



ANIMAL HUSBANDRY DEPARTMENT

POLICY NOTE 2016-17

INDEX

ANIMAL HUSBANDRY

**ANIMAL HUSBANDRY, DAIRYING AND
FISHERIES DEPARTMENT**

**POLICY NOTE
2016-17**

DEMAND NO.6

**P. BALAKRISHNA REDDY
MINISTER FOR ANIMAL HUSBANDRY**

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Government of Tamil Nadu
2016

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ANIMAL HUSBANDRY DEPARTMENT

POLICY NOTE 2016-17

"My Government has given special emphasis to the hitherto neglected sector of Animal Husbandry. In fulfillment of my electoral promise, the State has successfully launched a scheme of giving milch cows, goats and sheep to poor families in rural areas free of cost. This scheme has supplemented rural income especially of poor and has promoted an integrated approach to agriculture and animal husbandry. "

***- Hon'ble Chief Minister of
Tamil Nadu***

1. INTRODUCTION

Animal Husbandry Department plays a major role in providing veterinary health care and improving the genetic production potentialities of livestock and poultry reared in the State. Apart from this, various beneficiary oriented schemes are also being implemented for the economic upliftment and

welfare of the poor, downtrodden and weaker sections of the society. Various veterinary institutions spread throughout the State provide the above services. With the dedicated and sustained efforts of the department in implementation of various beneficiary oriented programmes and judicious utilization of animals and the natural resources in an eco-balanced way, the livestock sector of the State has been elevated to a prominent position.

The contribution of livestock sector to the Gross State Domestic Product (GSDP) is 4.31% and that to the Agriculture and allied activities is 41.84% (Advanced Estimate at Current Prices:2004-05). During 2006-07 the gross value of output of livestock which was Rs.11,535.23 crore in the State has increased to Rs.55,068.20 crore during 2014-15 (Advanced Estimate at Current Prices: 2004-05). The estimated milk production, which was 54.74 lakh Metric Tonnes (LMT) during 2005-06 in Tamil Nadu has increased to 72.43 LMT during 2015-16. Likewise, the estimated egg production which

was 62,225 lakh numbers during 2005-06 has increased to 1,61,252 lakh numbers during 2015-16.

The per capita availability of milk per day has increased from 231 gm during 2005-06 to 258 gm during 2015-16 and the per capita availability of eggs per annum has increased from 100 numbers during 2005-06 to 210 numbers during 2015-16. Apart from these, the estimated meat production (including poultry meat) which was 1,18,600 MT during 2005-06 has increased to 5,44,500 MT during 2015-16. (Source: Statistical Division-Animal Husbandry -Government of India)

2. AIMS OF THE DEPARTMENT

- ❖ Upgradation of local stock of cattle and buffaloes by Artificial Insemination using exotic and cross bred semen for cattle and Murrah semen for buffaloes.
- ❖ Conservation and propagation of indigenous breeds of livestock in their native tracts.

- ❖ Augmenting the production potentialities of livestock and poultry and thus increasing the production of milk, egg and meat.
- ❖ Providing necessary and timely modern veterinary assistance and health cover to the livestock and poultry.
- ❖ Ensuring livestock health by preventing major livestock diseases through vaccination.
- ❖ Implementing various Central and State Government schemes for the upliftment of economic status of rural poor.
- ❖ Protecting human health by detection and control of major zoonotic diseases of animals.
- ❖ Creating awareness among public about modern animal husbandry practices.
- ❖ Conducting training on basic and latest animal husbandry practices for farmers.

3. CHRONOLOGICAL DEVELOPMENT OF THE DEPARTMENT

- 1799** Modern Veterinary aid in India started by East India Company of the British with the deputation of five Veterinary Surgeons

from London to improve breeding of horses and camels.

- 1892** Civil Veterinary Department was inaugurated as a separate department manned by Military personnel.
- 1903** Establishment of Madras Veterinary College, Vepery, Chennai.
- 1924** Hosur Cattle Farm was taken over from army and cattle breeding station established.
- 1948** The head of the department was designated as Director of Animal Husbandry. Artificial Insemination using Liquid Semen was introduced in the State.
- 1959** Establishment of Mobile Veterinary Units.
- 1969** Directorate of Veterinary Education and Research was formed separately.
- 1975** Introduction of Artificial Insemination with Frozen Semen.
- 1977** Animal Disease Intelligence Units were established.

- 1985** Establishment of Veterinary College and Research Institute at Namakkal.
- 1989** Establishment of Tamil Nadu Veterinary and Animal Sciences University.
- 2003** Formation of Tamil Nadu Livestock Development Agency (TNLDA).
- 2005** Improvement of Infrastructure of Veterinary Institutions through National Bank for Agricultural and Rural Development (NABARD) under Rural Infrastructure Development Fund was started.
- 2006** Livestock Insurance Scheme was introduced.
- 2011**
 - ❖ Inauguration of Hon'ble Chief Minister's Special Schemes viz., Free distribution of Milch Cows and Free distribution of Goats/ Sheep.
 - ❖ State Fodder Development Scheme (SFDS) launched to promote Fodder Production.
 - ❖ 585 Sub-Centres were upgraded as Rural Veterinary Dispensaries.

- ❖ The number of Animal Husbandry Divisions was increased from 65 to 76 to match the number of Revenue Divisions.
 - ❖ Upgradation of Bacterial Vaccines Laboratory at Institute of Veterinary Preventive Medicine (IVPM), Ranipet to Good Manufacturing Practices (GMP) standard under National Agriculture Development Programme (NADP).
- 2012**
- ❖ Launching of Scheme for Poultry Development.
 - ❖ Creation of 20 new Veterinary Dispensaries.
 - ❖ Creation of 50 new Sub centres.
 - ❖ Creation of 5 new Joint Director Offices of Animal Husbandry (Kanyakumari, Perambalur, Udthagamandalam, Krishnagiri and Pudukottai).
 - ❖ 2 new Veterinary College and Research Institutes were established under TANUVAS at Orathanad of Thanjavur district and at Tirunelveli.

- 2013**
- ❖ Directorate of Animal Husbandry and Veterinary Services was awarded with the "Best Practices Award" for improvement of quality delivery system ensuring good governance by the Hon'ble Chief Minister of Tamil Nadu on Independence Day.
 - ❖ Upgradation of 100 Sub-Centres into Veterinary Dispensaries.
 - ❖ Establishment of 11 new Cattle Breeding and Fodder Development Units (CBFDs) covering all districts except Chennai.
 - ❖ Provision of Ultra Sound scanning equipments to Veterinary Polyclinics, Clinician Centres, Livestock Farms and Cattle Breeding and Fodder Development Units (CBFDs).
 - ❖ Steps initiated for Conservation of Indigenous breeds of livestock such as Kangayam, Umblachery and Bargur by conducting exhibitions and workshops.

- 2014**
- ❖ Creation of 3 new Assistant Director Offices of Animal Husbandry at Srirangam, Iluppur and Ambattur.
 - ❖ Upgradation of 100 Sub-Centres into Veterinary Dispensaries.
 - ❖ Establishment of 50 new veterinary Sub-Centres.
 - ❖ 15 Veterinary Institutions are equipped with computerized X-ray machines.

- 2015**
- ❖ Livestock Insurance Scheme extended to all districts.
 - ❖ Establishment of Quality Control Laboratory at Institute of Veterinary Preventive Medicine, Ranipet at an outlay of Rs.19.92 crore under NABARD Rural Infrastructure Development Fund.
 - ❖ Upgradation of 25 Sub-Centres into Veterinary Dispensaries.
 - ❖ Establishment of two fodder production units in Meikkal poromboke lands at Keelveethi village of Vellore District and at Panthadu, Nagalpakkam villages of Villupuram district.

- ❖ Construction of 5 storey integrated office complex for the administrative offices of the Directorate of Animal Husbandry and Fisheries Departments at an outlay of Rs.29.7 Crore at Saidapet, Chennai.

- 2016**
- ❖ Establishment of 100 new veterinary Sub-Centres.

4. LIVESTOCK WEALTH IN TAMIL NADU

Livestock have remained an integral part of one's life since time immemorial. People are considering animals as mobile assets as well as human companion. Products that are obtained through Livestock are useful for the economic upliftment of the people.

In Tamil Nadu, native breeds of cattle like Kangayam, Umblachery, Alambadi, Bargur and Pulikulam and Toda buffaloes are reared. Among these, Kangayam cattle are reared in Western districts viz., Tiruppur, Erode, Coimbatore and Karur, Umblachery cattle in Eastern districts viz., Thanjavur, Thiruvarur, Nagapattinam and Cuddalore,

Alambadi cattle in Western districts viz., Dharmapuri, Erode and Salem, Pulikulam cattle in Southern districts viz., Sivagangai, Madurai, Dindigul and Theni, Bargur cattle in Erode and Toda buffalo in The Nilgiris. Likewise native breeds of sheep Mecheri (Salem and Erode districts), Ramnad White (Thoothukudi and Ramanathapuram districts), Madras Red (Chennai, Kancheepuram and Thiruvallur districts), Kilakaraisal (Ramanathapuram, Virudhunagar, Madurai and Dindigul districts), Vembur (Thoothukudi district), Tiruchy Black (Perambalur, Ariyalur, Tiruchirapalli and Villupuram districts), Coimbatore (Coimbatore and Tiruppur districts) and Nilgiri (The Nilgiris district) and native goat breeds like Kanni Adu (Virudhunagar, Thoothukudi and Tirunelveli districts), Kodi Adu (Thoothukudi and Tirunelveli districts) and Salem Black (Salem, Dharmapuri and Krishnagiri districts) are reared in Tamil Nadu.

Apart from these native breeds, crossbred high milk yielding breeds like Jersey in plains and Holstein Friesian in hills are reared by farmers.

Table 1: Comparison of State Livestock and Poultry Population with National Livestock Population (as per 19th Livestock Census-2012)

Species	Population in India (in lakh Nos.)	Population in Tamil Nadu (in lakh Nos.)	% of population available in Tamil Nadu
Cattle	1909.04	88.14	4.62
Buffalo	1087.02	7.81	0.72
Sheep	650.69	47.87	7.36
Goat	1351.73	81.43	6.02
Pigs	102.94	1.84	1.79
Others (Horses, Ponies and Donkeys)	9.44	0.14	3.74
Total Livestock	5110.86	227.23	4.44
Total Poultry	7292.09	1173.49	16.09

Tamil Nadu ranks 2nd in respect of Poultry, 4th in Sheep, 7th in Goats, 13th in Cattle and 14th in Buffalo population in the country.

5. ADMINISTRATION

The Animal Husbandry Department is headed by the Director of Animal Husbandry and Veterinary Services, from the cadre of Indian Administrative Service. The Director is assisted by four Additional Directors, two Joint Directors, one Deputy Director and nine Assistant Directors in the Directorate in

technical subjects. One Additional Director among the four Additional Directors, one Deputy Director and two Administrative Officers assist the Director in administrative matters. Financial Controller, a Chief Accounts Officer deputed from Finance Department and Accounts Officer deputed from Treasuries and Accounts Department, assist the Director in financial matters.

