes hamata* cv Verano (Stylo hamata), *Stylosanthes scabra* cv Fitzroy (shrubby stylo), *Leucaena leucocephala* cv Cunningham, K8 (Subabul). The grazing land in the farm comprises mainly of *Brachiaria* species.

Kulathupuzha farm situated in the wet tropics is exclusively a bull station for production and supply of frozen semen. This farm is small with an area of 38.60 ha out of which 17 ha is under forage crops which are extensively cultivated for daily shed feeding and conservation. Grazing is not practiced in this farm. Crops similar to Dhoni farm are established in these farms.

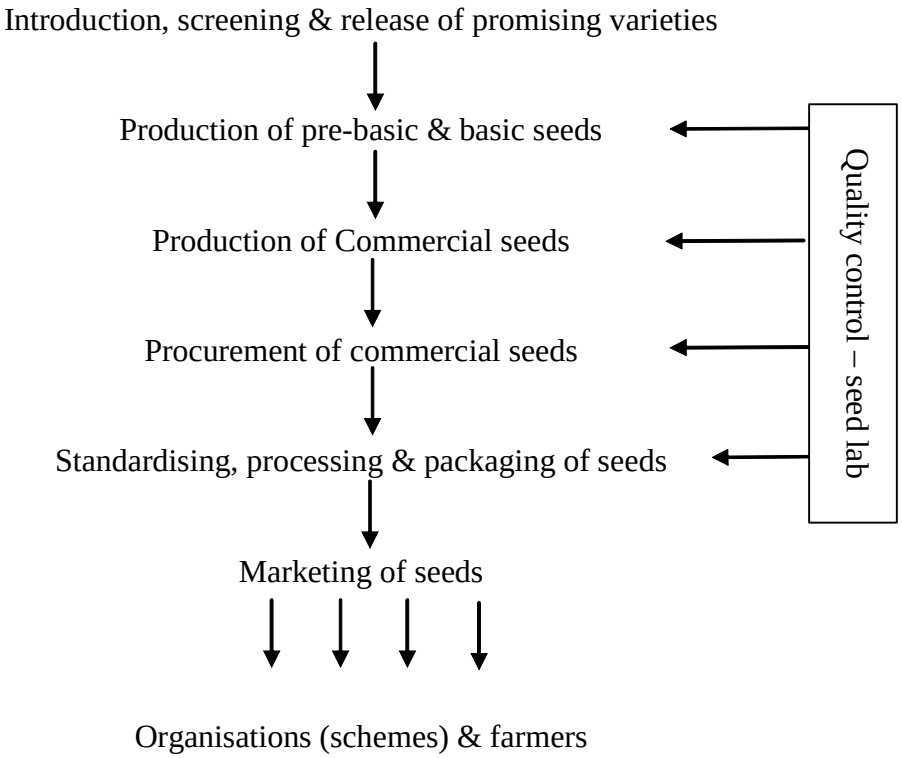
Table Dry matter production in farm units 2008 – 09 (MT)

Farms	Dry matter production (MT)
Mattupatty	1154.48
Dhoni	1001.56
Kulathupuzha	335.64
Puthur farm	43.03
Total	**2534.71**

Fodder Seed Programme

Planting materials in the form of seeds and vegetative materials are available with the Board. A system of seed production of seeds of perennial grasses and legumes had been fully developed for production of foundation seeds maintaining genetic purity of the plants in the Seed Farm of the Board located at Dhoni Unit. Commercial (bulk) multiplication of seeds is carried out through farmers (registered seed growers) – mainly in Idukki and Palakkad districts. This activity is in vogue since 1983 and has become very popular among the farmers as it generates additional income for the farmers besides supplying Seeds produced by the farmers with technical guidance from KLDB are procured based on quality tests mainly on purity and germination. Procured seeds are further processed, standardised and packaged in the Central seed store of the Board for sale to farmers through various schemes of Departments / institutions.

Seed System of the Board



Tested Fodder Seeds of grasses, legume, fodder trees and cereal crops like Maize, Sorghum which are Truthfully Labeled (TFL) and quality vegetative planting materials of grasses are also directly sold to farmers from Dhoni unit apart from distribution through Government schemes.

Fodder Seed Units of KLDB

KLD Board has established a fodder seed unit at Dhoni, Palakkad on international standards for production and supply of true to type planting materials (seeds, rooted slips, stem cuttings, seedlings) of varieties found successful for Kerala conditions. The seed unit comprises of a Seed farm for production of pre- basic and basic seeds, a fodder seed testing laboratory for quality evaluation, a central store for processing seed production units in Idukki and Palakkad for bulk multiplication through farmers.

Fodder seed farm, Dhoni

The seed farm at Dhoni was established in 1983 with the objective to multiply the promising varieties of grasses and legumes without loosing their true to type characters. Foundation seeds – pre-basic and basic are generated in the seed farm. Bulk production of seeds is carried out through registered seed growers (farmers) in selected Districts. The farm has an area of about 10 to 12 ha and standard isolation procedures are followed to prevent cross pollination and mixing of varieties. During 2008 – 09 the seed farm produced foundation seeds of varieties of 5 grasses, 8 legumes and 3 fodder trees. Besides the farm multiplied grass varieties that do not produce seeds. Stem cuttings of Hybrid Napier CO3 – 44.74 lakhs and rooted slips of Riversdale Guinea – 3.92 lakhs were produced and sold to farmers directly and through departments.

Fodder seed testing laboratory

A laboratory on international standards for conducting various tests on quality of forage seeds being handled by the Board. ISTA rules (International Seed Testing Association) are followed for various test conducted in the laboratory. This laboratory is first of its kind in the country for testing of small sized perennial grasses and legumes seeds. The laboratory has been declared by the State Government as the State Seed Testing Laboratory for Forage Seeds as per the Seed Act 1966. All forage seed samples received in the laboratory are tested for moisture content, purity, germination, viability following the approved standard international seed testing procedures.

Table Seeds samples tested during 2008-09

Particulars	Numbers
Seeds samples received	111
Seeds samples tested	111
Samples accepted	102
Samples rejected	9

Forage seeds processing and storage unit

The Forage seeds processing and storage unit is located at Dhoni, Palakkad with capacity to handle about 125 MT of different kinds of forage seeds and the unit is equipped with modern machineries for processing the seeds and for long storage of seeds without loosing viability. Forage seeds produced in the seed farm and through registered seed growers are processed and standardised in the central store. These standardised seeds are tested for quality at every stage of processing and the final product is despatched with quality labels indicating the purity %, germination %, date of expiry of the seeds, cultivation practices of the crop etc. During 2008 – 09 the Board has sold 45.43 MT of fodder seeds of grasses, legumes and annuals to farmers directly and through various fodder development schemes. Under the Central Minikit Testing Programme of Government of India the Board supplied 31.00 MT of seeds of grasses, legumes, annuals during the Kharif and 11.25 MT of seeds to 10 states in the country during Rabi seasons.

Fodder Seed Production Units in Idukki & Palakkad

The foundation seeds produced in the fodder seed farm is bulk multiplied as commercial seeds through selected registered seed growers (farmers) in Idukki & Palakkad Districts. Over 750 farmers are involved in the multiplication programme which is carried out under the technical guidance of the Board. The seeds are procured at a pre announced cost following strict quality control procedures as per the prescribed norms in the Seed Act. During 2008 – 09 about 6.97 MT of grass seeds were produced through 600 farmers which were supplied to different States in India under the Government of India programmes.

R&D on forage crops and its utilisation

KLDB, right from its inception, has been conducting applied and practical oriented research programmes on various forage crops – screening trials at multi locations, management trials including adaptive trials, seed production, conservation of forages, analysis of nutrient contents in the field and at manger (cattle sheds) level.

