



**ANIMAL HUSBANDRY, DAIRYING AND FISHERIES  
DEPARTMENT**

**ANIMAL HUSBANDRY**

**POLICY NOTE**

**2015-16**

**DEMAND NO.6**

**T.K.M. CHINNAYYA**

**MINISTER FOR ANIMAL HUSBANDRY**

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Government of Tamil Nadu

2015

**ANIMAL HUSBANDRY DEPARTMENT**

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**I N D E X**

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ANIMAL HUSBANDRY DEPARTMENT

**POLICY NOTE 2015-16**

***The Government's Flagship scheme of distribution of milch Cows and goats or sheep to the poor rural households headed by women calls for the highest priority in implementation. These schemes are aimed at empowering rural women socially and economically. I understand that through the distribution of milch cows and formation of new Milk producers Co-operative Societies, milk production in the State has gone up appreciably.....***

*-Inaugural address of the Hon'ble Chief Minister in the Conference of the District Collectors and Police Officers on 17.12.2012.*

**1. INTRODUCTION**

Animal Husbandry sector plays a vital role in sustaining rural livelihoods and improving the economy of rural population. Livestock sector provides productive employment especially self employment and guaranteed supplementary household income to a majority of rural households particularly small and marginal farmers besides providing nutritious food products like milk, meat and eggs. The live animals are important natural assets for the poor, which can be easily liquidated

for cash during emergency. Livestock have remained an integral part of the socio-economic fabric of rural people since time immemorial, not only as a source of livelihood but also as a provider of draught energy, manure and fuel.

Sustained rise in income and urbanization are now fuelling rapid growth in demand for animal food products and the livestock are coming under pressure to produce more. Over the last three decades livestock production grew faster than crop sector as a whole and has made significant contributions to agricultural growth, which is considered to be an important factor in poverty reduction among rural people.

Livestock Revolution is also significantly contributing towards improving nutritional security and reducing rural poverty. The rural poor have little access to agriculture land and thus there are limited opportunities for them in crop production. On the other hand, livestock wealth is equitably distributed compared to land, and generates opportunities for the poor to escape poverty through livestock production.

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). During 2006-07, the gross value of

output of livestock, which was 11,535.23 crore in the State has increased to Rs.55,068.20 crore during 2014-15 (Advanced Estimate at Current Prices). The estimated milk production, which was 54.74 lakh Metric Tonnes during 2005-06 in Tamil Nadu, has increased to 71.32 lakh Metric Tonnes during 2014-15. Likewise, the estimated egg production, which was 62,225 lakh numbers during 2005-06 has increased to 1,59,253 lakh numbers during 2014-15.

The per capita availability of milk per day and eggs per annum has increased from 231 gms and 100 numbers during 2005-06 to 257 gms and 209 numbers during 2014-15 respectively. Apart from these, the estimated meat production (including poultry meat), which was 1,186 lakh kgs during 2005-06 has increased to 4,919 lakh kgs during 2014-15. The State contributes 5.12% of milk production, 19.23% of egg production and 7.45% of total meat production (including poultry meat) and ranked 10<sup>th</sup> in milk production, 1<sup>st</sup> in egg production and 6<sup>th</sup> in meat production in the country during 2014-15.

The Animal Husbandry Department plays a major role in implementing various programmes effectively and providing veterinary assistance, health care and breeding services to the livestock and poultry reared by the farmers in the State

through a network of 2,679 Veterinary Institutions and 800 Veterinary Sub-Centres. Further, Mobile Veterinary Units also provide veterinary services to the livestock of the farmers residing in remote areas at their doorsteps. This timely services results in increased production of livestock products like milk, meat and egg.

The State Government is also successfully progressing towards its objective of increasing the milk production in order to achieve a 'Second White Revolution' in the State. Hon'ble Chief Minister's "Tamil Nadu Vision 2023" envisages making Tamil Nadu the 'Numero Uno' State by achieving a target of 11 per cent growth in Gross State Domestic Product (GSDP), for which contribution of primary sectors like Agriculture and its allied sectors like Animal Husbandry is inevitable.

The Hon'ble Chief Minister has given special emphasis to the Animal Husbandry sector, for ensuring the welfare of the rural poor. "Free distribution of Milch Cows and Free distribution of Goats / Sheep" to poor women in rural areas were launched by Hon'ble Chief Minister. These schemes aim at achieving the twin objectives of economic improvement of rural women by empowering them with sustainable income generating livestock and to usher in a radiant white revolution in the State. Since the inception of the scheme during

2011-12 till 2014-15, 22 lakh goats /sheep and 48 thousand milch cows have been distributed to poor needy families. These animals have given birth to 31.14 lakh kids and 47,971 calves respectively. Further, 1.70 lakh litres of milk is being produced every day from the milch cows distributed under the Free Scheme.

Animal husbandry is an activity which can easily be taken up by rural communities, wherein inputs are locally available and marketing of livestock products does not pose major problem and is functioning as a powerful instrument for the comprehensive socio economic transformation of the rural people. Further, it is acting as an engine for growth and trigger rural economic improvement through its multiplier effect. Animal Husbandry, in short contributes significantly towards achieving the goal of rural prosperity.

In order to prevent the general public from the spread of Zoonotic diseases from Livestock an "One Health Programme", will be initiated by the Animal Husbandry and Health Departments. This initiative will envisage sharing of technical skills, information and implementation, so as to prevent the spread of Zoonotic diseases and to control them effectively. In view of such concerted and coordinated efforts by both the Departments under the One Health Programme, will certainly ensure not only the well

being of the general public and Livestock, but also protect the environment in the long run.

## **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 courses on basic and latest animal husbandry practices for farmers and officials.

### **2.1 The Department has initiated the following efforts towards achieving the aims:**

- The number of Veterinary Institutions increased from 1,874 during 2010-11 to 2,679 during 2014-15. This ensured that each Veterinary Institution caters to 4,521 Cattle Units, which has bettered the recommendation of National Commission on Agriculture, which is one Veterinary Institution for every 5,000 Cattle Units.
- The number of cases treated in Veterinary Institutions and first aid provided in Sub-centres together has increased from 223.26 lakh during 2010-11 to 335.04 lakh during 2014-15. This was possible since 805 Veterinary Institutions were established and professional Veterinary services were provided to livestock in needy remote areas.
- The daily average milk production of the Indigenous cow has increased from 2.58 kgs during 2011-12 to 2.65 kgs during 2014-15. Similarly, the daily average milk production of crossbred cow has increased from 6.41 kgs during 2011-12 to 6.87 kgs during 2014-15 and that of Buffalo has increased from

4.093 kgs during 2011-12 to 4.39 kgs during 2014-15.

- In order to create awareness and to encourage rearing of indigenous breeds among the livestock farmers with the ultimate aim of conserving indigenous cattle breeds, three Regional / State level workshops (One for Pulikulam breed at Dindigul, one for Alambadi breed at Salem and one for Toda buffalo at The Nilgiris and 5 cattle fairs / exhibitions (for Kangayam Breed at Tiruppur, Umblachery Breed at Nagapattinam, Pulikulam breed at Dindigul, Alambadi breed at Salem and for Bargur Breed at Erode) are being conducted at a total cost of Rs.29 lakh.

### **3. CHRONOLOGICAL DEVELOPMENT OF THE DEPARTMENT**

- 1799** Veterinary aid in India started when East India Company of the British brought five Veterinary Surgeons from London to improve the breeding of horses and camels in India.
- 1892** Civil Veterinary Department was inaugurated as a separate department manned by Military personnel.
- 1924** Hosur Cattle Farm was taken over from army and cattle breeding station was 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.

**1970** The Department was reorganized.

**1975** Introduction of Artificial Insemination with Frozen Semen.

**1977** Animal Disease Intelligence Units were established.

**1981** Establishment of Poultry Disease Diagnostic Laboratory at Erode.

**1999** Formation of Directorate of Veterinary Services.

**2003** Formation of Tamil Nadu Livestock Development Agency (TNLDA) under the National Project on Cattle and Buffalo Breeding (NPCBB).

**2005-2006** Improvement of Infrastructure of Veterinary Institutions through National Bank for Agricultural and Rural Development (NABARD) Rural Infrastructure Development Fund (RIDF) X.

**2006-2007** Livestock Insurance Scheme was introduced in 5 districts.

**2007-2008** Tamil Nadu Veterinary Infrastructure Improvement Project (TANVIIP) was launched with funds sourced from NABARD RIDF XI.

**2008-2009** Livestock Insurance scheme extended to 5 more districts.

**2009-2010** Livestock Insurance scheme extended to 5 more districts, thus Insurance Scheme is implemented in 15 districts.

**2011-2012**

- Inauguration of Hon'ble Chief Minister's Special Schemes viz., Free distribution of Milch Cows and Free distribution of Goats/ Sheep with priority given to women headed poor families.
- 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.
- Infrastructure improvement in 360 Veterinary Institutions, 12 Livestock Farms through NABARD RIDF XVII.
- Upgradation of Bacterial Vaccines Laboratory to Good Manufacturing Practices (GMP) standards at Institute of Veterinary Preventive Medicine (IVPM) was sanctioned under NADP.

**2012-2013**

- Launching of Scheme for Poultry Development.
- Creation of 5 new Joint Director Offices of Animal Husbandry to match the number of Districts (except Chennai).

- Introduction of Embryo Transfer Technology (ETT) at District Livestock Farm (DLF), Hosur and at field level in 8 Districts successfully.
- Conduct of 19<sup>th</sup> Quinquennial Livestock Census.
- 2 new Veterinary College and Research Institutes were established under TANUVAS at Orathanad of Thanjavur district and at Tirunelveli.

**2013-2014**

- 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 on Independence day.
- Upgradation of 100 Sub-Centres into Veterinary Dispensaries.
- Establishment of 11 Cattle Breeding and Fodder Development Units (CBFDs).
- Provision of 53 Ultra Sound scanning equipments to Clinician Centres, Livestock Farms and Cattle Breeding and Fodder Development Units (CBFDs).
- Provision of 5 portable Ultrasound scanning equipments to 5 Veterinary Polyclinics.
- Steps initiated for Conservation of Indigenous breeds of livestock such as Kangayam, Umblachery and Bargur by conducting exhibitions and workshops.

- Introduction of Slatted floor for rearing Goats through five Departmental Livestock Farms with funding under "Integrated Development of Small Ruminants and Rabbits" (IDSRR) Scheme.
- A very severe outbreak of Foot and Mouth disease was effectively controlled through measures taken on a war footing.
- Expansion of Rural Backyard Poultry Scheme to cover all Districts except Chennai.
- Infrastructure improvement to Dog Breeding Unit at Saidapet.
- Construction of 450 Veterinary Institutions through NABARD RIDF XIX.
- Establishment of "Stem Cell Research Centre for Animals", the first of its kind in the country on 19.06.2013 at TANUVAS, Chennai.
- Silver Jubilee celebration of TANUVAS.
- Creation of 3 new Assistant Director Offices of Animal Husbandry at Srirangam, Iluppur and Ambattur. Thus the number of Animal Husbandry divisions increased from 76 to 79 to match the number of Revenue Divisions.
- Establishment of 2 Animal Disease Intelligence Units (ADIUs) at Pudukottai and Thiruvannamalai.
- Upgradation of 100 Sub-Centres into Veterinary Dispensaries.

**2014-2015**

- Establishment of 50 new veterinary Sub-Centres.
- Effective control measures taken on a war footing to prevent the spread of Avian Influenza from Kerala into Tamil Nadu.
- Orders issued for provision of computerized X-ray machines to 15 Veterinary Institutions.
- Training on artificial insemination and provision of inputs to 500 Rural Youth to establish 500 new Artificial Insemination Centres.
- Expansion of Cattle Insurance Scheme to cover all the districts in the State under National Livestock Mission.
- Construction of 226 Veterinary Institutions through NABARD RIDF XX.

#### **4. LIVESTOCK WEALTH IN TAMIL NADU**

Livestock have remained an integral part of one's life since time immemorial. People are considering animal wealth 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, local pure breeds of white cattle like Kangayam, Umblachery, Alambadi, Bargur and Pulikulam and Toda buffaloes are reared. Among these, Kangayam breed cattle are reared in Western districts viz., Tiruppur, Erode, Coimbatore

and Karur, Umblachery breed cattle in Eastern districts viz., Thanjavur, Thiruvarur, Nagapattinam and Cuddalore, Alambadi breed cattle in Western districts viz., Dharmapuri, Erode and Salem, Pulikulam breed cattle in Southern district viz., Sivagangai, Madurai, Dindigul and Theni, Bargur breed cattle in Erode and Toda buffalo in the Nilgiris. In the same way, local pure 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), Trichy black (Perambalur, Ariyalur, Tiruchirapalli and Villupuram districts), Coimbatore (Coimbatore and Tiruppur districts) and Nilgiri (The Nilgiris district) and local pure goat breeds like Kanniadu (Virudhunagar, Thoothukudi and Tirunelveli districts), Kodiadu (Thoothukudi and Tirunelveli districts) and Salem black (Salem, Dharmapuri and Krishnagiri districts) are reared in Tamil Nadu.

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

As per the 19<sup>th</sup> Livestock and Poultry Census, 24.6 lakh indigenous cattle, 63.54 lakh exotic / crossbred cattle, 7.8 lakh buffalo, 47.87 lakh sheep,



81.43 lakh goats and 1173.49 lakh poultry are in Tamil Nadu.

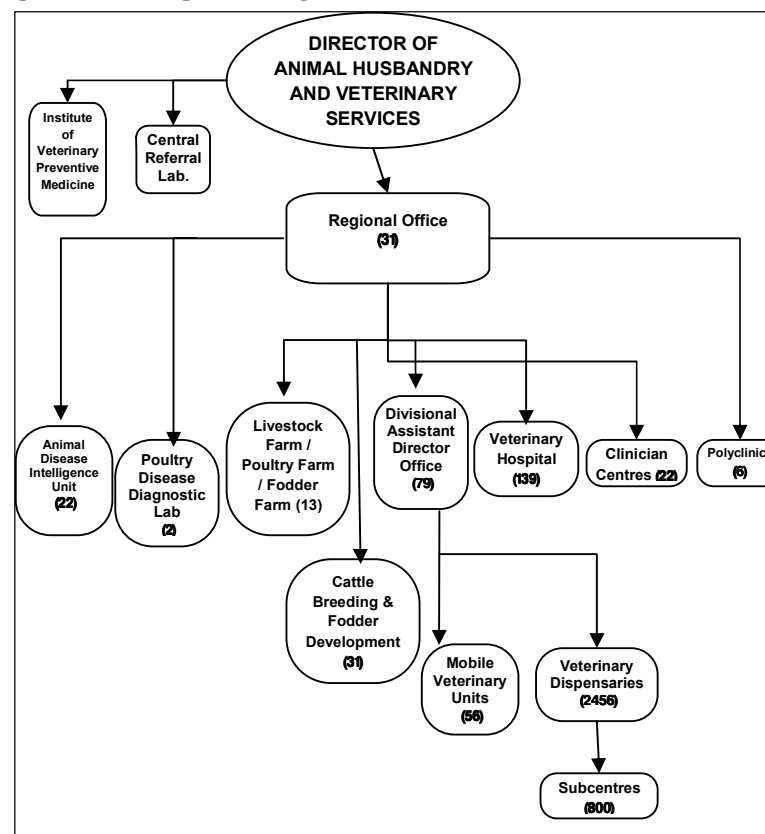
Comparison of the livestock and poultry population in Tamil Nadu with respect to the livestock and poultry population in India are as follows:

**Table 1: Comparison of State Livestock and Poultry Population with National Census**

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
<b>Total Livestock</b>	<b>5110.86</b>	<b>227.23</b>	<b>4.44</b>
<b>Total Poultry</b>	<b>7292.09</b>	<b>1173.49</b>	<b>16.09</b>

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

## 5. ADMINISTRATION



The Animal Husbandry Department is headed by the Director of Animal Husbandry and Veterinary Services. The Director is assisted by four Additional Directors, two Joint Directors, one Deputy Director and nine Assistant Directors in the Directorate with allocation of different technical subjects. The

Director is assisted by one of the four Additional Directors and a Deputy Director (Personnel) and 2 Administrative Officers in respect of administrative matters and a Financial Controller, a Chief Accounts Officer and an Accounts Officer in respect of finance and accounts.

Each of the 31 Districts (except Chennai) are under the control of one Joint Director and each of the 79 Administrative divisions, are headed by an Assistant Director. They are responsible for all the activities of the Department within their area of jurisdiction.

One Director in the cadre of Additional Director is the head of Institute of Veterinary Preventive Medicine (IVPM) located at Ranipet, which is engaged in the production of various livestock and poultry vaccines and other biologicals. One Central Referral Laboratory (CRL), assigned with the work of diagnosis, confirmation and monitoring of animal diseases is functioning at Chennai. The Central Referral Laboratory coordinates the work of the 22 Animal Disease Intelligence Units (ADIUs) and 2 Poultry Disease Diagnostic Laboratories (PDDLs) functioning in various parts of the State, that are engaged in disease surveillance and monitoring.

The Department also manages 8 Livestock Farms, 3 Sheep Farms, 1 Poultry Farm, 1 Fodder Seed Production Farm and 31 Cattle Breeding and Fodder Development Units (CBFDs).

**Table 2: Category wise Sanctioned Strength of Posts**

S. No	Category of Post	Cadre Strength
1	Director of Animal Husbandry and Veterinary Services	1
2	Additional Director	4
3	Director, Institute of Veterinary Preventive Medicine, Ranipet.	1
4	Joint Director	33
5	Senior Research Officer	3
6	Deputy Director	42
7	Assistant Director	309
8	Research Officer	7
9	Administrative Officer	17
10	Assistant Research Officer	22
11	Veterinary Assistant Surgeon	2,739
12	Research Assistant	40
13	Senior Veterinary Livestock Supervisor	165
14	Ministerial Staff	1,261
15	Livestock Inspector Grade I	1,404
16	Livestock Inspector Grade II	1,357
17	Animal Husbandry Assistant	4,623
18	Basic staff	553
19	Other staff	664
	<b>Total</b>	<b>13,245</b>

The following measures have been taken to improve the administration in the Department during 2014-15:

- A total of 106 technical posts including 39 Assistant Directors, 34 Deputy Directors, 29 Joint Directors and 4 Additional Directors were filled up by promotion. In addition, 143 para-technical posts and 119 Ministerial posts were filled up through promotion from

lower cadre posts. Further, 111 Assistants, 96 Junior Assistants, 18 Typists and 3 Steno Typists were appointed through Tamil Nadu Public Service Commission and 3 Junior Assistants, 3 Record Clerks and 4 Basic servants were appointed on Compassionate grounds. Services of 44 personnel, appointed on Compassionate grounds from 2007 were regularised.

- 12 Deputy Director posts were created for the newly formed Cattle Breeding and Fodder Development Units.
- 100 Veterinary Assistant Surgeon posts and 100 Animal Husbandry Assistant posts have been newly created for the 100 upgraded Veterinary Dispensaries.
- Following 27 posts were created for the newly established Divisional offices at Srirangam, Illuppur and Ambattur:  
Assistant Director-3, Manager-3, Assistant-3, Junior Assistant-6, Typist-3, Driver-3, Office Assistant-3, Night Watchman-3.
- Following 16 posts were created for the newly established Animal Disease Intelligence Units at Thiruvannamalai and Pudukottai:  
Assistant Director-2, Veterinay Assistant Surgeon-4, Assistant-2, Typist-2, Driver-2, Laboratory Technical Assistant-2, Laboratory Attender-2

- During 2012-13, for Livestock Inspectors training 328 candidates were selected, of whom 314 candidates were trained at District Livestock Farms, Hosur and Pudukottai and Sheep Farm, Mukundarayapuram and posted as Livestock Inspectors. Action is being taken to select 350 candidates for livestock Inspector training for 2013-14.
- To develop the professional efficiency of Veterinarians and to provide modern Veterinary services to the livestock, Veterinary Assistant Surgeons / Research Assistants / Research Associates were permitted to pursue Master Degree (10 numbers) and Doctorate degree (Ph.D) (5 numbers) with full pay and allowances.
- 211 Veterinarians were provided training on various aspects of Animal Husbandry and Veterinary Sciences at various institutions.
- For the 139 Tamil Nadu Poultry Development Corporation Ltd staff who were absorbed into this Department, 50% of their services were taken into consideration for pension benefits.
- Action is being taken to appoint 12 Drivers for the Vehicles of newly established Cattle Breeding and Fodder Development Units (CBFDs) through Tamil Nadu Ex-Service men's Corporation Limited (TEXCO).

- Action has been initiated to procure 3 vehicles for newly created 3 Assistant Director Offices and to appoint 3 Drivers. Further, the Government has provided 18 vehicles for field level offices.
- A total of 283 Right To Information (RTI) petitions were received by the Department and all the petitions were provided with appropriate responses during 2014-15.
- Replies to all the 413 petitions received from the Hon'ble Chief Minister's grievance redressal cell, have been provided, thus ensuring 100% compliance.

**Table 3: Growth of Administrative Offices**

Offices	2010-11	2011-12	2012-13	2013-14	2014-15
Regional Offices	25	25	31	31	31
Divisional Offices	65	76	76	76	79
Cattle Breeding and Fodder Development Units	20	20	20	31	31
Animal Disease Intelligence Units	20	20	20	20	22

## 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 through the wide network of Veterinary Institutions and Sub-centres located in all the districts. The services provided include health cover, disease diagnosis, disease prevention, and disease control, breeding support and imparting training to farmers. While Veterinary services are provided by the professional work force, minor veterinary services and first aid are provided through Para veterinarians.

Artificial insemination of cattle using liquid semen of exotic and graded breeds of cattle was introduced by the Department of Animal Husbandry during 1948. Further, with the introduction of frozen semen during 1975, liquid semen was gradually phased out and all the artificial insemination centres started using frozen semen from 1993.

Artificial Insemination horizontally disseminates superior genetic resources in a population within a short period. With this in mind, to improve the milk production traits of cattle and buffaloes, to bring more returns to the farmers and to increase the State's milk production, artificial

insemination with semen of bulls possessing high milk production traits is being carried out through 3,479 Artificial Insemination Centres functioning throughout the State. There are a total of 1,549 Artificial Insemination workers trained by Tamil Nadu Livestock Development Agency (TNLDA), through Tamil Nadu Veterinary and Animal Sciences University (TANUVAS), engaged in Artificial Insemination programme in the State besides the above 3,479 Artificial Insemination Centres.

The revised Breeding Policy of the State for cattle which is in vogue since 2008-09 provides for selective breeding of native breeds and for crossing Non-descript cows with Jersey or Holstein Friesian depending on agro climatic conditions. Wherever crossing of Non-descript cows with Exotic germplasm is practiced the level of exotic inheritance should be restricted to 50%. Back-crossing with exotic breeds should be avoided. Indian breeds like Red Sindhi, Sahiwal and Tharparkar may also be used for cross breeding the Non-descript cows. Cross bred cows may be bred with bulls having 50% Jersey or 50% Holstein Friesian inheritance by inter-se mating.

Upgrading of Non-descript buffaloes with Murrah and pure breeding of Toda buffaloes has been advised in the breeding policy.

During 2014-15, 54.18 lakh Artificial Insemination were performed by the Department and 48.6% conception rate was achieved.

### 6.1 VETERINARY INSTITUTIONS

Veterinary Institutions have expanded from a humble beginning of around 120 institutions during 1959-60 to the present 2,679 institutions during 2014-15. Field Veterinary Institutions numbering 2,679, which include 6 Veterinary Polyclinics, 22 Veterinary Clinician Centres, 139 Veterinary Hospitals, 2,456 Veterinary Dispensaries and 56 Mobile Veterinary Units provide Veterinary health services to the livestock and poultry of the State.

**Table 4: Growth of Veterinary Institutions**

Year	2010-11	2011-12	2012-13	2013-14	2014-15
Polyclinic	6	6	6	6	6
Clinician Centre	22	22	22	22	22
Veterinary Hospital	139	139	139	139	139
Mobile Veterinary Hospital	56	56	56	56	56
Veterinary Dispensary	1651	2236	2256	2356	2456
<b>Total Veterinary Institutions</b>	<b>1874</b>	<b>2459</b>	<b>2479</b>	<b>2579</b>	<b>2679</b>

**Table 5: Districtwise infrastructure facilities available across the State**

Sl. No.	District	Divisions	Panchayat Union	Polyclinics	Clinician centres	Hospitals	Dispensaries	Mobile Units	Sub centres	Visiting Subcentres
1	Ariyalur	2	6	-	-	2	40	1	1	-
2	Chennai	0	-	1	-	1	0	1	4	-
3	Coimbatore	2	12	1	1	12	85	2	25	2
4	Cuddalore	3	13	-	1	5	80	1	58	-
5	Dharmapuri	2	8	-	1	2	65	2	5	1
6	Dindigul	3	14	-	1	5	96	1	67	1
7	Erode	2	14	-	2	6	94	3	21	-
8	Kancheepuram	4	13	-	2	1	94	2	37	1
9	Kanniyakumari	2	9	-	1	2	49	2	15	-
10	Karur	2	8	-	1	2	57	1	18	-
11	Krishnagiri	2	10	-	1	2	67	1	8	6
12	Madurai	2	13	1	-	4	80	1	62	-
13	Nagapattinam	2	11	-	2	3	68	2	16	-
14	Namakkal	2	15	-	-	4	93	3	5	3
15	Perambalur	1	4	-	-	-	35	-	2	-
16	Pudukottai	3	13	-	1	4	87	2	27	-
17	Ramanathapuram	2	11	-	-	4	54	-	13	2
18	Salem	4	20	1	-	6	132	6	6	4
19	Sivagangai	2	12	-	-	2	72	-	46	-
20	Thanjavur	3	14	-	2	6	100	3	26	3
21	Theni	2	8	-	-	3	49	1	49	5
22	The Nilgiris	2	4	-	1	2	25	3	11	2
23	Tirunelveli	3	19	1	-	7	100	1	33	-
24	Thiruvallur	4	14	-	-	5	83	1	23	1
25	Tiruvannamalai	2	18	-	1	5	112	3	17	-
26	Thiruvarur	2	10	-	1	7	66	1	33	-
27	Thoothukudi	3	12	-	1	2	63	1	38	1
28	Tiruchirappalli	4	14	1	-	8	94	2	30	2
29	Tiruppur	3	13	-	-	7	91	1	35	-
30	Vellore	3	20	-	1	8	112	4	24	6
31	Villupuram	4	22	-	1	7	144	4	16	2
32	Virudhunagar	2	11	-	-	5	69	-	29	11
<b>TOTAL</b>		<b>79</b>	<b>385</b>	<b>6</b>	<b>22</b>	<b>139</b>	<b>2456</b>	<b>56</b>	<b>800</b>	<b>53</b>

### 6.1.1 Veterinary Polyclinics

Veterinary Polyclinics function round the clock, providing specialized services in gynaecology, surgery and medicine. They are headed by Clinician in the rank of Assistant Director, who is assisted by Veterinary Assistant Surgeons. At present, Polyclinics are functioning at 6 Municipal Corporations namely Chennai, Coimbatore, Madurai, Tiruchirappalli, Salem and Tirunelveli. These have in-patient, X-ray and laboratory facilities also. Diagnostic equipments like ultrasound scanners have been provided to these institutions so as to function as referral hospitals in the District.