Regional Joint Directors and Deputy Directors are responsible for the activities of the Department at the District level and Assistant Directors are responsible for the activities at the Divisional level.

Institute of Veterinary Preventive Medicine (IVPM) at Ranipet, is headed by a Director in the cadre of Additional Director. The Central Referral Laboratory (CRL), functioning at IVPM, Ranipet coordinates the work of the Animal Disease Intelligence Units (ADIUs) and Poultry Disease Diagnostic Laboratories (PDDLs) located in the Districts.

The Department also maintains eight Livestock Farms, three Sheep Farms, one Poultry Farm and one Fodder Seed Production Farm.

DEPARTMENT ORGANISATIONAL CHART

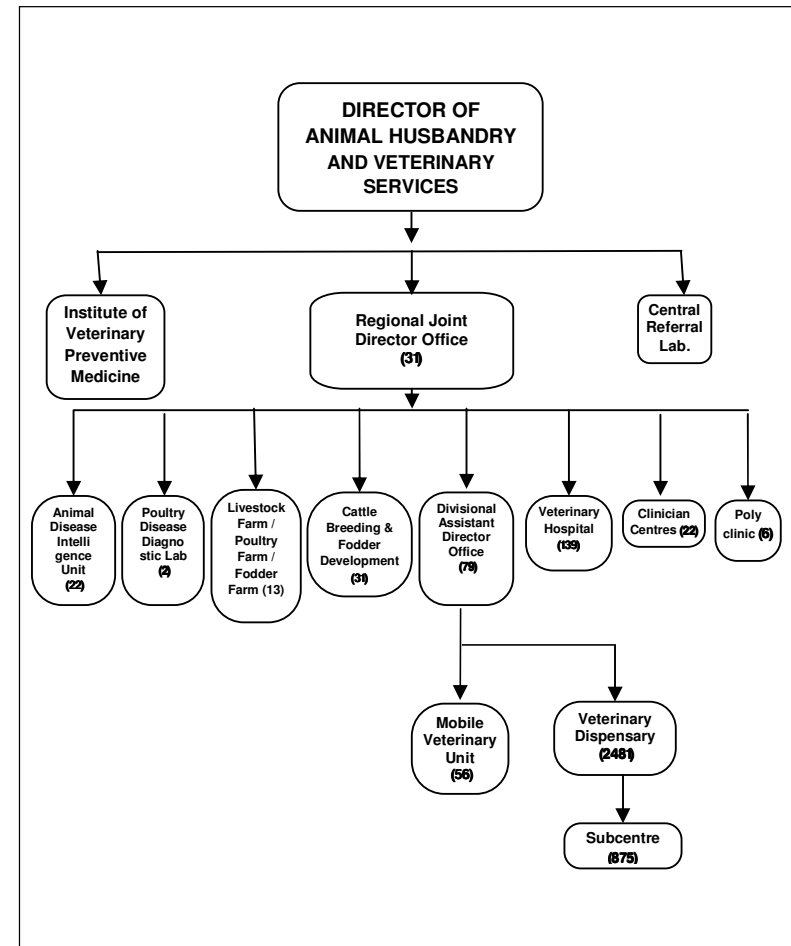


Table 2: Sanctioned Strength of Posts

S. No	Category of Post	Cadre Strength
1	Director of Animal Husbandry and Veterinary Services	1
2	Additional Director	5
3	Director, Institute of Veterinary Preventive Medicine, Ranipet.	1
4	Joint Director	33
5	Senior Research Officer	3
6	Deputy Director	42
7	Deputy Director (Personnel)	1
8	Assistant Director	311
9	Research Officer	7
10	Administrative Officer	17
11	Assistant Research Officer	22
12	Veterinary Assistant Surgeon	2,764
13	Research Assistant	40
14	Manager	49
15	Superintendent	172
16	Senior Veterinary Livestock Supervisor	165
17	Livestock Inspector Grade 1	1,404
18	Livestock Inspector Grade 2	1,457
19	Assistant	425
20	Steno Typist	32
21	Junior Assistant	352
22	Typist	219
23	Animal Husbandry Assistant	4,621
24	Basic staff	541
25	Other staff	984
	Total	13,668

6. VETERINARY SERVICES

Animal Husbandry Department provides timely and effective health coverage to the livestock and poultry population of the State for augmenting their production and productivity. Veterinary services are provided by the Veterinary graduates, minor veterinary services and first aid are provided through Para veterinarians across the state.

6.1 VETERINARY INSTITUTIONS

Veterinary Institutions have expanded from a humble beginning of around 120 institutions during 1959-60 to the present 2,704 institutions during 2015-16. Field Veterinary Institutions numbering 2,704, which include 6 Veterinary Polyclinics, 22 Veterinary Clinician Centres, 139 Veterinary Hospitals, 2,481 Veterinary Dispensaries and 56 Mobile Veterinary Units provide Veterinary health services to the livestock and poultry of the State.

- ❖ Veterinary Polyclinic, headed by a Clinician, who is assisted by Veterinary Assistant Surgeons functions round the clock, provides specialized services.

- ❖ Clinician Centre, headed by a Clinician, who is assisted by Veterinary Assistant Surgeons provides specialized services.
- ❖ Veterinary Hospital, headed by Veterinary Surgeon assisted by a Veterinary Assistant Surgeon / Senior Veterinary Livestock Supervisor provides veterinary services to the farmers.
- ❖ Veterinary Dispensary, headed by a Veterinary Assistant Surgeon provides veterinary services, Government welfare schemes and Extension services to the farmers.
- ❖ Mobile Veterinary Dispensary headed by a Veterinary Assistant Surgeon provides veterinary services at the doorsteps of the farmers on a scheduled programme.
- ❖ Veterinary Sub-centre, manned by Livestock Inspector, provides first-aid and minor veterinary services.

Table 3: Districtwise Veterinary facilities available across the State

Sl. No.	District	Polyclinics	Clinician centres	Hospitals	Vety. Dispensaries	Mobile Units	Sub centres
1	Ariyalur	-	-	2	40	1	5
2	Coimbatore	1	1	12	87	2	26
3	Cuddalore	-	1	5	81	1	61
4	Dharmapuri	-	1	2	67	2	11
5	Dindigul	-	1	5	96	1	68
6	Erode	-	2	6	95	3	23
7	Kancheepuram*	1	2	2	97	3	43
8	Kanniyakumari	-	1	2	49	2	15
9	Karur	-	1	2	58	1	19
10	Krishnagiri	-	1	2	67	1	13
11	Madurai	1	-	4	82	1	65
12	Nagapattinam	-	2	3	68	2	21
13	Namakkal	-	-	4	93	3	9
14	Perambalur	-	-	-	35	-	3
15	Pudukottai	-	1	4	89	2	34
16	Ramanathapuram	-	-	4	54	-	14
17	Salem	1	-	6	134	6	11
18	Sivagangai	-	-	2	73	-	45
19	Thanjavur	-	2	6	100	3	29
20	Theni	-	-	3	51	1	47
21	The Nilgiris	-	1	2	25	3	11
22	Tirunelveli	1	-	7	101	1	38
23	Thiruvallur	-	-	5	83	1	25
24	Tiruvannamalai	-	1	5	113	3	20
25	Thiruvarur	-	1	7	66	1	33
26	Thoothukudi	-	1	2	63	1	38
27	Tiruchirapalli	1	-	8	95	2	32
28	Tiruppur	-	-	7	91	1	37
29	Vellore	-	1	8	112	4	29
30	Villupuram	-	1	7	145	4	20
31	Virudhunagar	-	-	5	71	-	30
TOTAL		6	22	139	2481	56	875

*includes Chennai district also.

Table 4 : Workdone particulars -2015-16
(in lakh)

Species	Cases Treated	Castration	Deworming	Artificial Insemination
Cattle	117.73	1.47	51.73	53.98
Buffalo	8.93	0.04	6.01	2.82
Sheep	46.28	1.59	111.64	-
Goat	97.25	6.84	162.66	-
Dog & Cat	17.29	0.16	6.47	-
Poultry	40.58	-	14.45	-
Others	3.22	0.04	2.66	-
Total	331.28	10.14	355.62	56.80

6.2 MEDICINES, EQUIPMENTS AND CHEMICALS

This Department is procuring medicines, equipments and chemicals through Tamil Nadu Medical Services Corporation (TNMSC).

Table 5 : Fund Allocation -2015-16

Sl. No	Name of the Scheme	Amount Allotted (in Rs.)
1	General Medicines	22,03,86,430
2	Intensive Health Cover	1,00,00,000
3	Equipments, Chemicals & Surgicals	3,05,37,830
4.	Mineral mixture	3,38,12,000
5.	Alternate medicine	1,37,69,370
6.	Reserve Fund	1,37,69,370
	TOTAL	32,22,75,000

Distribution of medicines to all the veterinary institutions are undertaken based on the monetary ceiling provided for the type of Institution.

Table 6 : Institution wise Monetary ceiling

Sl. No	Type of Institution	Monetary ceiling (in Rs.)
1	Animal Disease Intelligence Unit (ADIU-22)	30,00,000
	Poultry Disease Diagnostic Laboratory (PDDL-2)	
	Central Referral Laboratory (CRL)	
2	Livestock Farms (for 11 livestock farms)	16,00,000
3	a. Veterinary Polyclinic, Saidapet	5,50,000
	b. Other Veterinary Polyclinics (per institution)	4,00,000
4	a. Veterinary Clinician Centres (Cuddalore, Dharmapuri, Erode, Vellore Kancheepuram, Kumbakonam, Thanjavur) (per institution)	2,85,000
	b. Other Veterinary Clinician Centres (per institution)	2,00,000
5	a. Veterinary Hospital, Royapuram, Ambattur and Chitlapakkam (per institution)	2,50,000
	b. Other Veterinary Hospitals (per institution)	1,50,000
6	Pet Clinic, Adyar	1,20,000
7	Poultry Farm, Kattupakkam	1,00,000
8	Veterinary Dispensary (Per Institution)	1,00,000
9	a. Mobile Veterinary Unit, Saidapet	70,000
	b. Other Mobile Veterinary Units (Per Institution)	60,000
10	Cattle Breeding and Fodder Development (CBFD) (Per Institution)	50,000
11	Dog Breeding Unit, Saidapet	30,000
12	Veterinary Sub-Centre (Per Centre)	18,500

6.3 DISEASE PREVENTION, DIAGNOSIS, CONTROL AND ERADICATION

Various bacterial, viral, protozoal, parasitic diseases affect livestock and poultry causing huge economic loss to the farmers. Control and eradication of livestock diseases is a must, not only for profitable livestock production but also essential to make our livestock and livestock products globally acceptable.

For this purpose, 22 Animal Disease Intelligence Units (ADIUs), two Poultry Disease Diagnostic Laboratories (PDDLs) and one Central Referral Laboratory (CRL) are functioning in the State.

6.3.1 Animal Disease Intelligence Unit (ADIU)

Animal Disease Intelligence Units play a major role in developing a system of disease monitoring and surveillance of economically important livestock diseases with a view to evolve strategic control measures at District level. They map disease prone areas by collecting epidemiological information and data. This inturn helps the field veterinarians to take adequate protective and prophylactic measures well in advance.