Noteworthy research works carried out and successfully implemented by the Board are :

a. Rejuvenation of grasslands without tillage through introduction of promising perennial tropical and subtropical grasses and legumes selected from the screening and management trials conducted in different farms of the Board.

b. A cropping system has been developed for fodder production through out the year using perennial grasses and legumes. The system has been successfully implemented in all the farms of the Board. The system includes grazing management, soilage and production of surplus forage and conservation as silage and hay, irrigation management etc.

c. Ley farming with perennial grasses and legumes were successfully developed. The first tropical ley was established in Kulathupuzha farm.

d. Release of promising grasses and legumes for large scale cultivation by farmers in Kerala – Congosignal, Ruzi, Guinea Makueni, Guinea Riversdale, Hybrid Napier CO 1, CO2, CO3 , Stylo hamata, Stylo, Centro etc

e. Application of grasses for soil conservation, fodder production, seed production and hay production was successfully implemented in Idukki district in farmers premises.

f. Production of grass seeds on a large scale through farmers was successfully implemented.

g. Quality testing and certification of grass and legume seeds were standardised in the Seed-testing laboratory of the Board – first of its kind in India for tropical small seeds.

h. Effective utilization of slurry (shed washings & urine) for fodder production.

During the year studies were conducted on newly introduced varieties of grasses and legumes namely Guinea grass variety TD 50, Hybrid Napier variety Killikullam–1 (KKM-1), Setaria grass variety PSS-1, Fodder cowpea variety CO-5, Lucerne variety Anand–2.

Fodder varieties of KLDB

The Board has collected a large number of varieties of grasses and legumes from different geographical zones and studied their performance in different climatic region in Kerala. Promising varieties have been released making available the planting materials to farmers in time.

A number of varieties of fodder crops have been found suitable and promising for variable Kerala conditions – topography, climate. These varieties also have been found to perform well under different management regime and cropping systems followed in Kerala. Some of these forages can be grown under fully shade condition, partial shade conditions, in wet land conditions, water logged areas, in sloppy areas, coastal sandy areas, hot low lands etc. Some of the varieties are also adapted to be grown under coconut trees, in rubber plantation, wet paddy fields, as embankment to water canal, to control soil erosion etc. In Idukki district more than 2400 km of earthern bunds in sloppy lands have been covered with Congosignal grass and more than 1000 farmers are beneficiaries. These live earthern bunds apart from conserving soil are generating green fodder for feeding the cattle, produce fodder seeds and hay which brings in additional income to the farmers.

Perennial fodder varieties selected & released by KLD Board for different climatic zones

Sl No	Type of variety	Name of variety	
		Common name	**Scientific name**
1	Grasses	Congosignal	**Brachiaria ruziziensis**
		Signal	*Brachiaria decumbens*
		Humidicola	*Brachiaria humidicola*
		Para	*Brachiaria mutica*
		Palisade	*Brachiaria brizantha*
		Gamba grass	*Andropogon gayanus*
		Guinea TD 50	*Panicum maximum cv TD 50*
		Guinea Makueni	*Panicum maximum cv Makueni*
		Guinea Local	*Panicum maximum - Local*
		Guinea Riversdale	*Panicum maximum cv Riversdale*
		Guinea Markarikari	*Panicum markarikari*
		Setaria Narok	*Setaria anceps cv Narok*
		Setaria solander	*Setaria anceps cv Solander*
		Setaria splendida	*Setaria anceps cv Splendida*
		Setaria nandi	*Setaria anceps cv Nandi*
		Setaria kazungula	*Setaria anceps cv Kazungula*
		Hybrid Napier CO3	*Pennisetum americana X Pennisetum purpureum cv C03*
		Molasses	*Melinis minutiflora*

2	Legumes	Stylo hamata	*Stylosanthes hamata*
		Stylo scabra	*Stylosanthes scabra*
		Centro macrocarpum	*Centrosema macrocarpum*
		Centro pascorum	*Centrosema pascorum*
		Stylo - schoefield	*Stylosanthes guianensis*
		Stylo – CIAT 136	*Stylosanthes guianensis*
		Lab lab	*Dolichos lablab*
		Cowpea – EC 4216	*Vigna sinensis*
		Phasey bean	*Macroptilium lathyroides*
		Green leaf desmodium	*Desmodium intortum*
		Silver leaf desmodium	*Desmodium uncinatum*
		Axillaris	*Macrotyloma axillarea*
3	Fodder Trees	**Subabul K8**	*Leucaena leucocephala cv K8*
		Subabul cunningham	*Leucaena leucocephala cv cunningham*

Advantage of the fodder varieties of KLDB

a. Cropping with perennial grasses and legumes identified by the Board aids in continuous production of fodder through out the year. Everyday fodder will be available for feeding unlike cropping with seasonal crops like Maize, Jowar etc where fodder for feeding is available only for a very short period when the crop matures. For example Maize crop takes 60 to 65 days to mature for harvest and fodder for feeding is available only after 60 days to may be for another 10 days. Continuous cropping is not possible as this crop is season specific. The crop is ideal for production of surplus growth during the favourable growth period and successfully conserved as silage. But the cost of cultivation will be very high as land has be prepared every time a new crop has to be established and labour intensive.

b. Cost of cultivation is low when perennial varieties are used as the crop once established will remain in production for 6 to 7 years. The production can be regulated through fertilizer management and cutting management.

c. These varieties once established will control weed growth, protects the soil from run off, aids in water infiltration, builds soil fertility through leaf fall and increased microbial activity, conserves moisture.

d. Direct feeding is possible with these varieties unlike maize, hybrid napier, jowar which requires chopping.

e. Perennial crops can be harvested and utilized at any stage of growth and the entire plant is fully eaten by the livestock.

f. Ideal for cropping under Kerala climatic conditions where intensity of cropping is very high.

g. These varieties can be successfully conserved as silage and hay for summer feeding.

h. Can be successfully established with seeds. The entire crops in all KLDB farms were established with seeds. The farmers in Idukki and Palakkad under the Western Ghats Development programme, Milma Key Village Scheme and fodder seed production programmes have established with seeds produced & supplied by the Board.

i. Varieties selected by the Board are free from diseases and insect pest attacks.

Table Annual Production of fodder in farms in dry matter – from 2002-03 on wards :

Farms	Year	Green grass	Silage	Hay	Total
Mattupatty	2002-03	768.53	142.28	54.61	965.42
	2003-04	847.65	137.05	165.81	1150.51
	2004-05	843.45	132.48	150.65	1126.58
	2005-06	841.92	146.62	161.78	1150.33
	2006-07	839.51	161.30	145.40	1146.21
	2007-08	869.62	131.78	150.75	1152.15
	2008-09	877.24	144.44	132.80	1154.48
Kulathupuzha	2002-03	277.77	17.20	60.00	354.97
	2003-04	212.83	17.64	56.00	286.47
	2004-05	241.90	17.83	51.93	311.66
	2005-06	243.22	17.09	41.30	301.61
	2006-07	279.27	16.00	24.60	319.87
	2007-08	260.76	17.49	59.41	337.65
	2008-09	244.10	16.20	75.34	335.64
Dhoni	2002-03	702.63	74.93	246.17	1023.73
	2003-04	549.72	73.60	246.68	869.90
	2004-05	520.64	78.20	242.71	841.55
	2005-06	600.91	77.04	222.57	900.52
	2006-07	643.75	82.17	240.41	966.33
	2007-08	716.50	83.74	262.98	1052.22
	2008-09	680.91	84.43	236.22	1001.56