### 6.1.2 Veterinary Clinician Centres

Veterinary Clinician Centres are headed by Clinician who is assisted by Veterinary Assistant Surgeons. As of now, 22 Clinician Centres are functioning in the State. Apart from providing specialized services in gynaecology, surgery and medicine, they have in-patient and X-ray facilities. Diagnostic equipments like ultrasound scanners have been provided to these institutions so as to function as referral hospitals.

### 6.1.3 Veterinary Hospitals

Veterinary Hospitals are headed by Veterinary Surgeons and assisted by Veterinary Assistant Surgeons and Senior Veterinary Livestock

Supervisors. In patient facilities are also available in these Centres.

#### **6.1.4 Veterinary Dispensaries**

The Veterinary Dispensary which is the basic structural and functional unit of the Department is manned by Veterinary Assistant Surgeons. Treatment to ailing animals, Artificial Insemination, Treatment of infertility cases, Preventive Vaccination for diseases, Deworming, Castration, Extension services and training to farmers are the activities carried out in these Veterinary Institutions. All the State and Central Government schemes including Hon'ble Chief Minister's flagship schemes of "Free distribution of Milch Cows and Goats / Sheep", Scheme for Poultry Development and Fodder Development Schemes are implemented through the Veterinary Dispensary.

During 2014-15, the Government upgraded 100 Sub-Centres as Veterinary Dispensaries for the benefit of the livestock farmers residing in remote areas in order to deliver professional veterinary services through qualified veterinarians.

#### **6.1.5 Mobile Veterinary Units**

Mobile Veterinary Units function in the Department with the aim of providing doorstep

delivery of veterinary health services to livestock reared in remote areas. At present, 56 Mobile Veterinary Units are functioning in the State. Further, 31 Vehicles were procured under National Agriculture Development Programme during 2012-13, and handed over to the Departmental officials to provide Mobile Veterinary services. These units headed by Veterinary Assistant Surgeons, go around their area of operation on a scheduled programme. These units are well recognized by the public as services are provided at the doorsteps of the farmers. During 2014-15, a total of 3.98 lakh livestock were provided treatment and 0.92 lakh Artificial Inseminations have been performed by the Mobile Veterinary Units.

The objectives of these Mobile Veterinary Units are:

- to provide health cover and veterinary assistance to livestock and poultry at farmers' doorsteps.
- to conduct preventive vaccinations and control measures against outbreak of contagious diseases.
- to conduct mass deworming of livestock in order to protect them from parasitic infestations.

- to undertake artificial insemination on cows and she-buffaloes.
- to provide advisory services to livestock rearers on best practices.

## 6.2 Sub-Centres

Sub-Centres, manned by Livestock Inspectors, provide first-aid to ailing animals besides, performing minor veterinary services viz., artificial insemination, pregnancy verification, vaccination, deworming etc., under the guidance of the Veterinary Assistant Surgeons. At present, 800 Sub-Centres are functioning in the State. Livestock Inspectors also conduct yearly Livestock and Poultry Census enumeration work in the Sub-Centre area. During 2014-15, a total of 21.68 lakh first aid cases have been handled by these Sub-Centres. During 2014-15, 50 Sub-Centers were newly created.

**Table 6 : Species wise workdone in the Veterinary Institutions during 2014-15 (in lakh)**

Species	Cases Treated	Castration	Deworming	Artificial Insemination
Cattle	114.65	1.54	48.02	51.24
Buffalo	9.28	0.03	5.44	2.94
Sheep	43.15	1.72	115.34	-
Goat	90.99	6.87	154.90	-
Dog & Cat	16.23	0.18	5.80	-
Poultry	35.80	-	12.36	-
Others	3.26	0.18	1.93	-
<b>Total</b>	<b>313.36</b>	<b>10.51</b>	<b>343.79</b>	<b>54.18</b>

**Table 7: Species wise cases treated in the Veterinary Institutions during 2014-15 (in lakh)**

Species	Medical	Minor Surgery	Major Surgery	Obstetrics and Gynaecology	Total
Cattle	86.91	6.36	0.91	20.47	114.65
Buffalo	6.33	0.52	0.33	2.10	9.28
Sheep	37.04	2.43	0.25	3.43	43.15
Goat	78.95	5.08	0.39	6.57	90.99
Dog & Cat	14.48	1.09	0.11	0.55	16.23
Poultry	34.35	0.86	0.08	0.51	35.80
Others	2.78	0.16	0.05	0.27	3.26
<b>Total</b>	<b>260.84</b>	<b>16.50</b>	<b>2.12</b>	<b>33.90</b>	<b>313.36</b>

## 6.3 NORMS FOR ESTABLISHING VARIOUS CATEGORIES OF VETERINARY INSTITUTIONS AND SUBCENTRES IN TAMIL NADU

### 6.3.1 Sub-Centres:

- The livestock population in the area of Sub-Centre should be atleast 3,000 Cattle Units.
- The distance between the nearest Veterinary Dispensary should be atleast 3 km.

### 6.3.2 Veterinary Dispensaries:

- The livestock population in the area should be atleast 5,000 Cattle Units.



- The distance between the nearest Veterinary Dispensary should be at least 5 km.
- While requesting for establishing a Veterinary Dispensary at the Village or Town Panchayat, the Panchayat should provide at least 20 cents of land for construction of permanent building.
- The Panchayat should identify a rent free building for the temporary functioning of the Veterinary Dispensary for a minimum period of 3 years.

### **6.3.3 Norms for upgrading the existing Sub-Centres into Veterinary Dispensaries:**

- The livestock population criteria, as per the National Commission on Agriculture (NCA), norms which is one veterinary institution for every 5,000 adult Cattle Units will be considered. One adult cattle unit includes one cow or one bull or one bullock or one buffalo or one horse or one donkey or 10 goats or 10 sheep or 5 pigs or 100 poultry. The livestock population in the block will be converted into adult Cattle Units and matched with the Veterinary Institutions already available in the block. Based on these criteria, Sub-centres will be upgraded.

The following are the additional criteria:

- The Village Panchayat / Town Panchayat must provide 20 cents of land for construction of permanent building.

- The Village Panchayat / Town Panchayat must provide a rent free building with electrification for the temporary functioning of the Veterinary Dispensary for a minimum period of 3 years.
- The number of Artificial Insemination done in the centre will be considered, since it will give an indication regarding the availability of breedable bovine population in the area.

### **6.3.4 Norms for upgrading Veterinary Dispensaries into Veterinary Hospitals:**

- The Number of cases treated per day should be above 40.
- The Veterinary Dispensary should be built in the Department owned land with at least 20 cents.
- Should have adequate space for construction of In-patients shed.
- Should have adequate space for construction of Staff Quarters.
- Enough potable water supply with well and motor.
- Rooms for storage of drugs, office room and treatment rooms should be available.
- Trevis, casting yard and pegs for tethering of animals should be available.

### **6.3.5 Norms for upgrading Veterinary Hospitals into Veterinary Clinician Centres:**

- Number of cases treated should be above 60 per day.
- Should have sufficient space for construction of quarters for Clinician, Veterinary Assistant Surgeon and Animal Husbandry Assistant.
- In-patients shed facilities should be available.
- Water and drainage facilities should be available.
- Separate rooms for storing medicines, providing treatment and performing surgery should be available.
- X-Ray diagnostic facilities should be available.
- One clinical laboratory should be attached to it.

### **6.3.6 Norms for upgrading of Veterinary Clinician Centres into Veterinary Polyclinics:**

- Number of cases treated per day should be above 80.
- The Veterinary Clinician Centre should function from Department's own land. Sufficient land should be available for future expansion and construction of Staff Quarters.
- Should have adequate space for construction of In-patients shed.
- Water and drainage facilities should be available.

- Separate rooms for storing medicines, providing treatment and a surgical theatre should be attached to it.
- X-ray diagnostic facilities should be available.
- A referral Clinical laboratory should also be attached.
- Should offer round the clock service.

### **6.4 MEDICINES, EQUIPMENTS AND CHEMICALS**

The Department of Animal Husbandry is procuring medicines, equipments and chemicals through Tamil Nadu Medical Services Corporation (TNMSC).

Till 2013-14, the Government had allocated a sum of Rs.19.61 crore for the purchase of Veterinary Medicines, Equipments and Chemicals. This budgetary allocation has been increased to Rs.28.37 crore from 2014-15 onwards.

**Table 8 : Details of Amount allotted**

<b>Sl. No</b>	<b>Name of the Scheme</b>	<b>Amount Allotted [In Rs.]</b>
1	General Medicines	21,72,80,700
2	Intensive Health Cover	1,00,00,000
3	Equipments, Chemicals & Surgicals	2,41,42,300
4.	Mineral mixture	3,23,12,000
	<b>TOTAL</b>	<b>28,37,35,000</b>

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

**Table 9 : Monetary ceiling for medicines of Veterinary Institutions**

Sl. No	Type of Institution	Monetary ceiling (in Rs.) 2013-14	Monetary ceiling (in Rs.) 2014-15
1	Veterinary Dispensary	72,750	1,00,000
2	Rural Veterinary Dispensary	54,563	
3	a. Veterinary Hospital, Royapuram	2,27,500	2,50,000
	b. Veterinary Hospital, Ambattur and Chitlapakkam	1,35,800	
	c. Other Veterinary Hospitals	1,35,800	
4	a) Veterinary Clinician Centres (Cuddalore, Dharmapuri, Erode, Kancheepuram, Kumbakonam, Thanjavur, Vellore)	2,63,200	2,85,000
	b) Other Veterinary Clinician Centres	1,73,600	2,00,000
5	a) Veterinary Polyclinic, Saidapet	5,00,000	5,50,000
	b) Pet Clinic, Adyar		1,20,000
	c) Other Veterinary Polyclinics		4,00,000
6	a) Mobile Veterinary Unit, Saidapet	56,000	70,000
	b) Mobile Veterinary Unit, Thanjavur	28,000	
	c) Other Mobile Veterinary Units	21,000	
7	Veterinary Sub-Centre	13,095	18,500
8	Visiting Sub-Centre	3,000	5,000
9	Animal Disease Intelligence Unit(ADIU) (22)	20,000	30,00,000*
10	Poultry Disease Diagnostic Laboratory (PDDL)(2)	40,000	
11	Central Referral Laboratory (CRL)(1)	10,000	

Sl. No	Type of Institution	Monetary ceiling (in Rs.) 2013-14	Monetary ceiling (in Rs.) 2014-15
12	Cattle Breeding and Fodder Development (CBFD)	40,000	50,000
13	a. Exotic Cattle Breeding Farm, Eachenkottai	1,40,000	16,00,000**
	b. Other Livestock Farms (7)	1,00,000	
	c. Sheep Farms (3)	80,000	
	d. Piggery Units (4 farms)	10,000	
	e. Poultry Farm, Kattupakkam	50,000	
14	Poultry Extension Centres	15,000	20,000
15	Dog Breeding Unit, Saidapet	17,500	30,000

\* total allocation for CRL, 22 ADIUs and 2 PDDLs.

\*\* total allocation for farms.

The ceiling for medicine for Veterinary Dispensary has been increased from Rs.72,250 to Rs.1 lakh.

Similarly, medicine ceiling for Subcentre has been increased from Rs.13,095 to Rs.18,500.

The Department indents for 155 medicines that belong to categories such as antibiotics, anti inflammatory, analgesics, antipyretics, supportive etc. Major and minor minerals are the basic health supplements required for the health of the animals. Considering the health of the animals, these vitamin / mineral supplements have been included in the regular list of medicines for the first time, which will be procured and supplied to needy farmers during 2014-15. This inclusion of mineral mixture is

expected to boost the health status and reproductive performance of livestock.

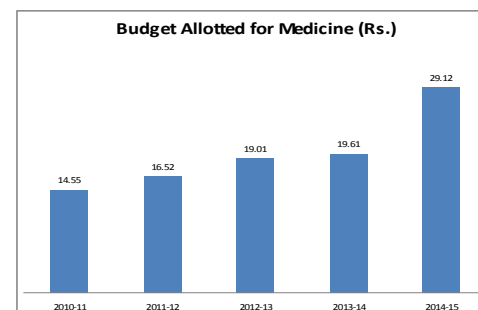
**Table 10 : List of Newly Added Drugs during 2014-15 and 2015-16**

<b>2014-15</b>	
1	Levofloxacin and Ornidazole Oral Suspension
2	Ceftiofur Sodium Injection
3	Long acting Enrofloxacin
4	Ceftriaxone and Taobactum Injection
5	Cefquonome Sulphate Intra mammary infusion
6	Cefalexin Intra uterine power
7	Cefalexin oral powder
8	Ciprofloxacin and Tinindazole Tablet
9	Meloxicam 20 mg injection
10	Isofluperdone Injection
11	Fenbendazole and Praziquintal Suspension
12	Levamisole and Oxcyclosanide Oral Suspension
13	Triclabendazole Oral Suspension
14	Oxfendazol and Oxcyclozanide Oral Suspension
15	Triclabendazole and Levamisole Oral Suspension
16	Doramectin Injection
17	Flumethrin Solution
18	Calcium Phosphorus Vit D3 oral Suspension
19	Antacid bolus
20	Iron Sorbitol Injection
21	Isometamidium Chloride HCL injection
<b>2015-16</b>	
1	Magnesium Hydroxide
2	Activated Charcoal
3	Gentamicin Inj I/V
4	Oral Rehydration Salts
5	Copper Sulphate crystals
6	Loxexane Ointment
7	Sulpha Antidiarrhoeal Bolus
8	Antiprotozoal Berenil
9	Antitussive, Mucoytic Expectorant
10	Antibiotic, antifungal anti-inflammatory eye drops

According to the antibiotic policy, the following higher antibiotics are reserved to be used only in Veterinary Hospitals and higher institutions from 2015-16 onwards:

**Table 11 : List of New Antibiotics**

Sl.No	Antibiotics	To be used in Institutions
1	Amikacin Inj IP	Veterinary Hospital and above
2	Amoxycillin with Salbactam Inj IP	Veterinary Hospital and above
3	Ceftriaxone Inj IP	Veterinary Hospital and above
4	Cefotaxime Sodium Inj Ip 1 gm	Veterinary Hospital and above
5	Cefquonome Sulphate Intra mammary infusion	Veterinary Hospital and above
6	Cefaclor Tab 250mg1	Clinician Centres and Polyclinics



## 6.5 DISEASE PREVENTION, DIAGNOSIS, CONTROL AND ERADICATION

Various bacterial, viral, protozoal, parasitic diseases affect livestock and poultry and cause both direct (death of livestock) as well as indirect (decreased production and loss of productivity) losses 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.

Information about the prevalence rate and disease pattern of the State's livestock population is critical in the fight against livestock diseases and this forms the basis for planning and initiating disease prevention and control strategies. Early forecasting of diseases and surveillance is essential to provide early warning signals of outbreaks. Since adequate awareness levels among farmers regarding disease prevention and control is not available, the Department plays a major role in disease prevention and eradication. The Department has a systematic Disease control programme in place that provides for periodical vaccinations (as per endemic chart) with the eventual goal of disease containment and eradication.

For this purpose, 22 Animal Disease Intelligence Units (ADIUs), 2 Poultry Disease Diagnostic Laboratories (PDDLs) and one Central Referral Laboratory (CRL) are functioning in the State.

### **6.5.1 Animal Disease Intelligence Units**

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 in turn helps in advising the field veterinarians to take adequate protective and prophylactic measures well in advance.

The Animal Disease Intelligence Units have an important role in checking the efficiency of Foot and Mouth Disease (FMD), Peste-des-Petits Ruminants (PPR) vaccination by assessing the immunity level through collecting the serum samples from vaccinated animals and sending them to Central Referral Laboratory, Saidapet and collecting serum and samples of various diseases from simple parasitic infestations to serious zoonotic diseases like Brucellosis, Tuberculosis, Para Tuberculosis, Avian Influenza, IBR, Anthrax and Bovine Spongiform Encephalopathy (BSE) for testing and surveillance.

4,41,268 specimens have been tested by the above units, out of which 3,97,872 samples have been tested for endoparasites and ectoparasites during 2014-15. Anthelmintics to eliminate the endoparasites and specific drugs to eradicate ectoparasites were advised. In blood protozoan positive cases anti-protozoan drugs along with deticking were advised and suggestion is given for vector control in that area. Based on the screening

of dung samples, verminous mapping has been undertaken by all ADIUs.

Animal Disease Intelligence Units also play a crucial role in protecting the life of livestock besides augmenting livestock production through regular assessment of the quality of frozen semen straws, profiling the blood parameters of livestock with respect to micro and macro nutrients like Calcium, Phosphorous, Potassium etc. so as to provide advisories to the livestock rearers through Veterinary Institutions for treatment of deficiency diseases and metabolic disorders.

Mobile Veterinary Laboratories are provided to these units, so as to provide on the spot microscope aided diagnosis for livestock / poultry diseases. In addition, these units render door to door diagnostic services at village level and deliver vaccines and biologicals without compromising the cold chain through Mobile Veterinary Laboratories.

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 some of the important activities undertaken by these units. So far 3,657 serum

samples have been collected for this surveillance work and 1,193 weekly visits were made by ADIUs to slaughter houses.

**Table 12: 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
19	Udagamandalam	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. Thus the Animal Disease Intelligence Units are well equipped to diagnose various livestock diseases in their laboratories.

During 2014-15, two New Animal Disease Intelligence Units were established at Thiruvannamalai and Pudukottai in order to strengthen disease diagnosis, prevention, control and monitoring.

### **6.5.2 Poultry Disease Diagnostic Laboratories**

To cater the needs of farmers in areas of high poultry production, Poultry Disease Diagnostic Laboratories are functioning one at Andagalurgate, Namakkal District and another at Erode. These are mainly involved in conducting post-mortem, testing of droppings, blood samples and other specimens for accurate diagnosis of Viral diseases such as New Castle Disease, Infectious Bursal Disease (IBD), Infectious Bronchitis (IB), Avian Leucosis Complex, common bacterial diseases like Salmonellosis, E.coli, and Parasitic infestations. Feed and water samples testing services are also provided by these units. In addition, they offer technical advice to farmers on prevention, diagnosis and control of various infectious and parasitic diseases.

During 2014-15, a total number of 37,101 specimens have been tested by the above units. Out of the 6,343 poultry droppings tested for

endoparasites, 3,141 were found positive, deworming and anticoccidial drugs were advised accordingly. 2,867 blood smears were examined, out of which, 1,117 were positive for micro-organisms and based on the Antibiotic Sensitivity Test (ABST) specific antibiotics were advised.

A total of 6,643 samples were screened for the presence of E.coli in droppings, feed, water and poultry sheds, out of which 482 were found positive. The farmers were advised to treat accordingly with antibiotics and water sanitizers. Based on test results, vaccination against Ranikhet disease was also advised.

These laboratories play an important preliminary role in the declaration of commercial poultry farms as Avian Influenza free establishment / disease free compartments by monitoring the bio security measures that have been put in place in the poultry farms and maintenance of the status thereafter. Further, advisories regarding disease prevention and control measures are being issued to the farmers regularly.

Comprehensive field level monitoring and testing of poultry farms with flock identification for declaration of commercial poultry farms as disease free establishment is carried out by PDDLs. This is done for issuance of animal health certificates for export obligations. Further, these laboratories serve

as local depots of poultry vaccines that are produced at Institute of Veterinary Preventive Medicine (IVPM), Ranipet.

During 2014-15, a total of 941 poultry farms and 579 villages have been visited from which 6,643 samples have been collected and examined.

These two laboratories were upgraded as BSL II laboratories with a financial allocation of Rs.22 lakh each. These upgraded laboratories carry out preliminary screening for Avian Influenza antibodies and to confirm that the samples are disease free, they are being forwarded to referral laboratories.

### **6.5.3 Central Referral Laboratory**

Central Referral Laboratory is the apex laboratory of the State and is functioning at Chennai. It co-ordinates the work of Animal Disease Intelligence Units and Poultry Disease Diagnostic Laboratories and also helps the field staff in early, quick and accurate diagnosis, and surveillance for various livestock diseases. Further, it plays a vital role in disease confirmations by approved laboratory techniques, declares disease outbreaks, 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.

Screening of farm animals for Sexually transmitted diseases, Tuberculosis by PPD Intradermal test, Brucellosis and Johne's disease by Enzyme linked Immuno Sorbent Assay (ELISA) test, sending samples for Bovine Spongiform Encephalopathy (BSE) surveillance to Southern Regional Disease Diagnostic Laboratory (SRDDL), testing of samples received for Sero surveillance for Peste-des-Petits Ruminants (PPR). Sero monitoring of Brucellosis have also been carried out by this laboratory.

A total of 5,165 specimens received from the field have been tested. During 2014-15, following outbreaks of 13 Anthrax, 4 Black Quarter, 2 Enterotoxaemia, 7 Peste-des-Petits Ruminants, 2 Blue tongue, one sheep pox and 1 goat pox were confirmed and the concerned field officials were advised to carry out vaccinations accordingly.

As per the guidelines of Government of India, during 2014-15, 2,852 samples have been sent to Southern Regional Disease Diagnostic Laboratory (SRDDL), Bangalore for screening of Avian Influenza. Similarly, 47 brain samples have also been sent to Southern Regional Disease Diagnostic Laboratory (SRDDL), Bangalore for Bovine Spongiform Encephalopathy (BSE) surveillance.



This laboratory plays a vital role in providing training to the field veterinarians and Para-veterinarians under Assistance to States for Control of Animal Diseases (ASCAD) scheme. In addition, monthly Animal Disease Bulletins are prepared and distributed to the Veterinary Dispensaries and Hospitals.

#### **6.5.4 Institute of Veterinary Preventive Medicine, Ranipet (IVPM)**

Institute of Veterinary Preventive Medicine is an Institute of repute, producing vaccines and biologicals for various livestock diseases. The institute which was initially called as "Serum Institute" was established at Madras in 1932 to produce Anti-Rinderpest serum and maintain bull virus to combat Rinderpest which was rampant then, posing serious threat to livestock population. In 1942, the Institute was shifted to Coimbatore Agricultural College Estate as an emergency measure due to World War II. In March 1948, the Institute was shifted to the present campus of 129.5 acres at Ranipet. Since then, the institute has expanded its production to various vaccines and biological products required for protection of livestock and poultry in the State.

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 Price for Best Performance by the ICAR for the year 2013. At present, the Institute is producing 4 bacterial vaccines, 5 viral vaccines, 5 diagnostic reagents, 9 Pharmaceutical products and one diluent.

It is mandatory to upgrade the vaccine manufacturing Laboratories to Good Manufacturing Practice (GMP) Standards to comply World standards in Vaccine Production. The poultry vaccine production laboratory was upgraded to GMP standards with funds from ASCAD Scheme.

Under National Agricultural Development Programme (NADP), upgradation of bacterial vaccines facility at IVPM to Good Manufacturing Practice (GMP) standards is undertaken with a total financial outlay of Rs.12.02 crore. By this the vaccines produced will be as per the GMP standards

## **7. LIVESTOCK DEVELOPMENT**

### **7.1 Livestock Farms**

The Livestock Farms act as model units for demonstrating the Livestock rearers to make them easily understand scientific techniques pertaining to Animal husbandry practices.

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 Farm. Livestock farms are maintained for selective scientific breeding of specific species of livestock. These farms act as training centres for training farmers. Moreover, they act as a source for quality livestock.