In order to protect public health, monitoring slaughter houses for hygienic practices, ensuring preparedness with respect to diseases like Avian Influenza, keeping vigil on the wet markets of poultry, backyard and commercial farms of Poultry and weekly visits of bird sanctuaries and water bodies for any alarming levels of unusual mortality of birds are the important activities undertaken by these units.

Table 7: List of Animal Disease Intelligence Units

S. No	Animal Disease Intelligence Unit	Districts covered
1	Coimbatore	Coimbatore, Tiruppur
2	Cuddalore	Cuddalore
3	Dharmapuri	Dharmapuri
4	Dindigul	Dindigul
5	Erode	Erode
6	Kancheepuram	Chennai, Kancheepuram, Thiruvallur
7	Karur	Karur
8	Krishnagiri	Krishnagiri
9	Madurai	Madurai, Theni
10	Nagapattinam	Nagapattinam, Thiruvarur
11	Pudukottai	Pudukottai
12	Salem	Salem, Namakkal
13	Sivagangai	Sivagangai, Ramanathapuram
14	Thanjavur	Thanjavur
15	Thirunelveli	Thirunelveli, Kanniyakumari
16	Thiruvannamalai	Thiruvannamalai
17	Thoothukudi	Thoothukudi
18	Tiruchirapalli	Tiruchirapalli, Perambalur, Ariyalur

S. No	Animal Disease Intelligence Unit	Districts covered
19	Udhagamandalam	The Nilgiris
20	Vellore	Vellore
21	Villupuram	Villupuram
22	Virudhunagar	Virudhunagar

Basic and sophisticated instruments like haem analyser, urine analyser, biochemical analyser etc., are available at the Animal Disease Intelligence Units. Walk in coolers and Ice lined refrigerators (ILRs) for storage of biologicals and vaccines are provided.

6.3.2 Poultry Disease Diagnostic Laboratory (PDDL)

To cater to the needs of farmers in areas of high poultry production, Poultry Disease Diagnostic Laboratories (BSL II) are functioning one at Andagalurgate, Namakkal District and another at Erode. These are mainly involved in testing of various specimens for accurate diagnosis of Bacterial, Viral and Parasitic infestations. In addition, they offer technical advice to farmers on Bio-Security measures.

These Bio Safety Level II (BSL II) laboratories carry out preliminary screening for Avian Influenza.

6.3.3 Central Referral Laboratory (CRL)

Central Referral Laboratory is the apex laboratory of the State and is functioning at IVPM, Ranipet. It plays a vital role in disease confirmation by approved laboratory techniques, declares disease outbreaks, screening of farm animals and provides technical guidance to the Animal Disease Intelligence Units and Poultry Disease Diagnostic Laboratories regarding control of diseases during outbreaks.

Central Referral Laboratory also deals with issuance of livestock health certificates for export purposes.

6.3.4 Institute of Veterinary Preventive Medicine, Ranipet (IVPM)

Institute of Veterinary Preventive Medicine was initially established at Madras in 1932 and called as "Serum Institute". In 1942, the Institute was shifted to Coimbatore Agricultural College estate as

an emergency measure due to World War II. In 1948, the Institute was shifted to the present campus of 129.5 acres at Ranipet. This is an Institute of repute and produces vaccines and biologicals for various livestock diseases.

Indian Council of Agricultural Research (ICAR) aided "All India Coordinated Research Project (AICRP) on Foot and Mouth Disease (FMD), functioning from this Institute, undertakes investigation of FMD outbreaks, virus typing and sero-monitoring of vaccinated animals under FMD Control Programme. The Institute was awarded Second Prize for Best Performance by the ICAR for the year 2013.

Under National Agriculture Development Programme (NADP), upgradation of bacterial vaccines facility at IVPM to Good Manufacturing Practice (GMP) standard is undertaken at a total financial out lay of Rs.12.02 crore.

Establishment of a new Anthrax Spore Vaccine laboratory with GMP standard at an out lay of Rs.57.98 crore funded by NADP and NABARD schemes is under progress.

Establishment of a new quality control laboratory at an out lay of Rs.19.92 crore funded by NABARD is under progress.

Stengthening of Poultry vaccine production facility with GMP standard at an out lay of Rs.3 crore funded by NADP is also under progress.

7. LIVESTOCK DEVELOPMENT

7.1 Livestock Farms

The Department of Animal Husbandry maintains 13 Farms, out of which 8 are Livestock Farms, 3 are Sheep Farms, one is a Poultry Farm and one is a Fodder Seed Production Farm. The Livestock Farms act as model units for demonstrating best practices and scientific techniques to the Livestock rearers.

Table 8 : Location of Departmental Farms, Species and Breeds maintained

Sl. No	Name of the Farm	Species	Breeds
1	Exotic Cattle Breeding Farm, Eachenkottai (Thanjavur District)	Cattle	Jersey, Crossbred Jersey, Umblachery
		Buffaloes	Murrah
2	District Livestock Farm, Hosur (Krishnagiri District)	Cattle	Crossbred Jersey, Crossbred Holstein Friesian, Sindhi, Kangayam, Bargur, Pulikulam
		Sheep	Mecheri
		Goats	Tellichery, Kodi Adu, Salem Black
		Pigs	Large White Yorkshire
		Poultry	Aseel, Giriraja
3	District Livestock Farm, Abishekapatti (Tirunelveli District)	Horses	Kathiawar and Thoroughbred
		Cattle	Crossbred Jersey, Sahiwal
		Sheep	Keelakaraisal
		Goat	Kanni
4	District Livestock Farm, Udthagamandalam (The Nilgiris District)	Pigs	Large White Yorkshire, Landrace
		Poultry	Vanaraja, Giriraja, Aseel
5	District Livestock Farm, Pudukottai (Pudukottai District)	Cattle	Jersey, Crossbred Jersey, Holstein Friesian, Crossbred Holstein Friesian
		Sheep	Ramnad White
		Goats	Jamunapari
6	District Livestock Farm, Naduvur (Thanjavur District)	Pigs	Landrace, Large White Yorkshire
		Cattle	Jersey
6	District Livestock Farm, Naduvur (Thanjavur District)	Buffaloe	Murrah

Sl. No	Name of the Farm	Species	Breeds
7	District Livestock Farm, Chettinad (Sivagangai District)	Cattle	Crossbred Jersey, Holstein Friesian, Crossbred Holstein Friesian, Tharparkar, Sahiwal
		Sheep	Ramnad White
		Goats	Jamunapari, Tellichery
		Pigs	Large White Yorkshire
8	Livestock Farm, Korukkai (Thiruvarur District)	Poultry	Aseel
		Cattle	Umblachery
9	Sheep Farm, Chinnasalem (Villupuram District)	Sheep	Mecheri, Madras Red
		Goats	Salem Black, Tellichery
10	Sheep Farm, Mukundarayapuram (Vellore District)	Sheep	Madras Red
11	Sheep Farm, Sathur (Virudhunagar District)	Sheep	Vembur
		Goats	Kanni Adu
12	Poultry Farm, Kattupakkam, (Kancheepuram District)	Fowls	Vanaraja, Giriraja, White Leghorn, Aseel, Grama Shree
		Turkey	Broad breasted bronze and Beltsville white
13	Fodder Seed Production Farm, Padappai (Kancheepuram District)		CoFS 29, Desmanthes, Agathi

7.1.1 Frozen Semen Production

Frozen semen station is the nucleus of the Artificial Insemination Programme. It functions with the main objective of producing quality frozen semen so as to ensure better fertility and conception rate

and faster genetic progress among the cattle maintained by the farmers.

Three frozen semen production stations are functioning in the Departmental farms at Eachenkottai, Hosur and Udhagamandalam. The Minimum Standard Protocol for Frozen Semen Production as prescribed by Government of India is strictly adhered to. Jersey, Holstein Friesian, Crossbred Jersey, Crossbred Holstein Friesian, Red Sindhi, Kangayam, Umblachery, Bargur, Pulikulam and Murrah breeding bulls are maintained in these stations.

Table 9 : Frozen Semen Straws Production
(in lakh)

Sl. No	Frozen Semen Station	Breeds	2011-12	2012-13	2013-14	2014-15	2015-16
1	Exotic Cattle Breeding Farm, Eachenkottai	Jersey, Jersey cross, Umblachery, Murrah	18.05	30.76	32.66	39.71	42.20
2	District Livestock Farm, Hosur	Jersey cross, Sindhi, Kangayam, Pulikulam, Bargur	7.89	6.78	6.97	11.30	9.55
3	District Livestock Farm, Udhaga mandalam	Jersey, Jersey cross, Holstein Friesian, Holstein Friesian cross	13.73	13.36	18.42	19.16	18.37
Total			39.67	50.90	58.05	70.17	70.12

7.1.2 Fodder Production

Feeding is the major component of cost of livestock production accounting for 55-60 per cent of the total cost of production. Therefore, judicious feeding is the most important component of economical farming. The animals must be fed with a balanced ration incorporating all the nutrients in right proportions.

During 2015-16, 1,455.68 acres of farm lands have been brought under green fodder production and 11,433.419 MT of green fodder have been produced. About 1,243.40 MT of green fodder have been distributed from the farms to the livestock in the flood affected districts viz., Cuddalore, Thiruvallur, Kancheepuram and Nagapatinam during December 2015.

7.2 Cattle Breeding and Fodder Development Units (CBFD)

Cattle Breeding and Fodder Development Units are functioning in all districts (except Chennai) headed by Deputy Directors. These Units supply breeding inputs to the Artificial Insemination centers

and are also responsible for distribution of fodder seeds and monitoring the fodder development activities.

7.3 Dog Breeding Unit

Tamil Nadu possesses excellent native dog breeds like Rajapalayam, Kombai, Chippiparai and Kanni. To conserve and propagate these native breeds, a Dog Breeding Unit was established at Saidapet, Chennai during the year 1980. Puppies are sold to the public based on their registration seniority at the price fixed by the Government.

8. SCHEMES

Animal husbandry provides livelihood opportunities to millions of small, marginal farmers and landless poor. Employment generation schemes when implemented properly can ensure higher levels of economic activity leading to sustainable growth in rural areas. Keeping this in mind, the Department is implementing various beneficiary oriented schemes for the economic upliftment and welfare of the poor and downtrodden.

8.1 SCHEME FOR FREE DISTRIBUTION OF MILCH COWS AND GOATS / SHEEP

The Hon'ble Chief Minister of Tamil Nadu announced on 09.07.2011 that in order to usher in another 'White Revolution' in Tamil Nadu, the Government would distribute one Milch Cow to each beneficiary, totalling 12,000 beneficiaries every year for a period of 5 years. Thus, under the 'Scheme for Free Distribution of Milch Cows', 60,000 crossbred Milch Cows were distributed to needy families in the rural areas.

The Hon'ble Chief Minister of Tamil Nadu also announced the implementation of 'Scheme for Free Distribution of Goats/Sheep' to the poorest of the poor in the State in order to improve their living standards. Under this Scheme, 28 Lakh Goats / Sheep were provided at free of cost to 7 lakh poorest of the poor rural landless families at 4 Goats / Sheep per beneficiary over a period of 5 years.