Fodder scheme implemented by the Board

The Board is implementing various development schemes with assistance from Government of Kerala & Government of India. The schemes being implemented are

1.0 State Plan Scheme –

a. Assistance for conducting R&D on fodder and Fodder Seed Production – Rs 15/- lakhs – 2008-09
b. Kudumbasree linked forage centres – Rs 25/- lakhs – 2008-09

2.0 Central Scheme –

a. Supply of fodder seeds under Central Minikit Seed Testing Programme – Rs 42.43/- lakhs. 2008-09
b. Grass land development including grass reserves (National Fodder Development Programme) – Rs 88.00 lakhs – 100% CSS – 2007–08
c. Fodder seed production and distribution - (National Fodder Development Programme) – Rs 60.00 lakhs – 75% CSS – 2007–08
d Establishment of fodder block making and Fodder Pelleting unit (Special Livestock & Fishing package (SLFP) – Vidharbha package) – Rs 85.00 lakhs – 100% CSS – 2008–09

3.0 Board Scheme –

a. Establishment of fodder crops in progeny testing at Kattapana, Idukki district – Rs 3.00 lakhs – 2008-09

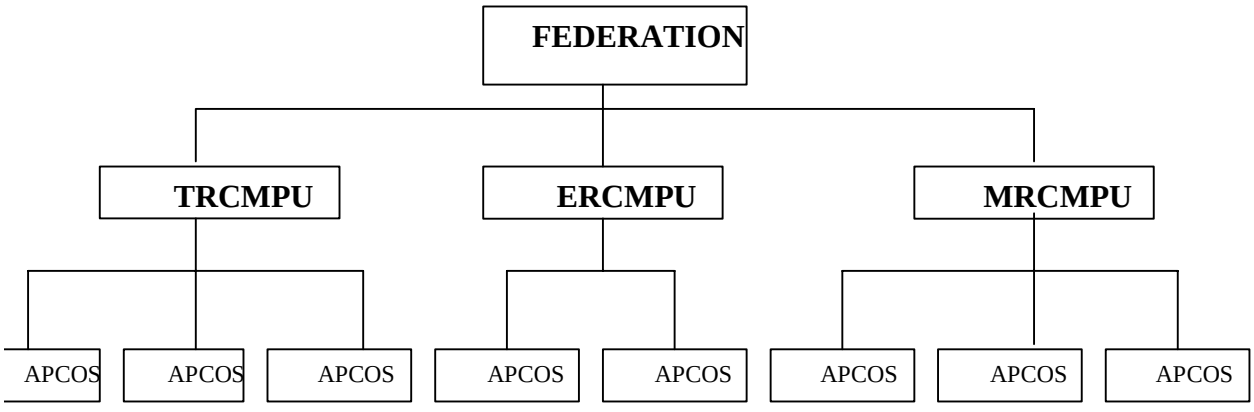
KERALA CO-OPERATIVE MILK MARKETING FEDERATION - STATUS PAPER

Milma is a pious by word for milk in Kerala. Cattle rearing and milk production has a long tradition and it is here from time immemorial. Kerala Co-operative Milk Marketing Federation Limited is the biggest co-operative organization of the state, with an annual turn over exceeding Rs.1018/- crores (in 2008-09) annually. Owned fully by the dairy farmers, ***Milma*** as a brand is matchless in its popularity among all sections of the Kerala society. But some studies reveal that most of its over a million customers have a poor awareness about its co-operative structure and ownership and commitment to farmer welfare.

History of milk co-operative in Kerala dates back to 1939. Kudos for organizing the same belongs to Calicut milk union and they commenced the same when many of the present day 'milky' states not even thought about giving shape to such a venture. ***Milma*** still maintains its proud producer friendly culture by providing 82 Paise to the farmers from every rupee collected as cost of milk. A national first among all the milk unions in the country! KCMMF apex body of three regional co-operatives union systems came into existence in 1981. The glittering brand name 'Milma' is inherited from erstwhile Kerala Livestock Development and milk marketing Board a state owned body. Further KCMMF has done a great effort to make it a brand of ***love and quality.***

Prior to the same after a series of discussions Kerala Government decided that 'Operation Flood' II would be extended to Kerala and based on the same and an agreement was signed between Government and Indian Dairy Corporation wide Agriculture (Animal Husbandry) Department GO (P) No 183/79/AD Trivandrum on 27th April 1979. Though KCMMF was established in 1980 procurement and input activities started in 1981. The field level actions too commenced in 1981. The commercial activities of former KLD and MM Board was totally taken over in 1983.

THE STURCTURE OF THE ORGANISATION



The Management

The KCMMF was among the first Federation in India to have an elected Board. Thiruvananthapuram Regional Co-operative Milk Producers' Union (TRCMPU) and Eranakulam Regional Co-operative Milk Producers' Union (ERCMPU) were formed in 1985 followed by Malabar Regional Co-operative Milk Producers' Union (MRCMPU) in 1989. The Board takes all policy level decision and Milma is one of the few co-operatives run successfully on democratic principles. All the Regional Milk Unions have elected active members of the Board, thus ensuring that it is truly an Organization of the producers, run by the producers and functioning for the producers.

Growth of Anand pattern co-operative societies (APCOS)

The first APCOS was registered on 30.09.1981. The number of APCOS has touched 2702 throughout the State presenting an impressive growth.

Number of Farmers

The success of the primary milk Co-operatives is also reflected in the growth of membership in these societies. The membership as on March 2007 stood at 7.78 lakhs. The Regional Milk Unions procured daily on an average 7.95 lakh litres per day during the 2007-08 as against 7.48 lakh litres during 2005-2006.

➢ MANAGEMENT

- The first Board of Directors of Milma consisted of nominees from among the Presidents of the Primary milk co-operatives (APCOS) and officials from the Government. A fully democratic structure was set up in place with election being held for the Board of Directors in 1986. The KCMMF was among the first Federations in India to have an elected Board.
- Formation of the Trivandrum and Eranakulam Regional Milk Producers' Unions (TRCMPU, covering Trivandrum, Kollam, Pathanamthitta and Alappuzha districts and ERCMPU, covering Kottayam, Idukku, Eranakulam and Thrissur districts) took place in 1985 and 1986 respectively. Subsequently North Kerala Dairy Project (NKDP) was taken up covering the six northern districts of Kerala beyond Thrissur with the financial assistance from Swiss Government.
- A third milk union was formed in Malabar area named Malabar Regional Co-operative Milk Producers Union (MRCMPU, covering Palakkad, Malappuram, Kozhikod, Wayanad, Kannur and Kasargod districts) in 1989 for the producers.

➢ APCOS

On the lines of the ANAND PATTERN the organization structure of the Federation was decentralized and democratized in 1987. Three regional milk producers Unions were set up in the state. Kerala led the country in being the first state to have a fully functional, democratic organizational setup.

Organizational Structure:

The ANAND Pattern is a three-tier structure consisting of

i) Village level Primary level Co-operative Societies called APCOS (Anand Pattern Co-operative Societies):

ii) Regional Co-operative Milk Producers' Unions (TRCMPU, ERCMPU & MRCMPU) at Trivandrum, Eranakulam& Calicut); and

iii) State level Milk Marketing Federation. (KCMMF)

The Board of Directors of the Regional Unions consist of elected representatives from among the Presidents of the APCOS in the region, the representatives from the Government, NDDB and the Federation. The Chairman of the Union is elected from among the producer members.

The Board of Directors of the Federation consists of the nominated representatives from the Regional Unions, Government, and NDDB. The Chairman of the Federation is elected from among the producer members of the Board.

➢ Membership types voting rights.