The location and species maintained in each farm are as follows:

**Table 13 : Location of Departmental Farms, and species maintained**

Sl.No	Name of the Farm	Species maintained
Livestock and Poultry Farms		
1	Exotic Cattle Breeding Farm, Eachenkottai (Thanjavur District)	Cattle and Buffaloes
2	District Livestock Farm, Hosur (Krishnagiri District)	Cattle, Sheep, Goats, Pigs, Poultry and Horses
3	District Livestock Farm, Abishekapatti (Tirunelveli District)	Cattle, Sheep, Pigs and Poultry
4	District Livestock Farm, Udhagamandalam (The Nilgiris District)	Cattle
5	District Livestock Farm, Pudukottai (Pudukottai District)	Cattle, Sheep, Goats, and Pigs
6	District Livestock Farm, Naduvur (Thanjavur District)	Buffaloes
7	District Livestock Farm, Chettinad (Sivagangai District)	Cattle, Sheep, Goats, Pigs and Poultry
8	Livestock Farm, Korukkai (Thiruvavur District)	Cattle
9	Sheep Farm, Chinnasalem (Villupuram District)	Sheep and Goats
10	Sheep Farm, Mukundarayapuram (Vellore District)	Sheep
11	Sheep Farm, Sathur (Virudhunagar District)	Sheep and Goats
12	Poultry Farm, Kattupakkam, (Kancheepuram District)	Fowls and Turkey
Fodder farm		
13	Fodder Farm, Padappai (Kancheepuram District)	

### 7.1.1 Cattle and Buffalo Development

Crossbreeding of Cattle and Grading up of Buffalo has led to increase in the total milk production of the State. Increase in productivity and resistance to diseases will be possible if farmers breed their livestock in consonance with the breeding policy of the Government. With the implementation of Cross breeding programmes and various other schemes by the department, livestock farming has become economically viable and remunerative to a large number of rural households in the State.

As per the Farm Policy, the following Cattle and Buffalo breeds are maintained in the Departmental farms.

**Table 14 : Cattle and Buffalo breeds Maintained in Departmental Farms (As on 31.03.2015)**

S.No	Name of the Farm	Cattle / Buffalo	Stock
1	Exotic Cattle Breeding Farm, Eachenkottai	Jersey, Crossbred Jersey, Umblachery, Murrah	195
2	District Livestock Farm, Hosur	Crossbred Jersey, Crossbred Friesian, Sindhi, Kangayam, Bargur, Pulikulam	495
3	District Livestock Farm, Abishekapatti	Crossbred Jersey, Sahiwal	119
4	District Livestock Farm, Udagamandalam	Jersey, Crossbred Jersey, Friesian, Crossbred Friesian	77
5	District Livestock Farm, Pudukottai	Crossbred Jersey, Crossbred Friesian	131
6	District Livestock Farm, Naduvur	Murrah	168
7	District Livestock Farm, Chettinad	Crossbred Jersey, Crossbred Friesian, Tharparkar	343
8	Livestock Farm, Korukkai	Umblachery	465
<b>Total</b>			<b>1,993</b>

A total of 460 calves were born in the Livestock farms of the department during the year 2014 – 15.

### 7.1.1.1 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 functioning in the Departmental farms, cater to the needs of the Artificial Insemination Centres located throughout the State. The Minimum Standard Protocol for Frozen Semen Production Stations as prescribed by Government of India is strictly adhered to in these Frozen Semen Production Stations to produce quality semen. A total number of 250 breeding bulls of Jersey, Holstein Friesian, Crossbred Jersey, Crossbred Holstein Friesian, Red Sindhi, Kangayam, Umblachery, Bargur, Pulikulam and Murrah are being maintained in these Farms.

**Table 15 : Frozen Semen Straw Production 2014-15**

Sl. No	Frozen Semen Station	Target (In lakh)	Production (In lakh)	Achievement Percentage
1	Exotic Cattle Breeding Farm, Eachenkottai	22.47	39.71	176.72
2	District Livestock Farm, Hosur	8.44	11.30	133.88
3	District Livestock Farm, Udhagamandalam	20.37	19.16	94.05
<b>Total</b>		<b>51.28</b>	<b>70.17</b>	<b>136.83</b>

**Table 16 : Breeding Bulls under collection (as on 31.03.15)**

Sl. No.	Name of the Farm	Jersey	Jersey Cross	HF	HF Cross	Red Sindhi	Kangayam	Umblachery	Pulikulam	Bargur	Murrah	Total
1	Exotic Cattle Breeding Farm, Eachenkottai	31	64	-	-	-	-	1	-	-	34	130
2	District Livestock Farm, Hosur	-	35	-	-	8	4	-	2	1	-	50
3	District Livestock Farm, Udhagamandalam	17	31	9	13	-	-	-	-	-	-	70
<b>Total</b>		<b>48</b>	<b>130</b>	<b>9</b>	<b>13</b>	<b>8</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>34</b>	<b>250</b>

### 7.1.2 Sheep Development

Sheep rearing is a traditional rural economic activity and continues to be the primary source of income for the small, marginal farmers and landless labourers as an alternate to agriculture. Sheep are mostly maintained on natural vegetation, on common grazing lands, wastelands and uncultivated lands, stubbles of cultivated crops. Sheep are mostly reared for meat and wool. Sheep skin and wool are used by a number of rural based industries as raw material. Sheep manure also provides a source of earning for the sheep rearers.

Tamil Nadu has 8 breeds of sheep namely, Kilakaraisal, Ramnad white, Vembur, Mecheri, Madras red, Trichy black, Nilgiri and Coimbatore.

The Animal Husbandry Department is assisting sheep breeders to augment meat production through scientific breeding, feeding and management practices so as to generate additional income to the farmers. Good Quality rams and ewes produced in these farms are sold to local farmers for breeding purposes.

**Table 17 : Sheep Breeds Maintained in the Departmental Farms as on 31.03.2015**

Sl. No	Farms	Breed	Stock
1	District Livestock Farm, Abishekapatti	Keelakarisal	330
2	District Livestock Farm, Chettinad	Ramnad White	403
3	District Livestock Farm, Pudukottai	Ramnad White	100
4	District Livestock Farm, Hosur	Mecheri	266
5	Sheep Farm, Sathur	Vembur	68
6	Sheep Farm, Chinnasalem	Mecheri, Madras Red	795
7	Sheep Farm, Mukundrayapuram	Madras Red	388
<b>Total</b>			<b>2,350</b>

During 2014-15, 838 lambs were born in the departmental farms and 738 Sheep were sold. The farmers, who desire to purchase sheep, register their names with the concerned Deputy Directors of the farms and sheep are provided based on seniority at the price fixed by the Government.

### 7.1.3 Goat Development

Goats can survive and flourish even in dryland areas. They contribute precious animal protein like meat, milk, fibre, skin and manure. By contributing to the income of rural households, they play an important role in the livelihood of landless, small and marginal farmers. The worth of goats is high due to their proliferation rates, higher rates of growth and the ease with which they can be marketed.

**Table 18: Goat Breeds maintained in the Departmental Farms as on 31.03.2015**

Sl. No.	Farms	Breed	Stock
1	District Livestock Farm, Chettinad	Jamunapari, Tellichery	201
2	District Livestock Farm, Pudukottai	Jamunapari	109
3	District Livestock Farm, Hosur	Tellichery, Kodiadu, Kodivalli	135
4	District Livestock Farm, Abisegapatti	Kanni	186
5	Sheep Farm, Chinnasalem	Salem Black, Tellichery	452
6	Sheep Farm, Sathur	Kanni	288
<b>Total</b>			<b>1,371</b>

During 2014-15, 367 kids were born in the departmental farms out of which 220 Goats were sold. The farmers who desire to purchase goats register their names with the concerned Deputy Directors of the farms and goats are provided based on seniority at the price fixed by the Government.

#### 7.1.4 Piggery Development

Pig farming has ample scope to provide self employment, alternate source of animal protein and additional income. Pigs have wide adaptability to grow under different agro-climatic conditions. Among the various livestock species, pigs are the most efficient feed converters after broilers. Apart from providing meat, it is also a source of bristles and manure. There is a good demand from domestic as well as export market for pig products.

**Table 19 : Pig Breeds maintained in the Departmental Farms as on 31.03.2015**

Sl. No	Farms	Breed	Stock
1	District Livestock Farm, Hosur	Large White Yorkshire	80
2	District Livestock Farm, Abishekapatti	Landrace, Crossbred Large White Yorkshire, Large White Yorkshire	62
3	District Livestock Farm, Chettinad	Large White Yorkshire	467
4	District Livestock Farm, Pudukottai	Landrace	143
	<b>Total</b>		<b>752</b>

During 2014-15, 1,777 piglets were born in the departmental farms and 1,449 pigs were sold. The farmers who desire to purchase pigs register their names with the concerned Deputy Directors of the farms and pigs are provided based on seniority at the price fixed by the Government.

#### 7.1.5 Horse Breeding Unit

A horse-breeding unit is functioning at District Livestock Farm, Hosur. Kathiawar and Thoroughbred horses are maintained in this unit. As on 31.03.2015, 8 stallions and 14 mares are maintained in this Unit. The stallions of the farm are used for serving mares belonging to farmers for which a service fee of Rs.500 per service is charged. During 2014-15, 6 services were performed by the stallions of this unit.

#### 7.1.6 Dog Breeding

Tamil Nadu possesses excellent native dog breeds like Rajapalayam, Kombai, Chippiparai and Kanni. To preserve and propagate these native breeds, a Dog Breeding Unit was established at Saidapet, Chennai during the year 1980-81. As there was a heavy demand for other breeds like Labrador and Dobermann these breeds were also added to the existing unit during the year 1997-98. The puppies are sold to the public based on the seniority at the price fixed by the Government.

The details of the dog breeds maintained at Dog Breeding Unit for the year 2014-15 is as follows:

**Table 20 : Dog Breeds Maintained in Dog Breeding Unit (as on 31.03.2015)**

Sl. No	Breeds	Adult			Pups			Total
		Male	Female	Total	Male	Female	Total	
1	Rajapalayam	3	12	15	1	1	2	17
2	Chippiparai	1	1	2	1	1	2	4
3	Dobermann	1	1	2	-	-	-	2
4	Labrador Retriever	2	2	4	-	1	1	5
5	Dalmatian	1	1	2	-	-	-	2
6	Rottweiler	1	1	2	-	-	-	2
	<b>Total</b>	<b>9</b>	<b>18</b>	<b>27</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>32</b>

### 7.1.7 Poultry Development

Poultry keeping is no longer limited to backyard farming as it has attained the status of industry in Tamil Nadu. Poultry Extension Centres function as model farms for the farmers to know about scientific ways of breeding and management. The following Poultry Extension Centres are functioning in Tamil Nadu:

1. Poultry Farm at District Livestock Farm, Hosur, Krishnagiri District.
2. Poultry Farm at District Livestock Farm, Chettinad, Sivagangai District.

3. Poultry Farm at District Livestock Farm, Abishekapatti, Tirunelveli District.
4. Poultry Farm at District Livestock Farm, Orathanad, Thanjavur District.
5. Poultry Farm, Kattupakkam, Kancheepuram District.
6. Poultry Extension Centre, Kodaikanal, Dindigul District.
7. Poultry Extension Centre, Gandhigram, Dindigul District.
8. Poultry Extension Centre, Masinagudi, The Nilgiris District.

Poultry Extension Centres, act as demonstration farms and provide training to farmers to take up poultry rearing. Moreover, Government's support for establishing poultry units and widespread immunization against Ranikhet disease contributed to development of poultry rearing as an industry.

**Table 21 : Poultry Stock maintained in Livestock Farms (as on 31.03.2015)**

Sl. No	Location	Breeds maintained	Stock
1	District Livestock Farm, Hosur	Giriraja, HH260	1,099
2	District Livestock Farm, Chettinadu	Giriraja	966
3	Poultry Farm, Kattupakkam	Vanaraja, Giriraja, HH 260, Turkey	7,127
4	District Livestock Farm, Abishegapatti	Vanaraja, Giriraja, White Leghorn Hen	1,050
	<b>Total</b>		<b>10,242</b>

#### **7.1.7.1 ASSISTANCE TO STATE POULTRY FARMS (80:20)**

The department of Animal Husbandry is implementing a centrally shared Scheme (80:20) namely, 'Assistance to State Poultry Farms' in which the Department-run poultry farms function as a continuous source of backyard poultry chicks.

This scheme is being implemented to improve the economic conditions and living standards of marginal farmers, landless labourers, Self Help Groups and other socially backward sections of the society by encouraging them to take up poultry rearing as an additional avocation, to create employment opportunities and supplement their income. Under this Scheme, separate hatchery units have been established in poultry farms in District livestock farms of Hosur, Chettinad and Orathanadu for 'Giriraja Development' and one unit in Kattupakkam Poultry Farm for Vanaraja Development at a financial outlay of Rs.85 lakh.

Constructions of sheds have been completed in Kattupakkam poultry farm for Turkey Development and in District Livestock Farm, Abishegapatti for Giriraja Development.

To purchase parent stock and feed from revolving fund and procure equipments, a sum of Rs.34 lakh has been allocated for Kattupakkam

Poultry Farm under Turkey Development Scheme and Rs.34 lakh has been allocated for Poultry farm, at Abishekapatti under Giriraja Development Scheme and the Scheme is being implemented.

#### **7.1.8 Various Schemes implemented in Departmental Farms**

##### **7.1.8.1 Fodder Development**

Community grazing areas and off-farm fodder sources have been the important sources of fodder for livestock. Urbanisation and continuous cropping combined with the indiscriminate use of grazing lands has resulted in pastures with very low biomass production leading to adverse effect on livestock production. To make dairying economically attractive, milk production and productivity has to be enhanced. This is possible only by ensuring that good quality feed and fodder is made available in adequate quantities. Therefore, efforts have to be initiated to improve fodder production and conservation of agricultural lands for fodder. Since more areas are brought under food crops cultivation to meet the food demand for human consumption, increasing the production capacity of the existing fodder cultivable lands will be the only beneficial solution.

A crucial aspect of fodder development is availability of seed and planting material. Quality fodder seeds are not readily available. To overcome

this deficit, the departmental farms are also functioning as fodder seed banks producing and supplying seeds and planting material to farmers. Government has taken initiatives to encourage farmers for taking up production of high yielding fodder varieties through various State and Central schemes.

Apart from this, the Department is undertaking the following fodder development activities:

- To enable the landless families and poor farmers to take up animal husbandry activities, Self-help groups are being encouraged for establishment of community feed and fodder banks.
- Cultivation of perennial high yielding fodder grass like Cumbu-Napier- Co3, Co4, Para grass, Kolukattai grass, Guinea grass and Congo signal grass and fodder cereals like Sorghum, Maize and Bajra are being encouraged.
- Cultivation of Fodder crops and Tree seedling in Veterinary Institutions are being taken up.
- Fodder, Fodder slips and fodder seeds are produced in Departmental Farms and distributed to farmers.

**Table 22 : Fodder Development in Departmental Farms**

Sl. No	Name of the Farm	Area (in acres)	Area under fodder (acres)	Fodder produced (mt)
1	Exotic Cattle Breeding Farm, Eachenkottai, Thanjavur District	638.61	186.00	2156.200
2	District Livestock Farm, Hosur, Krishnagiri District	1,561.41	79.15	1608.200
3	District Livestock Farm, Abishekapatti, Tirunelveli District	1,283.64	75.00	502.475
4	District Livestock Farm, Udagamandalam, The Nilgiris District	129.38	65.34	775.449
5	District Livestock Farm, Pudukottai, Pudukottai District	959.31	74.00	230.626
6	District Livestock Farm, Naduvur, Thanjavur District	731.44	106.00	196.480
7	District Livestock Farm, Chettinad, Sivagangai District	1590.32	459.79	4213.515
8	Livestock Farm, Korukkai, Thiruvarur District	495.68	50.00	707.380
9	Sheep Farm, Chinnasalem, Villupuram District	1,866.28	60.40	407.497
10	Sheep Farm, Mukundarayapuram, Vellore District	479.65	29.00	73.650
11	Sheep Farm, Sathur, Virudhunagar District	154.00	47.85	153.207
12	Poultry Farm, Kattupakkam, Cancheepuram District	9.65	-	-
13	Fodder Farm, Padappai, Cancheepuram District	17.00	13.00	13.094
<b>Total</b>		<b>9,916.37</b>	<b>1,245.53</b>	<b>11,037.773</b>

A total of 11,037.773 MT of fodder was produced during 2014-15, out of which, 9,055.33 MT were used for the livestock maintained at the farms and 88.65 MT of fodder were distributed to farmers. 145.29 lakh fodder slips and



1,570 kgs of fodder seeds were distributed to farmers to augment green fodder production.

#### **7.1.8.2 Establishment of Fodder Seed Production Unit and Farmers' Training Centre**

Fodder seed production Unit has been established in 70 hectares in District Livestock Farm, Naduvur, Thanjavur. So far, a total of 2,200 kgs of certified seeds of African Tall Maize have already been produced and distributed to farmers. An additional area of 80 acres is being brought under Co-FS 29 Sorghum fodder seed production. Further, to impart training on latest technologies in fodder production to the farmers, a training centre has also been established in District Livestock Farm, Naduvur. The total financial outlay for this project is Rs.9.60 crore.

#### **7.1.8.3 Augmentation of Fodder in Government Livestock farms**

In order to supply green fodder to farmers through Government Livestock farms, 240 acres of land at District Livestock Farm, Chettinadu and 50 acres of land each at District Livestock Farm, Hosur and Exotic Cattle Breeding Farm, Eachenkottai totalling to 340 acres are being brought under green fodder cultivation at an outlay of Rs.1.346 crore under State Fodder Development Scheme.

#### **7.1.8.4 National Dairy Plan I -Strengthening of Frozen Semen Production Station at District Livestock Farm, Udagamandalam**

Under National Dairy Plan, a sum of Rs.6.46 crore has been sanctioned for strengthening the Frozen Semen Production Station at District Livestock Farm, Udagamandalam spanning the period from 2012-13 to 2017-18, in order to produce high quality disease free frozen semen doses from genetically superior quality bulls. This measure is taken to meet the demand of frozen semen straws for artificial insemination throughout the year and thus to make the State self sufficient. The procurement of equipment and civil works has been undertaken, at a total estimated cost of Rs.2.59 crore.

#### **7.1.8.5 HILL AREA DEVELOPMENT PROGRAMME**

Under Hill Area Development Programme, during the year 2014-15, the Government allocated Rs.75.51 lakh from the existing already allotted unspent amount to undertake the following activities at District Livestock Farm, Udagamandalam.

1. Desilting of existing pond.
2. Formation of baby pond in the existing pond.
3. Renovation of staff quarters.
4. Construction of staff quarters for Group 'B' Officers.

Further, under the Hill Area Development Programme for the year 2014-15, the Government allocated Rs.1.28 crore to undertake the following activities at District Livestock Farm, Udhagamandalam:

1. Construction of staff quarters for Group 'B' Officers.
2. Construction of staff quarters for Group 'C' Officers.

This Scheme is implemented by Project Director, Hill Area Development Programme, Udhagamandalam. This Department monitors the above activities.

## **7.2 Cattle Breeding and Fodder Development Units**

Cattle Breeding and Fodder Development Units are functioning one each in 31 Districts (except Chennai). They are, headed by a Deputy Director of Animal Husbandry and undertake all the Cattle Breeding and Fodder Development activities in their respective districts. Prior to 2013-14, there were only 20 Cattle breeding and Fodder Development Units. During 2013-14, 11 Cattle Breeding and Fodder Development units were newly created.

These Units supply breeding inputs to the Artificial Insemination centers with regular periodicity. Liquid Nitrogen, which is essential for production and storing of Frozen Semen Straws, is

procured from private sources through tenders floated by Tamil Nadu Livestock Development Agency (TNLDA). These units are also responsible for supply of fodder seeds and monitoring the fodder development activities to narrow down the demand supply gap of green fodder.

### **7.2.1 PROVISION OF BULK STORAGE FACILITIES FOR FROZEN SEMEN STRAWS**

Genetic improvement of cattle is a long term procedure. Bringing all breedable females both cows and buffaloes into organized breeding programme through Artificial Insemination is one of the major components. The effective use of Frozen Semen Straw and Liquid Nitrogen plays vital role in this program.

In order to streamline procurement and distribution of Frozen Semen Straws, Rs.55 lakh has been allotted for the procurement of 6 Open Mouth Reservoirs (LNR 320), for the 3 Frozen semen Production stations viz., Exotic Cattle Breeding Centre, Eachenkottai and District Livestock Farm, Hosur and Ooty and 3 Nodal Frozen Semen Distribution centres viz., Cattle Breeding and Fodder Development units of Vellore, Tiruchirapalli and Madurai.

## **8. SCHEMES**

Animal husbandry provides livelihood opportunities to millions of people and is the mainstay of millions of small and marginal farmers and landless poor. Employment generation schemes if properly implemented 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 HON'BLE CHIEF MINISTER'S FLAGSHIP SCHEMES**

#### **8.1.1 SCHEME FOR FREE DISTRIBUTION OF MILCH COWS AND SCHEME FOR FREE DISTRIBUTION OF GOATS / SHEEP**

The Hon'ble Chief Minister 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 60,000 beneficiaries over a period of 5 years. Thus, under the 'Scheme for Free Distribution of Milch Cows', 12,000 crossbred Milch Cows are being distributed each year to needy families in the rural areas.

The Hon'ble Chief Minister also announced the implementation of a '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, 4 Goats/Sheep are being provided free of cost to 7 lakh poorest of poor rural landless families over a period of 5 years.

#### **8.1.1.1 Salient features**

##### **A. Scheme for Free Distribution of Milch Cows**

- The Scheme is prioritized in those Districts where the number of Milk Cooperative societies is less than the number of revenue villages.
- In such Districts, the distribution of Milch Cows is taken up in those Village Panchayats where there are no Primary Milk Cooperative Societies at present. Consequent to the distribution of Milch Cows, Primary Milk Cooperative Societies are formed in these Village Panchayats and milk is procured from the beneficiaries.
- Lactating cows that are in their first / second lactation are procured so as to ensure a continuous production for the next 5 lactations. The age of the cow should not be more than 5 years.
- Milch cows are procured at the rate of one cow per eligible household. In order to empower the women, it is decided that the actual beneficiary will be the Woman of the household.

- The procedure of sourcing Milch Cows from outside the State only and purchasing by the beneficiaries themselves is being followed.
- An amount of Rs. 30,000 is earmarked for the purchase of a Milch Cow per beneficiary. In addition, an amount of Rs. 1,000 is allocated for the travel of beneficiary to the shandy of the neighbouring State for purchase of animal and another Rs. 2,000 / Rs. 3,000 (depending on the District) is earmarked for transportation of the animal to their village through a safe and secured manner.
- Insurance of the animals is done at Government cost.
- Training on best practices is provided to all the beneficiaries for 3 days for which a sum of Rs.300 is allocated per beneficiary @ Rs.100 per day.

#### **B. Scheme for Free Distribution of Goats/ Sheep**

- Out of 4 Goats / Sheep given to each beneficiary, one male and 3 females, is a must. All the Goats/Sheep must be about 6 months of age.
- Beneficiaries are permitted to purchase the Goats / Sheep themselves from the local market shandies within the State / from breeders supplying good quality Goats / Sheep

from the neighbouring State shandies in case of the bordering Districts.

- In order to empower women, it has been decided that the actual beneficiary will be the Woman of the household.
- The annual Distribution Plan is prepared so as to ensure that all the Districts and Blocks are covered proportionately (approximately one-fifth per year) as per the distribution schedule as under:
 

2011-12	:	1.00 lakh beneficiaries
2012-13	:	1.50 lakh beneficiaries
2013-14	:	1.50 lakh beneficiaries
2014-15	:	1.50 lakh beneficiaries
2015-16	:	1.50 lakh beneficiaries
- An amount of Rs. 2,500 is earmarked for the purchase of a Goat / Sheep and in addition, another Rs. 500 is earmarked as the seed money for the construction of shed / procurement of nutrients per animal - thus totalling Rs.3,000 per Goat / Sheep, and Rs. 12,000 per beneficiary. In addition, an amount of Rs. 150 per beneficiary is earmarked for transportation of animals from shandy to their village.
- Insurance of the animals is provided at Government cost.

- Training on best practices is provided to all the beneficiaries for 3 days for which a sum of Rs.300 is allocated per beneficiary @ Rs.100 per day.

#### **8.1.1.2 Eligibility criteria**

For both Milch Cows Scheme and Goats / Sheep Scheme, selection of beneficiaries is done by the Grama Sabhas concerned after the initial shortlisting by a Village Level Committee (VLC). Some of the common criteria for eligibility of the beneficiaries are:

- Women headed households are to be given priority. (Widows, Destitutes and Disabled women).
- Beneficiary is to be permanent resident of the concerned Village Panchayat and below 60 years of age to benefit under both the schemes. In case of Goats/Sheep scheme, for effective rearing of animals, one of the members of the family to be 18-60 years of age.
- At least 30% of the beneficiaries from the Village Panchayat should necessarily belong to the SC / ST Communities.
- Beneficiary / their close relatives should not to be employees 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 their own name or family members' name and for Free distribution of Goats / Sheep Scheme, the beneficiary must be landless Agricultural labourer.

#### **8.1.1.3 Achievements**

- Since 2011-12, a total of 48 thousand milch cows have been distributed to 48 thousand beneficiaries belonging to 990 village panchayats. Similarly, 22 lakh Goats / Sheep have so far been distributed to 5.5 lakh beneficiaries belonging to 9,946 village panchayats.
- During the year 2014-15, the Scheme for Free Distribution of Milch Cows has been implemented in 248 Village Panchayats in 21 Districts and the Scheme for Free Distribution of Goats / Sheep has been implemented in 2,622 Village Panchayats in 31 Districts. 12 thousand Milch Cows have been distributed to 12 thousand beneficiaries and 6 lakh Goats / Sheep have been given to 1.5 lakh beneficiaries.
- Upto 31-3-2015, 47,971 calves were born out of 48,000 milch cows given. Likewise, 31.14 lakh kids were born out of 22 lakh Goats / Sheep given.

- 1.70 lakh litres of milk is produced from the Milch Cows distributed under this Scheme.
- In case of Milch Cows, 955 Milk producers Co-operative Societies have been formed and milk procurement started in almost all the villages where the Milch Cows are distributed. Instructions have also been given to give part of the payment of milk in terms of cattle feed so as to improve the nutritional status of the animals.
- Training in rearing of animals and milking method are being imparted to the beneficiaries concerned and monthly Veterinary Services are being given at the doorsteps of the beneficiaries by the Veterinary Assistant Surgeons of this department.
- In order to ensure sound health of the animals distributed, Mass health camps are held once in 3 months in the villages of the beneficiaries.