For successful implementation of Free Distribution of Milch Cows and Goats / Sheep Schemes the Hon'ble Chief Minister presented "The Best Practices Award" to the Directorate of Animal Husbandry and Veterinary Services during the Independence day celebrations held at Fort St.George, on 15.08.2013.

With the success of Hon'ble Chief Minister's Flagship Schemes of Free Distribution of Milch Cows and Goats / Sheep, which empowered the poor women economically, these Schemes are being continued during the current year also. The procurement price of milch cow has been enhanced from Rs.30,000 to Rs.35,000 with effect from 2016-17.

Salient features

A. Scheme for Free Distribution of Milch Cows

- ❖ The Scheme is implemented in Districts where the number of Milk Cooperative societies is less than the number of revenue villages.

- ❖ The distribution of Milch Cows is taken up in those Village Panchayats where there were no Milk Cooperative Societies. Consequent to the distribution of Milch Cows, Milk Cooperative Societies are formed in those Village Panchayats and milk is procured from the beneficiaries.
- ❖ Beneficiary should be a woman.
- ❖ Milch Cows are procured from neighbouring states and the beneficiaries themselves select their cows.
- ❖ Insurance of the animals is done at Government cost at the purchase spot itself.

B. Scheme for Free Distribution of Goats/ Sheep

- ❖ Each beneficiary is provided with 1 male and 3 female goat / sheep which are around 6-8 months of age.
- ❖ Goat / Sheep are purchased from local shandy by the beneficiaries themselves.

- ❖ Insurance of the animals is done at Government cost at the purchase spot itself.

Eligibility criteria

- ❖ For both the Schemes selection of beneficiaries is done by Village Level Committee (VLC) consisting of Village Panchayat president, Vice-President, Senior most ward member representing SC / ST community, Panchayat level Federation Co-ordinator, Secretary of the Village Poverty Reduction Committee (VPRC) / Self Help Group representative, Veterinary Assistant Surgeon and Zonal Deputy Block Development Officer. The beneficiary list is approved by the Grama Sabhas of the panchayat. In case of Milch cow beneficiary selection, the Extension officer or Senior inspector from Office of Deputy Registrar Dairy is included in the Village Level Committee.
- ❖ Beneficiary should be a woman. Priority will be given to Widows, Destitutes, Physically challenged and Transgenders.

- ❖ Beneficiary should be permanent resident of the concerned Village Panchayat and below 60 years of age. In case of Goats / Sheep scheme, for effective rearing of animals, one of the members of the family must be between 18-60 years of age.
- ❖ At least 30% of the beneficiaries should necessarily belong to the SC / ST Communities.
- ❖ Beneficiary / their close relatives should not be employee of Central / State Government or any Organization / Co-operative or member of any local body.
- ❖ In addition, for Free distribution of Milch Cows Scheme, the beneficiary should not own more than 1 acre of land in her own name or family members' name.
- ❖ Free distribution of Goats / Sheep Scheme, the beneficiary should be landless agricultural labourer.

Achievements

Under Free Distribution of Milch Cows and Goats / Sheep Schemes, 60,000 women beneficiaries were provided with 60,000 milch cows and 7,00,000 poorest of the poor women were provided with 28,00,000 Goats / Sheep. Approximately 2.66 lakh litres of milk is being produced daily through these milch cows and 75,796 calves worth Rs.37.89 crore were born. Further, 44.67 lakh kids worth Rs.1,116 crore have been obtained from the goats distributed. The animals distributed through Free Distribution of Milch Cows and Goats / Sheep Scheme have yielded approximately 6.7 LMT of manure worth Rs.108.04 crore. This has led to the economic prosperity among the rural poor women.

8.2. SCHEME FOR POULTRY DEVELOPMENT (SPD)

Poultry farming has developed on a commercial scale in the Western Districts of Tamil Nadu with Namakkal as the hub of development. To replicate this commercial success and to develop poultry industry in non-poultry backward regions, the Government of Tamil Nadu launched the Scheme

for Poultry Development during 2012-13 at an outlay of Rs.22.35crore. With the successful implementation of the Scheme, it was continued with an allocation of Rs.25 crore each year for development of poultry clusters for the year 2013-14, 2014-15 and 2015-16.

At least 30% of the beneficiaries should necessarily belong to the SC / ST Communities.

8.2.1 Establishment of Broiler Farm

Broiler Chicken rearing can be undertaken through integration wherein integrators supply day old chicks, health cover and feed required for the birds. The integrators also ensure that the birds are marketed through their own channels. Growing charges for rearing of chicks is paid by integrators to the beneficiaries. A broiler farm upto 5,000 birds can be profitably run using family labour alone and thus negates the requirement of additional man power. A sum of Rs.2,68,750 is being provided to the beneficiary as 25% State Government subsidy under the scheme.

8.2.2 Native Chicken Rearing

Since Native Chicken meat has a better market throughout the State, Native chicken rearing is encouraged under the Scheme wherein a flock size of 250 / 500 birds can be profitably reared and marketed by the farmers themselves. The beneficiary is encouraged to procure chicks from Native Chicken Breeders / Hatchery units. A sum of Rs.32,375 is being provided to a beneficiary as 25% State Government subsidy for rearing 250 birds. In order to encourage the beneficiaries to continue the avocation, for 2nd and 3rd batch 50% and 30% of the chick cost is provided respectively as incentive.

Achievements

Under the Scheme for Poultry Development, 2,362 Broiler farms, 10,358 Native chicken farms have been established in 25 Districts since 2012-13 at a total cost of Rs.97.35 crore. Till now, 3.5 LMT of meat from broiler units and 0.19 LMT of meat from native chicken units have been produced. An additional income of Rs.140 crore and Rs.289 crore respectively have been earned through broiler farms and native chicken farms by the farmers.

The Scheme for Poultry Development will be continued in 2016-17 at an outlay of Rs.25 crore.

8.3 FODDER DEVELOPMENT

Fodder is an important factor which determines the productivity of livestock. Provision of green fodder increases productivity and availability of bio-nutrients. Incorporating good quality feed combined with feeding of green fodder reduces delayed breeding in cattle and buffaloes. This reduces the intercalving period resulting in increased milk production and thus increasing the farm income.

8.3.1 STATE FODDER DEVELOPMENT SCHEME (SFDS)

Both quantitatively and qualitatively there exists a substantial gap between the demand and supply of green fodder. To reduce the gap between demand and supply of feed and fodder through enhancement of production and efficient utilization of available resources, the Government is implementing State Fodder Development Scheme since 2011-12 at a total outlay of Rs.115 Crore. It has been ensured that atleast 30% of the beneficiaries selected under

each component belonged to the SC / ST Communities.

The activities taken up under the scheme are as follows

- ❖ About 1.62 Lakh acres of farmers' holdings have been brought under green fodder cultivation across the State by distribution of 6,720 Lakh of Cumbu Napier fodder slips, 2,070.80 MT of Sorghum seeds, 383.16 MT of Cowpea seeds, 18 MT of CoFS 29 seeds producing 112 LMT of green fodder.
- ❖ To effectively utilize the available green fodder, 12,703 Chaff cutters have been distributed to farmers @ 75% subsidy.
- ❖ Farmers were also sensitized about the technology to conserve surplus fodder to overcome the scarcity of fodder during lean periods by distribution of silage making bags for ensiling the surplus fodder. Around 40,000 nos of 250 kg capacity silage bags were distributed free of cost to 10,000 farmers @ 4 bags / farmer.

- ❖ To enhance the productivity of crop by effectively utilizing the available water, 10,483 Rainguns were installed in the farmers' fields which were provided at 75% subsidy.
- ❖ Azolla is a low cost feed substitute that considerably reduces feed cost. A total of 20,958 Azolla units were established throughout the State free of cost.
- ❖ To enlighten the farmers on feeding tree fodder to the animals, saplings of various tree fodder varieties like Kalyanamurungai, Velvel, Agathi, Subabul, Camelia, Glyricidia etc, were raised in departmental farms and 32 Lakh numbers of seedlings were distributed to farmers.
- ❖ To ensure timely supply of seeds to the farmers, fodder seed production units have been established in the departmental farms.
- ❖ The above scheme will be continued in 2016-17 at an outlay of Rs.25 crore.

8.3.2 FODDER PRODUCTION UNITS IN MEIKKAL PORAMBOKE LANDS

Common lands are a critical livelihood resource for small and marginal farmers and there is a need to rejuvenate the common grazing land (Meikkal land) into green fodder production unit. The department identified 83.5 acres of Meikkal Land at Vellore and 61 acres of meikkal land at Villupuram districts for establishment of Fodder Production units in collaboration with Tamil Nadu Veterinary and Animal Sciences University and District Rural Development Agency. These units will provide green fodder throughout the year for the livestock in and around the unit. After maintaining for 5 years, these units will be handed over to the respective local bodies for further maintenance. The total financial outlay of the Scheme is Rs.6.94 crore.

8.3.3 FODDER DEPOTS

To prevent distress sale of cattle during drought and periods of fodder shortage, 201 Fodder Depots were established at a total cost of Rs.19.30 Crore. Each beneficiary was supplied dry fodder at the rate

of 3 kg / animal / day at a cost of Rs.2 per kg to a maximum of five animals. A total of 31,335 MT of dry fodder was distributed to benefit 2,89,856 farmers and 12,31,603 livestock.

8.4 INFRASTRUCTURE DEVELOPMENT SCHEMES

Improved infrastructure will result in improved veterinary services, with a consequent increase in the overall productivity. With the ultimate aim of rural development, the Department's infrastructure is being developed with assistance from State Government, Government of India and National Bank for Agriculture and Rural Development (NABARD) Rural Infrastructure Development Fund (RIDF).

During the period from 2011-12 to 2015-16, 1,615 Veterinary Institution buildings were newly constructed at a total outlay of Rs.422.376 crore through various Schemes.

**Table 10 : Infrastructure Development
Total allocation for Construction**

S. No	Name of the Scheme	No. of Buildings	Total Allocation (Rs. in crore)
1	State Fund	21	35.700
2	ESVHD	256	25.516
3	NADP	95	16.670
4	NABARD	1,243	344.490
Total		1,615	422.376

8.4.1 Strengthening and Renovation of Infrastructure

During the last 5 years, repair and renovation works were carried out in 1,163 veterinary institutional buildings at an outlay of Rs.78.31 Crore.

8.4.2 Construction of Integrated office complex

During 2015-16 an amount of Rs.29.70 crore was allotted for construction of 5 storied integrated office complex for ***the administrative offices of the Directorate of Animal Husbandry and Fisheries Departments*** at Saidapet, Chennai. Construction is under progress.

8.5 SCHEMES FOR LIVESTOCK DISEASE CONTROL

Animal Health is the backbone of livestock industry. Microbial diseases and parasitic infestation cause severe losses and death, and production loss in livestock. Prevention and eradication of Livestock diseases is not only helpful in profitable livestock production, but also essential for acceptance and improving the value of our livestock and livestock products in the global market. By adopting proper disease control measures, disease occurrence gets controlled and subsequently gets eradicated from the livestock population.