Eligibility to vote and contest for the election to the managing committee of a primary co-operative society. (Vide clause No. 3-3-B(ii) and 5-2 (vii) of the bye law of primary societies

- The member should have poured a minimum quantity of 500 litres of milk or for a minimum period of 180 days during the previous year.

Eligibility to contest in the election to the board of the Regional Milk Union.

- The primary co-operative should pour a minimum of 200 litres of milk per day average to the Milk Union during the year to become eligible to contest in the election to the Board of the Union.

➢ KCMMF Board of Directors

(As on date)

- **Sri. P.T. Goplala Kurup** - Chairman
- **Sri. P.P. Gopinatha Pillai** - Chairman, MRCMPU Ltd.
- **Sri. Kallada Ramesh** - Chairman, TRCMPU Ltd.
- **Sri. M.T. Jayan** - Chairman, ERCMPU Ltd.
- **Sri. K. Raamamoorthy IAS** - Addl. Chief Secretary

- **Sri. Sanjeeb Patjoshi IPS** - Managing Director
- **Sri. S. Ayyappan Nair** - Representative, TRCMPU Ltd.
- **Sri. S. Sadasivan Pillai** - Representative, TRCMPU Ltd.
- **Sri. P.A. Balan Master** - Representative, ERCMPU Ltd.
- **Sri. P.S. Sebastian** - Representative, ERCMPU Ltd.
- **Shri. K.N. Mohanan** - Representative, MRCMPU Ltd.
- **Shri. B.S. Khanna** - General Manager, NDDB Bangalore
- **Shri. Shajan K Alex** - Director of Dairy Development Dept.
- **Shri. M.P.Ravikumar**, - Jt. Secretary, Finance Dept.

➢ SHARE CAPITAL

❖ KCMMF LTD

The authorized share capital of the Federation is Rs. 500 lakhs. The paid up share capital of KCMMF stood at Rs. 211.69 lakhs as on 31.03.2008 as against the authorized share capital of Rs. 500.00 lakhs. Of this TRCMPU, ERCMPU and MRCMPU hold Rs. 78.69 Lakhs, Rs. 30.67 Lakhs and Rs. 102.33 Lakhs respectively.

❖ TRCMPU LTD

The paid up share capital of TRCMPU Ltd. was Rs. 502 lakhs against the authorized share capital of Rs. 1000 lakhs. TRCMPU holds shares worth Rs. 78.69 lakhs in KCMMF Ltd. and Rs. 30.00 lakhs in Kerala Feeds Ltd.

❖ ERCMPU LTD

The paid up share capital of ERCMPU Ltd. was Rs.191 lakhs against the authorized share capital of Rs.500.00 lakhs. ERCMPU holds shares worth Rs. 30.67 lakhs in KCMMF Ltd. and Rs. 30.00 lakhs in Kerala Feeds Ltd.

❖ MRCMPU

The paid up share capital of MRCMPU Ltd. was Rs. 505 lakhs against the authorized share capital of Rs. 1000 lakhs. MRCMPU holds shares worth Rs. 102.3378.69 lakhs in KCMMF Ltd. and Rs. 30.00 lakhs in Kerala Feeds Ltd.

➢ PROGRAMMING COMMITTEE

State level planning is done through a common platform called the 'Programming Committee', as per bylaw of the Federation, which is convened at the Federation level once a month. This committee consists of the Chairmen and Managing Directors of the Federation and the three Regional Milk Unions and the senior officers of the Federation. This committee evolves strategies to meet the problems related to lean-flush management etc. all major operational decisions like recommendations for pricing of milk and milk products etc.

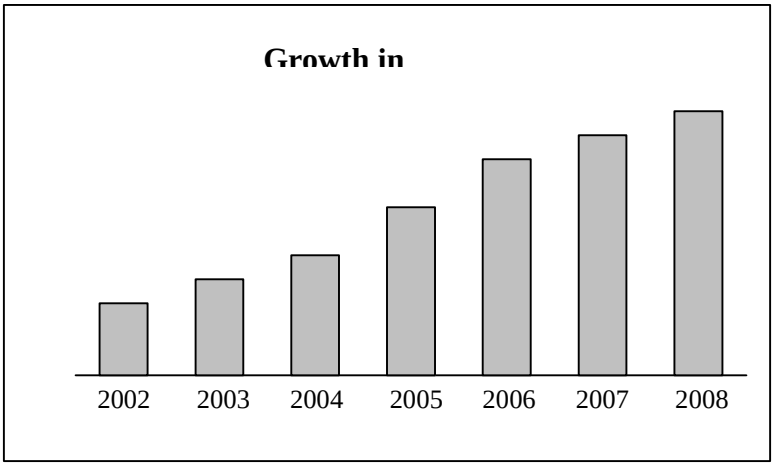
➢ PURCHASE COMMITTEE

Purchase of dairy consumables and cattle feed commodities is centralized to take advantage of bulk transactions. The purchase committee carries this out successfully. Over the years, we have developed a loyal vendor base. This has ensured regular supply of quality materials at competitive price. We could also improve and innovate key inputs like co-extruded printed film, which resulted in substantial savings. We could manage the cost of raw materials well below 75% of the selling price of cattle feed, which is a new benchmark complimenting competitiveness of purchase.

➢ PROJECTS AND PROCESSING INFRASTRUCTURE

The Kerala Co-operative Milk Marketing Federation Ltd implements the new projects and the expansion projects for all the Units under KCMMF and Regional Milk Producers Unions. Unlike other States in India, Kerala was the only State where the engineering project execution was taken up by the State Federation directly right from the inception with NDDB as Technical Consultants. A project section was formed under KCMMF with Engineers from different disciplines. The implementation of the Engineering Projects under Operation Flood in the Southern Districts of Kerala and under the Swiss Aided Dairy Development Programme in North Kerala were taken up directly by the Federation. The milk processing capacity available with the Federation was only 1.38 lakhs litres per day in 1983 and as on today it has reached about 10.25 lakhs litres per day. Chilling capacity is 30200 litres per day.

MILK PROCUREMENT AND APCOS



NUMBER OF APCOS

The total number of APCOS now functioning as on 31.03.2008 (both affiliated and non affiliated in our milk unions are given below:-

✓ **TRCMPU LTD**.

The total number of affiliated APCOS during the year 2007-08 was 659 Nos in comparison to 654 Nos in 2006-07. The district wise spread of APCOS in TRCMPU Ltd is given under.

District	No. of APCOS
Trivandrum	220
Kollam	165
Alleppey	164
Pathanamthitta	110
Total	**659**

✓ **ERCMPU LTD**.

The total number of affiliated APCOS during the year 2007-08 was 778 Nos in comparison to 776 Nos in 2006-07. The district wise spread of APCOS in ERCMPU Ltd is given under.

District	No. of APCOS
Eranakulam	281
Kottayam	171
Trichur	188
Idukki	138
Total	**778**

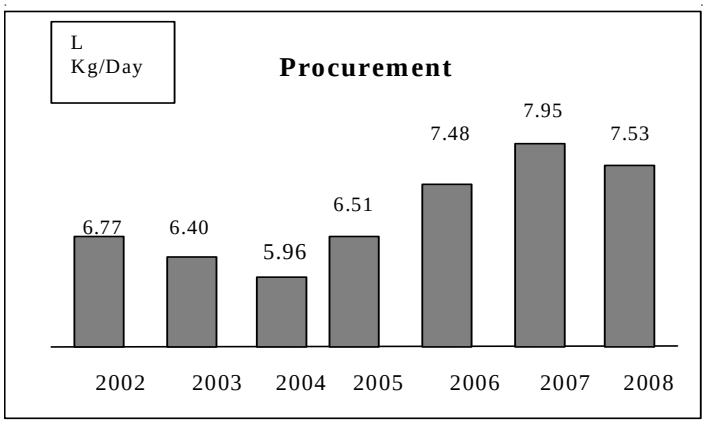
✓ **MRCMPU LTD**.