## **8.2. POULTRY DEVELOPMENT**

### **8.2.1 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 the commercial success of Namakkal District 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 a total outlay of Rs.22.35 crore. 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 and 2014-15.

#### **8.2.1.1 State Government Subsidy**

The State Government provides 25% front ended subsidy for establishing Poultry farms. National Bank for Agriculture and Rural Development (NABARD), Commercial / Nationalised banks and poultry integrators are closely involved in the implementation of the Scheme. The Scheme is dovetailed with the existing "Poultry Venture Capital Fund" scheme of the Government of India, wherein 25% back ended subsidy is provided through NABARD to the individuals. The individual / farmer / entrepreneur must raise the rest of the funds through his own sources or through bank loans.

#### **8.2.1.2 Beneficiary Selection**

Farmers, individual entrepreneurs and Self Help Groups are eligible to benefit under the scheme. An individual is eligible for availing assistance only once for each component. However, if a beneficiary has already put up a shed with his own cost, he can also avail assistance under this scheme for putting up new sheds. The

name of the Broiler / Native Chicken farm beneficiary should be recommended by an Integrator of repute and a Nationalised / Commercial Bank / Cooperative bank should be willing to fund the beneficiary. The beneficiaries will be provided training on commercial poultry rearing by Tamil Nadu Veterinary and Animal Sciences University (TANUVAS).

#### **8.2.1.3 Establishment of Broiler Farm**

Broiler Chicken rearing can be undertaken through integration wherein, integrators supply day old chicks and feed required for the birds. The integrators also ensure that the birds are marketed through their own channels. A broiler farm with strength of upto 5,000 birds can be profitably run using family labour alone and thus negates the requirement of additional man power.

For the year 2012-13, Broiler units were established in 7 Districts around Sankarankoil and Villupuram regions of the State. Sankarankoil Region includes suitable areas in Tirunelveli, Thoothukudi and Virudhunagar Districts. Likewise, Villupuram Region includes suitable areas in Villupuram, Cuddalore, Ariyalur and Perambalur Districts. During the year 2013-14, in addition to these Districts, this scheme has been extended to Vellore and Sivagangai Districts.

Out of the total target of 1,058 broiler farms for 2012-13, construction of sheds and Chicks have been provided to 905 farms by the integrators.

Out of the total target of 635 broiler farms for 2013-14, construction of sheds has been completed and chicks have been provided to 549 farms by the integrators. Likewise, Out of the total target of 572 broiler farms for 2014-15, construction of sheds has been completed and chicks have been provided to 151 farms by the integrators. Training for beneficiaries is being provided by Tamil Nadu Veterinary and Animal Sciences University (TANUVAS).

#### **8.2.1.4 Native Chicken Rearing**

Native chicken rearing is also encouraged under the Scheme wherein a flock size of about 250 / 500 birds can be profitably reared and marketed by the farmer himself. The beneficiary is encouraged to have tie up with Native Chicken Breeders / Hatchery units for regular supply of chicks at mutually agreed prices and the beneficiary himself can do the rearing and marketing since Native Chicken meat and eggs have a better market throughout the State.

During 2012-13, Native Chicken rearing is encouraged in 16 Districts viz., Dindigul, Dharmapuri, Kancheepuram, Kanniyakumari, Karur, Krishnagiri, Madurai, Nagapattinam, Pudukottai, Ramanathapuram, Sivagangai, Thanjavur, Thiruvarur, Thiruvallur, Tiruchirappalli and Vellore. In addition to the above 16 Districts, this scheme has been extended to Tiruvannamalai District in 2013-14 and to Theni District in 2014-15.

For the year 2012-13, construction of sheds has been completed and chicks have been released in all the 560 native chicken units.

During 2013-14, out of the target of 3,853 native chicken units allocated, construction of sheds has been completed and chicks were released in 3,738 farms. Likewise, for the year 2014-15, out of total target of 2,800 native chicken units, construction of sheds has been completed and chicks have been released in 1,295 farms. Training for the beneficiaries is being provided by Tamil Nadu Veterinary and Animal Sciences University (TANUVAS).

### **8.2.2 RURAL BACKYARD POULTRY DEVELOPMENT SCHEME**

The objective of this Scheme is to introduce backyard poultry rearing as an additional income generating activity among families that are categorized as Below Poverty Line (BPL) in rural

areas to improve their living standards. Government of India sanctioned a sum of Rs.3.49 crore for implementation of this Scheme in 31 Districts (except Chennai) @ 440 beneficiaries per district for the year 2013-14. As per this Scheme, a total number of 13,658 families living Below Poverty Line (BPL) (1,712 S.C beneficiaries + 11,946 other beneficiaries) were provided with 45 numbers of 4 week old chicks besides Rs.750 per family for purchasing cages, feeders etc., Training was imparted to the beneficiaries by the concerned Veterinary Assistant Surgeon and demonstration in nearby Government poultry farm.

### **8.3 FODDER DEVELOPMENT**

Feed and Fodder are the major limiting factors in enhancing livestock productivity. The economic viability of Animal Husbandry depends on sources of feed and fodder. Feeding cost constitutes about 65% - 70% of the total cost of the livestock farming.

The feed fed to cattle comprises of dry fodder, green fodder and concentrates. The shortage of dry fodder is felt only during severe drought situations, whereas there exists 25% gap between demand and availability of green Fodder.



The green fodder resources for livestock are from grass lands, pastures, fodder crops, weeds, bund grasses, tree leaves and mixed forages. Rapid urbanization with the increase in requirement of land for growing food crops have resulted in shrinking of grazing lands which in turn increased the gap between demand and availability of green fodder. Hence it is essential to enhance the green fodder production by adopting better scientific management of Agricultural lands and common property resources.

With the above objective, Government is implementing State Fodder Development Scheme since 2011-12. From 2011-12 to 2013-14, a sum of Rs.65 crore was sanctioned and 52000 acres of farmers' land were brought under green fodder cultivation. Through this development, 86.4 LMT of green fodder has been produced. Besides this to enhance green fodder production and to avoid wastage of green fodder fed to animals 4,957 Rainguns and 4,178 power operated Chaff cutters were distributed to farmers at 75% subsidy. To facilitate easy and uniform harvest of fodder, 2,500 grass cutters were distributed to the farmers at 50% subsidy. In order to enlighten the importance of feeding tree fodder to the animals, 30 lakh Agathi tree seedlings were distributed to the farmers at free of cost.

### **8.3.1 STATE FODDER DEVELOPMENT SCHEME**

To ensure the continuous availability of fodder, a sum of Rs.25 crore was allotted during 2014 -15 towards implemetation of State Fodder Development Scheme. The following activities were undertaken under this scheme:

#### **1. Cultivation of High Yielding Fodder Crops under irrigated condition**

Farmers' holdings of 8000 acres were brought under high biomass yielding perennial fodder grass Cumbu Napier (Co3/Co4) cultivation under irrigated condition at an outlay of Rs.6.40 crore. Farmers were provided with a sum of Rs.2000 as 100% subsidy per unit of 0.25 acres towards procurement of slips and fertilizers.

#### **2. Cultivation of sorghum and cowpea under rainfed cultivation**

Farmers' holdings of 40,000 acres were brought under fodder sorghum and fodder cowpea cultivation under rain fed condition at an outlay of Rs.8.80 crore.

#### **3. Distribution of Agathi seeds to farmers**

To sensitize the farmers about the importance of feeding tree fodder to the animals, farmers are provided with Agathi seeds at free of cost for taking up plantation in their own land holdings. 5000 acres

were brought under Agathi tree plantation at an outlay of Rs.80 lakh.

#### **4.Installation of rain guns**

To utilize the available water efficiently and enhance green fodder production, 2440 acres of farmers' land were brought under raingun system of irrigation across the State at an outlay of Rs.4.575 crore . Each beneficiary has been provided with a sum of Rs.18,750 as 75% subsidy for installation of rain gun in an acre.

#### **5.Propagation of Azolla :**

Azolla is a water plant which is a high quality fodder rich in protein, can be substituted for green fodder and produced at a cheaper cost. At a total outlay of Rs.1.60 crore, 10,000 Azolla units have been established across the State. Farmers are provided with 100% assistance of Rs.1600/unit/farmer.

#### **8.3.2 ESTABLISHMENT OF FODDER PRODUCTION UNITS IN MEIKKAL POROMBOKE LAND**

A large majority of the farming community in our State are small and marginal farmers with limited land holdings. These farmers traditionally rely on common lands and other common resources to meet out a significant portion of the fodder requirements for their livestock. Common lands are therefore a critical livelihood resource for landless,

small and marginal farmers. Hence there is a priority need to rejuvenate the common land (grazing land) into green fodder production unit.

During 2014 -15, for establishment of Fodder Production unit in meikkal land, on a pilot mode, 83.5 acres of Meikkal Land at Keelveedi village in Vellore and 61 acres of Meikkal Land at Panthadu and Nagalpakkam village in Villupuram districts were identified by Tamil Nadu Veterinary and Animal Sciences University and Animal Husbandry Department with the help of District Administration. The activities like levelling, field demarcation, laying chain link fencing with RCC pillars, minor works, sinking of bore wells, construction of pump rooms with pump sets, construction of silage tower, laying of pipelines and installation of sprinkler are being taken up through Rural Development Department at a cost of Rs.3.78 crore. For procurement of Agricultural machineries and inputs for cultivation of fodder, Rs.2.62 crore has been provided through the Animal Husbandry Department. This scheme will be implemented through Tamil Nadu Veterinary and Animal Sciences University. Through this scheme, it is envisaged to produce 4320 MT of green fodder throughout the year. After maintaining for 5 years, the Fodder bank will be handed over to the local panchayat for further maintenance. The total financial outlay of the Scheme is Rs.6.95 crore.

### 8.3.3 FODDER DEVELOPMENT UNDER DROUGHT MITIGATION SCHEME

The Government of Tamil Nadu have sanctioned a total amount of Rs.52.15 crore to tackle Fodder shortage as a consequence to the Drought situation during 2013-14. Initially Rs.15 crore was sanctioned for provision of green fodder and dry fodder to livestock at 50% subsidy as a part of Drought Mitigation effort in 8 Delta Districts. Around 5,600 acres of farmers' land was brought under cultivation of fodder Sorghum in the Delta Districts @700 acres per District. A sum of Rs.6,800 per acre was released as 50% subsidy to 4,635 farmers on the cost of cultivation for taking up cultivation of short term fodder crops in their lands. Totally 29,181 MT of green fodder was produced, out of which 14,192 MT of green fodder was procured by local Milk Producers Co-operative Societies (MPCS) and distributed to their members at 50% subsidy. A total of 4,635 farmers were benefitted under this Scheme in Delta Districts.

Besides this, a sum of Rs.24.65 crore was sanctioned for provision of green and dry fodder to livestock at 50% subsidy as a part of Drought Mitigation effort in 22 Non-Delta Districts except Chennai. Around 26,650 acres of farmers' land were brought under cultivation of Fodder Sorghum in these Districts. In the Nilgiris District, 110 acres of

land was under Oats cultivation. Totally 1,23,387 Metric Tonne of green fodder was produced and 27,633 Metric Tonne of green fodder was procured by local Milk Producers' Co-operative Societies (MPCS) and distributed to their members at 50% subsidy. A total of 33,567 farmers were benefitted under this Scheme in non-Delta Districts.

**Table 23 : DROUGHT MITIGATION SCHEME**

<b>PARTICULARS</b>	<b>DELTA</b>	<b>NON-DELTA</b>	<b>TOTAL</b>
Allotment	Rs.15 Crore	Rs.24.65 Crore	<b>Rs.39.65 Crore</b>
Number of Acres covered	5,600 acres	26,760 acres	<b>32,360 acres</b>
Number of farmers benefitted	4,635	33,567	<b>38,202</b>
Green Fodder production	29,181 MT	1,23,387 MT	<b>1,52,568 MT</b>
Quantum of Green fodder given to TCMPF members as 50% subsidy cost	14,192 MT	27,633 MT	<b>41,825 MT</b>

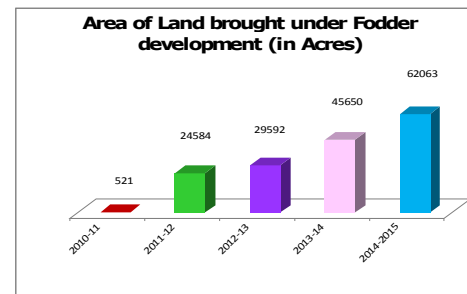
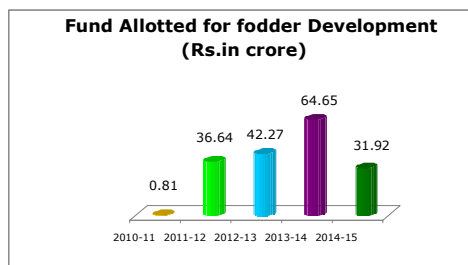
#### 8.3.3.1 Fodder depot

To prevent distress sale of cattle during summer months and during periods of fodder shortage, Government ordered the establishment of 125 Fodder Depots at a total cost of Rs.12.50 crore. Accordingly, 125 centres were identified to establish fodder depot at a cost of Rs.10 lakh per Depot. Dry fodder was procured and distributed to the livestock farmers throughout the State except Chennai at the subsidised price of Rs.2 per kg. Thus, the issue of non availability of fodder during prolonged non rainy period and resultant fodder scarcity is

addressed. In addition, 60 Fodder depots were established throughout the State under State Disaster Response Fund (SDRF) at a total outlay of Rs.6 crore during 2014-15. So far, 185 fodder depots have been established and a total of 28,855 MTs of dry fodder have been distributed to benefit 2,67,169 farmers and 11,23,258 animals.

**Table 24 : FODDER DEPOT SCHEME**

PARTICULARS	2013-14	2014-15	TOTAL
No. of Fodder Depots allotted	125	60	<b>185</b>
Allotment	Rs.12.5 Crore	Rs.6 Crore	<b>Rs.18.5 Crore</b>
Quantum of Dry fodder Distributed @ Rs.2/kg	19,591 MT	9,264 MT	<b>28,855 MT</b>
Number of farmers benefited	1,80,345	86,824	<b>2,67,169</b>
Number of animals benefited	7,69,323	3,53,935	<b>11,23,258</b>



## 8.4 INFRASTRUCTURE DEVELOPMENT SCHEMES

### 8.4.1 NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT (NABARD) 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 NABARD Rural Infrastructure Development Fund (RIDF).

#### 8.4.1.1 National Bank for Agriculture and Rural Development's Rural Infrastructure Development Fund (NABARD RIDF XVII) (2011-12)

Under NABARD RIDF XVII, the following infrastructural works were undertaken and completed at a total cost of Rs.122.24 crore:

- Construction of buildings for 337 Veterinary Dispensaries.
- Construction of buildings for 13 Veterinary Hospitals.
- Construction of two Polyclinics.
- Construction of new buildings for 3 Animal Disease Intelligence Units.
- Construction of buildings for Frozen Semen Banks at five places.
- One NABARD Scheme Monitoring Cell at the Directorate of Animal Husbandry, Chennai.
- Infrastructure development in 12 District Livestock Farms.

#### **8.4.1.2 National Bank for Agriculture and Rural Development's Rural Infrastructure Development Fund (NABARD RIDF XIX) 2013-14**

As a measure of continuing the infrastructure development works in Veterinary institutions, Government have accorded administrative and financial sanction to undertake new construction of 450 buildings at a total cost of Rs.99 crore during 2013-14, through NABARD RIDF XIX. Out of 450 buildings, 449 Sites have been handed over to Public works Department. Tender has been floated for 449 veterinary institutions. Construction work has been started in 433 veterinary institutions and completed in 253 places.

#### **8.4.1.3 National Bank for Agriculture and Rural Development's Rural Infrastructure Development Fund (NABARD RIDF XX) (2014-15)**

During 2014-15, Government has accorded administrative sanction to construct 226 new buildings for Veterinary Institutions at a cost of Rs.61.25 crore, under NABARD RIDF XX. 221 Sites have been handed over to Public works Department. Tender has been floated for 190 veterinary institutions. Construction work has been started in 177 veterinary institutions.

#### **8.4.2 CONSTRUCTION OF BUILDINGS FOR 20 NEW VETERINARY DISPENSARIES**

By strengthening the infrastructure, the department is providing better veterinary services with the aim of improving the productivity of livestock in the State. To ensure this, the Government have sanctioned Rs.6 crore for the construction of 20 new Veterinary Dispensaries during 2012-13 and all Construction works have been completed

#### **8.4.3 ESTABLISHMENT AND STRENGTHENING OF VETERINARY HOSPITALS AND DISPENSARIES (ESVHD)**

Veterinary services needs to be delivered following "Good Veterinary Practices"(GVP) and "Good Animal Husbandry Practices"(GAP) for which,

minimum infrastructure like proper building, necessary equipments, furniture, etc., should be available.

The advancements in the field of Veterinary profession can be disseminated more effectively in an efficient, user friendly environment for the ultimate benefit of the farmers. Under this Scheme, during the past 3 years, Government has provided comprehensive infrastructure facilities for new construction of 166 institutions with a sum of Rs.19.48 crore and repairs and renovations to 90 institutions at a sum of Rs.6.04 crore.

Veterinary Institutions that are functioning in rented buildings do not satisfy the requirement of a typical veterinary institution, with a restricted scope for further expansion, besides incurring expenditure by way of rent for many years. To overcome this, the Department has identified several Veterinary Institutions that require either new buildings or repairs and renovations in the existing buildings. Government has sanctioned Rs.16.56 crore during 2012-13 to undertake new construction of 142 new institutions including 3 Veterinary Hospitals, 32 Veterinary Dispensaries and 107 Rural Veterinary Dispensaries. Construction works have been completed in 103 buildings.

#### **8.4.4 NATIONAL AGRICULTURE DEVELOPMENT PROGRAMME (NADP)**

Rs. 13.26 crore has been sanctioned for construction of new buildings to 85 Veterinary Dispensaries during the year 2012-13. Construction has been completed with respect to 81 buildings and the remaining work would be completed shortly.

Liquid Nitrogen bulk storage tanks and Liquid Nitrogen / Breeding inputs were established in the 10 newly opened Cattle breeding and Fodder Development units at a cost of Rs. 3.40 Crore.

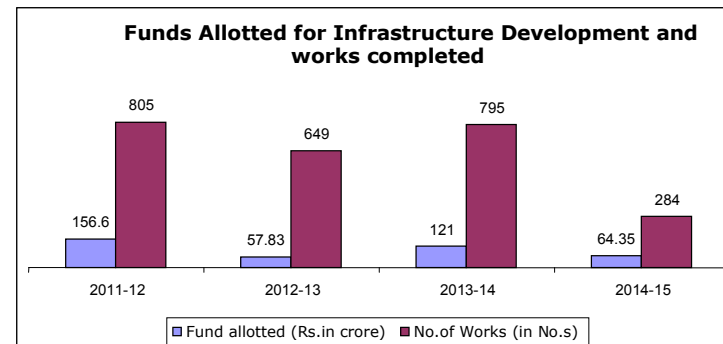
#### **8.4.5 STRENGTHENING OF INFRASTRUCTURE AND RENOVATION OF EXISTING BUILDINGS SCHEME**

**Table 25**

S. No	Year	Repairs and Renovation of Buildings		Provision for Furniture	
		Funds allocated (Rs.in crore)	No. of buildings renovated	Funds Allocated (Rs.in crore)	No. of institutions to which furnitures provided
1	2011-12	20	390	3	925
2	2012-13	22	402	3	685
3	2013-14	22	345	3	712
4	2014-15	3.1	58	--	--

In order to provide efficient veterinary services, renovation and repairs of all Veterinary Institutions and supply of furniture to them was undertaken at an outlay of Rs.25 crore every year since 2011-12. During 2011-12, a sum of Rs.20 crore was provided to undertake Maintenance and Renovation works in 390 Veterinary Institutions and field monitoring units and Rs.3 crore was provided for provision of furniture to 925 Veterinary Institutions. Similarly during 2012-13, Maintenance and Renovation work was undertaken in 402 Veterinary Institutions / monitoring units at an outlay of Rs.22 crore and provision of furniture was undertaken for 654 Veterinary Institutions and 31 Regional Joint Directors' offices at an outlay of Rs.3 crore. During 2013-14, Government has sanctioned Rs.22 crore for Maintenance and Renovation work of 345 Veterinary Institutions / monitoring units and Rs.3 crore for provision of furniture to 636 Veterinary Institutions and 76 Assistant Directors' offices. All the above works have been completed.

During 2014-15, Government has allotted Rs.3.1 crore for Maintenance and Renovation work of 58 Veterinary Institutions / Farms.



## 8.5 SCHEMES FOR LIVESTOCK DISEASE CONTROL

### 8.5.1 FOOT AND MOUTH DISEASE CONTROL PROGRAMME

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 feet 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, strict monitoring, trade restrictions and quarantines. To control this disease, Extended Foot and Mouth Disease Control Programme funded by Government of India is implemented in all Districts of Tamil Nadu. So far, 8 rounds of FMD vaccination have been carried out in all the Districts of the State. During 2014-15, 93,54,542 nos. of cattle and buffalo were

vaccinated during 7<sup>th</sup> round of vaccination in September 2014. A total of 93,59,288 nos. of cattle and buffalo have been vaccinated during the 8<sup>th</sup> round of vaccination that was undertaken during March 2015. A sum of Rs.5.50 crore has been released by Govt. of India to implement this scheme during 2014-15.

#### **8.5.2 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 in sheep and goats.

Vaccination for 47 lakh sheep and goat was undertaken in all the Districts in the State to control this disease during 2014-15. Sheep and Goats purchased under flagship Scheme, "Free Distribution of Goats / Sheep Scheme" announced by Hon'ble Chief Minister were also vaccinated.

#### **8.5.3 BRUCELLOSIS - CONTROL PROGRAMME (BRUCELLOSIS -CP)**

Brucellosis is an important zoonotic disease affecting livestock for which a "National Brucellosis Control Programme"(B-CP) is under implementation. Under this programme, based on

surveillance, vaccination against Brucellosis was conducted for 2.6 lakh heifer calves aged between 6 to 8 months in 15 endemic districts viz., Cuddalore, Kancheepuram, Karur, Thiruvannamalai, Thiruvarur, Villupuram, Vellore, Erode, Coimbatore, Nilgiris, Dindigul, Madurai, Theni, Tirunelveli and Kanyakumari Districts.

#### **8.5.4 NATIONAL PROJECT ON RINDERPEST SURVEILLANCE AND MONITORING (NPRSM)**

The main aim of this Scheme is to eradicate Rinderpest disease, which causes great economic loss to the farmers. The Scheme is under implementation as per the guidelines of Government of India since 1992 in Tamil Nadu as a part of Global Rinderpest Eradication Programme. The objective of the Scheme is to control and eradicate Rinderpest Disease from our State and Country by adopting "Zero Rinderpest" vaccination and sero Monitoring followed by clinical Surveillance. The State was declared 'Provisionally free from Rinderpest' from March 1998 onwards. Subsequently, the State was declared 'Free from Rinderpest Disease' from May 2002.

During 2014-15, Rs.19.29 lakh was released by Government of India to continue the Clinical Surveillance Programme.



### **8.5.5 NATIONAL ANIMAL DISEASE REPORTING SYSTEM (NADRS)**

NADRS is a specialized scheme implemented with the aim of avoiding delay in communication regarding animal diseases from field level to the Directorate. An online disease reporting system has been introduced through a dedicated computer network linking each block to the District head quarters, each District to the State head quarters, and each State to the country's central unit. The computer linkages would reduce time taken for data transmission, data compilation and report generation. 417 computers (Two at State Level, 30 at District Level and 385 at Block Level) have been supplied by National Informatics Centre (NIC) and 416 nodes were brought under the online network and information pertaining to animal diseases.

Under the Scheme, Animal disease bulletins regarding disease status in the Districts is being published by Central Referral Laboratory (CRL), and distributed to field Veterinarians.

### **8.5.6 ASSISTANCE TO STATES FOR CONTROL OF ANIMAL DISEASES (ASCAD) (75:25)**

This Scheme (ASCAD) is implemented with 75% Central assistance with the aim to control economically important endemic diseases affecting livestock. The State Government provides 25% of

the share. Government of India released Rs.4 crore as Central Share (75%) for implementation of the Scheme during the year 2014-15. The Scheme is being implemented at a total cost of Rs.4.99 crore including the State's share.

During 2014-15, vaccination was carried out against the following diseases under this scheme:

#### **8.5.6.1 Anthrax:**

Anthrax is one of the zoonotically important bacterial diseases. 23 Districts in the State viz., Ariyalur, Coimbatore, Cuddalore, Dharmapuri, Dindigul, Kancheepuram, Kanniyakumari, Krishnagiri, Namakkal, Perambalur, Pudukottai, Ramanathapuram, Salem, Sivagangai, Thanjavur, Theni, Thiruvallur, Tirunelveli, Tiruvannamalai, Thoothukudi, Vellore, Villupuram and Virudhunagar are endemic to anthrax. A total of 41.73 lakh animals in the endemic Districts were vaccinated against this disease at free of cost during 2014-15.

During 2014-15, two positive cases of Human Anthrax were reported, one each from Thiriyalam village, Jolarpet Block, Vellore District and Arpakkam village, Thuringapuram Block of Tiruvannamalai district. Following the receipt of information, vaccination programme was initiated in the villages surrounding 8 km radius of the affected village and the areas were immediately brought under strict surveillance.