8.5.1 Assistance to States for Control of Animal Diseases (ASCAD)

The ASCAD Scheme is being implemented with 60% Central and 40% State share. Under ASCAD, vaccination is carried out against economically important livestock diseases like Anthrax, Black Quarter, Haemorrhagic Septicaemia and Sheep pox. The Vaccine for the above diseases is produced in Institute of Veterinary Preventive Medicine (IVPM),

Ranipet and vaccination of susceptible livestock is being carried out free of cost.

Table 11: Vaccination details under ASCAD Scheme for 2015-16

S. No	Name of the Disease	No. of endemic districts covered	No. of animals vaccinated (in lakhs)
1	Anthrax	20	39.19
2	Black Quarter	9	5.25
3	Haemorrhagic Septicaemia	4	0.31
4	Sheep pox	3	0.10

Disease forecasting is done based on the occurrence of diseases during the preceeding 5 years. Vaccination is being carried out before the onset of outbreak.

a. Anthrax:

Based on the previous outbreak reports, 19 districts viz., Dharmapuri, Dindigul, Kancheepuram, Kanniyakumari, Karur, Krishnagiri, Madurai, Pudukottai, Ramanathapuram, Sivagangai, Thanjavur, Theni, Thirunelveli, Thiruvallur, Thoothukudi, Thiruvannamalai, Vellore, Villupuram and Virudhunagar have been identified to be

endemic for Anthrax during 2016-17. Approximately 21.38 lakh cattle, 9.65 lakh sheep and 11.41 lakh goats will be vaccinated.

b. Black Quarter:

Based on the previous outbreak reports, ten districts viz., Cuddalore, Dharmapuri, Kancheepuram, Pudukottai, Sivagangai, Thanjavur, Thiruvallur, Thiruvannamalai, Vellore and Villupuram are endemic for Black Quarter during 2016-17. Approximately 5.40 lakh cattle will be vaccinated.

c. Haemorrhagic Septicaemia:

Based on the previous outbreak report, four districts viz., Krishnagiri, Vellore, Thoothukudi and Villupuram are endemic for Haemorrhagic Septicaemia during 2016-17. Approximately 33,000 cattle will be vaccinated.

d. Sheep pox:

Based on the previous outbreak report, six districts viz., Dharmapuri, Salem, Sivagangai, Thirunelveli, Villupuram and Virudhunagar are endemic for Sheep Pox during 2016-17. Approximately 43,000 sheep will be vaccinated.

8.5.2 FOOT AND MOUTH DISEASE CONTROL PROGRAMME (FMD-CP)

Foot and Mouth disease is a highly contagious, viral, vesicular disease of cloven-footed animals. It causes severe blisters inside the mouth and on the interdigital spaces that may rupture and lead to severe ulcers. It results in heavy economic loss due to reduction in milk production, infertility and high mortality in calves. Its containment demands considerable efforts in vaccination and strict monitoring in animal movements between States. To control this disease, Foot and Mouth Disease Control Programme funded jointly by the State and Central Government is being implemented in all Districts. So far, 10 rounds of FMD vaccination have been carried out in the State. The 9th and 10th rounds of vaccination of cattle and buffaloes were conducted during September 2015 and March 2016 covering 93,69,912 and 93,78,809 nos. respectively. For this programme Government of India released Rs.3.79 crore as first installment for the year 2015-16 and Rs.7.09 crore for the year 2016-17.

8.5.3 PESTE DES PETITS RUMINANTS - CONTROL PROGRAMME (PPR-CP)

Peste des Petits Ruminants (PPR) also known as 'Goat Plague', is an acute, highly contagious viral disease characterized by fever, sores in the mouth, diarrhoea, pneumonia, and sometimes death. It causes heavy losses to the rural economy due to high morbidity and mortality.

Vaccination of 176 lakh sheep and goats was undertaken in all the districts in the State to control this disease under PPR-CP. Goats and Sheep purchased under "Free Distribution of Goats / Sheep Scheme" announced by Hon'ble Chief Minister of Tamil Nadu were given priority and vaccinated.

8.5.4 BRUCELLOSIS - CONTROL PROGRAMME (BRUCELLOSIS -CP)

Brucellosis is an important bacterial and zoonotic disease characterised by abortion during five to six months of pregnancy in livestock. A National Control Programme for the control of Brucellosis is under implementation. So far, 2.60 lakh of six to eight month old heifer calves have

been vaccinated against Brucellosis in 15 districts of the State.

8.5.5 NATIONAL PROJECT ON RINDERPEST SURVEILLANCE AND MONITORING (NPRSM)

The aim of this Scheme is to eradicate Rinderpest disease, which causes great economic loss to the farmers. The State was declared 'Provisionally free from Rinderpest' from March 1998 onwards. Subsequently, the State was declared 'Free from Rinderpest Disease' from May 2002 by the Government of India. Under this scheme, surveillance is being carried out in all villages so as to maintain the "Zero Rinderpest" status in the State.

8.5.6 AVIAN INFLUENZA

Avian influenza refers to the disease of birds caused by infection with avian influenza (bird flu) Type A virus (H5N1). The virus occurs among wild aquatic birds worldwide and can infect domestic poultry and other bird species. This disease can spread to human beings from birds.

8.5.6.1 Preparedness of the State to prevent ingress of Avian influenza disease consequent to the outbreak in Karnataka State

Government of India notified an outbreak of Avian Influenza in Molkeri Village of Humnabad Taluk, Bidar District, Karnataka State on 09.05.2016.

To safeguard the poultry population in the State and to prevent the ingress of the disease from Karnataka State, various precautionary measures and steps were initiated along with the District Administration and the following line departments:

- A.** Public Health
- B.** Municipal Administration
- C.** Southern Railways
- D.** Environment and Forest
- E.** Rural Development and Local Administration
- F.** Commercial Taxes Department
- G.** National Egg Coordination Committee
- H.** Broiler Coordination committee
- I.** Poultry Farmers Association

8.5.6.2 Role of Animal Husbandry Department:

A total of 42 interstate checkpoints located on the borders of Karnataka, Andhra and Kerala States were established in ten districts to restrict entry of poultry including ducks, eggs and egg products, meat and meat products, poultry feed and feed ingredients. Vehicles originating from Karnataka carrying the above consignments are denied entry into Tamil Nadu.

- ❖ Checking and disinfection of all vehicles entering Tamilnadu with Chlorine Di-oxide spray at the check posts.
- ❖ A total of 1,200 Rapid Response Teams (RRTs) have been formed throughout the State and kept in a state of operational readiness.
- ❖ Surveillance for unusual mortality in poultry is being carried out by this Department and in Wild birds by Forest Department.
- ❖ A 24x7 control room has been established at the Directorate of Animal Husbandry and Veterinary Services.

- ❖ Availability of sufficient quantities of disinfectants, Personal Protective Equipment kits (PPE kits), and power operated spray guns is ensured.

Till now, no death in poultry and ducks due to Avian Influenza has been recorded in Tamilnadu.

The above work will be continued till Karnataka State is declared free from Avian Influenza by Government of India.

8.5.7 RANIKHET DISEASE

Ranikhet disease is one of the economically important diseases causing heavy mortality in poultry. The vaccination against this disease is carried out on all Saturdays at all the veterinary institutions and also in the camps conducted under 'Kalnadai Padhukappu Thittam' to protect poultry from this disease. Apart from this, the Department also conducts a State wide vaccination drive for

backyard poultry against Ranikhet disease during the month of February every year (Two weeks camp).

8.6 NATIONAL AGRICULTURE DEVELOPMENT PROGRAMME (NADP)

National Agriculture Development Programme aims to incentivise states to draw up comprehensive development plans taking into account agro-climatic conditions, natural resources and technology to bring about inclusive and integrated development of agriculture and allied sectors so as to increase their contribution to the national Gross Domestic Product. The programme has been successful in improving the production and productivity of various components of agriculture and allied sectors by addressing them in a holistic manner.

The Department started implementing NADP during 2007-08 and 50 projects at an outlay of Rs 170.40 crore have been implemented till 2015-16.

During the year 2015-16 the following projects were approved by the Government:

a) Provision of modern livestock shelter for augmenting productivity at the District livestock farms

To provide health sustaining and comfortable environment to different categories of livestock for health, longevity and ideal productivity, desirable working conditions for labour and supervisory staff, 13 modern livestock shelters in seven departmental farms are being constructed at an outlay of Rs.7.50 crore.

b) Introduction of new livestock genetic pool in the Departmental farms

A total of 1,050 animals are being purchased for seven departmental farms at an outlay of Rs 1.96 crore so as to increase the production of off - springs with superior economic traits to be distributed to the farmers for breeding purpose.

c) Upgradation of Institute of Veterinary Preventive Medicine (IVPM), Ranipet to GMP Standard

An amount of Rs 15.90 crore has been allocated additionally to upgrade the vaccine production facilities at IVPM to GMP standards.

d) Establishment of BSL II Standard Poultry Disease Diagnostic Laboratory at Palladam

An amount of Rs 2.00 crore has been allocated additionally to establish Bio Safety Level II Poultry Disease Diagnostic Laboratory at Palladam, Tirupur district.

8.7. NATIONAL LIVESTOCK MISSION (NLM)

The Government of India has formulated a National Livestock Mission (NLM) to be implemented from 2014-15 by subsuming and modifying seven Centrally Sponsored Schemes and Seven Central Sector Schemes.

The Government of India, has accorded sanction for implementing nine projects at a total outlay of Rs.39.95 crore.

Under Sub-Mission on Livestock Development Risk Management - Livestock Insurance Scheme, 3,64,947 breedable animals were insured at a total outlay of Rs.26.01 crore.

Under Sub-Mission on Feed and Fodder Development scheme the following activities were undertaken,

- a) Under the Procurement and Distribution of seeds, 440 quintals of certified / Truthfully labelled seeds of various fodder crops were procured and distributed as minikits to farmers at free of cost for green fodder production. The outlay of the project is Rs.1.28 crore.
- b) Under "Production and Distribution of Cowpea seeds", 40 quintals of Foundation cowpea seeds were procured and multiplied as certified seeds in five Departmental Livestock Farms for further distribution to farmers at free of cost for cultivating green fodder. The outlay of the project is Rs.96.50 lakh.
- c) In order to minimize the wastage of fodder by the animals, 4,698 farmers were provided with Power Operated Chaff Cutters at 75% subsidy at a total financial outlay of Rs.9.00 crore.

8.8 LIVESTOCK PROTECTION SCHEME

Under Kalnadai Padhukappu Thittam, special veterinary health camps are conducted to provide total health cover to livestock and poultry in remote villages where veterinary facilities are inadequate at farmers door steps.

A total of 5,500 special camps are conducted every year in all the Panchayat Unions at a total outlay of Rs.2.31 crore.