The total number of affiliated APCOS during the year 2007-08 was 715 Nos in comparison to 626 Nos in 2006-07. The district wise spread of APCOS in MRCMPU Ltd is given under.

District	No. of APCOS
Palakkad	228
Malapuram	117
Kozhikode	144
Wyanad	51
Kannur	101
Kasaragode	74
Total	**715**

➢ MILK PROCUREMENT

The Milk availability across the country showed grim trend and the procurement in Milma milk unions also indicates a decline.



While the milk procurement in MRCMPU Ltd. showed a ***marginal decrease***, the procurement in both Trivandrum and Eranakulam Milk Unions ***declined drastically***. Member Unions procured a total quantity of 2.7 lakh Tonnes of milk this year as compared to

2.9 lakh Tonnes of milk in 2006-2007. The graph showing the growth in milk procurement in the state is given above.

The details of milk procure of by our affiliated Regional Milk Unions are given under:

✓ **TRCMPU LTD**

The average milk procurement per day in Trivandrum Regional Milk Union in the year was 237 Tonnes compared to 259 Tonnes in 2006-07 showing decline of 8.5%. The details of district wise milk collection in the Union are given under.

District	Procurement / Kg Day		
	2006-07	2007-08	% Diff
Trivandrum	115871	107868	-6.9%
Kollam	56157	50939	-9.3%
Alleppey	61175	56909	-6.9%
Pathanamthitta	26196	21675	-17.3%
Total	**259399**	**237391**	**-8.5%**

✓ **ERCMPU LTD**

The average milk procurement per day in Eranakulam Regional Milk Union in the year was 196 Tonnes compared to 225 Tonnes in 2006-07 showing decline of 12.70%. The details of district wise milk collection in the Union are given under.

District	Procurement / Kg Day		
	2006-07	2007-08	% Diff
Eranakulam	71828	58443	-18.6%
Kottayam	37763	33139	-12.2%
Trichur	30520	24730	-18.9%
Idukki	84941	80148	-5.6%
Total	**225052**	**196460**	**-12.7%**

✓ MRCMPU LTD

The average milk procurement per day in Malabar Regional Milk Union in the year was 320 Tonnes compared to 325 Tonnes in 2006-07 showing decline of 1%. The details of district wise milk collection in the Union are given under.

District	Procurement / Kg Day		
	2006-07	2007-08	% Diff
Palakkad	1,06,337	1,02,704	-3%
Malapuram	18,376	17,464	-5%
Kozhikode	46,934	45,758	-3%
Wayanad	1,05,915	102,732	-3%
Kannur	31,304	32,097	3%
Kasaragode	16,170	19,446	20%
Total	**3,25,036**	**102,732**	**-1.5%**

✓ **MILK PRICE**

The selling price of milk in the state was increased four times from the year 2007 and the details of the same is given under:

Increase in selling price/Ltr	**Re.1.00 (w.e.f. 11.02.07)**	**Re.1.oo (w.e.f. 13.11.07)**	**Rs.2.00 (w.e.f. 12.02.07)**	**Re.1.00 (w.e.f. 03.10.2008)**
To Farmers	Rs.0.75	Rs.0.58	Rs.1.50	Rs.0.90
To Society	Rs.0.02	Rs.0.05	Rs.0.05	Rs.0.00
To Agency	Rs.0.05	Rs.0.05	Rs.0.08	Rs.0.04
To Welfare Measures (Pension)	Rs.0.04	Rs.0.02	Rs.0.09	Rs.0.00
To Milma	Rs.0.14	Rs.0.30	Rs.0.28	Rs.0.00
To Cattle Feed Price intervention Fund				Rs.0.06
TOTAL	**Re.1.00**	**Re.1.00**	**Rs.2.00**	**Re.1.00**

➢ MARKETTING

Milk Sales

The general milk availability has affected the growth in milk sales in our milk unions. In spite of the restrictions in expanding the market, the milk sales in our milk unions have shown a marginal increase in the current financial year. Our member Unions sold a total quantity of 3.4 Lakh Tonnes of milk this year as compared to 3.2 Lakh Tonnes of milk in 2006 – 2007.

The growth in milk sales at Regional Milk Unions is given in the graph given above.

The details of milk sales in our milk unions is given below

TRCMPU Ltd.

The average milk sales in TRCMPU Ltd. stood at *4.02 Lakhs ltrs. per day* compared to 4.07 lakh ltrs. per day in the year 2006 – 2007 showing a decline of 1.25%.

ERCMPU Ltd.

The average milk sales in ERCMPU Ltd. stood at 2.45 lakhs ltrs. per day compared to 2.41 lakh ltrs. per day in the year 2006 – 2007 showing an increase of 1.9%.

MRCMPU Ltd.

The average milk sales in MRCMPU Ltd. stood at 3.02 lakhs litrs. per day compared to 2.77 lakh ltrs. per day in the year 2006 – 2007 showing an increase of 9%.

➢ HUMAN RESOURCES

The total number of permanent employees working in the Federation and the Union is as below:

KCMMF Ltd.		369 Nos
TRCMPU Ltd.		525 Nos
ERCMPU Ltd.		419 Nos
MRCMPU Ltd.		521 Nos
	TOTAL	1834 No

➢ ACTIVITIES

While receiving milk at primary dairy co-operatives (Apcos) itself, the milk is tested for various quality parameters. To enables the primary dairy co-operatives to test the milk sample all facilities including Milko-testers, are provided at societies level. The society staff is also being trained for sampling and analysis of milk sample. The producers are paid milk value based on the quality of milk procured by them. The payment is effected once in ten days.

- While receiving the milk from primary dairy co-operatives at dairies under Milma, again individual samples are subjected for quality testing. Unhygienic milk, adulterated milk etc. are detected at dairy level and rejected at reception point in the dairy. At all these dairies sufficient facilities have been created for elaborate quality control analysis of milk samples.

- The milk so collected from primary dairy co-operatives is subjected to the standardization process by which FAT and SNF content of milk is ensured in accordance with the PFA Act. After standardization process the milk is subjected to pasteurization process for ensuring the complete detection pf pathogenic micro-organism and to ensure safety of milk.

- After processing/pasteurization again including bacteriological analysis. Only after satisfying the quality standard in accordance with the PFA standards as well as ISI specification of bacteriological standard, the milk is packed in food grade quality polythene cover. The milk packed in sachet is stored under cooled condition for ensuring the keeping quality of milk.

- Before the milk is dispatched to consumers, again random samples are collected for testing various quality parameters.

In addition to our own quality control systems, samples are also being sent to nearest Government Analyst Laboratories by all dairies as a counter check measure. The Government Analyst Laboratories are regularly testing the milk sample and forwarding the test results to our dairies. In order to ensure the quality and safety of milk the personnel working in the dairies are also medically examined every year. Milma is following strict quality control measures for ensuring the quality of milk and safety of consumers.

In the light of the WTO implication, Milma has also undertaken steps for further improving the quality through total quality management system with the financial and technical assistance from NDDB.

The two feed plants under KCMMF are well equipped with modern laboratories for testing the various raw material ingredients as well as finished Cattle Feed.

➢ BALANCED CATTLE FEED

As a part of the input Programme, Milma manufactures and offers good quality balanced cattle feed to its members at reasonable rates. There is a high level of acceptability for this feed in the market and it is a matter of pride that we have competed successfully with the established brand names and carved out a niche for ourselves in the market.