#### **8.5.6.2 Black Quarter:**

Black Quarter is an important bacterial disease affecting cattle and buffaloes. 9 Districts in the State viz., Cuddalore, Erode, Kancheepuram, Salem, Sivagangai, Thiruvannamalai, Thanjavur, Vellore and Villupuram are endemic to Black Quarter. As a measure of protecting the livestock from this disease 6.67 lakh animals were vaccinated against this disease in 9 districts at free of cost during 2014-15.

#### **8.5.6.3 Haemorrhagic Septicaemia**

Haemorrhagic Septicaemia is another important bacterial disease affecting livestock. A total of 4.06 lakh animals in the 3 endemic Districts viz., Kancheepuram, Vellore and Thoothukudi were vaccinated against this disease at free of cost during 2014-15.

#### **8.5.6.4 Sheep pox:**

Sheep pox is a highly contagious, important viral disease affecting sheep. Sheep pox is the most severe of all pox diseases of animals. To control this disease, a total of 1.58 lakh animals in the 8 endemic Districts viz., Dharmapuri, Karur, Pudukottai, Salem, Sivagangai, Tiruppur, Tirunelveli and Virudhunagar were vaccinated at free of cost during 2014-15.

#### **8.5.7 AVIAN INFLUENZA**

Avian influenza refers to the disease of birds caused by infection with avian (bird) influenza (flu) Type A viruses. These viruses occur naturally among wild aquatic birds worldwide and can infect domestic poultry and other bird and animal species. This disease has the capacity to spread to human beings from birds

##### **8.5.7.1 Preparedness of the State to prevent ingress of avian influenza**

Government of India notified an outbreak of Avian Influenza in ducks in Alappuzha and Kottayam districts of Kerala State on 25.11.2014.

To safeguard the poultry population in the State the Hon'ble Chief Minister conducted a meeting on 26<sup>th</sup> November 2014, to assess the preparedness of the State vis-a-vis Avian Influenza outbreak and the steps to be taken for preventing the entry of the infection from Kerala. On the same day, the Second State Level Task Force Meeting on Avian Influenza was conducted under the Chairmanship of the Chief Secretary to Government to discuss the various measures to be taken to prevent the ingress of the disease in coordination with the Departments of Transport, Commercial Taxes, Environment & Forest and Health. Based on the decisions taken in the above two meetings, following actions were initiated:

### **8.5.7.2 Surveillance work in the Check Post of the State border areas:**

23 Checkposts were established in six border districts to restrict entry of poultry including ducks, eggs and egg products and meat and meat products, poultry feed and feed ingredients through the border areas of Kerala. Vehicles originating from Kerala and carrying the above loads were returned back.

- Monitoring all the possible entries other than check posts by alerting the villages bordering Kerala was undertaken.
- The poultry, hatching eggs and biologicals brought from Kerala one month prior to the outbreak were identified and destructed as per standard protocols.
- Checking and disinfection of all vehicles from Kerala with Chlorine Di-oxide spray at the check posts with the help of transport department officials, local bodies and police.
- Sufficient quantities of disinfectants, spray guns and Personal Protective Equipments (PPE) were made available at the check posts.
- To tackle any situation, around 1,061 Rapid Response Teams (RRT) each consisting of one Veterinary Assistant Surgeon, one Livestock Inspector and two Animal Husbandry Assistants / Mazdoors from Municipalities or

Panchayats were formed and kept in alert condition.

- Surveillance for unusual sickness and mortality in poultry by Animal Husbandry Department and in Wild birds by Forest Department was being carried out.
- Senior Research Officer, Central Referral Laboratory was notified as the Nodal Officer. A 24x7 control room was established at Central Referral Laboratory, Saidapet (044-24339097), 94450 32504.
- Sufficient quantities of Chlorine Di-oxide, PPE kits, N-95 masks and goggles were sourced through TNMSC.

### **8.5.7.3 Surveillance**

- All the Village Panchayat Presidents were trained on all aspects of disinfection and preventing spread of infection.
- All the poultry farms were visited by the Veterinary Assistant Surgeon concerned to enquire about any unusual mortality or sickness of birds.
- Daily report was collected from Regional Joint Directors.
- Poultry meat shops in town and cities were inspected for any symptoms or lesions of Avian Influenza in live and slaughtered birds.

- Extensive field surveillance to detect any mortality in crows and other wild birds were undertaken.

In Oorkadavu and Pakkana villages under Nelakkottai Panchayat of Pandalur taluk in the Nilgiris District, death of 50 nos. of backyard poultry was reported on 28.11.2014. Three Rapid Response Teams from Nelakottai block along with the Animal Disease Intelligence Unit, Ooty were deployed immediately to the villages and detailed investigation on the cause of death of the birds was carried out. Interrogation with the owners of dead birds revealed that the birds were not purchased from Kerala State. However, specimens including one dead bird were collected and sent to High Security Animal Disease Laboratory (HSADL) Bhopal, Madhya Pradesh for laboratory examination. As a precautionary measure, disinfectants such as Calcium carbonate and bleaching powder were sprayed in and around the two villages and TAMIFLU tablets were provided to poultry rearers.

In Kalaiyur and Varakalpattu villages, in Cuddalore Taluk of Cuddalore district, sudden death of 24 ducks was reported on 30.11.14. Post-Mortem was conducted in two dead birds and two ailing birds by the ADIU, Cuddalore. Samples from the birds were collected for virus isolation and bacterial

examination confirmed the presence of mixed infection of Duck Plague with Colibacillosis. A flock of 2,700 ducks were vaccinated against Duck Plague, and strict bio-security measures were adopted to control further death in the duck population.

In Kalipalayam village under Vellamadai Panchayat of Annur taluk in Coimbatore district, 36 numbers of backyard poultry was reported dead on 3.12.2014. Post Mortem was performed and blood samples and other specimens like tracheal and cloacal swabs were collected. On examination the test results revealed that the samples were positive for bacterial infection (E.Coli) and no virus could be detected. Strict bio-security measures were adopted to control further death in birds.

#### **8.5.7.4 Action taken by the District Administration and Line Departments regarding preparedness of Avian Influenza**

##### **A. District Administration**

- a. All instructions issued by State Level Task Force were carried out.
- b. Weekly meetings with line departments were conducted regularly.
- c. Poultry farms were monitored closely and efforts were taken to prevent purchase of ducks from Kerala.

- d. Logistics for control and containment operations were kept ready to face any eventualities.
- e. Sufficient quantities of disinfectants and sprayers were made available at check posts.
- f. Ensuring that sufficient RRTs were available in the District.
- g. Poultry meat shops were being inspected regularly.
- h. Village Panchayat staff trained in all aspects of disinfection.
- i. Adequate stock of antiviral drugs was made available with Health authorities.
- j. The Superintendent of Police had deputed adequate number of police personnel to ensure orderliness in the check post for the disinfection process.

**B. Public Health**

- a. Tamil Nadu Medical Service Corporation had supplied sufficient disinfectants, PPE Kits.
- b. RRT members were trained on health related aspects.
- c. Antiviral drugs have been stocked sufficiently.
- d. Surveillance of flu like illness in bird handlers was carried out.
- e. Hygienic Meat practices were strictly enforced.
- f. 24 hours Control room had been established.

**C. Municipal Administration**

- a. Hygienic Poultry meat practices and surveillance of wet markets were enforced.
- b. Unusual death of crows or poultry was monitored and reported regularly to Animal Husbandry Department and Tamilnadu Veterinary and Animal Sciences University.

**D. The General Manager, Southern Railways**

- a. Station Masters of Kerala were instructed not to book poultry, eggs, meat, Poultry feed and its ingredients, Poultry manure etc. as per instruction.
- b. Undercarriage and wheels of coaches originating from Kerala were disinfected.

**E. Environment and Forest**

- a. Surveillance for any unusual sickness or mortality of wild birds, vultures and migratory birds was carried out by Forest Department.
- b. Necessary support was provided by Forest Department to Animal Husbandry Department to conduct surveillance in sanctuary areas.

**F. Rural Development and Local Administration:**

5 mazdoors were provided from each Panchayats which are located in inter-state border districts and the following operations are being carried out.

- a. Enforcement of hygienic poultry meat practices and surveillance of wet markets in coordination with Food safety and Public Health Department.
- b. Disinfecting vehicles along with Animal Husbandry Department Officials at check posts.
- c. Monitoring entry points other than check post to prevent clandestine sale of ducks from Kerala.
- d. Monitoring death of crows/poultry and intimate the same to Animal Husbandry Department.

**G. Commercial Taxes Department:**

- a. Permission was accorded to Animal Husbandry Department officials to operate from the existing check post of Commercial Taxes Department.
- b. Vehicles / goods with poultry eggs, poultry meat, feed and manure from Kerala were sent back to Kerala. However, such consignments originating from Tamil Nadu to Kerala were permitted.

**H. Zonal Chairman, National Egg Coordination Committee, Secretary, BCC and president, Poultry Farmers Association:**

Poultry farmers were advised not to source birds, chicks, eggs, feed from Kerala. Poultry farmers were also advised to obtain valid certificates from the respective Government authorities for the purchase of poultry and poultry products from States other than Kerala and the vehicles carrying the above certificates only were allowed.

**8.5.7.5 Supply of Logistics for preparedness and containment of Avian Influenza in Tamil Nadu:**

In all the 6 inter-state border districts, 23 check posts with 69 teams were formed for monitoring and carrying out disinfection work round the clock.

To prevent and contain the spread of Avian Influenza in the State, all the check posts and ADIUs were equipped with the following logistics.

- 1) Totally 500 litres of Chlorine Dioxide were distributed throughout the State for disinfection of vehicles at check posts and in poultry farm premises as a measure of bio-security. So far, 277 litres of Chlorine Dioxide was utilised for disinfecting 8,22,256

vehicles that crossed the check posts. 799 vehicles carrying poultry and poultry related materials were denied entry and sent back.

- 2) 100 Power Operated Spray guns were supplied and being used for disinfection purpose.
- 3) 2,530 Personnel Protective Equipment kits (PPE) were supplied for use during culling operations.
- 4) 2,350 Hand sanitizers of 500 ml quantity were supplied to all the districts.
- 5) 10,000 double layered face masks and 7,000 hand gloves were supplied for disinfection and other operations.
- 6) 25,000 Phenobarbital tablets were supplied to the districts for use during culling operations.

Since, Government of India had again notified an outbreak of Avian Influenza in turkeys in the Regional Poultry farm, Kureepuzha in Kollam district of Kerala State on 30.01.2015, constant vigil was continued at the check posts in the Kerala State border districts. Disinfection process was carried out scrupulously and vehicles with poultry products from Kerala State into Tamil Nadu State were checked and denied entry.

Following the notification of disease free status in Kerala by GOVERNMENT OF INDIA on 23.06.2015, 69 teams in 23 check posts were temporarily withdrawn in the six border districts adjoining Kerala. However, it was instructed to continue the surveillance and monitoring work in all the poultry farms, sanctuaries and water bodies and to report the occurrence of unusual mortality, if any.

In the mean time, following the notification of Avian Influenza by Government of India in Telangana State on 15.04.2015, similar steps as taken to prevent the ingress of infection from Kerala during the November 2014, were taken for preventing the entry of the infection from the neighbouring State of Andhra Pradesh.

However, following the notification of disease free status in India by Government of India on 29.07.2015, 27 teams in 9 check posts were temporarily withdrawn in the three border districts adjoining Andhrapradesh. Also, it is instructed to continue the surveillance and monitoring work in all the poultry farms, sanctuaries and water bodies and to report the occurrence of unusual mortality, if any.

Also, the 24 x 7 control room that was functioning at Central Referral Laboratory at Saidapet, Chennai has been dismantled.

### **8.5.8. VETERINARY PUBLIC HEALTH**

Zoonotic diseases are diseases caused by infectious agents that can be transmitted between animals and humans. Controlling zoonoses is particularly important in developing countries. Animal husbandry plays important role in maintaining health of the general public in terms of prevention of zoonotic diseases. With animal husbandry forming the core livelihood of millions of rural population, veterinary public health plays a vital role in controlling the zoonotic diseases.

#### **8.5.8.1 Canine Rabies Control Programme:**

Rabies in Human beings and animals is considered as a major public health problem in most of the States in India including Tamil Nadu. Dogs transmit Rabies disease not only to human beings but also to various other livestock which are of great economic importance to the stake holders. Thus, elimination of canine rabies constitutes the most effective means of controlling transmission to human beings and other livestock.

With above objective, Canine Rabies Control Programme Unit is functioning at Madurai and Tirunelveli. The main functions of these units are:

- Systematic, periodical door-to-door prophylactic vaccination of pet dogs against rabies is provided.

- Post exposure vaccination of all livestock including dogs is provided free of cost
- Creation of awareness among the public through publicity and propaganda by distributing pamphlets and handbills and by conducting dog shows.

During 2014-15, a total number of 6,498 pet dogs were vaccinated in the above centres.

### **8.5.9 INTENSIVE HEALTH COVER PROGRAMME FOR SHEEP / GOATS**

Sheep / goats are reared mainly by grazing, thus making them highly vulnerable to endoparasitism which results in weight loss, delayed maturity, high mortality rate, low fertility rate etc., apart from making them susceptible to other diseases. This also affects the quality of meat and carcass yield.

Sheep / goats have to be dewormed periodically to avoid the above adverse impact. In this regard, the department is implementing Intensive Health Cover Programme for sheep / goats since the year 1982-83. Under this Programme, the sheep / goats maintained by poor farmers in all the Districts except Chennai, are dewormed once in 3 months at their doorsteps. During the year 2013-14, the Programme was



implemented using various deworming drugs at an outlay of Rs.38 lakh.

During the year 2014-15, the budgetary allocation was increased to Rs.1 crore.

#### **8.5.10 VACCINATION AGAINST RANIKHET DISEASE**

Ranikhet disease is one of the economically important diseases causing heavy mortality in poultry. The Department is providing vaccination against this disease on specified days at all the veterinary institutions and sub centres every week and also in the camps conducted under 'Kalnadai Padhukappu Thittam' to protect the poultry from this disease. Apart from this, the Department also conducts State wide vaccination drive against Ranikhet disease during the month of February every year (two weeks camp). During the year 2014-15, 256.57 lakh poultry have been vaccinated against Ranikhet disease.

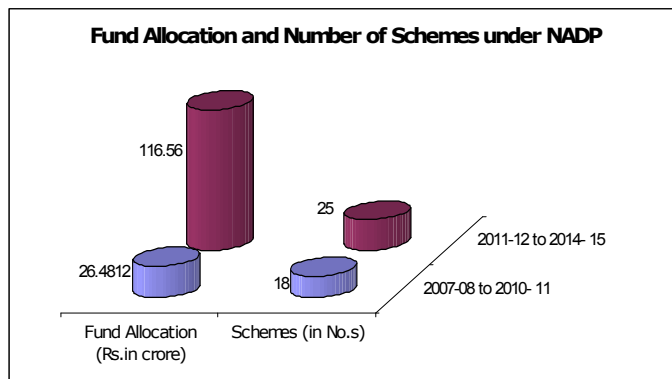
#### **8.6 NATIONAL AGRICULTURAL DEVELOPMENT PROGRAMME (NADP)**

National Agricultural Development Programme is being implemented in the State since 2007-08 with 100 % GOVERNMENT OF INDIA grant. The programme aims at achieving 4% annual growth in the contribution of agriculture sector to the National GDP.

From 2007-08 to 2014-15, a sum of Rs.143.041 crore was allotted to the State and 43 projects were implemented. Out of this, a sum of Rs.66 Crore was apportioned for Infrastructure development and a sum of Rs.45 Crore was allotted for fodder development. The major projects implemented through programme are

- 16 Mobile Disease Diagnostic Laboratories were established at an outlay of Rs.1.92 Crore.
- 19 Walk in coolers were installed at an outlay of Rs.1.52 Crore.
- A sum of Rs.12.02 crore was earmarked for Up gradation of Bacterial Vaccine Production unit of IVPM to GMP standards. The works are under progress.
- For the establishment of 31 mobile Veterinary division, provision of vehicles were made at an outlay of Rs.2.05 Crore.
- LN2 containers and breeding input facilities in 10 CBFDS have been established at a cost of Rs.5.50 Crore.
- A Fodder Seed Production Unit and Farmers Training Centre was established at DLF, Naduvur, Thanjavur district at a cost of Rs.9.60 Crore.
- New building for 85 Veterinary dispensaries were constructed at a cost of Rs.13.26 Crore.

- 53 Ultra sound scanners were installed at 11 Departmental Livestock farms, 20 CBFDs and 22 Clinician centres at an outlay of Rs.8.81 crore.
- A sum of Rs.2.80 crore is earmarked for provision of 15 computerized X-ray units to Polyclinics and Veterinary Hospitals.
- A sum of Rs. 25 Crore was sanctioned under Accelerated Fodder development programme . 33,000 acres of farmers land have been brought under fodder cultivation and 12 LMT of fodder has been produced. To minimize the wastage of available fodder, 3500 power operated chaff cutters were distributed to farmers at 75% subsidy.



### 8.7. NATIONAL LIVESTOCK MISSION 2014-15

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 National Livestock Mission is organised into the following four Sub-Missions:

- Sub-Mission on livestock Development.
- Sub-Mission on pig Development for the North Eastern Region
- Sub-Mission on feed and fodder development and
- Sub-mission on Skill Development, Technology transfer and Extension

As per the Livestock Mission Operation Guidelines, the State Government constituted a State Level Executive Committee under the Chairmanship of Chief Secretary having representatives from other concerned departments of State Government, State Agricultural Universities (SAU), Institute under Indian Council of Agriculture Research, Dairy Cooperatives and farmers / Animal rearers / Poultry Associations.

The State Level Executive Committee examined the proposals submitted by the Animal Husbandry Department, approved Rs.235.66 crore worth schemes and forwarded to Central Government for fund allocation. Out of the total of

37 projects approved by the State Level Executive Committee, the Government of India, has accorded sanction for implementing 8 projects only at a total cost of Rs.17.29 crore as the Central share, out of which Rs.12.42 crore has been released as first instalment as the share of the Government of India.

### **8.7.1. Sub-Mission on Livestock Development**

The sub-mission on Livestock Development addresses the overall development of livestock species including poultry, other than cattle and buffalo. Risk Management component of the sub-mission will, however, also cover cattle and buffalo along with other major and minor livestock.

#### **8.7.1.1 Risk Management - Livestock Insurance**

Death of livestock adversely affects the economy of the farmers and consequently rural economy. In order to insulate small and marginal farmers from sudden loss of livestock, a Scheme for providing livestock Insurance with funding from Government of India is under implementation in 15 Districts of the State. With a view to bring in livestock reared in other Districts also within the ambit of insurance, a similar Cattle Insurance Scheme implemented in the 16 Districts that are not covered under the Government of India

sponsored insurance Scheme (except Chennai) to cover 2.40 lakh breedable population, during 2014-15, at a total outlay of Rs.15.32 crore.

### **8.7.2 Sub-Mission on Feed and Fodder Development**

The Sub-Mission is designed to address the problems of scarcity of animal feed and fodder resources, to give a push to the livestock sector making it a competitive enterprise for India, and also to harness its export potential. The sub-mission will especially focus on increasing productivity of fodder and feed through adoption of improved and appropriate technology.

Under the Procurement and Distribution of seeds, 440 quintals of certified / Truthfully labelled seeds of various fodder crops were procured from Krishi Vigyan Kendra (KVK), Namakkal through Public-Private Partnership (PPP) mode. The Krishi Vigyan Kendra, Namakkal, TANUVAS has identified fodder seed producing farmers from 15 districts, who are willing to produce and supply fodder crop seeds for mutually agreed price to KVK, Namakkal, which in turn will supply seeds as fodder seed minikits to Animal Husbandry Department for further distribution to farmers at free of cost for green fodder production. The outlay of the project is Rs.1.28 crore.

To ensure availability and timely supply of quality seeds to the farmers, under "Production and Distribution of Cowpea seeds", 40 quintals of Foundation cowpea seeds were procured from Regional Station for Forage Production and Distribution (RSFPD), Government of India, Alamadhi, Chennai and are being multiplied as certified seeds in 5 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.

In order to minimize the wastage of fodder by the animals, farmers are encouraged to chop and feed their animals by providing Power Operated Chaff Cutters. Under, "Assistance for introduction of Power Operated Chaff Cutters", 3,245 numbers of Power Operated Chaff Cutters have been distributed at 75% subsidy to the farmers at a total financial outlay of Rs.6.75 crore. Out of which, 2,170 numbers of Power Operated Chaff Cutters were distributed through Animal Husbandry Department and 1,075 numbers of Power Operated Chaff Cutters were distributed through Tamil Nadu Cooperative Milk Producers Federation (TCMPF).

## **8.8 TAMIL NADU IRRIGATED AGRICULTURAL MODERNIZATION AND WATER-BODIES RESTORATION AND MANAGEMENT (TN-IAMWARM) PROJECT**

World Bank assisted Tamil Nadu Irrigated Agricultural Modernization and Water-bodies Restoration and Management Project (TN-IAMWARM project) is being implemented at a cost of Rs.2,547 crore integrating 8 Departments since 2007 with the objective of increasing the income of farmers by improving the utilization of each and every unit of water resource in agriculture and related activities. A sum of Rs.42.10 crore has been allotted to carry out Animal Husbandry activities. So far, a sum of Rs.41.62 crore has been incurred.

### **8.8.1 The activities undertaken by the department in the sub basins are:**

- Fodder development by bringing additional areas under fodder cultivation thereby increasing the availability of green fodder.
- Ensuring complete veterinary care and increasing the percentage of conception through conduct of fertility cum health care camps, distribution of mineral mixture and mineral licks and oestrus synchronization.
- Periodical deworming of sheep and goats and heifer calves.

- Increasing the awareness level of farmers by training, exposure visits, mass communication, propaganda and publicity methods in best animal husbandry practices.

The project is being implemented in 9 sub-basins from 2007-08 as Phase I. The Project was extended to 15 more sub-basins from 2008-09 as Phase II, to 20 more sub-basins from 2009-10 as Phase III and to 5 more sub-basins from 2011-12 and one more sub-basin from 2012-13 as Phase IV. Totally 50 sub-basins are taken up for implementation of Animal Husbandry activities under the project.

**Table 26 : Activity wise Progress Under IAMWARM Project**

Sl. No.	Name of the Component	2007-08 to 2013-14		2014-15	
		Target	Achievement	Target	Achievement
1	Operation of Cluster Sub basin Veterinary Unit (In Nos.)	70	40	0	0
2	Artificial Insemination (In lakh Nos.)	20.61	20.61	0	0
3	Fodder Development (In Ha)	14,477	14,477	0	0
4	Azolla Demonstration (In Nos.)	1,819	1,819	0	0
5	Fertility Cum Health Care Camps (In Nos.)	9,011	9,011	0	0
6	Farmer's interactive meeting (In Nos.)	4,981	4,981	0	0
7	Oestrus Synchronisation (In Nos.)	10,710	10,710	5,300	5,300
8	Deworming of Heifer calves (In lakh Nos.)	3.68	3.68	0	0
9	Deworming of Sheep & Goats (In lakh Nos.)	28.46	28.46	0	0

Sl. No.	Name of the Component	2007-08 to 2013-14		2014-15	
		Target	Achievement	Target	Achievement
10	Distribution of Mineral Mixture (No. of Animals)	1,00,935	1,00,935	16,365	16,365
11	Distribution of Mineral Licks (No. of Animals)	44,290	44,290	11,500	11,500
12	3 days Farmers training (No. of Farmers)	81,000	81,000	0	0
13	Exposure visit (No. of Farmers)	4,350	4,350	100	100
14	Distribution of Chaff Cutters (In Nos.)	189	189	0	0
15	Financial (Rs. in crore)	40.92	40.54	1.18	1.08

Due to the non availability of adequate numbers of Veterinarians on contract basis, they could not be hired for 30 Cluster Sub-basin Veterinary Units. However, the Department achieved all the targets utilising its own officials.

The World Bank has appreciated the work done by the Animal Husbandry Department as follows:

*"The Key Performance Indicator (KPI) for the Animal Husbandry Department is incremental increase in milk production from the baseline level of 17,61,000 tonnes to 23,48,000 tonnes per year, which is 33% over the baseline production. Similarly per animal milk production per day has increased from the baseline of 4.76 to 6.35 litres".*

During 2014-15, Rs.1.18 crore has been allotted for carrying out oestrus synchronization in 5,300 animals, distribution of mineral mixture for 16,365 animals and mineral licks for 11,500 animals free of cost.

### **8.9 NATIONAL MISSION FOR PROTEIN SUPPLEMENT (NMPS)**

Following the success of the schemes aimed at enhancing protein supplementation through Goat rearing during the previous years, a scheme for "Intensive Goat production for enhancing protein supplement" was implemented in 15 Districts at an outlay of Rs.5.05 crore during 2014-15 so as to ensure year round availability of animal protein for consumers and to maximize economic returns to farmers. In each district, 8 Women Self Help Groups, each group consisting of 9 beneficiaries were selected. Each beneficiary was provided with 10 Goats (9 females and one male). Assistance in the form of construction of shed, insurance for the animals, health cover and training were provided by the Department at 100% subsidy. Concentrate Feed has been provided at 50% subsidy, restricted to a maximum of Rs.10 per kg of feed.

### **8.10 KALNADAI PADHUKAPPU THITTAM**

Under Kalnadai Padhukappu Thittam, Special veterinary health camps are conducted to provide total health cover to livestock and poultry in

remote villages at farmers door step, where veterinary facilities are inadequate. This scheme is being implemented in the State since January 2000.