8.9 MONITORING OF ANIMAL HUSBANDRY ACITIVITES THROUGH MOBILE PHONE

To have effective monitoring of the activities of Veterinary Dispensaries from District headquarters and to get information quickly without loss of time from the field level, as a pilot scheme, mobile phones were provided to Veterinary Institutions in Tiruchirapalli District. Development of software and applications as per the requirement and procurement of mobile phones has been entrusted to ELCOT. A sum of Rs.15.81 lakh has been allocated for implementing this programme.

9. LIVESTOCK CENSUS AND INTEGRATED SAMPLE SURVEY

9.1 LIVESTOCK CENSUS

Enumeration for livestock census was started during the year 1919-20. Livestock census is conducted across the country every five years and it encompasses several activities to be carried out within the stipulated time frame. The 19th livestock census was carried out during the year 2012 and the 20th Livestock census is scheduled to be held in the year 2017. Government of India has issued guidelines and plan of action for 20th livestock census. The preparatory works such as nomination of nodal officers and selection of enumerators / supervisors from all districts has started. The period of 20th livestock census is scheduled from 16th July 2017 to 15th October 2017. This census includes both the species and breed wise population of the state.

9.2 INTEGRATED SAMPLE SURVEY SCHEME

Annual Sample Surveys are being conducted under the Central Sector Scheme 'Integrated Sample Survey' from the year 1977-78 onwards with 50%

financial assistance from Government of India. Under this scheme, production of Milk, Meat, Egg and Wool are estimated as per the guidelines from Department of Animal Husbandry, Dairying & Fisheries, Government of India. The survey has been divided into 3 seasons viz., Summer, Rainy and Winter season for studying the seasonal fluctuations. The survey covers 10-50% of villages in each district from 2012-13.

The results of Integrated Sample Survey are useful in evolving, monitoring and evaluating the developmental schemes implemented for the economic improvement of the livestock farmers over a period of time and helps to assess the impact of its efforts.

Table 12 : Percentage of increase of estimated production of milk, egg and meat over previous year

Item	Unit	2014-15	2015-16	% of increase
Estimated Milk Production	Lakh MT	71.32	72.44	1.57
Estimated Egg Production	Lakh Nos.	1,59,253	1,61,252	1.26
Estimated Meat Production	MT	4,91,900	5,44,500	10.69

10. EXTENSION SERVICES

Extension and propaganda are important tools for imparting skills and knowledge in basic and modern animal husbandry practices, which in turn can play a vital role in solving many field problems and in containment of diseases that cause economic losses. Moreover, it can make the schemes and programmes implemented by the Department more transparent to the public.

With the motto of "Seeing is learning" every opportunity is being utilized by the department to enlighten the farmers on various Animal Husbandry practices and disease prevention methods. Fairs and exhibitions are conducted by the department to collect and disseminate knowledge about animal husbandry and allied activities to the public. Information on prevention and control of diseases which are of significance (both existing and emerging diseases), deworming, vaccinations, artificial inseminations, calf rearing, goat and sheep rearing, poultry keeping, pasture management, meat inspection, sanitary measures, proper disposal of dead animals, disinfection of contaminated premises

and surfaces are provided to the farmers / stake holders.

During the year 2015-16, a sum of Rs.7.50 lakh was allocated to the Animal Husbandry Department towards conducting fairs and the department participated in the following fairs:-

Dindigul	Kodaikanal – Kodai Vizha
Vellore	Elagiri Kodai Vizha Trade Fair
Namakkal	Valvil Ori Vizha
Coimbatore	Trade Fair
Madurai	Trade Fair
Thanjavur	Trade Fair
Thirunelveli	Trade Fair
Thiruvannamalai	Trade Fair and Deepa Thiruvizha
Salem	Yercaud Kodai Vizha
Thoothukudi	Trade Fair
Kanniyakumari	Trade Fair

Apart from these, the department participated in the 42nd Trade Fair and Exhibition that was held from January 2016 to March 2016, at Island Grounds

Chennai and also in Republic Day Parade Pageantry at Chennai.

11. ANIMAL WELFARE MEASURES

“The Greatness of a nation and its moral progress can be judged by the way its animals are treated” - Mahatma Gandhi.

The Government in coordination with Animal Welfare Board of India is addressing the problems of unethical treatment to animals in a three pronged approach such as at the Livestock market, during transport and at slaughter houses to prevent cruelty to animals and to treat them ethically in a humane manner.

11.1 Society for Prevention of Cruelty to Animals (SPCA)

To effectively implement animal welfare measures and rules, Society for Prevention of Cruelty to Animals (SPCA) has been formed in all Districts of Tamil Nadu, as per Section 38 of the Prevention of Cruelty to Animals Act, 1960 and Prevention of Cruelty to Animals Rules (Amendment), 2001.

The main objectives of Society for Prevention of Cruelty to Animals (SPCA) are,

- ❖ to rescue and take care of all animals in the Districts as laid down in the PCA Act, 1960.
- ❖ to register cases of cruelty to animals and produce the offenders before the court for conviction.

11.2 Transport of Animals

The Ministry of Road Transport and Highways has issued notification No.GSR 546 (E), dt.08.07.2015 amending of Central Motor Vehicle Rule 2015, changing the space requirement for animals during transport. As per Rule 125 (E), from 01.01.2016, the motor vehicles used for transportation of livestock by road shall be in accordance with the specifications of Bureau of Indian Standards as provided in IS 14904:2007 or IS 5238:2001 or IS 5236:1982.

Motor vehicles used for transporting livestock should have separate partition space for the animals as prescribed below:

Table 13: Space Requirement for Animals

Item	Space Required
Cows and Buffalos	2 Square Meter
Horses	2.25 Square Meter
Sheep and Goats	0.3 Square Meter
Pigs	0.6 Square Meter
Poultry	40 Square Centimeter

12. JALLIKATTU

Jallikattu is a traditional sport event of the rural masses in Tamil Nadu which is conducted during Pongal Festival. The sport has a 5,000 year old tradition and a history associated with the Socio cultural ethos of rural Tamil Nadu.

The issue of conduct of Jallikattu has been under judicial scrutiny since 2006. Many individuals and organisations had filed cases for and against conduct of jallikattu in Hon'ble Madras High Court at various occasions. The Animal Welfare Board of India (AWBI) filed a Special Leave Petition (SLP) in Hon'ble Supreme Court of India vide 11686/2007 on 14.08.2007 seeking a ban on conduct of Jallikattu events in Tamilnadu. All the connected cases which were pending in the Hon'ble High Court of Madras

were transferred to Supreme Court and clubbed with the main SLP.

Consequent to the Hon'ble Supreme Court's order dated 07.05.2014 to ban the conduct of Jallikattu, Government of Tamil Nadu within 12 days of the order, approached the Hon'ble Supreme Court seeking review of the common judgment and order. The above review petition is still pending.

Consistent efforts have been taken for last several months to denotify bull from the list of performing animals. A team headed by the Secretary, Animal Husbandry, Dairying & Fisheries Department, Government of Tamil Nadu has held discussions with the officials of the Ministry of Environment and Forests, Government of India and Attorney General of India on the above mentioned issue.

The Hon'ble Chief Minister of Tamil Nadu, taking in to account the sentiments of the people of Tamil Nadu has addressed the Hon'ble Prime Minister of India on 14.01.2015 requesting him to give suitable instructions to the officials of the Ministry of Environment and Forests to take immediate action to denotify bulls from the list of performing animals.

A memorandum was given on 7.8.2015 to the Hon'ble Prime Minister of India by the Hon'ble Chief Minister to lift the ban on Jallikattu, to reiterate the request and suggest the following measures which would eventually pave the way for conducting Jallikattu events in Tamil Nadu:-

- ❖ Instruct the officials of Ministry of Environment and Forest, Government of India to denotify bull from the notification GSR 528(E) dated 11.7.2011 of Ministry of Environment and Forest, Government of India, as performing animals.
- ❖ Suitably amend section 11(3) of the Prevention of Cruelty to Animals Act, 1960 by introducing a new clause 'f' in sub section (3) of section 11 specifically exempting Jallikattu along with other exemptions already provided in the Act. Amendment to the section can be made within the ambit of Prevention of Cruelty to Animals Act, 1960, without violating its intent and spirit.

Accordingly, Government of India, Ministry of Environment, Forest and Climatic change issued notification GSR 13 (E) dated 7.1.2016 to conduct Jallikattu event. Hon'ble Supreme Court of India on

12.1.2016 issued an interim stay on the operation of the above notification. Hon'ble Chief Minister of Tamil Nadu on 12.1.2016 itself addressed the Hon'ble Prime Minister to promulgate an ordinance immediately to enable conduct of Jallikattu during 2016 Pongal festival.

Government of Tamil Nadu has filed a common counter affidavit on 8.3.2016 in the Supreme Court of India for the conduct of Jallikattu. The next hearing of the case is posted to 30th August, 2016 for final disposal.

A memorandum to lift the ban on Jallikattu was once again given on 14.6.2016 by the Hon'ble Chief Minister of Tamil Nadu to the Hon'ble Prime Minister of India.

His Excellency, the Governor of Tamil Nadu, on 16.6.2016 in his address in the State Assembly also mentioned that steps will be taken to lift the ban on conduct of Jallikattu.

Jallikattu being a traditional sport that reflects bravery is an integral part of social, cultural and religious sentiments of Tamils, the Government of Tamil Nadu is taking all out efforts to resume this event.

13. TAMIL NADU LIVESTOCK DEVELOPMENT AGENCY

Tamil Nadu Livestock Development Agency (TNLDA) was established as an autonomous State Implementing Agency to implement the National Project for Cattle and Buffalo Breeding (NPCBB) in Tamil Nadu and started functioning since 2003.

The objective of the agency includes bringing all the breedable female cattle and buffaloes under defined breeding programme through artificial insemination and natural service in a phased manner. The primary aim of the agency is to increase milk production and per animal productivity.

To achieve the above objectives the following activities are being implemented:

1. Supply of quality genetic inputs.
2. Introduction of quality bulls with high genetic merit for frozen semen production.
3. Implementing quality control in semen production stations and semen banks.

4. Procurement and supply of high quality frozen semen and artificial insemination (AI) equipment.
5. Streamlining procurement, storage and supply of liquid nitrogen.
6. Increasing the breeding facilities:
 - ❖ Establishing new mobile AI centres by training rural youth and equipping them and encouraging door-step delivery of breeding services.
 - ❖ Conversion of existing stationary AI centres into mobile cum stationary AI centres.
7. Conservation of indigenous breeds through milk recording programme and produce quality indigenous bulls of high genetic merit.
8. Human Resources Development through regular training of Veterinarians, Para veterinarians of the Department and Tamil Nadu Co-operative Milk Producers' Federation (TCMPF) as well as trained private AI workers.

13.1 ACTIVITIES UNDERTAKEN

a) Production and Distribution of Quality Frozen semen straws

Minimum Standard Protocol (MSP) of the Government of India is being implemented in all the frozen semen production stations of Tamil Nadu. A total of 83.82 lakh frozen semen straws produced by bulls of superior genetic quality have been supplied to the Department of Animal Husbandry, Tamil Nadu Cooperative Milk Producers' Federation and other Livestock Development Agencies of the country on request basis during 2015-16.

b) Embryo Transfer programme in Cattle

Embryo Transfer Technology (ETT) is a tool to realise the potential of genetically superior cow to the maximum by producing more number of calves from each cow within a short period of time to achieve the genetic improvement of the herd at a faster rate than through Artificial Insemination. This technology is also useful for conservation of indigenous breeds.