There are two cattle feed plants operating under the KCMMF one at Malampuzha in Palakkad District (300 MTD capacity) and the other at Pattanakkad in Allappuzha District (300 MTD capacity). The production and sales figures from the year 2002 to 2008 is indicated below:

Year	Production	Sales
2002-2003	109411	107732
2003-2004	108914	107017
2004-2005	110803	110812
2005-2006	117436	119542
2006-2007	117981	117482
2007-2008	114255	114367

➢ MILMA PRODUCTS

- ♦ Pasteurized Milk (Toned, Double Toned etc.)
- ♦ Ghee
- ♦ Butter
- ♦ Ice-cream
- ♦ Curd
- ♦ Butter Milk
- ♦ Flavoured Milk
- ♦ Mango juice
- ♦ Peda
- ♦ Srikhand
- ♦ Sweet curd
- ♦ Sugar free ice-cream
- ♦ Dairy Whitener
- ♦ Cattle Feeds
- ♦ Mineral Mixture
- ♦ Packaged Drinking Water
- ♦ Fruit Beverage
- ♦ Brahmitone
- ♦ Paladamix

➢ SOME OF THE MAJOR PROBLEMS AFFECTING MILMA

- ♦ Declining Cattle Population
- ♦ Low milk yield of cattle
- ♦ Declining Milk Production
- ♦ Increasing cost of production
- ♦ Thrust for cash crops residence
- ♦ Diminishing land holdings

- Lack of interest in dairying among the younger fooder relegate generation
- Quality of raw milk and cream milk
- Increasing cost or procurement
- Formation of APCOS
- Burgeoning labour cost
- Flow of cheaper milk from outside
- Competitors mushrooming
- Highest milk price to producers
- Widening gap between procurement and sales
- Thin product portfolio due to milk shortage
- Changes in food consumption (low Fat)
- Changes in retailing formats (Super market Chains)
- Inadequate cold chain
- Lack of flexibility for proactive pricing
- Thin margins
- Retaining Professionals (High turnover)
- Implementation of Food Laws
- Increasing imports of feed resources.
- Financial Situation
- Schemes implemented
- Staff chart assistance given to members

Milma : Owned by Dairy Farmers & Serving millions of customers every day

- ✓ Milma, an organization fully owned by farmers since its reception maintains its democratically elected governing system with a dairy farmer as its Chairman, elected farmer representatives, representatives from State Government and National Dairy Development Board as members.
- ✓ Milma is the largest co-operative organization of Kerala with an annual turn over of above Rs. 1100 crores.
- ✓ Nationally *Milma* holds the record of paying 82 Paise to the producer as cost of milk for every Rupee collected from milk sale.
- ✓ *Milma* has three Regional Units *2007* primary Anand Pattern competitive societies with a membership of our *7.78* lakhs. When stand in 1989 it had already 40000 members.
- ✓ Milma posses 32 dairy plants spread over the state with a processing capacity of 1020000 litres of milk per day. It also posses a chilling capacity of 30200 litres.

- ✓ Every day Milma distribute litres of milk after getting tested for quality in laborite through and 10000 distributing points.
- ✓ Milma collects milk daily twice form centers spread our all the 14 districts of the state.
- ✓ Two cattle feed factories are functioning *under Milma* producing 1.14 lakh tonnes of cattle feed and distribute few though APCOS.
- ✓ Cost of milk distributed per year expire Rs. cores. Producers are giving annually our Rs. cores as cost and Rs. cores as former.
- ✓ Milma has well equipped training center at Trichur.
- ✓ Milma hold the unique record of maintaining entry of transfer programme as early in 1990 before the state assainged the work to Indo-Swiss project.
- ✓ Milma in short look after the needs of 7.5 lakh dairy farmers and status of the needs of consumers every day.

Milma assure a steady price and assured market to the farmer and it is there to collect the surplus of milk from producer. It protects real milk producer from a "no buyer to the produce" to a safety care.

Over a period of three decades, KCMMF has emerged as the front- runner in the dairy segment of the co-operative sector offering the best quality milk, milk products and cattle feed at competitive rates. Milma's extensive contributions to the society place it among the more responsible and responsive co-operatives in the state. The growth achieved by this organization is manifest in the creation of infrastructure facilities for dairy development, growth in the number of primary milk co-operatives, enhanced milk consumption , wealth creation for the dairy farming community over the past three decades.

The Fixed Assets created in the sector by KCMMF and its affiliated three regional milk unions touch a value of Rs. 155 crores as on date. The annual turnover of Milma crossed Rs. 1000 crores by last financial year. All along these years, KCMMF was depending on NDDB finance/ commercial bank finance as well as it's own cash accruals for the operations. Govt.of India in recent years has financed for Integrated dairy development programme and Clean milk production programme implemented by Milma.

Government of Kerala's budgetary support was limited to one or two crores during the past period and that too only in few years. Government has recognised KCMMF as its arm and instrument to be the responsible body to provide quality milk to the people of Kerala at affordable price. KCMMF has been blending commercial objectives with its social mission of ensuring the prosperity of dairy farmers.

IMPORTANT STATISTICS

Human Population (2001 Census)

(In '000 s)

Sl. No.	Name of District	Males	Females	Total	Rural Population
1	Thiruvananthapuram	1570	1664	3234	2143
2	Kollam	1250	1336	2585	2119
3	Pathanamthitta	589	645	1234	1110
4	Alappuzha	1015	1095	2109	1488
5	Kottayam	965	989	1954	1654
6	Idukki	567	563	1129	1072
7	Ernakulam	1538	1567	3106	1629
8	Thrissur	1422	1552	2974	2135
9	Palakkad	1267	1350	2617	2261
10	Malappuram	1755	1871	3625	3269
11	Kozhikode	1399	1480	2879	1778
12	Wayanad	391	389	781	751
13	Kannur	1153	1256	2409	1196
14	Kasargode	588	616	1204	970
State Total		**15469**	**16373**	**31841**	**23574**

Livestock Census Data (2003)

Livestock Population (In Numbers)

Sl. No.	Name of district	Cattle			Buffalo	Sheep	Goats	Pig	
		Indigenous	Crossbred	Total				Crossbred	Indig
1	**Thiruvananthapuram**	3890	143082	146972	3270	293	146301	919	
2	Kollam	8058	147019	155077	2821	90	108965	846	
3	Pathanamthitta	5757	108020	113777	865	37	48876	757	
4	Alappuzha	3379	97626	101005	2783	32	49286	863	
5	Kottayam	5832	132233	138065	2239	73	96982	7572	
6	Idukki	23431	143247	166678	4348	161	84790	16022	
7	Ernakulam	18114	155182	173296	6822	81	116276	6455	
8	Thrissur	18068	140456	158524	10538	161	104597	7271	
9	Palakkad	51693	212070	263763	9269	1885	125890	1051	
10	Malappuram	41652	93051	134703	12341	263	137667	673	
11	Kozhikode	62831	100573	163404	1312	259	57576	1739	
12	Wayanad	16738	86956	103694	3678	206	41921	3400	
13	Kannur	38268	121590	159858	1119	36	59981	2473	
14	Kasargode	89471	54166	143637	3213	54	34065	904	
State Total		**387182**	**1735271**	**2122453**	**64618**	**3631**	**1213173**	**50945**	

Poultry Population - 2003 Census (In Numbers)