A total of 5,500 special camps are conducted in all the Panchayat Unions at a cost of Rs.4,200 per camp. Wide publicity is given in the village and its surrounding villages about the conduct of the camps. During the process, pamphlets and leaflets are also distributed indicating various activities to be undertaken in the camp.

An exhibition depicting various livestock diseases and preventive measures of the Department, fodder development measures, and calf rally are conducted for creating awareness among the farmers. It is also used as a platform for propagating schemes like Free Distribution of Milch Cows and Free Distribution of Goats / Sheep and Fodder Development Schemes.

Prizes worth of Rs. 400 per camp is distributed to the best crossbred Heifer calves participated in the calf rally. During 2014-15, a sum of Rs.2.31 crore was sanctioned for conducting 5,500 camps. 56.03 lakh livestock and 7.95 lakh farmers were benefitted in the 5,500 camps conducted.

**Table 27 : Details of animals benefitted in KPT camps during 2014-15**

S. No	Details	Number (lakh)
1	No. of animals Benefitted	
	Cattle	14.16
	Buffaloes	1.25
	Goats	16.44
	Sheep	11.29
	Other Livestock	1.36
	Poultry	11.53
	<b>Total</b>	<b>56.03</b>
2	No. of Farmers benefitted	7.95
3	Calf Rally (No of Calves participated)	1.25

### 8.11 CONSERVATION OF INDIGENOUS CATTLE BREEDS

To conserve the indigenous cattle breeds, 5 Cattle exhibitions at Regional level in Salem (Alambadi), Erode (Bargur), Dindigul (Pulikulam), Thiruvarur (Umblachery) and Tiruppur (Kangayam) and 3 Workshops at Salem (Alambadi), Dindigul (Pulikulam) and Uthagamandalam (Toda Buffalo) are being conducted at a total cost of Rs.29 lakh, to create awareness and to encourage rearing indigenous breeds, among livestock farmers.

### 8.12 WESTERN GHAT DEVELOPMENT PROGRAMME

During the year 2014-15, the Government sanctioned Rs. 76.91 lakh for the implementation of following Animal Husbandry activities in the 7 Districts viz., Coimbatore, Dindigul, Tiruppur, Theni, Tirunelveli, Madurai and Virudhunagar under the Western Ghat Development Programme:

- Distribution of 310 Nos. of crossbred heifer calves with 50% subsidy.
- Distribution of 935 units (9+1 birds per unit) of Giriraja Birds with 50% subsidy
- Distribution of 2 units (10+1 Pigs per unit) of pigs with 50% subsidy.

The above activities are being implemented through the Tamil Nadu Watershed Development Agency in 6 districts and in Thiruppur by District Rural Development Agency. The Scheme is monitored by Animal Husbandry Department.

### 8.13 MONITORING OF ANIMAL HUSBANDRY ACTIVITIES THROUGH MOBILE PHONE

To have effective monitoring of all 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 will be 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 provided for implementing this programme.

#### **8.14 CONSTRUCTION OF SHELTERS FOR MILCH COWS, SHEEP / GOATS AND POULTRY**

Under Mahathma Gandhi National Rural Employment Guarantee Scheme, to protect the livestock of Scheduled Caste, Scheduled Tribes, Destitutes, small and marginal farmers, 5,000 shelters for milch cows, 10,000 shelters for goats / sheep and 1,000 for poultry sheds are being constructed for the selected beneficiaries through Rural Development Department at Government cost.

Out of the target of 5,000 cow shelters, construction completed for 60 cow shelters and out of the target of 10,000 sheep / goat shelters, construction completed for 310 shelters. Similarly, out of the target of 1,000 poultry sheds, construction completed for 45 poultry sheds. The remaining shelters will be completed soon.

#### **8.15 Establishment of Sheep, Goat, Pig units under NABARD**

##### **8.15.1 Sheep & Goat Units**

To encourage commercial rearing of Sheep/goat units and also to develop entrepreneurship among farmers it is proposed to provide assistance to establish breeding farms (as mini model farms) in the districts of Tamil Nadu under Integrated Development of Small Ruminants & Rabbits Scheme (IDSRR). The financial assistance is provided through Nationalized banks with back ended subsidy from the Government. (33 1/3% for SC & ST for others it is 25%). Repayment period will depend upon the capacity of beneficiary and will vary from 3-7 years.

##### **8.15.2 Pig Development**

Commercial rearing unit of Pigs in the selective Districts, selective Panchayats of Tamil Nadu with the objective to encourage rearing of large white Yorkshire pigs under stall fed condition and replacing the local desi breed for production and supply of improved germ plasm, to improve production performance etc. will be established. The financial assistance is provided through Nationalized banks with back ended subsidy from the Government. (33 1/3% for SC & ST for others it is 25 %). Repayment period will depend upon the capacity of beneficiary and will vary from 3-7 years.



## **8.16 LIVESTOCK CENSUS**

Enumeration for Livestock Census was started during the year 1919-1920. Since then it has been conducted once in every 5 years. The All India 19th Quinquennial Livestock Census commenced on 15.09.2012 and enumeration work was done upto 14.10.2012 with reference date as 15.10.2012. A sum of Rs.15 crore has been released so far, for the exercise which would provide data for framing policies and plan various Schemes to farmers. Data pertaining to cattle, buffaloes, sheep, goat, pigs, horses, ponies, donkeys, dogs, rabbits and elephants and poultry which includes fowls, ducks, turkeys, quails, Emu birds and other poultry birds were collected. Further, details on mechanised equipment such as milking machine, fodder cutter, chopper and baler (or) dung collection / disposal machines were collected. The State wise results were published during September 2014 and the Districtwise results were published during February 2015 by Government of India.

### **8.16.1 Breed Survey**

Tamil Nadu has 5 native breeds of cattle namely Kangayam, Umblacheri, Alambadi, Bargur and Pulikulam, one native buffalo breed namely Toda, 8 breeds of Sheep namely Madras Red, Mecheri, Ramnad White, Vembur, Trichy Black, Nilgiris, Coimbatore and Kilakaraisal and 3 breeds of

Goats namely Kanni Aadu, Kodi Aadu and Salem Black. In order to assess the population of these native breeds and also exotic and crossbred livestock, breed survey was conducted throughout Tamil Nadu in 15% of the villages selected by Government of India and completed on 31.8.2013. Data entry work is in progress and results will be published after finalization by the Government of India.

## **8.17 INTEGRATED SAMPLE SURVEY SCHEME (50:50)**

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 the 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 7 villages/ District/ Season. But due to revision of methodology by Government of India from 2012-13, 10-50% of villages are being covered in each District.

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 the department to assess the impact of its efforts.

**Table 28 : Percentage of Increase of Estimated Production of milk, egg and meat over previous year**

Item	Unit	2013-14	2014-15	Percentage of increase in 2014-15 over 2013-14
Estimated Milk Production	lakh MT	70.49	71.32	1.2
Estimated Egg Production	Lakh Nos.	1,41,235	1,59,253	12.8
Estimated Meat Production	lakh kgs.	4,645	4,919	5.9

### 8.18 Stray Dog Birth Control Programme

This programme is being implemented to prevent the indiscriminate catching and killing of stray dogs. The Government of India have formulated the Animal Birth Control (Dogs) Rules, to control the stray dog population by the Municipalities and local body authorities.

This programme is being implemented with the following main objectives:

- Effective control of stray dog population
- Reduction in number of incidence of Rabies
- Prevention of killing of healthy stray dogs

The stray dogs are caught in a humane method, sterilized, vaccinated against rabies and left back in the same original place from where they were caught, under this programme. The scheme is under implementation in 5 Corporations and 50 Municipalities involving Municipal Administration Department, Animal Husbandry Department and Animal Welfare Board of India.

### 9. 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 2014-15, 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
- Vellore - Trade Fair
- Namakkal - Valvil Ori Vizha
- Coimbatore - Trade Fair
- Madurai - Trade Fair
- Thanjavur - Trade Fair
- Tirunelveli - Trade Fair
- Tiruvannamalai - Trade Fair
- Salem - Yercaud Kodai Vizha
- Thoothukudi - Trade Fair

Apart from these, the department participated in the 41<sup>st</sup> Trade Fair and Exhibition that was held from January 2015 to March 2015, at Island Grounds Chennai and also in Republic Day Parade Pageantry at Chennai.

## **9.1 Meat Inspection**

The Department is conducting regular meat inspection in the registered slaughter houses functioning under the control of the local bodies located throughout the State. The chances of contracting meat borne diseases like Taeniasis, Trichinosis and Hydatidosis by the meat consuming public is almost eliminated or prevented by this regular activity. During 2014-15, 876 weekly inspections to the slaughter houses were made by the Animal Disease Intelligence Units (ADIUs) in the State.

## **10. ANIMAL WELFARE MEASURES**

The Government in coordination with Animal Welfare Board of India is addressing the problems of unethical treatment to animals in a three pronged approach, to prevent cruelty to animals and to treat them ethically in a humane manner.

- 1) At the Livestock market
- 2) During transport
- 3) At Slaughter houses

### **10.1 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.

Some of the important measures taken are:

- Society for Prevention of Cruelty to Animals (SPCA) has been established in all Districts in Tamil Nadu.
- Government of Tamil Nadu have constituted a State Level Coordination Committee headed by Secretary to Government, Animal Husbandry, Dairying and Fisheries Department and District Level Co-ordination Committees headed by District Collector to oversee the enforcement of Prevention of Cruelty to Animals Rules, 2001.

### **10.1.1 Rules for Transportation of Animals**

- Under Prevention of Cruelty to Animals Act, 1960, rules for transportation of Cow, Bullock, Bulls, Buffalo, Calves and Goat have been mentioned in Transport of Animals, Rules, 1978.
- A valid certificate by a qualified veterinary surgeon to the effect that the cattle are in a good condition to travel by rail or road and are not suffering from any infectious or contagious or parasitic diseases and that they have been vaccinated against Rinderpest and any other infectious or contagious or parasitic diseases, shall accompany each consignment.
- In the absence of such a certificate, the carrier shall refuse to accept the consignment for transport.
- The certificate shall be in the form specified in Schedule-E.
- Veterinary first-aid equipment shall accompany all batches of cattle.
- Each consignment shall bear a label showing in bold red letters the name, address and telephone number (if any) of the consignor and consignee, the number and types of cattle being transported and quantity of rations and feed provided.

- The consignee shall be informed about the train or vehicle in which the consignment of cattle is being sent and its arrival time in advance.
- The consignment of cattle shall be booked by the next train or vehicle and shall not be detained after the consignment is accepted for booking.
- Suitable rope and platforms should be used for loading cattle from vehicles.
- Cattle shall be loaded after they are properly fed and given water.
- Cattle in advanced stage of pregnancy shall not be mixed with other cattle in order to avoid stampede during transportation.
- Sufficient quantity of water shall be carried for emergency.
- Water should be given at proper time.
- Adequate ventilation shall be ensured.

**10.1.2 When cattle to be transported by Goods train, the following precautions are to be taken:**

- An ordinary goods wagon shall carry not more than ten adult cattle or fifteen calves on broad gauge, not more than six adult cattle or ten calves on metre gauge, or not more than four adult cattle or six calves on narrow gauge.

- Every wagon carrying cattle shall have at least one attendant
- Cattle shall be loaded parallel to the rails, facing each other
- Rations for padding, such as straw, shall be placed on the floor to avoid injury if a cattle lies down and this shall not be less than 6 cms thick.
- Rations for the journey shall be carried in the middle of the wagon.
- To provide adequate ventilation, upper door of one side of the wagon shall be kept open properly fixed and the upper door of the wagon shall have wire gauge closely welded mesh arrangements to prevent burning cinders from the engines entering the wagon and leading to fire outbreak.
- Cattle wagons should be attached in the middle of the train.
- Cooking shall not be allowed in the wagons nor hurricane lamps without chimneys.
- Two breast bars shall be provided on each side of the wagon one at the height of 60 to 80 cm and the other at the height of 100 to 110 cm.
- Cattle in-milk shall be milked at least twice a day and the calves shall be given sufficient quantity of milk to drink.

- As far as possible, cattle may be moved during the nights only.
- During day time, if possible, they should be unloaded, fed, given water and rested.

**10.1.3 When cattle are to be transported by goods vehicle the following precautions are to be taken:**

- Specially fitted goods vehicles with a special type of tail board and padding around the sides should be used.
- Ordinary goods vehicles shall be provided with anti-slipping material, such as coir matting or wooden board on the floor and the super structure, if low, should be raised.
- No goods vehicle shall carry more than six cattle.
- Each goods vehicle shall be provided with one attendant
- While transporting the cattle, the goods vehicle shall not be loaded with any other merchandise.
- To prevent cattle being frightened or injured, they should preferably, face the engine.

As per Transport of Animal Rule 1978, in Rule 50 the average space provided per Cattle in Railway Wagon or vehicle are as follows:

**Table 29 : Required Space for Cattle During Transportation**

Weight of Cattle	Space Required
200 kg	1 Square Meter
200-300 kg	1.20 Square Meter
300-400 kg	1.40 Square Meter
above 400 kg	2.0 Square Meter

**11 JALLIKATTU**

The Jallikattu is a traditional sport event of the rural masses in Tamil Nadu which is conducted during Pongal Festival. The sport has a 2000 year old tradition and a history associated with the Socio cultural ethos of rural Tamil Nadu.

One Thiru. A. Nagarajan in 2006 filed a writ of Mandamus asking for a ban on conduct of Jallikattu in Alanganallur. While the above writ was pending one Thiru.K.Muniasamy Thevar filed a writ petition No.2966/2006 in Madurai Bench of Madras High Court seeking direction to permit conduct of Bullock Cart Race (Rekhla Race) in Ramanathapuram in connection with the Mahakumbabhishekam of Sri Muneeswarar Koil Temple. The Hon'ble High Court in a Single Judge

Order dated 29.3.2006, did not give permission for the relief sought as it was violative of section 11 of PCA Act 1960. The court directed the State Government to ensure implementation of the Act and take immediate steps to ban all types of Jallikattu, Rekhla Race, Oxen Race causing cruelty to animals.

Thiru. K. Muniasamy Thevar preferred a writ appeal in W.A Nos.119 and 237 of 2006 against the direction banning Jallikattu before the Madurai Bench of Madras High Court. The Animal Welfare Board of India (AWBI) impleaded itself in the above writ petition. The Judgement of Madurai Bench of Madras High Court in W.P No.11478/2006, dated 09.03.2007, ordered that the imposition of complete ban is not correct and village sports event be conducted during Pongal season and the State should ensure that animals are not subjected to cruelty before or after the event and at the same time ensure safety of animals, participants and spectators for conduct of the said sport events.

The Animal Welfare Board of India (AWBI) filed a SLP in Hon'ble Supreme Court of India vide 11686/2007 on 14.08.2007 seeking a ban to conduct Jallikattu events in Tamilnadu.

The Government of Tamil Nadu enacted the Tamil Nadu Regulation of Jallikattu Act 2009 (TN ACT 27/2009) to ensure safety of animals,

participants and spectators. As per clause (iv) to subsection (2) of section 3 of said Act, the concerned District Collector has to notify places in District Gazette and the event has to be conducted only in notified places during months from January to May every year. Jallikattu events have been conducted in the notified places on the following Districts :-

- |               |                     |
|---------------|---------------------|
| 1. Ariyalur   | 8. Sivagangai       |
| 2. Dindigul   | 9. Thanjavur        |
| 3. Karur      | 10. Theni           |
| 4. Madurai    | 11. Tiruchirappalli |
| 5. Namakkal   | 12. Virudhunagar    |
| 6. Pudukottai | 13. Vellore         |
| 7. Salem      |                     |

During April 2011 People for Ethical Treatment of Animals(PETA) Challenges the Tamil Nadu Regulation of Jallikattu Act 2009, before the Hon'ble Supreme Court of India and Hon'ble Supreme Court of India ordered that W.P (Civil) No.145/2011 to be tagged with SLP 11686/2007. On 11<sup>th</sup> July 2011, Ministry of Environment and Forest (MOE&F), Government of India issued notification vide GSR 528(E) that Bulls shall not be exhibited or trained as performing animals along with the existing list of Bears, Monkeys, Tigers, Panthers and Lions. In January 2012 several writ petitions were filed before the Madurai Bench of Madras High Court by organisers of Jallikattu challenging the Government of India, Ministry of Environment and Forest

Notification dated 11.07.2011 as ultra vires to the Constitution. Madurai Bench of Madras High Court permitted Jallikattu by enforcing additional safety measures in the year 2012.

On 11.12.2012 – Additional Advocate General (A.A.G) pleaded before Hon'ble Supreme Court of India for transfer of cases from Madurai Bench, wherein the Government of India, Ministry of Environment and Forest notification was challenged. Transfer petitions were allowed and Tagged with SLP (C) No.11686/2007, on 10.01.2013 by the Hon'ble Supreme Court. The Hon'ble Supreme Court of India made it clear that the event should be conducted strictly as per the interim orders passed by Apex Court from time to time and the Collectors should scrupulously follow the orders dated 15.01.2008, 25.11.2010 and 07.03.2011. During the year 2012, 2013 and 2014, 27, 38, and 29 Jallikattu events were conducted respectively. Compliance reports have also been filed for the year 2012 and 2013 before the Hon'ble Supreme Court of India. In January 2014, a team of Officials headed by the Secretary, Animal Husbandry, Dairying and Fisheries Department met the Additional Secretary and Joint Secretary, Government of India, Ministry of Environment and Forests to delete the bulls as performing animal from the Government of India, Ministry of Environment and Forest Notification dated 11.7.2011 vide notification GSR 528(E).

It was also emphatically putforth to the Government of India, Ministry of Environment & Forests Officials that the Jallikattu bulls which are reared like a family member may slowly find its way to slaughter houses and an apprehension of loss of good native germ plasm in the future. Subsequently, a Professor and Head from Tamil Nadu Veterinary and Animal Sciences University impressed upon the officials of Ministry of Environment and Forests that no significant stress or pain is inflicted on the bull during the conduct of Jallikattu.

Though the Government of Tamil Nadu vehemently argued the case that conducting Jallikattu has a long, traditional, cultural, religious and historical background and the event would in no way inflict any pain or torture on the participating animals in a scientific manner, the Apex court categorically brushed aside our claims in its Judgement dated 07.05.2014 and banned the conduct of Jallikattu in the State of Tamil Nadu and also held that bulls cannot be used as performing animals either for Jallikattu events or for bullock cart races in the States of Tamil Nadu, Maharashtra or elsewhere in the country. The Hon'ble Supreme Court of India also held that Tamil Nadu Regulation of Jallikattu Act 2009 is repugnant to the provisions of Prevention of Cruelty to Animals act, 1960 and struck it down.



Consequent on the Hon'ble Supreme Court order dated 07.05.2014, the State of Tamil Nadu within 12 days of the order, approached the Hon'ble Supreme Court by seeking review of the common judgment and order dated 07.05.2014 delivered in Civil Appeal Nos.5387 of 2014, etc. The above Review Petition had been filed before the Hon'ble Supreme Court of India on 19.05.2014 and the same is still pending.

Consistent efforts have been taken for last several months to denotify bull from the list of performing animals which was notified by Government of India, MoE&F vide GSR 528(E) dated 11.07.2011. A team headed by the Secretary, Animal Husbandry, Dairying & Fisheries Department, Government of Tamil Nadu has held discussion with the officials of the MoE&F, Government of India and Attorney General of India on the above mentioned issue on 07.01.2015. Two more rounds of discussions were held by the team headed by Secretary to Government, Animal Husbandry, Dairying and Fisheries Department, with Government of India, MoE&F officials on 12.01.2015 and 13.01.2015 to denotify bulls from the list of performing animals so that Jallikattu could be conducted this year also as per the usual practice.

The Hon'ble Chief Minister of Tamil Nadu, taking in to account the sentiments of the people of Tamil Nadu has addressed a letter to 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 issued vide notification no. GSR 528 (E) dated 11.07.2011, to facilitate the conduct of Jallikattu this year also without any break.

The Government of Tamil Nadu has all along been taking sincere efforts to conduct Jallikattu to preserve the tradition, culture and religious sentiments of the people of the State. A Review meeting was conducted on 10.3.2015 by Hon'ble Chief Minister of Tamilnadu regarding conduct of Jallikattu. In that meeting the following decisions were taken.

1. To take appropriate action to Denotify bulls from the list of performing animals which was notified in GSR 528(E) dated 11.7.2011 issued by the Ministry of Environment and Forest Government of India and placing the facts regarding the above in the review petition filed by Government of Tamil Nadu on 19.05.2014 which was pending before the Hon'ble Supreme Court of India, to get favourable orders for conduct of Jallikattu in Tamilnadu.
2. To insist the Government of India, Ministry of Environment and Forest to take suitable

action to amend the relevant sections of the Prevention of Cruelty to Animals Act 1960 Section 11 of sub section (3) by adding a clause exempting Jallikattu along with other exemptions which will pave a way to conduct Jallikattu in Tamil Nadu.

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:-

- i. 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, within the legal ambit.
- ii. 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.

## **MAJOR ACHIEVEMENTS**

- Under Free Distribution of Milch Cows and Goats / Sheep Scheme, 48 thousand beneficiaries have been provided with 48 thousand milch cows in 21 districts and 5.5 lakh poorest of the poor women have been provided with 22 lakh goats / sheep in 31 districts. During 2014-15, 12 thousand beneficiaries have been provided with 12 thousand milch cows and 1.5 lakh beneficiaries have been given 6 lakh goats / sheep.
- 1.70 lakh litres of milk is produced daily through these milch cows and 47,971 calves worth of Rs.24 crore have been born. Further 31.14 lakh kids worth of Rs.778 crore have been given birth by the goats distributed so far.
- Scheme for Poultry Development is continuously implemented with an annual allocation of Rs.25 crore from 2012-13 onwards. The Broiler farms of 1000 to 5,000 birds capacity numbering 1,605 and native chicken farms of 250 or 500 birds capacity numbering 5,593 were established in selected districts since its inception.

- A total of 65,732 acres of farmers' own lands have been brought under green fodder cultivation through various fodder development programmes from 2011-12 to 2013-14. During 2014-15, under State Fodder Development Scheme, 53 thousand acres of farmers' own lands have been brought under green fodder cultivation.
- Under National Livestock Mission 2014-15, Insurance Scheme for cattle is extended to cover 2.40 lakh breedable population in all the districts of the State at a total outlay of Rs.15.32 crore.
- In order to make Tamil Nadu as self sufficient in fodder production, as a pilot project, 83.5 and 61 acres of village Meikkal poromboke lands have been identified at Vellore and Villupuram Districts respectively and the development activities for setting up of green fodder bank at an outlay of Rs.6.95 crore is under progress.
- 185 Fodder Depots were established at a total cost of Rs.18.50 crore and fodder is being distributed to farmers in a subsidized rate of Rs.2/Kg.

- Under Drought Mitigation Scheme, 32,360 acres of farmers' land were brought under fodder cultivation and 1.52 lakh MTs of fodder sorghum were produced in which 41,825 MTs distributed to farmers through Aavin at a total cost of Rs. 39.65 crore.
- In order to improve the infrastructure, this Government has undertaken a massive drive to upgrade the buildings of the veterinary Institutions across the State through maintenance and renovation of existing veterinary institutions at a total outlay of Rs.25 crore each year from 2011-12 to 2013-14. During 2014-15, maintenance and renovation works have been undertaken at a cost of Rs.3.1 crore.
- Further, as a measure of continuing the construction of new buildings for veterinary hospitals and dispensaries, besides Upgradation of farm infrastructure through various Schemes, including NABARD funded Scheme, 360 veterinary institutions and 12 farms have been constructed under NABARD RIDF XVII at a cost of Rs.122.24 crore during 2011-12. Construction of 450 buildings at a cost of

Rs.99 crore during 2013-14 and 226 buildings at a cost of Rs.61.25 crore during 2014-15 are being done under NABARD RIDF XIX and XX respectively.

- In Addition to this, to protect the livestock of Scheduled Caste, Scheduled Tribes, Destitutes, small and marginal farmers under Mahatma Gandhi National Rural Employment Guarantee Scheme, construction of 5,000 shelters for milch cows, 10,000 shelters for goats / sheep and 1,000 sheds for poultry is being carried out to selected beneficiaries at Government cost.
- 2 new Animal Disease Intelligence Units were established at Thiruvannamalai and Pudukottai where such units are not available at present, at a total outlay of Rs.2.20 crore in order to strengthen disease diagnosis, disease prevention, control and monitoring.
- 100 Sub-centres have been upgraded into Veterinary Dispensaries for the benefit of the livestock farmers residing in remote areas by delivery of professional veterinary services through qualified veterinarians at a total cost of Rs. 11.59 crore.

- To ensure the breeding efficiency of breedable bovines, Special Centres for treating / reducing infertility in cattle were established in two districts at a total outlay of Rs.24 lakh.
- In order to provide basic services like first aid and breeding services to the livestock farmers residing at remote villages, 50 sub-centres were newly established at a total cost of Rs.217.70 lakh.
- For better monitoring of animal husbandry activities and to equalise the number of Assistant Director's offices to the number of Revenue Divisions, 3 Assistant Director offices were established at a total cost of Rs.1.51 crore in Srirangam, Ambattur and Illuppur.
- Under Extended Foot and Mouth Disease Control Programme during 2014-15, 93.55 lakh of cattle and buffaloes were vaccinated against Foot and Mouth Disease during 7<sup>th</sup> round at a total cost of Rs.5.50 crore. 93.59 lakh cattle and buffaloes were vaccinated during 8<sup>th</sup> round.
- Under National Agriculture Development Programme, during 2014-15, Rs.2.80 crore is earmarked for provision of computerized X-ray machines to Veterinary Institutions

- Government has increased the budgetary provision for medicines, equipments and chemicals from Rs.19.61 crore to Rs.28.37 crore from 2014-15.
- The Government is continuing its efforts for conservation of native breeds like Pulikulam, Alambadi, Kangayam, Umblachery, and Bargur in their native tracts at a cost of Rs.29 lakh by conducting cattle fairs / exhibitions and workshops and awarding prizes for best maintained animals.
- In order to monitor the various activities of Animal Husbandry Department from the Directorate through Mobile phones and to improve the administration by getting the information in short time from field Veterinary Dispensaries, the Government has sanctioned Rs.15.81 lakh to provide Mobile phones to all the Veterinary Institutions in Tiruchirapalli district on pilot basis.
- To develop the professional efficiency of Veterinary Doctors in order to provide modern Veterinary services to the livestock, 15 Veterinary Assistant Surgeons / Research Assistants / Research Associates were permitted

to pursue Master Degree and Doctorate degree (Ph.D) with full pay and allowances.