Under National Project for Cattle and Buffalo Breeding (NPCBB), the programme is being implemented at a cost of Rs.3 crore. This programme is undertaken in District Livestock Farm, Hosur and in the districts of Salem, Tiruppur, Dharmapuri, Krishnagiri, Erode, Theni, Namakkal, Karur, Coimbatore, Vellore and Madurai to produce bull calves of high genetic merit to meet the State's demand for bulls for semen production.

The bull calves born through this technology are purchased at the rate of Rs.5,000 per calf. They are maintained at the Semen Station for future semen production and the heifer calves are left with the farmers.

So far, 149 calves (83 bull calves and 66 heifer calves) have been produced through the Embryo Transfer Technology.

c. Strengthening of Artificial Insemination Network in the State by establishing New Mobile Artificial Insemination Centers

From 2003-04 to 2015-16, 1,742 rural youth have been trained on artificial insemination technique by TNLDA. A total of 21.72 lakh artificial

inseminations have been performed at the doorsteps of the farmers by these rural artificial insemination workers.

d. Strengthening of Artificial Insemination Training Centers of Animal Husbandry Department, Tamil Nadu Co-operative Milk Producers Federation and Tamil Nadu Veterinary and Animal Sciences University

During 2015-16, a sum of Rs. 10.00 lakh each was released under NPBB to strengthen two training centers of Animal Husbandry Department viz., District Livestock Farm, Naduvur and Sheep Farm, Mukundarayapuram and three training centers of Tamil Nadu Co-operative Milk Producers Federation viz., Salem, Tirunelveli and Vellore. A sum of Rs. 50.00 lakh was released to Veterinary College and Research Institute, Orathanad to establish a Regional Training Centre.

e. Conservation of indigenous breeds

To develop and conserve the indigenous breed of Bargur breed, a sum of Rs.1.37 crore has been

released to Tamil Nadu Veterinary and Animal Sciences University.

f. Field Performance Recording Programme in Kangeyam cattle

This programme is implemented by Tamil Nadu Cooperative Milk Producers Federation. Elite Kangeyam cows are selected and inseminated. The bull calves born to these cows are selected and reared for semen production in the semen stations. The programme is implemented in the milk unions of Coimbatore, Erode and Trichy. A total of 17 Kangeyam bull calves that were born under the scheme have been procured and sent to District Livestock Farm, Hosur for future semen production.

13.2 LIVESTOCK INSURANCE SCHEME (NLM)

Under National Livestock Mission the Livestock Insurance Scheme is carried out in all districts of Tamil Nadu. A sum of Rs.797.83 lakh was released during the year 2015-16 and 2.70 lakh cattle were insured.

13.3 NATIONAL DAIRY PLAN- PHASE I

Strengthening of Semen Production Station at District Livestock Farm, Udhagamandalam

To meet the State's requirement of frozen semen, strengthening of the frozen semen production station at District Livestock Farm, Udhagamandalam has been taken up at a total cost of Rs.6.46 crore during the period from 2012-13 to 2017-18. The objective is to increase the semen production from 13.34 lakh doses in 2011-12, to 30 lakh frozen semen doses by 2017-18.

As a result, frozen semen production at the District Livestock Farm, Udhagamandalam has increased from 13.40 lakh in 2012-13 to 18.17 lakh in 2015-16.

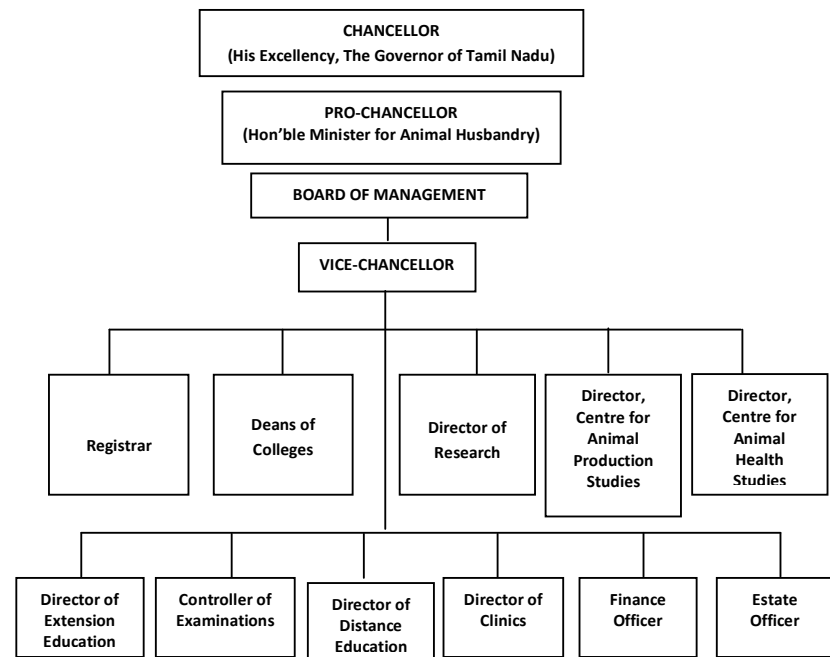
14. TAMIL NADU VETERINARY AND ANIMAL SCIENCES UNIVERSITY

14.1 OBJECTIVES OF TANUVAS

Tamil Nadu Veterinary and Animal Sciences University (TANUVAS) was established in 1989 with the following objectives:

- ❖ To impart quality education to undergraduate, post-graduate and doctoral students in different fields of Veterinary and Animal Sciences and Food Sciences
- ❖ To carry out research in livestock and poultry production, protection and value addition of products
- ❖ To disseminate knowledge on important technologies to line departments and farming community for the sustenance and growth of livestock and poultry in the State through extension programmes

14.2 ORGANOGRAM OF TANUVAS



14.3 UNITS OF TANUVAS

Tamil Nadu Veterinary and Animal Sciences University has four colleges to impart quality education to undergraduate, post-graduate and doctoral students in the field of Veterinary and Animal Sciences and two colleges for Food Sciences, eight research stations to carry out research and supply of germplasm to the farmers, 12 laboratories

to assist in disease diagnosis and surveillance, vaccine production, feed analysis and production, 20 Veterinary University Training and Research Centres (VUTRC) to disseminate knowledge on important technologies to line departments and farming community, three Farmers Training Centres to provide need based training to the farming community, three Krishi Vigyan Kendras to disseminate knowledge on important technologies in Animal Husbandry, Agriculture and Horticulture to the farming community.

14.4 Salient Activites during 2015-16

- ❖ Indian Council of Agricultural Research, New Delhi has granted accreditation to TANUVAS and its two colleges namely Madras Veterinary College, Chennai and Veterinary College and Research Institute, Namakkal for five years up to 2020.
- ❖ TANUVAS has attained a unique status among the Indian Universities, bagging 36th rank at national level and 3rd rank at state level as per the recent ranking of National Institute Ranking Framework, Ministry of Human Resource and

Development, Govt. of India. TANUVAS is in the 5th position in teaching and learning resources at National level and First in the state. TANUVAS is ranked number ONE among the 12 Veterinary and Animal Sciences Universities in India.

- ❖ The Vice-Chancellor, TANUVAS flagged off the new Mobile Disease Diagnostic Unit at Veterinary College and Research Institute, Tirunelveli on 09.06.2015.
- ❖ The first National Conference on Agricultural Scientific Tamil on the theme, "Tamil Can Do" was jointly organized by TANUVAS and Agricultural Scientific Tamil Society (ASTS), New Delhi on 13.06.2015 and 14.06.2015.
- ❖ Under the Tamil Nadu Skill Development Corporation sponsored project on "Skill training on non-farming based activities in Livestock and Poultry Industries", the training Courses on "Livestock vaccinator" and "Bio-security management techniques in livestock and poultry farms" were inaugurated at Veterinary College and Research Institute, Tirunelveli on 20.06.2015.

- ❖ A New hydroponic fodder unit has been commissioned at University Research Farm, TANUVAS under National Agriculture Development Programme scheme at a total cost of Rs.28.85 lakh.
- ❖ The new buildings constructed at a cost of Rs.129.91 Crore at Veterinary College and Research Institute, Orathanadu, Tirunelveli, College of Poultry Production and Management, Hosur, Veterinary University Training and Research Centres, Thiruvannamalai, Villupuram, Rajapalayam, Trichy and Farmers Training Centre, Theni were declared open by the Honourable Chief Minister of Tamil Nadu through Video conferencing on 15.07.2015.
- ❖ University Innovation and Instrumentation Centre (UIIC) was established at Madhavaram to validate innovations in respect of appliances and machineries, and to produce validated appliances and machineries for sale to the farmers.

- ❖ A total of 32,121 animals were treated in 38 Special Veterinary Health Camps conducted in the villages affected by recent floods.
- ❖ The Eighteenth Convocation of TANUVAS was held at Madras Veterinary College on 05.02.2016. His Excellency the Governor of Tamil Nadu and Chancellor of the University, DR.K.Rosaiah presided and conferred degrees and diplomas to 309 candidates in person and 204 candidates *in-absentia*.
- ❖ Upgradation of Veterinary University Training and Research Centre, Madurai as Veterinary University Training and Diagnostic Centre, at a cost of Rs. 1.00 crore.
- ❖ Under TANII programme, the Government of Tamil Nadu has sanctioned a sum of Rs. 12.76 crore to establish "Animal Bio safety Level – III - Laboratory with small animal experimentation facility" at Madhavaram. Diseases like Avian Influenza and FMD can be diagnosed and confirmed by laboratory tests at Chennai itself.
- ❖ To provide round the clock veterinary emergency care in distantly located villages, a

project on "Animal Mobile Medical Ambulance (AMMA) for rural veterinary health care in Tamil Nadu" has been sanctioned to TANUVAS at a cost of Rs. 6.34 crore under National Agriculture Development Programme. This facility will be the first of its kind in the Country.

- ❖ During 2015-16, TANUVAS established four Regional Artificial Insemination Training Centres at a cost of Rs.100 lakh with financial assistance from Government of India under National Programme on Bovine Breeding.

14.5 DETAILED ACTIVITIES OF TANUVAS DURING 2015-16

Among the 12 Veterinary Universities in the country, TANUVAS is the front runner and the activities of TANUVAS in the areas of Education, Research, Clinical services and Extension are outlined below:

14.5.1 Education

- ❖ Details of students admitted for the year 2015-2016 at TANUVAS are furnished below:

Table No: 14: Students Admitted

B.V.Sc. & AH (Inclusive of NRI, Foreign Nationals and Kashmiri migrants)	:	336
B.Tech. (Food Processing Technology)	:	20
B.Tech. (Poultry Production Technology)	:	20
B.Tech. (Dairy Technology)	:	20
M.V.Sc (inclusive of Foreign Nationals)	:	125
M.Tech (FT)	:	10
M.Sc. (Bioinformatics)	:	10
M.Sc.(Biostatistics)	:	3
M.Phil in Biotechnology	:	8
PG Diploma (Animal Sciences)	:	18
Ph.D. (Veterinary)	:	98
Ph.D. (Food Technology)	:	5
MBA (F&LBM)	:	10

14.5.2 Research Achievements

- ❖ DNA vaccine for PPR has been developed
- ❖ Rodents and canines were found to be carriers for leptospira *L. autumnalis* which was the most prevalent serovar. During September – December

more number of Human and Canine leptospirosis cases are encountered.