Sl. No.	Name of district	Desi Fowls	Improved Fowls	Broiler	Others	Ducks	T
1	Thiruvananthapuram	542585	484634	78624	55390	14459	
2	Kollam	337695	352657	14822	31936	72135	
3	Pathanamthitta	385095	230730	7724	13608	30763	
4	Alappuzha	431863	162334	42662	35529	251132	
5	Kottayam	692210	234658	210076	64168	70338	
6	Idukki	264677	148422	19327	12159	11114	
7	Ernakulam	673161	318573	793190	171302	63365	
8	Thrissur	818257	373759	797927	64752	49214	
9	Palakkad	947259	185208	79466	27736	33120	
10	Malappuram	1199053	245298	16151	41423	39367	
11	Kozhikode	585831	168972	11985	18940	12057	
12	Wayanad	294894	155057	43308	14764	7828	
13	Kannur	204495	116375	11912	6364	4040	
14	Kasargode	358696	79384	69828	5250	1677	
State Total		**7735771**	**3256061**	**2197002**	**563321**	**660609**	

Poultry - Ducks

Estimated Number of Total ducks (In '00 Numbers)

Sl. No.	Name of the District	Desi				Improved				Tota		
		Summer	Rainy	Winter	Overall	Summer	Rainy	Winter	Overall	Summer	Rainy	W
1	Thiruvananthapuram	64	96	101	87	34	48	41	41	98	144	
2	Kollam	355	414	420	396	244	261	261	255	599	675	
3	Pathanamthitta	155	205	201	187	64	73	77	71	219	278	
4	Alappuzha	2238	1790	1791	1940	517	493	529	513	2755	2282	
5	Kottayam	475	430	441	449	97	55	80	77	572	485	
6	Idukki	44	48	47	46	32	31	35	33	77	79	
7	Ernakulam	552	662	465	560	124	154	244	174	676	816	
8	Thrissur	353	378	278	336	53	52	302	136	406	430	
9	Palakkad	195	209	207	204	60	48	53	54	255	257	
10	Malappuram	193	201	199	198	42	32	30	35	236	234	
11	Kozhikode	67	61	55	61	20	8	12	13	87	69	
12	Wayanad	29	32	33	31	20	13	18	17	49	45	
13	Kannur	24	24	23	24	6	2	2	3	31	26	
14	Kasargode	8	10	11	10	3	3	3	3	12	14	
State Total		**4754**	**4560**	**4271**	**4528**	**1316**	**1273**	**1686**	**1425**	**6071**	**5833**	

Note: The totals may not tally due to the rounded off numerals

Animal Treated, Castrations and Operations done, Artifical Insemenisations performed and Calv under the auspices of various instituions under the department during 2006-07

Sl. No.	Name of district	Number of cases treated	castrations and operations				Artificial Inseminations	Calvin	
			Castration	Obstetrical cases	Other operatio	Total		Male	F
1	**Thiruvananthapuram**	428340	12	24156	15468	39636	120401	17316	
2	Kollam	521835	46	34176	9850	44072	126521	23427	
3	Pathanamthitta	268196	101	15725	6543	22369	91696	16332	
4	Alappuzha	338319	263	23911	6650	30824	101957	13310	
5	Kottayam	345532	187	20512	7362	28061	65751	12433	
6	Idukki	325643	127	17048	8397	25572	50359	9295	
7	Ernakulam	500497	230	28578	8867	37675	84291	15132	
8	Thrissur	661432	132	44657	13843	58632	131632	18288	
9	Palakkad	381925	1950	33890	16380	52220	125448	17236	
10	Malappuram	374342	1497	23858	12052	37407	64410	11834	
11	Kozhikode	462879	48	30775	10458	41281	66085	9247	
12	Wayanad	151266	90	10764	3221	14075	61836	7647	
13	Kannur	324659	7	26921	5590	32518	72455	13324	
14	Kasargode	174795	137	13108	4204	17449	40743	7640	
State Total		**5259660**	**4827**	**348079**	**128885**	**481791**	**1203585**	**192461**	**1**

Milk Production - Indigenous Cows

(In '000 tonn

Sl. No.	Name of district	Summer	Rainy	Winter	Annual (Total)
1	**Thiruvananthapuram**	0.520	0.555	0.406	1.481
2	Kollam	0.691	0.891	0.759	2.341
3	Pathanamthitta	0.684	1.096	1.679	3.459
4	Alappuzha	0.316	0.504	0.276	1.096
5	Kottayam	0.473	0.335	0.366	1.173
6	Idukki	1.853	1.986	2.827	6.665
7	Ernakulam	1.478	1.673	3.528	6.679
8	Thrissur	1.313	1.375	0.634	3.321
9	Palakkad	4.053	5.411	1.357	10.821
10	Malappuram	3.707	3.685	2.449	9.84
11	Kozhikode	5.821	6.086	6.436	18.342
12	Wayanad	1.218	1.605	1.635	4.458
13	Kannur	3.29	2.724	2.52	8.534
14	Kasargode	6.371	7.262	6.423	20.056
State Total		**31.788**	**35.188**	**31.295**	**98.266**

Milk production-Crossbred Cows

(in '000 tonnes)

Sl. No.	Name of district	Summer	Rainy	Winter	Annual (Total)
1	Thiruvananthapuram	64.729	70.006	71.681	206.416
2	Kollam	56.733	64.103	63.903	184.739
3	Pathanamthitta	35.068	41.988	50.307	127.363
4	Alappuzha	35.564	41.874	41.272	118.71
5	Kottayam	60.126	60.813	64.144	185.083
6	Idukki	39.575	40.278	46.002	125.855
7	Ernakulam	57.795	62.368	58.714	178.878
8	Thrissur	52.07	55.936	29.334	137.34
9	Palakkad	60.376	64.622	68.966	193.964
10	Malappuram	30.843	32.023	32.736	95.653
11	Kozhikode	30.839	35.585	34.442	100.866
12	Wayanad	29.993	30.484	33.095	93.542
13	Kannur	32.665	39.278	38.931	110.874
14	Kasargode	13.401	14.94	17.052	45.393
State Total		**599.777**	**654.298**	**650.579**	**1904.676**

Milk production-Buffaloes

(in '000 tonnes

Sl. No.	Name of district	Summer	Rainy	Winter	Annual (Total)
1	**Thiruvananthapuram**	0.695	0.800	0.779	2.274
2	Kollam	0.513	0.828	0.658	1.999
3	Pathanamthitta	0.211	0.426	0.521	1.158
4	Alappuzha	0.506	0.775	0.545	1.825
5	Kottayam	0.562	0.232	0.302	1.096
6	Idukki	0.751	0.428	0.506	1.686
7	Ernakulam	0.894	1.206	0.888	2.989
8	Thrissur	1.696	1.909	1.205	4.81
9	Palakkad	1.300	1.486	0.857	3.634
10	Malappuram	1.647	1.887	1.404	4.937
11	Kozhikode	0.213	0.283	0.135	0.632
12	Wayanad	0.355	0.201	0.308	0.864
13	Kannur	0.248	0.067	0.297	0.612
14	Kasargode	0.514	0.461	0.289	1.32
State Total		**10.105**	**10.989**	**8.694**	**29.836**

Milk production-Goats

(in '000 tonnes)

Sl. No.	Name of district	Summer	Rainy	Winter	Annual (Total)
1	**Thiruvananthapuram**	4.366	4.150	4.574	13.091
2	Kollam	3.054	3.628	4.179	10.861
3	Pathanamthitta	1.351	1.742	1.711	4.805
4	Alappuzha	1.089	1.696	1.493	4.278
5	Kottayam	2.536	2.908	3.511	8.955
6	Idukki	1.868	2.079	2.578	6.525
7	Ernakulam	2.317	2.812	3.855	8.984
8	Thrissur	2.042	2.222	1.221	5.484
9	Palakkad	1.685	1.991	0.696	4.372
10	Malappuram	2.456	2.603	2.499	7.558
11	Kozhikode	1.174	1.274	1.309	3.757
12	Wayanad	0.501	0.745	1.224	2.47
13	Kannur	1.294	1.595	0.082	2.971
14	Kasargode	0.501	0.715	0.752	1.976
State Total		**26.234**	**30.160**	**29.684**	**86.087**