- 6 Joint Director, 12 Deputy Director, 23 Assistant Director, 809 Veterinary Assistant Surgeon, 100 Livestock Inspector and 805 Animal Husbandry Assistant Posts have been sanctioned and 605 Livestock Inspectors have been trained and posted since 2011-12.

## **12.TAMIL NADU LIVESTOCK DEVELOPMENT AGENCY**

The Tamil Nadu Livestock Development Agency was established on 09.01.2003 with the objective of producing quality germplasm and thereby improving the genetic makeup of livestock (cattle & buffaloes) of Tamil Nadu with the overall objective of increasing the milk production of Tamil Nadu, by procuring quality breeding inputs and increasing the door step Artificial Insemination Services.

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. Intensification of Progeny Testing Scheme (PTS).
5. Procurement and supply of high quality frozen semen and artificial insemination equipment.
6. Streamlining procurement, storage and supply of liquid nitrogen.

7. Increasing the breeding facilities:

- Establishing new mobile Artificial Insemination Centres by training rural youth and equipping them and encouraging door-step delivery of breeding services.
  - Conversion of existing Stationary Centres into Mobile cum Stationary Centres.
8. Conservation of indigenous breeds through Milk recording programme and producing quality indigenous bulls of high genetic merit.
  9. Human Resource Development through regular training of Veterinarians, Paraveterinarians of the Department and Tamil Nadu Cooperative Milk Producer's Federation as well as TNLDA trained private Artificial Insemination workers.

### **12.1 QUALITY ASSURANCE**

Minimum Standard Protocol (MSP) of the Government of India is being implemented in all the frozen semen production stations of Tamil Nadu. 84.79 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, in 2014-15.

## **12.2 ACTIVITIES UNDERTAKEN**

### **a. Strengthening of Semen production stations**

i. Strengthening of Frozen Semen Production Stations at District Livestock Farm, Hosur has been taken up at a cost of Rs.0.79 crore by:

- ❖ construction of new collection yard.
- ❖ integration of drainage system.
- ❖ provision of centralized air-conditioning to the frozen semen laboratory.
- ❖ construction of covered pathway from bull shed to collection yard.

ii. Strengthening of Exotic Cattle Breeding Farm, Eachenkottai has been done by strengthening and modifying the collection yard and semen processing laboratory and by construction of biosecurity wall at a cost of Rs.6.00 crore.

iii. Strengthening of Nucleus Jersey and Stud Farm, Udthagamandalam of the Tamil Nadu Co-operative Milk Producers' Federation has been taken up by strengthening the infrastructure at a cost of Rs.1.19 crore.

### **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.

A cow may produce 5-10 calves in a period of 10 to 15 years through the artificial insemination breeding programme. An elite cow is made to produce 5 to 15 ova in one oestrous cycle, through hormonal treatment. By breeding this super ovulated cow with the semen of a superior bull, multiple embryos are produced. The embryos are then collected by non-surgical method, evaluated and transferred to the recipient cows. The embryos of the cow can also be frozen and stored for subsequent use. The frozen embryos can be thawed and transferred to recipient cows. Thus, up to 50 calves may be produced from one cow through the Embryo Transfer Technology (ETT) in a short period of 1-2 years. These recipient cows are diagnosed for pregnancy after 60 days. Pregnant recipient cows are given additional concentrate feed in the last trimester of pregnancy.

The bull calves born through this technology are purchased at the rate of Rs.5000 per calf and the heifer calves are left with the farmers.

Under National Project for Cattle and Buffalo Breeding (NPCBB), the first phase of the programme was implemented at a cost of Rs.50 lakh through the Department of Animal Husbandry, in coordination with the Tamil Nadu Veterinary and Animal Sciences University and Tamil Nadu Milk Producers Co-operative Federation Ltd., with funding through TNLDA. This programme was carried out in District Livestock Farm, Hosur and in the districts of Coimbatore, Madurai, Vellore, Tiruvanamalai, Dharmapuri, Krishnagiri, Salem and Namakkal to produce bull calves of high genetic merit to meet the State's demand for bull for semen production.

In order to emulate the success of this programme, it has been extended to District Livestock Farm-Abishegapatti, District Livestock farm-Chettinad, Exotic Cattle Breeding Farm-Eachenkottai and Erode and Karur districts, at an estimated cost of Rs.2.50 Crore. So far, 68 calves (39 bull calves and 29 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**

1,549 rural youth have been trained on Artificial Insemination technique by TNLDA, from 2003-04 to 2014-15. A total of 17.88 lakh Artificial

Inseminations have been performed by these rural Artificial Insemination workers out of which 2.95 lakh Artificial Inseminations were performed during 2014-15.

#### **d. Training Programmes**

- ❖ 10 veterinarians were given training on Cryo preservation of semen & analysis of frozen semen at Madras Veterinary College, Chennai.
- ❖ 40 veterinarians have been trained in Embryo Transfer Technology at Madras Veterinary College, Chennai.
- ❖ Four veterinarians of Department of Animal Husbandry and Tamil Nadu Co-operative Milk Producers Federation have been given training on frozen semen production at Central Frozen Semen Production and Training Institute (CFSP&TI), Hesserghetta.
- ❖ 50 Veterinarians of Department of Animal Husbandry and Tamil Nadu Co-operative Milk Producers Federation were sponsored to attend the international symposium related to Indigenous breeds conducted by Society for Conservation of Domestic Animal Bio-Diversity (SOCDAB) at Madras Veterinary College, Chennai under NPBB.



- ❖ Tamil Nadu Co-operative Milk Producers Federation had been given Rs.3.19 lakh towards the training cost of 85 Village Level Workers (VLW).
- ❖ 228 number of rural youths were given artificial insemination training on bovine breeding and establishing them as AI workers to create new private AI centres for cattle and buffalo in the villages where AI centres of Department of Animal Husbandry & District Co-operative Milk Producer's Unions are not available in order to increase insemination of bovines at farmers door step.
- ❖ 266 existing Village Level Workers and Private Artificial Insemination Workers were given retraining at Southern Regional Demonstration & Training Centre (SRDTC), National Dairy Development Board (NDDB), Erode.

#### **e. Progeny Testing Scheme (PTS)**

Elite bulls possessing superior genetic traits are selected under this programme and the semen from these bulls are used for breeding. Since the inception of the Scheme, 92 Jersey crossbred bulls have been progeny tested. During the current financial year, 20 crossbred Jersey bulls are in the sixth phase and 25 crossbred Jersey bulls are in the

seventh phase of progeny testing. This Scheme is being implemented by the Tamil Nadu Cooperative Milk Producers' Federation with financial assistance from Tamil Nadu Livestock Development Agency.

#### **f. Conservation of indigenous breeds / Field Performance Recording Programme in Kangayam cattle:**

This programme is implemented by Tamil Nadu Cooperative Milk Producers' Federation with the financial assistance from the Tamil Nadu Livestock Development Agency. From the enrolled elite Kangayam cows, high yielding 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. 17 Kangayam bull calves that were born under the scheme have been procured and sent to District Livestock Farm, Hosur for future semen production.

To develop and conserve the indigenous breeds of cattle a sum of Rs.6.85 crore has been sanctioned over a period of 5 years (2014-15 to 2018-19). During 2014-15, a sum of Rs.1.37 crore has been released to TANUVAS for development and conservation of Bargur cattle.

### **12.3 LIVESTOCK INSURANCE SCHEME**

The Centrally Sponsored Livestock Insurance Scheme is being implemented by Tamil Nadu Livestock Development Agency. The scheme was formulated with the twin objective of providing protection mechanism to the cattle owners in the event of loss of their animals due to death and to demonstrate the benefit of the insurance of livestock. Under the scheme 50% of the premium is provided as Government subsidy and balance 50% is collected from the farmers. The indigenous /crossbred / Exotic milch cattle and buffaloes are being insured at their current market price. The subsidy is given for a maximum of 2 animals per beneficiary and for a policy of one year / three years. The scheme is being implemented in Coimbatore, Cuddalore Dharmapuri, Dindigul, Erode, Krishnagiri, Madurai, Namakkal, Salem, Thanjavur, Trichy, Thiruvannamalai, Thirunelveli, Vellore and Villupuram Districts. *For the year 2013-14 & 2014-15 a sum of Rs.12.00 crore has been released for insuring the animals against the target of 1.80 lakh animals and till now 1.67 lakh animals have been insured.*

During this year to create awareness about the insurance of animals among the public and to attract more number of beneficiaries towards the scheme, pamphlets illustrating the importance of

the scheme and folders which exemplify the various diseases affecting cattle and the significance of insurance of those animals are being distributed in the camps, exhibitions etc., banners are being placed where farmers assemble like District Collector's campus, Veterinary Dispensaries, Veterinary Hospitals, Clinician Centres, Polyclinics, Sub-centres, Co-operative milk societies, etc. A documentary film was produced illustrating the importance of Livestock Insurance scheme, which has been screened during various camps like Kalnadai Padukappu Thittam, Mass contact programme, Infertility camp, Veterinary University Training and Research centre camps, various exhibitions, etc., Besides these, necessary steps have been taken to advertise the scheme through medias like radio, television, etc.

In view of the success of the Centrally Sponsored Livestock Insurance Scheme, now the Scheme has been further extended to all the districts of Tamil Nadu under Risk Management of National Livestock Mission. For the year 2014-15, financial sanction of Rs.25.00 crore was granted to insure 2.40 lakh animals with the contribution of both Central and State share.

In this scheme, maximum number of 5 milch animals per household can be insured. People from below poverty line and SC/ST group can pay only 30% of the premium amount to insure their animals, whereas people from above poverty line have to pay 50% of the premium amount. Moreover the cattle rearer from the Nilgiris District can pay only 20% and 40% of premium amount respectively to insure their animals. To implement the scheme, Rs.9.30 crore is received as first instalment.

To create awareness among cattle rearers, pamphlets, stickers and banners are being kept in all the places of Tamil Nadu where the livestock rearers gather. Under this scheme, 38,215 animals were insured till March 2015.

#### **12.4 NATIONAL DAIRY PLAN- PHASE I**

##### **Strengthening of Semen production Station at District Livestock Farm, Udthagamandalam**

National Dairy Plan has been formulated with the objective of increasing the milk production, introducing high genetic quality bulls and increasing the availability of frozen semen doses in the country to 10 crore doses by the year 2016-17.

Towards contributing to the National goal and to meet the State's requirement the strengthening of the frozen semen production station at District

Livestock Farm, Udthagamandalam has been taken up at a total cost of Rs.6.46 crore during the period from 2012-13 to 2017-18, with an objective of increasing the semen production from 13.34 lakh doses in 2011-12, to 30 lakh frozen semen doses by 2017-18.

A sum of Rs.2.59 crore has been released as advance towards implementation of the project. Strengthening of quarantine shed, collection yard and young bull sheds have been completed at a cost of Rs.23.71 lakh. Laboratory equipments like Frozen semen straw counting and packing machine, cold handling cabinet and farm machineries like tractors, baler, harvester etc., have been procured at a cost of Rs.90.87 lakh and the farm personnel have been provided training at a cost of Rs.0.40 lakh.

As a result, frozen semen production at the District Livestock Farm, Udthagamandalam has increased from 13.34 lakh in 2011-12 to 19.16 lakh in 2014-15.

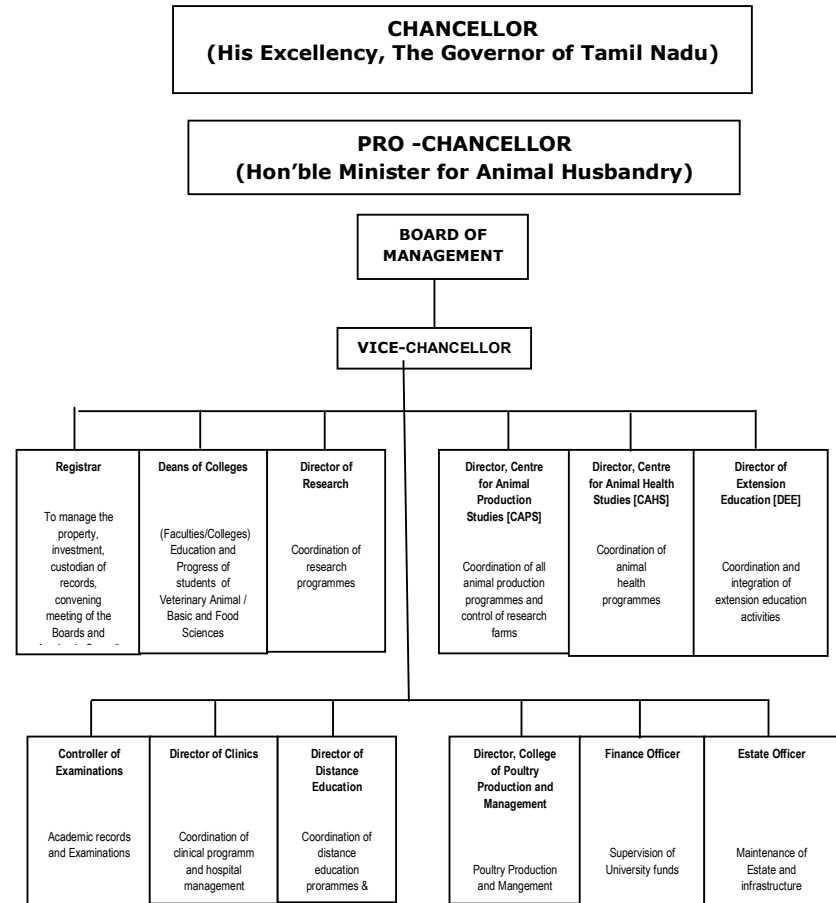
### 13. TAMIL NADU VETERINARY AND ANIMAL SCIENCES UNIVERSITY

#### 13.1 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

#### 13.2 ORGANOGRAM OF TANUVAS



### 13.3 UNITS OF TANUVAS

The following are the constituent units of Tamil Nadu Veterinary and Animal Sciences University.

**Table 30 : Constituent units of TANUVAS**

<p>♣ <b>COLLEGES</b> [To impart quality education to undergraduate, post-graduate and doctoral students in different fields of Veterinary and Animal Sciences and Food Science]</p> <ol style="list-style-type: none"><li>1. Madras Veterinary College (MVC), Vepery, Chennai</li><li>2. Veterinary College and Research Institute (VC&amp;RI), Namakkal</li><li>3. Veterinary College and Research Institute, Orathanadu, Thanjavur</li><li>4. Veterinary College and Research Institute, Tirunelveli</li><li>5. College of Food and Dairy Technology, Koduvalli, Chennai</li><li>6. College of Poultry Production and Management, Hosur</li></ol>
<p>♣ <b>RESEARCH STATIONS</b> [To carry out research and supply of germplasm to the farmers]</p> <ol style="list-style-type: none"><li>1. University Research Farm, Madhavaram Milk Colony (MMC), Chennai</li></ol>

<ol style="list-style-type: none"><li>2. Post Graduate Research Institute in Animal Sciences, Kattupakkam, Kancheepuram District</li><li>3. Poultry Research Station, MMC, Chennai</li><li>4. Mecheri Sheep Research Station, Pottaneri, Salem District</li><li>5. Sheep Breeding Research Station, Sandynallah, The Nilgiris District</li><li>6. Institute of Animal Nutrition, Kattupakkam, Kancheepuram District</li><li>7. TANUVAS Regional Research Centre, Pudukottai</li></ol>
<p>♣ <b>LABORATORIES / UNITS</b> [To assist in disease diagnosis and surveillance, vaccine production, feed analysis and production]</p> <ol style="list-style-type: none"><li>1. Central University Laboratory, MMC, Chennai</li><li>2. Animal Feed Analytical and Quality Assurance Laboratory, Namakkal</li><li>3. Poultry Disease Diagnosis and Surveillance Laboratory, Namakkal</li><li>4. Pharmacovigilance Laboratory for Animal Feed and Food Safety, Chennai</li><li>5. Zoonoses Research Laboratory, MMC, Chennai</li><li>6. Vaccine Research Centre (Bacterial Vaccine), MMC, Chennai</li></ol>

<p>7. Vaccine Research Centre (Viral Vaccine), MMC, Chennai</p> <p>8. Avian Disease Laboratory, Thalaivasal</p> <p>9. Veterinary University Disease Diagnostic Laboratory, Orathanadu</p> <p>10. Veterinary University Disease Diagnostic Laboratory, Tirunelveli</p> <p>11. Central Feed Technology Unit, Kattupakkam</p>																						
<p>♣ <b>VETERINARY UNIVERSITY TRAINING AND RESEARCH CENTRES</b> [To disseminate knowledge on important technologies to line departments and farming community]</p> <table> <tr> <td>1. Coimbatore</td> <td>12. Nagercoil</td> </tr> <tr> <td>2. Dindigul</td> <td>13. Rajapalayam</td> </tr> <tr> <td>3. Karur</td> <td>14. Thanjavur</td> </tr> <tr> <td>4. Melmaruvathur</td> <td>15. Vellore</td> </tr> <tr> <td>5. Cuddalore</td> <td>16. Thiruvannamalai</td> </tr> <tr> <td>6. Salem</td> <td>17. Villupuram</td> </tr> <tr> <td>7. Tiruppur</td> <td>18. Krishnagiri</td> </tr> <tr> <td>8. Tiruchirapalli</td> <td>19. Ramanathapuram</td> </tr> <tr> <td>9. Dharmapuri</td> <td>20. Nagapattinam</td> </tr> <tr> <td>10. Erode</td> <td>21. Perambalur</td> </tr> <tr> <td>11. Madurai</td> <td></td> </tr> </table>	1. Coimbatore	12. Nagercoil	2. Dindigul	13. Rajapalayam	3. Karur	14. Thanjavur	4. Melmaruvathur	15. Vellore	5. Cuddalore	16. Thiruvannamalai	6. Salem	17. Villupuram	7. Tiruppur	18. Krishnagiri	8. Tiruchirapalli	19. Ramanathapuram	9. Dharmapuri	20. Nagapattinam	10. Erode	21. Perambalur	11. Madurai	
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10. Erode	21. Perambalur																					
11. Madurai																						
<p>♣ <b>FARMERS TRAINING CENTRES</b> [To provide need based training to the farming community]</p> <p>1. Kancheepuram 2. Theni 3. Thiruvarur</p>																						

<p>♣ <b>KRISHI VIGYAN KENDRAS</b> [To disseminate knowledge on important technologies in Animal Husbandry, Agriculture and Horticulture to the farming community]</p> <p>1. Kattupakkam 2. Kundrakudi 3. Namakkal</p>
<p>♣ <b>CENTRES OF ADVANCED FACULTY TRAINING (CAFT)</b>[To provide training to the faculty members to update their skills on the latest technologies]</p> <p>1. Veterinary Clinical Medicine, Ethics and Jurisprudence, MVC, Chennai</p> <p>2. Poultry Science, VC&amp;RI, Namakkal</p>
<p>▪ <b>NICHE AREA OF EXCELLENCE</b> [To have state of art facilities and excelling in specific area of Veterinary and Animal Sciences]</p> <p>1. ICAR Niche Area of Excellence in Animal Biotechnology, MVC, Chennai</p>

**Salient Activities during 2014-15**

- ♣ TANUVAS has started a new Under Graduate Course, B.Tech. (Dairy Technology) at College of Food and Dairy Technology, Koduvalli, Chennai during the academic year 2014-2015 with an admission strength of 21 seats. A total of 65 applications were received for the new course on B.Tech. (Dairy Technology) and 21 candidates were admitted for the course.

- ✦ Two Veterinary University Disease Diagnostic Laboratories have been established at VC&RI, Orathanadu, Thanjavur and VC&RI, Tirunelveli campuses with the financial assistance of Rs.185 lakh from Government of Tamil Nadu.
- ✦ Animal Feed Analytical and Quality Assurance Laboratory has been established at VC&RI, Orathanadu with a total cost of Rs.115 lakh funded on equal share basis by Central and State Government.
- ✦ During 2014-15, under NADP, the Government of India sanctioned four schemes namely, Establishment of "Regional Dairy Entrepreneurs Training Facility" (Rs.171.50 lakh); and "Establishment of Regional Feed Processing and Demonstration Unit" (Rs.184 lakh) at Veterinary College and Research Institute, Orathanadu; "Water conserving Hydroponic Green Forage Production for livestock farming" at University Research Farm, TANUVAS, Chennai (Rs. 28.85 lakh) and "Nanotechnology facility to augment farm animal production and health" at Madras Veterinary College, Chennai (Rs.120 lakh).
- ✦ Establishment of Bargur Cattle Research Station at Bargur, Erode District with a budget outlay of Rs.6 crore.

- ✦ Dr. S. Thilagar was appointed as the new Vice-Chancellor of TANUVAS and the new Vice-Chancellor assumed office on 10.12.2014.
- ✦ Veterinary Council of India teams visited VC&RI, Orathanadu and VC&RI, Tirunelveli and gave the approval for B.V.Sc & AH Degree programme.
- ✦ Permission has been given to the Director of Animal Husbandry and Veterinary Services to procure "Mineral Mixture" from Tamil Nadu Veterinary and Animal Sciences University under clause (f) of section 16 of Tamil Nadu Transparency in Tenders Act.
- ✦ A sum of Rs. 128.20 lakh has been allocated under National Livestock Mission to implement three schemes on "Establishment of Modernised Piggery breeding farm" at Veterinary College and Research Institute, Orathanadu; "Farmers field school" at Veterinary University Training and Research Centre, Karur and "Establishment of feed testing laboratories" in two centres at CPPM, Hosur and VC&RI, Tirunelveli.
- ✦ Project on "Networking of Diagnostic Imaging and Management of Surgical Conditions in Animals" at Madras Veterinary College, Chennai has been sanctioned to the tune of

Rs.313 lakh by Indian Council for Agricultural Research (ICAR), New Delhi.

- ✦ Establishment of fodder production units in Meikkal Poramboke Lands at Vellore and Villupuram districts with a budget outlay of Rs. 110 lakh. A total of 61 acres of land in Pandhadu and Nagalpakkan villages of Villupuram district and 83.5 acres of land in, Nemili block of Vellore district will be covered for fodder production under this scheme.
- ✦ Characterization of Rajapalayam and Kanni breeds of hound dogs in Tamil Nadu is done with a budget outlay of Rs. 2.075 lakh at Veterinary College and Research Institute, Tirunelveli.
- ✦ During 2014-15, Government of Tamil Nadu has sanctioned the following schemes at a cost of Rs.69.49 lakh under Part II Scheme:
  - ✦ Establishment of Kanni and Kodi adu goat units at Veterinary College and Research Institute, Tirunelveli for production and distribution of superior germplasm for the upliftment of farming community at a cost of Rs.40.08 lakh.
  - ✦ Bioplastic production by using slaughter house waste at a cost of Rs.29.41 lakh at Madras Veterinary College, Chennai.

- ✦ Workshop on "Implementation seminar on exploring the learning resources to develop continuing professional development programmes for the veterinarians" was organised at Madras Veterinary College, Chennai from 22.01.2014 to 24.01.2014.
- ✦ Under the NADP scheme, "Newer techniques/methods for augmenting production in ruminant animals" was organized at MVC, Chennai and VC&RI, Namakkal during 2014 and 118 veterinarians belonging to the State Animal Husbandry and Veterinary Services Department participated.
- ✦ Workshop on "National Agriculture Development Programme (NADP) operational guidelines for XII Five Year Plan and Preparation of State Plans" was organized at MVC, Chennai on 04.04.2014.
- ✦ Seminar on "Bovine zoonoses" funded by the Animal Husbandry, Dairying and Fisheries Department, Government of Tamil Nadu was organized at MVC, Chennai on 20.05.2014. A total of 68 veterinarians participated and enriched their knowledge on bacterial, viral, mycotic, parasitic and food borne zoonoses.
- ✦ In collaboration with Corporation of Tirunelveli, "Animal Birth Control Programme for dogs" was organized as a part of Silver



Jubilee celebrations of TANUVAS at VC&RI, Tirunelveli on 13.06.2014. Thiru R. Jegan Nathan, Worshipful Mayor i/c, Tirunelveli Corporation inaugurated the programme.

- ✦ An "International Clinical Case Conference for Next Generation Veterinarians to face challenges in clinical practice" was conducted at MVC, Chennai on 03.07.2014 and 04.07.2014. Thiru T.K.M. Chinnayya, Hon'ble Minister for Animal Husbandry, Government of Tamil Nadu inaugurated the Conference and released the compendium.
- ✦ The 21<sup>st</sup> Annual Convention of Indian Society for Veterinary Immunology and Biotechnology and International Symposium on "Livestock diseases affecting livelihood options and global trade – strategies and solutions" was organized from 17.07.2014 to 19.07.2014 at MVC, Chennai. Thiru T.K.M. Chinnayya, Hon'ble Minister for Animal Husbandry, Government of Tamil Nadu distributed the awards to scientists and delivered special address.
- ✦ Counseling for admission to the Undergraduate programmes of TANUVAS viz. BVSc&AH, B.Tech (Food Technology) and B.Tech(Poultry Production Technology) for the academic year 2014-15 was conducted on 30.07.2014, 31.07.2014 and 01.08.2014

at MVC, Chennai. Thiru T.K.M. Chinnayya, Hon'ble Minister for Animal Husbandry, Government of Tamil Nadu presented the admission letters to the top 28 candidates in BVSc & AH degree programme.