- ❖ Cultivation of common fodder crops especially CO4 has maximum potential for carbon sequestration thereby mitigating climate change effect.
- ❖ Field investigation was carried out to assess the heavy metal contamination in dairy cattle reared around industrial areas of Vellore, Tiruppur and Karur districts. Industries around the rivers have become the main cause of pollutants. Forage and water play a key role in determining the level of metal in milk and muscle whereas feed and soil were relative in their impact. In general, the concentration of heavy metals was found to be higher in summer than monsoon.
- ❖ Windrow method of disposal of dead birds was found to be suitable and remunerative.
- ❖ Addition of aqueous extract of betel and tulsi leaves extracts at 0.5 per cent extended the shelf life of raw milk by 5 hours. Pasteurised milk treated with 0.5 per cent aqueous extract of betel leaves remained acceptable up to 5th day of storage.

- ❖ Fig paste at the rate of 20% and honey at the rate of 7.5 % combination along with *L.rhamnosus* at the rate of 4% was suitable for dietetic synbiotic ice cream preparation.

14.5.2.1 PRODUCTS AND TECHNOLOGIES DEVELOPED

- ❖ ICAR- TANUVAS Mobile Poultry Processing Unit
- ❖ Practice of Permanent Body Tattooing for identification in pigs
- ❖ IgM based enzyme-linked immunosorbent assay for serodiagnosis of Leptospirosis using novel recombinant multi-epitopic antigen

14.5.3 Clinical Services

TANUVAS is offering clinical services to the pet and livestock owners round the clock. A total of 1,88,003 animals were treated as out-patient cases during the year 2015. A total of 4,255 large animals and 663 small animals were also treated as in-

patient cases. A separate quarantine unit to house animals suspected for rabies is functioning in all the institutions. The hospitals are equipped with infrastructure facilities like Haemodialyser; Endoscopic image documenting system; Colour Doppler ultrasonogram; Electrocardiogram; Vital Sign Monitor.

14.5.4 Laboratory services

❖ Pharmacovigilance Laboratory for Animal Feed and Food Safety, Madhavaram Milk Colony, Chennai

This laboratory is involved in analysis of mycotoxins, pesticides and drug residues in animal feed and food. During 2015-16, 3,121 samples were analysed to enable the entrepreneurs / farmers to formulate animal / poultry feed free from toxic residues.

❖ Animal Feed Analytical and Quality Assurance Laboratory, Namakkal

A total of 25,067 samples were received and 61,577 tests for proximate, mineral, adulterants, contaminants and mycotoxins in

feed, feed ingredients, and vitamin concentration in premixes were carried out.

❖ Bi-weekly weather based bulletins are issued for the benefit of poultry and agricultural farmers of North-West Agro climatic zone of Tamil Nadu.

❖ Zoonoses Research Laboratory, Madhavaram Milk Colony, Chennai

A total of 3,143 human and 3,252 animal serum samples were screened by Microscopic Agglutination Test (MAT) for detection of leptospiral antibodies.

14.5.5 Extension Activities

The activities undertaken by TANUVAS are furnished below.

❖ A total of 826 on-campus and 761 off-campus training programmes were conducted on 22 different topics including dairy farming, sheep & goat farming, poultry farming, pig farming, milk and milk products and feed and fodder cultivation. A total of 62,873 farmers including 13,062 SC/STs were imparted training.

- ❖ A total of 190 training programmes were organized for the benefit of 7,894 beneficiaries of various schemes of Government of Tamil Nadu viz., Fodder development, Pudhu Vazhvu and Poultry development
- ❖ A total of 64,733 beneficiaries of Tamil Nadu Government scheme "Free Distribution of Milch Cows and Goats / Sheep", have been trained by the centres of TANUVAS.
- ❖ TANUVAS Foundation Day 2015 and Livestock and Poultry Farmers Day – 2015 were organized at Tiruchirapalli on 19.09.2015 and 20.09.2015. An exhibition was arranged showcasing the low cost technologies for livestock and poultry, live exhibits and educational opportunities. More than 5,000 farmers visited the exhibition and about 2,000 farmers and 500 school students participated in the knowledge sharing sessions.
- ❖ Tamil Nadu Veterinary and Animal Sciences University organized the Honourable **Chief Minister Puratchi Thalaivi Selvi J Jayalithaa Endowment Lecture** at

Madras Veterinary College, Chennai on 30.09.2015. The Deputy Director General (Animal Science), ICAR, New Delhi delivered the Endowment Lecture on "Enhancing livestock and poultry productivity for food security".

- ❖ Training on vermicomposting is regularly offered to farmers in Krishi Vigyan Kendras (KVK) at Kattupakkam, Kundrakudi and Namakkal.

14.5.6 Skill Development programmes

During the year 2015-16, TANUVAS has offered 22 PG diploma courses for the Veterinarians to update their knowledge and skills on latest technologies in veterinary field. Besides, 15 skill development courses and 10 self-employment courses in animal husbandry sector are being offered to boost livestock and poultry production thereby augmenting the rural income. During 2015-16, 48, 65 and 488 candidates enrolled in the PG diploma, Skill development and Self-employment courses respectively.

14.6 NATIONAL AND INTERNATIONAL COLLABORATION

TANUVAS has signed Memorandum of Understanding with Charoen Pokphand Foods (India) Private Limited (CPFIPL), Bangalore, to develop cooperative relationships on the basis of mutual understanding especially in developing skill development programmes (Quick development courses), facilitating students exchange and assistance in industrial placements for students of B. Tech (Poultry Production Technology), assisting students in entrepreneurial activities and facilitating the placement of students at CPFIPL. The MoU was signed by the Hon'ble Vice-Chancellor, TANUVAS on 01.10.2015 at CPF Headquarters in Thailand.

14.7 PRIORITIES FOR 2016-2017

1. New Training and Research Centres

At present, research and extension centres of TANUVAS are functioning in 25 districts of Tamil Nadu. It is aimed to establish research and extension centres in three more districts of Tamil Nadu.

2. Thrust areas of TANUVAS for the next two years

- ❖ Starting of veterinary polytechnic courses at Regional Research Centre, Pudukottai from 2016-17 onwards.
- ❖ Establishment of animal and poultry waste management centres.
- ❖ Establishment of solar power operated farm centres as a first green initiative at TANUVAS.
- ❖ To infuse innovativeness and develop food novelties by suitable enrichment / fortification.

15. BUDGET FOR 2016-17

A sum of Rs.1,188.9667 crore has been provided in the budget for 2016-17. Out of this, projected revenue expenditure is Rs.1095.1863 crore, capital expenditure is Rs.93.7803 crore and loan amount is Rs.1,000.

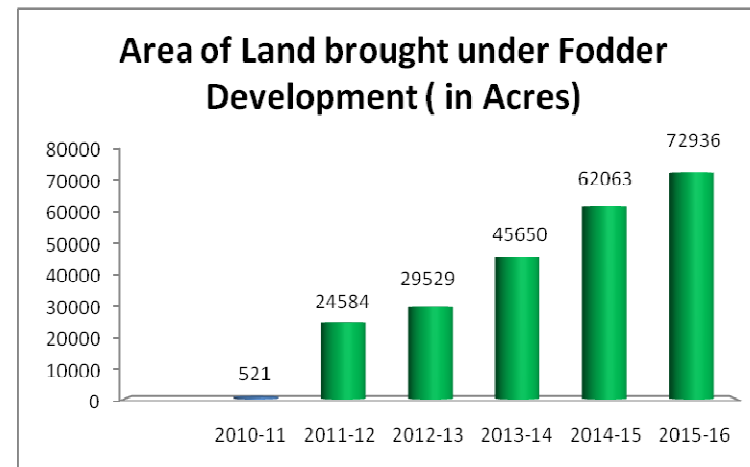
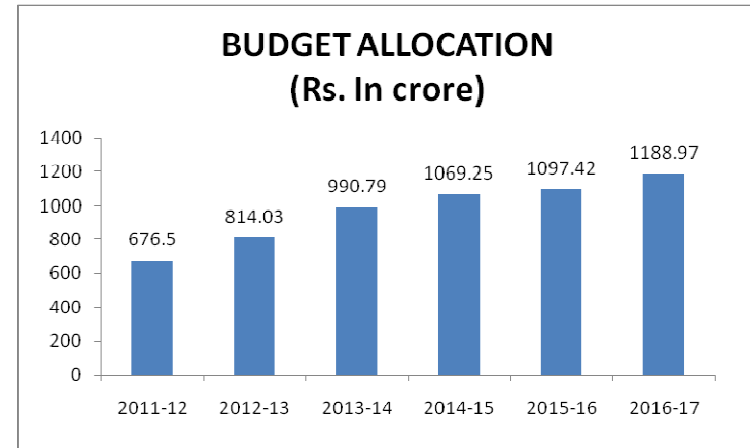
16. CONCLUSION

Under the visionary leadership of our Hon'ble Chief Minister, the Animal Husbandry sector is poised to transform the rural economy. The income earned

by small, marginal farmers and landless agricultural labourers through this department has increased manifold during the last five years through implementation of a gamut of pro-poor, women centric developmental schemes.

The Animal Husbandry Department in the ensuing years would strive hard to improve and realize Hon'ble Tamil Nadu Chief Minister's Vision 2023.

P. BALAKRISHNA REDDY
Minister for Animal Husbandry





Hon'ble Chief Minister of Tamil Nadu distributed Free milch cows to beneficiaries under Free Distribution of Milch Cows Scheme, at a Government function held at Srirangam Constituency of Tiruchirapalli district on 30.06.2014.



Broiler Farm Established under Scheme for Poultry Development



Hon'ble Chief Minister of Tamil Nadu distributed Free Goats to beneficiaries under Free Distribution of Goats / Sheep Scheme, at a Government function held at Srirangam Constituency of Tiruchirapalli district on 30.06.2014.



Native Chicken Farm Established under Scheme for Poultry Development



Azola production unit distributed under State Fodder Development Scheme



Chaff Cutter distributed under State Fodder Development Scheme



Raingun distributed under State Fodder Development Scheme



Farmers Training Centre at District Livestock Farm, Naduvur, Thanjavur district constructed under NADP



Veterinary Dispensary at Mittareddy Halli, Dharmapuri district constructed under NABARD RIDF



Foot and Mouth Disease Vaccination



Examination of Infertile cow through Ultrasound Scanner



New Mobile Disease Diagnostic Unit, TANUVAS



Hydroponic fodder production unit – University Research Farm, TANUVAS



Animal Feed Manufacturing Unit – Veterinary College and Research Institute, Namakkal