Number of Slaughter houses and Meat Production

Sl. No.	Name of district	No. of authroised Slaughter Houses	Meat Production (MT)
1	Thiruvananthapuram	64	2328
2	Kollam	26	8810
3	Pathanamthitta	39	1390
4	Alappuzha	53	5091
5	Kottayam	61	3330
6	Idukki	146	4959
7	Ernakulam	82	9986
8	Thrissur	57	2975
9	Palakkad	49.000	572
10	Malappuram	92	7810
11	Kozhikode	116	4433
12	Wayanad	8	1807
13	Kannur	65	4547
14	Kasargode	31	2075
State Total		**889**	**60113**

Total Milk Production in the State

Sl. No.	Name of the District	Cow			Buffalo	Goat	Ttoal Milk Production	Previous Year's production
			Crossbred	Total				
1	**Thiruvananthapuram**	1.482	206.416	207.9	2.274	13.091	223.263	219.33
2	Kollam	2.341	184.739	187.08	1.999	10.861	199.94	192.719
3	Pathanamthitta	3.459	127.363	130.82	1.158	4.805	136.785	121.011
4	Alappuzha	1.096	118.71	119.81	1.825	4.178	125.909	114.807
5	Kottayam	1.173	185.083	186.26	1.096	8.955	196.307	173.024
6	Idukki	6.665	125.855	132.52	1.686	6.525	140.731	134.421
7	Ernakulam	6.679	178.878	185.56	2.989	8.984	197.529	197.911
8	Thrissur	3.321	137.34	140.66	4.81	5.484	150.956	195.24
9	Palakkad	10.821	193.964	204.78	3.643	4.372	212.799	213.657
10	Malappuram	9.840	95.653	105.49	4.937	7.558	117.989	120.279
11	Kozhikode	18.342	100.866	119.21	0.632	3.757	123.597	122.747
12	Wayanad	4.458	93.542	98.000	0.864	2.47	101.333	76.46
13	Kannur	8.534	110.874	119.41	0.612	2.971	122.991	113.176
14	Kasargode	20.056	45.393	65.450	1.32	1.967	68.745	68.417
State Total		**98.267**	**1904.676**	**2002.9**	**29.845**	**85.978**	**2118.874**	**2063.199**

Estimated Egg Production From Fowls (In lakh Numbers)

Sl. No.	Name of the District	Desi Fowls				Improved Fowls				Tot		
		Summer	Rainy	Winter	Total	Summe	Rainy	Winter	Total	Summer	Rainy	W
1	Thiruvananthapuram	166.608	180.35	172.114	519.07	190.33	170.13	165.303	525.303	356.938	350.5	
2	Kollam	110.873	115.92	116.349	343.14	166.14	137.95	207.936	512.022	277.01	253.9	
3	Pathanamthitta	112.202	120.67	152.636	385.51	119.32	105.64	103.025	327.984	231.517	226.3	
4	Alappuzha	117.574	135.63	133.409	386.62	88.408	104.47	86.957	279.831	205.982	240.1	
5	Kottayam	180.499	186.6	219.753	586.85	118.3	118.4	126.866	363.566	298.799	305	
6	Idukki	70.936	75.845	84.871	231.65	60.983	73.933	73.993	208.91	131.919	149.8	
7	Ernakulam	179.994	173.83	197.571	551.4	124.14	114.46	111.623	350.22	304.131	288.3	
8	Thrissur	217.608	221.95	269.939	709.49	80.707	86.761	278.742	446.21	298.315	308.7	
9	Palakkad	196.087	211.6	240.814	648.5	77.693	54.453	66.65	198.796	273.779	266.1	
10	Malappuram	293.426	321.58	346.528	961.53	146.55	148.11	152.749	447.409	439.977	469.7	
11	Kozhikode	161.326	158.64	186.049	506.01	102.35	81.01	105.668	289.028	263.677	239.6	
12	Wayanad	52.058	53.923	55.616	161.6	40.284	34.428	34.532	109.244	92.342	88.35	
13	Kannur	99.051	110.09	149.122	358.26	102.07	82.279	104.782	289.127	201.118	192.4	
14	Kasargode	81.337	81.263	83.879	246.48	28.573	28.129	28.889	85.591	109.91	109.4	
State Total		**2039.58**	**2147.9**	**2408.65**	**6596.1**	**1445.8**	**1340.1**	**1647.72**	**4433.24**	**3485.41**	**3488.0**	

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Kerala To Have The Nation's First High Tech Dairy Farm In Public Sector

Stage is set for Kerala to acquire a prominent place of pride in the milk map of the nation by giving shape to the first high tech dairy farm in India, in the public sector. Located at the picturesque banks of the river Kulathuppuzha in Kollam district, the Rs.5 crore project is funded by NPCBB. Sri. V.S. Achuthanandan, Hon. Chief Minister, inaugurated the farm at Kulathuppuzha, on 14th January 2009, at a glittering function.

Sri. C. Divakaran, Minister for Animal Husbandry presided over the meeting and said that the state is providing high priority for the early implementation of the unique project. The objective he added is to establish a model high tech bull mother dairy farm with latest technology available globally on breeding, milking, shed management and recording practices for production of bull calves for breeding programmes and supply of high producing female calves to the farmers and government farms.

Sri. Mullakkara Rathnakaran, Minister for Agriculture, during his felicitation speech, said that dairying is an integral part of farming and every effort to modernize the same will be a boon to the peasantry.

According to Dr. Ani S Das, Managing Director of KLDB, the centre would also conduct research on open nuclear breeding system using embryo transfer technology for bull production, progeny testing programme, and half sibling production using embryo transfer for intensifying progeny testing programme. The centre will also provide training on embryo transfer, progeny testing programmes to scientists, professionals, farmers, entrepreneurs of high tech dairy farms etc.

The farm will house around 200 high producing dairy cattle, and each animal will carry a radio active transponder in the neck with all information regarding the animal stored in the micro chips in the transponders.

The feeding will be through programmable feeders, and watering will be through automatic waterers with in-house system, to cool the animals, while automatic scrapers will be cleaning the shed regularly.

Milking will be done in automatic milking parlours. Another interesting feature is that the animals will be checked with heat detectors and they will be inseminated timely and recorded and monitored using updated software called Software In Animal Management System. This will also pave way for introducing the marketing of traceable milk, that is, milk from cows of known ancestors. The project will be a great centre of attraction providing huge support to make the dairy sector ultra modern and it will give an exposure to the public on the adoption of world class changes taking place in the milk production front.

Kerala is thus going to become a centre of pilgrimage to all those who want to really see and learn about model international dairy farms. The farm will be integrated with the joint venture project of the Sree Chitra Institute of Medical Sciences.

Sri. V S Achuthanandan, honourable Chief Minister of Kerala, inaugurating the first hi-tech dairy farm at Kulathuppuzha.
Sri. C Divakaran, honourable minister for Animal Husbandry & Dairying, presided over the function.
Sri. Mullakkara Retnakaran, honourable minister for Agriculure delivered the felicitation speech.

RECOMMENDATIONS TO ENHANCE THE PRODUCTION OF MILK, EGG AND MEAT IN KERALA

EXPERT COMMITTEE RECOMMENDATIONS