- ✦ Veterinary College and Research Institute, Tirunelveli has been established at Ramayanpatty in an area of 139.1 Acres land and at a total cost of Rs.53.86 Crore. The built-up area is 2,16,945.50 sq.ft. which comprises of Administrative Block, Boys and Girls Hostel, Academic Blocks (7 Nos.), Dean Quarters, Non-Teaching staff Quarters and Guest House. Similarly Veterinary College and Research Institute, Orathanadu was established at Orathanadu in an area of 177.92 acres and at a total cost of Rs.49.85 Crore. The built-up area is 2,82,130.76 sq.ft. which comprises Administrative Block (ground + 2 floors), Boys and Girls Hostel, Instructional Livestock Farm Complex Block, Livestock Products Technology Block and Teaching Veterinary Clinical Complex Block. At Hosur, buildings for College of Poultry Production and Management was established at a total cost of Rs.23.75 Crore with a built-up area of 1,57,734.14 sq.ft. The buildings constructed are Administrative Block, Technology Block, Engineering Block, Boys

and Girls Hostel, Staff Quarters, Feed Mill and Sheds (20 Nos.). Apart from the above three colleges, Veterinary University Training and Research Centres have been established at Tiruchirapalli, Rajapalayam, Villupuram and Tiruvannamalai and Farmers Training Centre at Theni at a total cost of Rs.2.45 Crore. All these buildings were declared opened by the Honourable Chief Minister of Tamil Nadu Selvi J Jayalalitha on 15.07.2015 by Video Conferencing.



Veterinary College and Research Institute, Tirunelveli



Veterinary College and Research Institute, Orathanadu

- ✦ A Peer Review Team constituted by the Indian Council of Agricultural Research (ICAR), New Delhi visited TANUVAS and its constituent colleges during 17-19, September 2014 and 09-11 November 2014 to validate the Self Study Report submitted by the University and also for the on the spot assessment for according ICAR accreditation to TANUVAS.
- ✦ “World Rabies day” was celebrated by organizing a one day workshop on “Rabies diagnosis” at MVC, Chennai on 26.09.2014.
- ✦ To motivate young faculty members in active research, TANUVAS had created TANUVAS Research Corpus Fund (TRCF) during 2012. During 2014, 20 projects have been sanctioned under TRCF to the tune of Rs.41.49 lakh.
- ✦ Publication of research papers is one of the important performance indicators for any University. To motivate our faculty members to publish their research findings and to increase the number of publications of TANUVAS, it has started observing “October” month as “TANUVAS Publication Drive Month” from 2012-13. During 2014-15, 543 articles have been published in national and International journals.

### 13.4 ACTIVITIES OF TANUVAS DURING 2014-15

Among the 12 Veterinary Universities of 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:

#### 13.4.1 Education

- ★ Details of sanctioned students admission strength for the year 2014-15 at TANUVAS are furnished below.

**Table 31: Students admission strength**

Courses	Madras Veterinary College, Chennai	Veterinary College and Research Institute, Namakkal	PG Research Institute in Animal Sciences, Kattupakkam	Veterinary College and Research Institute, Orathanadu, Thanjavur	Veterinary College and Research, Institute Tirunelveli	College of Food and Dairy Technology, Kottuvalli	Total
B.V.Sc. & AH	122	80	-	40	40	-	282
B.V.Sc. & AH (NRI-5 ; Foreign Nationals – 3)	8						8
B.Tech. (Food Processing Technology)						20	20
B.Tech. (Poultry Production Technology)						18	18

Courses	Madras Veterinary College, Chennai	Veterinary College and Research Institute, Namakkal	PG Research Institute in Animal Sciences, Kattupakkam	Veterinary College and Research Institute, Orathanadu, Thanjavur	Veterinary College and Research, Institute Tirunelveli	College of Food and Dairy Technology, Kottuvalli	Total
B.Tech. (Dairy Technology)						21	21
M.V.Sc	83	34	6	-	-	-	123
M.V.Sc. (Foreign Nationals)		-		-	-	-	-
M.Tech (FPT)	-	-	-	-	-	9	9
M.Sc. (Bioinformatics)	-	-	-	-	-	-	-
M.Sc. (Biostatistics)	-	-	-	-	-	-	-
M.Phil in (Biotechnology)	3	-	-	-	-	-	3
PG Diploma (Animal Sciences)	-	-	-	-	-	-	-
Ph.D. (Veterinary)	22	8	-	-	-	-	30
Ph.D. (Food Technology)	-	-	-	-	-	3	3

#### 13.4.2. ANIMAL HEALTH

##### Research Achievements

##### ○ Development of indirect ELISA for assessing Classical Swine Fever Virus (CSFV) antibodies in pigs

Indirect ELISA for assessing classical swine fever virus (CSFV) antibodies was optimized and could be used as an alternative to the commercial kit.

- **Semio-chemical sustained release device for the control of ticks**

100 % mortality in 24 hours of three stages of dog tick using Calcium alginate beads with assembly pheromone and deltamethrin was found. It acts as an Attractant Sex Pheromone (ASP).

- **Development of an inactivated Classical Swine Fever Virus (CSFV) vaccine**

An inactivated cell culture based vaccine for classical swine fever virus (CSFV) was developed. The vaccine was found to be protective upto a period for 12 months and withstood challenge with virulent CSFV.

## **ANIMAL PRODUCTION**

- **Study of fenugreek extract as poultry feed supplement / ingredient**

In broilers, fenugreek residue can be fed up to 2% without affecting productivity and yield of edible parts. The cost of feed / kg body weight gain was lower compared to control. In layer, fenugreek can be fed up to 2% without affecting production with better feed efficiency and egg qualities.

- **Development of microencapsulated iron fortified yoghurt**

Microencapsulated whey protein chelated iron can be incorporated up to a level of 80 mg per litre of yoghurt without altering the accepted appearance and taste, which can contribute to alleviating iron deficiency but requires scaling up, quality control and distribution through normal trade channels to have a sustainable impact.

- **Efficiency of different estrus detection techniques in buffaloes in an organized farm**

Heat symptoms, vaginal smear examination, vaginal scope examination and camera method were included in the study for heat identification in buffaloes. Among the techniques studied, behavioural science clubbed with vaginal smear examination was considered to be ideal methods of heat identification in buffaloes.

- **Optimization of cattle manure treatment techniques for improving manurial value for fodder production**

Out of four manure treatment techniques evaluated, improved and vermi compost methods were found to be better in terms of manure nutrient value, soil carbon sequestration and yield of fodder crops.

## Food Sciences

### ● Process optimization and shelf life study of retort processed milk beverages

Shelf life study of flavored milk indicated that it could be used for 90 days without affecting sensory quality

### ● Development of millet based ice-cream

Milk from kodo, pearl, foxtail and sorghum was mixed with varying quantities of buffalo milk for ice-cream preparation. The millet milk incorporated ice-cream showed lower carbohydrate (57.65%) and milk fat (0.5%) contents whereas the protein content was found to be 4.54%.

## TECHNOLOGIES DEVELOPED

Products and technologies / Diagnostic kits / Diagnostic methods developed at TANUVAS are listed below:

### ● Products and technologies developed

Low cost chaff cutter ; TANUVAS-URF- "Tattoo hammer for pigs"; Fodder harvester cum chopper; Technology on Bio diesel production from rendered chicken fat and TANUVAS - Dairy Farming Technology Display Aids Kit.

## ● Diagnostic Kits

Lateral flow kit for diagnosis of bovine brucellosis; Multiplex PCR kit for detection of avian oncogenic viruses and Lateral flow strip kit for classical swine fever antigen detection.

## 13.4.3 Clinical Services

TANUVAS is offering clinical services to the pet and livestock owners round the clock. The details are furnished below:

**Table 32: Out-patient cases treated during the year 2014**

Description	MVC		VUPH	Clinics, VC&RI Namakkal	TVCC, VC&RI Orathanadu	TVCC, VC&RI, Tirunelveli	TOTAL
	Clinics	RVSS	Madhavaram				
Bovines	9,916	530	1,733	7,862	8,869	778	29,688
Canine	51,385	5,754	13,201	11,351	800	3,884	86,375
Feline	3,075	385	428	351	-	181	4,420
Equine	1,653	54	11	389	1	64	2,172
Caprine / Ovine	3,698	809	1,120	3,426	3,780	1,265	14,098
Avian	668	28	1,134	95	1,982	373	4,280
Others	581	53	144	229	24	64	1,095
<b>Total</b>	<b>70,976</b>	<b>7,613</b>	<b>17,771</b>	<b>23,703</b>	<b>15,456</b>	<b>6609</b>	<b>1,42,128</b>

### **Inpatient facilities**

- ⊕ At Madras Veterinary college teaching hospital, 210 large animals and 116 small animals were admitted and treated as in-patients for various ailments.
- ⊕ At Veterinary College and Research Institute, Namakkal, 632 large animals and 102 small animals were admitted and treated as in-patients.
- ⊕ At Veterinary College and Research Institute, Orathanadu, 375 large animals and 51 small animals were admitted and treated as in-patients.
- ⊕ At Veterinary College and Research Institute, Tirunelveli, 129 large animals and 816 small animals were admitted and treated as in-patients.
- ⊕ A separate quarantine unit to house animals suspected for rabies is functioning in all the institutions

### **Infrastructure facilities available**

1. Operating ophthalmic microscope
2. Echo colour doppler
3. Colour Doppler ultrasonogram
4. Holter monitoring system
5. Dental scalar

### **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 2014-15, 2062 samples were analysed for mycotoxins and pesticide residues. The results were communicated to the entrepreneurs / farmers so as to enable them to formulate their animal/poultry feed free from toxic residues.

- **Animal Feed Analytical and Quality Assurance Laboratory, Namakkal**

A total of 19,880 samples were received and 48,792 tests were carried out at this laboratory during 2014-15. 54 different parameters covering proximate, mineral, adulterants, contaminants and mycotoxins in feed, feed ingredients, and vitamin concentration in premixes were analysed. Results were immediately communicated by e-mail and SMS to the farmers. During 2014-15, 103 weather based bulletins (bi-weekly) were issued for the benefit of poultry and agricultural farmers in Namakkal, Salem, Dharmapuri and Krishnagiri districts of North West Agro climatic zone of Tamil Nadu.

▪ **Zoonoses Research Laboratory, Madhavaram Milk Colony, Chennai**

A total of 4,090 human and 728 animal serum samples from suspected cases were screened by Microscopic Agglutination Test (MAT) for detection of leptospiral antibodies. Out of 4,090 human samples tested, 1981 (48.43%) were found positive. Out of the 728 animal samples tested, 511 (70.19%) samples were found positive. *Australis* and *Autumnalis* were the predominant serogroups found in both the samples. The findings helped in controlling the disease.

**13.4.4 Extension Activities**

The Directorate of Extension Education is functioning with the objective of planning and execution of all outreach programmes of the University in close coordination with other line departments / agencies such as the Department of Animal Husbandry, Tamil Nadu Co-operative Milk Producers' Federation Ltd., Tamil Nadu Livestock Development Agency and other Government organizations. The activities undertaken by the Directorate of Extension Education are furnished below.

**Table 33: Training Programmes Conducted during 2014**

Title of the Training Programme	No. of Training Programmes		Beneficiaries				Total
			SC/ST		Others		
	On	Off	Men	Women	Men	Women	
Dairy farming	91	97	742	1339	2717	2878	7676
Sheep & Goat farming	104	124	886	2886	2915	5877	12564
Poultry Farming	91	30	638	495	3474	1007	5614
Broiler farming	16	6	189	140	361	183	873
Turkey Farming	6	-	22	25	70	70	187
Japanese Quail farming	9	1	23	23	91	39	176
Pig farming	14	-	72	1	250	6	329
Rabbit farming	9	-	47	4	215	16	282
Milk and Milk products	29	25	66	145	283	465	959
Meat and Meat products	3	7	87	186	362	809	1444
Value added fish products	3	4	54	45	183	228	510
Home Science	28	51	71	166	218	368	823
Horticulture	51	51	653	313	1376	398	2740
Agronomy	51	30	468	451	1526	467	2912
Integrated livestock farming	62	78	423	391	2226	1367	4407
Ornamental Fish farming	39	12	880	1283	2401	3114	7678
Agricultural Engineering	6	9	89	49	353	219	710
Feed and Fodder Cultivation	30	49	240	224	866	670	2000
Calf rearing	3	-	469	459	1877	1101	3906
Disease diagnosis and Management	15	28	548	554	1211	946	3259

Title of the Training Programme	No. of Training Programmes		Beneficiaries				Total
			SC/ST		Others		
	On	Off	Men	Women	Men	Women	
Breeding problems & its management in crossbreds	6	16	418	575	362	316	1671
Ethno Veterinary medicine	13	72	557	1723	1332	1139	4751
Artificial Insemination	-	19	-	-	71	2	73
<b>Total</b>	<b>679</b>	<b>709</b>	<b>7642</b>	<b>11477</b>	<b>24740</b>	<b>21685</b>	<b>65544</b>

- ✦ During 2013-14, a total of 113 programmes benefitting 5,332 dairy farmers, 11,933 programmes benefitting 1,30,423 goat farmers and 95 programmes benefitting 5,724 sheep farmers were conducted by the Peripheral Centres of TANUVAS which included the beneficiaries of Tamil Nadu Government scheme on "Free Distribution of Milch Cows, and Free Distribution of Goat / Sheep".
- ✦ Eight training programmes were organized for 595 beneficiaries of Tamil Nadu Government scheme on "Fodder development" through the Peripheral Centres of TANUVAS.
- ✦ A total of 89 training programmes were organized for 1,206 beneficiaries of scheme on "National Mission for Protein Supplement" of Tamil Nadu Government through Peripheral Centres of TANUVAS.
- ✦ A total of 121 training programmes were organized for 1,282 beneficiaries of Tamil Nadu

Government scheme on "Pudhu Vazhvu" through the Peripheral Centres of TANUVAS during 2013-14.

- ✦ A total of 86 training programmes were conducted for 1,691 beneficiaries of Tamil Nadu Government scheme on "Poultry Development" through Peripheral Centres of TANUVAS.
- ✦ TANUVAS conducted a State level farmer's workshop cum exhibition on "Sustenance in Livestock and Poultry Rearing Through Family Farming" on 01.08.2014 and 02.08.2014 at Madurai in collaboration with Zonal coordinating unit Zone VIII, ICAR, NABARD, Chennai and Union Bank of India, Chennai. A total of 500 farmers participated and benefitted.
- ✦ During 2013-14, Six Zonal workshops were organized at Vellore, Salem, Coimbatore, Thiruvarur, Kundrakudi and Villupuram regions for the benefit of practicing veterinarians of line departments. A total of 631 veterinarians participated and benefitted.

#### **13.4.5 Skill Development programmes**

A separate Directorate has been established in 2011 to look after the distance education and skill development programmes in veterinary and animal sciences for various target groups like



veterinarians, farmers, entrepreneurs, unemployed personnel and school dropouts. During 2014-15, this Directorate is offering 21 PG diploma courses for the Veterinarians to update their knowledge and skills on latest technologies in veterinary field. Apart from this, 15 skill development courses and 10 self-employment courses in animal husbandry sector are being offered by this Directorate to boost livestock and poultry production thereby enhance the rural income. During 2014-15, 152, 122 and 327 candidates have enrolled in the PG diploma, Skill development and Self-employment courses respectively.

### **13.5 NATIONAL AND INTERNATIONAL COLLABORATION**

To promote national and international collaborations in academic, research and extension, TANUVAS has signed Memorandum of Understanding / Memorandum of Agreement with the following institutions during 2014.

- ◇ University of Nottingham, United Kingdom to strengthen the academic co-operation between both the institutions and also for the reciprocal exchange of students and faculties, documentation and research materials
- ◇ Mahindra Consulting Engineers Ltd., Chennai and M.S.Chellamuthu Trust and Research

Foundation, Madurai to facilitate special skill development programme for rehabilitated patients of mental illness

### **13.6 PRIORITIES FOR 2015-16**

#### **1. Introducing “Animal Mobile Medical Ambulance” facilities**

This facility will be introduced to benefit the livestock and pet owners, as emergency services in rural and urban areas.

#### **2. New Training and Research Centres**

At present, Research and Extension Centres of TANUVAS viz. Veterinary University Training and Research Centres, Farmers Training Centres, Krishi Vigyan Kendras are functioning in 26 districts of Tamil Nadu. It is aimed to establish research and extension centres in two more districts of Tamil Nadu.

#### **3. Skill development programmes**

TANUVAS is planning to offer Diploma Programmes in Feed Technology, Hatchery Management, Milk Processing and Meat Processing by starting “Community College in Livestock and Poultry Farming”. Under Public Private Partnership (PPP) mode, it also plans to

offer skill development programmes in livestock and poultry farming in all districts of Tamil Nadu.

#### **4. Thrust areas of TANUVAS for the next two years**

- ★ Enumeration of Indigenous Cattle Breeds and Quality Assessment and Nutritive value of Milk from Indigenous Cattle.
- ★ Livestock Industrial Skill Development Training Institute.
- ★ Accreditation of residue testing facility for export of livestock products.
- ★ Establishment of "Mega Pig Seed Farm" for popularizing pig farming.
- ★ Wildlife disease diagnostic facility.
- ★ Establishment of Feed Manufacturing Unit at Tirunelveli.
- ★ Augmenting fertility in buffaloes through oestrus synchronization using low cost indigenously developed progesterone implant.

#### **13.7 Salient Achievements during 2014-15**

- TANUVAS has started a new Under Graduate Course, B.Tech. (Dairy Technology) at College of Food and Dairy Technology, Koduvalli, Chennai during the academic year 2014-15. A total of 65 applications were received for the new course and 21 candidates were admitted for the course.

- Two "Veterinary University Disease Diagnostic Laboratories" have been established at Veterinary College and Research Institute, Orathanadu, Thanjavur and Veterinary College and Research Institute, Tirunelveli with the financial assistance of Rs.185 lakh from Government of Tamil Nadu.
- Animal Feed Analytical and Quality Assurance Laboratory has been established at VC&RI, Orathanadu with a total cost of Rs.115 lakh.
- Establishment of Bargur Cattle Research Station at Bargur, Erode District with a budget outlay of Rs.6 crore.
- Establishment of fodder production units in Meikkal Poramboke Lands at Vellore and Villupuram districts with a budget outlay of Rs. 110 lakh. A total of 61 acres of land in Pandhadu and Nagalpakkan village of Villupuram district and 83.5 acres of land in Nemili block of Vellore district will be covered for fodder production under this scheme.

#### **14. BUDGET FOR 2015-16**

A sum of Rs.1097.4215 crore has been provided in the Budget for 2015-16. Out of this, projected revenue expenditure is Rs.1045.7048 crore, capital expenditure is Rs.51.7166 crore and loan amount is Rs.1000.

## **15. CONCLUSION**

Rural economic improvement through initiatives in Animal Husbandry sector has been given special impetus by this Government. Livestock Policy through appropriate programmes and investments helped in achieving substantially higher growth rate for milk, meat and egg products. This has made available the required quantity of much needed animal protein to the rural poor. Further, the sector has tremendous potential to generate employment, provide nutritional security, enhanced household income through increased productivity and thus help in poverty reduction among the rural poor and transformation of rural scenario. It is acting as an engine in poverty alleviation by making assetless poor into income generating asset owning population.

Women targeted welfare programmes like Free Distribution of Milch Cows and Sheep / Goat have empowered rural women in the context of economic freedom. Moreover, additional production of milk, not only leads to the radiant second White Revolution as envisaged, but also ensures substantial household income to the rural poor women.

An inclusive approach for development by making socially and economically weaker sections of the society as important stakeholders in the decision making process has ensured equity and balanced livelihood perspective.

This Department is not only augmenting food security, empowerment of rural women and rural youth, but also helps in triggering and invigorating the rural economy, ultimately contributing significantly to the comprehensive socio economic transformation of the rural areas in the State and thus progressing towards achieving the goals as envisaged in the Vision 2023 document.

**T.K.M. CHINNAYYA**  
Minister for Animal Husbandry



HON'BLE CHIEF MINISTER OF TAMILNADU PRESENTING THE 'BEST PRACTICES AWARD' TO THE DIRECTORATE OF ANIMAL HUSBANDRY AND VETERINARY SERVICES FOR SUCCESSFULLY IMPLEMENTING THE FREE DISTRIBUTION OF MILCH COWS AND FREE DISTRIBUTION OF GOATS / SHEEP SCHEMES, DURING INDEPENDENCE DAY CELEBRATIONS HELD AT FORT.ST.GEORGE, ON 15.08.2013. THE RECIPIENTS ARE THIRU T.K.M.CHINNAYYA, HON'BLE MINISTER FOR ANIMAL HUSBANDRY, DR.S. VIJAYAKUMAR, I.A.S, SECRETARY TO GOVERNMENT, ANIMAL HUSBANDRY, DARIYING AND FISHERIES DEPARTMENT.



HON'BLE CHIEF MINISTER DISTRIBUTED A FREE MILCH COW TO A BENEFICIARY UNDER 'FREE DISTRIBUTION OF MILCH COW SCHEME' ON 15.09.2011 AT THIRUVALLUR



HON'BLE CHIEF MINISTER DISTRIBUTED FREE GOATS TO A BENEFICIARY UNDER 'FREE DISTRIBUTION OF GOATS/ SHEEP SCHEME' ON 15.09.2011 AT THIRUVALLUR



HON'BLE CHIEF MINISTER DISTRIBUTED NATIVE CHICKS TO A BENEFICIARY UNDER 'POULTRY DEVELOPMENT SCHEME' ON 30.06.14 AT SRIRANGAM, TIRUCHIRAPALLI.



OPENING OF NEW ASSISTANT DIRECTOR OFFICE IN AMBATTUR DIVISION, THIRUVALLUR DISTRICT



BROILER CHICKEN FARM UNDER SCHEME FOR POULTRY DEVELOPMENT



FROZEN SEMEN BANK BUILDING, CATTLE BREEDING AND FODDER DEVELOPMENT, THIRUVANNAMALAI DISTRICT





VETERINARY DISPENSARY, MELAPERAMBUR VILLAGE, NAGAPATTINAM DISTRICT.



AZOLLA CULTIVATION-AN ALTERNATE FEED SUBSTITUTE TO LIVESTOCK RICH IN PROTEIN



IMPROVED INFRASTRUCTURE FACILITIES IN A VETERINARY DISPENSARY.



POWER OPERATED CHAFF CUTTER GIVEN UNDER THE STATE FODDER DEVELOPMENT SCHEME



GRASS CUTTER GIVEN UNDER THE STATE FODDER DEVELOPMENT SCHEME



FODDER DEVELOPMENT USING RAINGUN



PROTEIN RICH LEGUMINOUS FODDER - DESMANTHUS



VICE CHANCELLOR TAMILNADU VETERINARY AND ANIMAL SCIENCES UNIVERSITY DR.S.THILAGAR FEEDING A CALF WITH GREEN FODDER PRODUCED IN THE NEWLY CREATED HYDROPHONIC CENTRE IN THE UNIVERSITY RESEARCH FARM, TANUVAS.



HON'BLE MINISTER FOR ANIMAL HUSBANDRY THIRU.T.K.M.CHINNAYYA, INSPECTING THE FIELD COMPRISING 83.5 ACRES OF MEIKKAL PORAMBOKE LAND WHICH IS USED FOR PRODUCTION OF GREEN FODDER SCHEME AT A COST OF RS.347 LAKHS IN KIZHVEETHI VILLAGE OF NEMILI PANCHAYAT UNION OF VELLORE DISTRICT WHICH IS DEVELOPED BY TANUVAS IN COORDINATION WITH ANIMAL HUSBANDRY AND RURAL DEVELOPMENT DEPARTMENTS





HON'BLE MINISTER FOR ANIMAL HUSBANDRY THIRU.T.K.M.CHINNAYYA INAUGURATING THE CONCESSIONAL SALES OF GREEN FODDER PRODUCED FROM THE SCHEME OF 'ESTABLISHMENT OF GREEN FODDER PRODUCTION PROGRAMME IN MEIKKAL PORAMBOKE LANDS' AT THE COST OF RS.347 LAKHS IN 83.5 ACRES IN KIZHVEETHI VILLAGE OF NEMILI PANCHAYAT UNION OF VELLORE DISTRICT WHICH IS DEVELOPED BY TANUVAS IN CORDINATION WITH ANIMAL HUSBANDRY AND RURAL DEVELOPMENT DEPARTMENTS.



DR.K.SHANMUGAM, I.A.S, PRINCIPAL SECRETARY TO GOVERNMENT, FINANCE DEPARTMENT, DR.S. VIJAYAKUMAR, I.A.S, SECRETARY TO GOVERNMENT, ANIMAL HUSBANDRY, DARIYING AND FISHERIES DEPARTMENT AND VICE CHANCELLOR, TAMILNADU VETERINARY AND ANIMAL SCIENCES UNIVERSITY DR.S. THILAGAR HAVING DISCUSSION WITH THE FOREIGN STUDENTS FROM MALAYSIA PUTRA UNIVERSITY, MALAYSIA KELANDAN UNIVERSITY, INDONESIA KADJAMADA UNIVERSITY AND VIRGINIYA MARYLAND COLLEGE WHO UNDERGOING INTERNSHIP TRAINING AT TANUVAS.