



**ANIMAL HUSBANDRY, DAIRYING,
FISHERIES AND FISHERMEN
WELFARE DEPARTMENT**

ANIMAL HUSBANDRY

**POLICY NOTE
2024-2025**

Demand No.6

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Welfare and Animal Husbandry

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ANIMAL HUSBANDRY DEPARTMENT

DRAFT POLICY NOTE 2024-25

1. INTRODUCTION

Livestock plays a pivotal role in rural livelihood and economy of the country. Animal husbandry and agriculture are twin occupations, which are practiced by the rural households since ancient times. Livestock rearing constitutes 'a way of life' in rural areas with more than 70% of the people dependent on the above activities. In fact, combination of livestock rearing and crop production enables maximum utilisation of farm by-products, conserves soil fertility and increases the household income. Livestock rearing provides productive employment especially self-employment and the most valuable supplementary income to the rural households,

majority of whom are small, marginal farmers and landless labourers.

Livestock provides protein rich balanced food *viz.*, milk, egg, meat and value-added products. Milk and milk products are the major source of protein to the vegetarian population. In addition, dung being an organic fertiliser is an important input to crop production. Similarly biogas from dung and draught power from bullocks are chief sources of energy in rural areas.

Livestock is not only intricately associated with the social, cultural and traditional values of the region, but also serves as an asset that can be encashed by the rural households at the time of distress. Livestock also provides great employment and export potential by providing basic raw material to the leather industry.

The contribution of livestock sector to the Gross Domestic Product (GDP) is immense. During 2022-23, the Gross State Value Added (GSVA) in Livestock Sector was Rs.1,23,822 crore at current prices (Advance Estimate). Livestock sector contributes about 5.69% to GSVA of the State and 45.32% to agriculture and allied activities.

Animal Husbandry Department plays a major role in providing veterinary health services and in improving the production potentialities of livestock and poultry reared in the State. In addition, the Department also implements various beneficiary-oriented schemes for the economic upliftment of the poor, downtrodden, destitute women, widows and weaker sections of the society. Apart from this, the Department is also involved in various extension activities to enlighten the farmers on best animal husbandry practices, fodder

development, prevention, control and containment of diseases etc., The sustained efforts of the Department in the above activities and effective utilisation of animals and natural resources in an eco-balanced way have contributed to the growing commercial vibrancy of the sector in the State.

The significant contribution made by the Department is reflected in the impressive increase in productivity of livestock and its products. In milk production, Tamil Nadu stands 11th in the country with 103.17 LMT of milk during 2022-23. Likewise, Tamil Nadu stands 2nd in egg production with 21560.66 Million number of eggs and 6th in meat production with 7.04 LMT of meat.

At present in Tamil Nadu, the per capita availability of milk is 369 gms./day and of egg is 281 nos./year against the ICMR

recommendations of 300 gms. of milk/day and 180 nos. of eggs/year.

Growth in human population, increase in urbanisation, rising domestic income and changing lifestyle have led to increased demand for livestock products. The Animal Husbandry sector provides much-needed gainful employment for the rural poor and youth, thereby resulted in invigoration of rural economy and sustainable aggregate growth. This will also contribute to social spin-offs like slowdown of rural-urban migration, women empowerment and protection of the environment. In total, livestock sector contributes significantly to achieve the Sustainable Development Goals (SDG) of eradicating extreme poverty and hunger.

2. LIVESTOCK WEALTH IN TAMIL NADU

Tamil Nadu has a rich and diversified livestock wealth. As per 20th Livestock Census (2019), the State has 245 lakh livestock and 1207.80 lakh poultry. In which 95.19 lakh cattle, 5.19 lakh buffaloes, 45.00 lakh sheep, 98.88 lakh goats, 0.67 lakh pigs, 0.07 lakh others (Horses, Ponies, Mules, Donkeys & Camel) and 995.16 lakh Farm poultry (Fowls & other birds) and 212.64 lakh backyard poultry (Fowls & other birds) sharing considerable proportion to national livestock wealth.

A majority of the cattle reared by the farmers comprise of high milk yielding **crossbred Jersey, crossbred Holstein Friesian** and **Murrah Buffalo**.

Besides these, **native cattle breeds** like **Kangeyam, Umbalacheri, Alambadi, Bargur and Pulikulam** and **native buffalo breeds** like **Toda and Bargur** are reared in their respective tracts. Among them, Kangeyam cattle are reared in Western districts *viz.*, Dindigul, Namakkal, Erode, Coimbatore and Karur; Umbalacheri cattle in Eastern districts *viz.*,

Thanjavur, Thiruvarur and Nagapattinam; Alambadi cattle in Western districts viz., Dharmapuri, Erode and Salem; Pulikulam cattle in Southern districts viz., Sivagangai, Madurai, and Virudhunagar; Bargur cattle and buffalo in Erode district; Toda buffalo in The Nilgiris district.

Likewise **native breeds of sheep** viz., **Mecheri** (Salem and Coimbatore districts), **Ramnad White** (Ramanathapuram district), **Madras Red** (Chennai and Kancheepuram districts), **Kilakarisal** (Ramanathapuram, Thanjavur and Madurai districts), **Vembur** (Thoothukudi district), **Tiruchi Black** (Tiruchirapalli, Salem, and Dharmapuri districts), **Coimbatore** (Coimbatore and Madurai districts), **Katchaikatty Black** (Madurai district), **Chevaadu** (Tirunelveli district), **Nilgiri** (The Nilgiris district) and **native breeds of goat** viz., **Kanni Adu** (Thoothukudi and Tirunelveli districts), **Salem Black** (Salem, Dharmapuri and Krishnagiri districts) and **Kodi Adu** (Thoothukudi and Ramanathapuram districts) are reared in Tamil Nadu.

3. AIMS OF THE DEPARTMENT

- ❖ Upgrading local stock of cattle and buffaloes by artificial insemination using high merit exotic and crossbred semen for cattle and Murrah semen for buffaloes.
- ❖ Conserving and propagating 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.
- ❖ Implementing animal husbandry practices on scientific lines for increasing production and productivity of livestock.
- ❖ 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, surveillance and monitoring.
- ❖ Implementing various Union and State Government schemes for the upliftment of the economic status of rural poor.
- ❖ Protecting human health by detection and control of major zoonotic diseases of animals.
- ❖ Creating awareness among public on modern animal husbandry practices.
- ❖ Conducting training on basic and advanced animal husbandry practices to farmers and entrepreneurs.
- ❖ Developing and imparting entrepreneurial skills among youth.

4. MILESTONES 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.
1903	➤ Establishment of Madras Veterinary College.
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	➤ Mobile Veterinary Dispensaries established.
1969	➤ A distinct, Directorate of Veterinary Education and Research was formed.

1970	➤ The Department was reorganized.
1975	➤ Introduction of Artificial Insemination with Frozen Semen.
1977	➤ Animal Disease Intelligence Units were established.
1981	➤ Poultry Disease Diagnostic Laboratory was established at Erode.
1999	➤ Directorate of Veterinary Services was formed.
2003	➤ Tamil Nadu Livestock Development Agency (TNLDA) was created under the National Project on Cattle and Buffalo Breeding (NPCBB).
2005-2006	➤ Infrastructure of Veterinary Institutions was strengthened through National Bank for Agricultural and Rural Development (NABARD) Rural Infrastructure Development Fund (RIDF) X.
2006-2007	➤ Livestock Insurance Scheme was introduced in five selected districts (Salem, Coimbatore, Erode, Namakkal and Vellore).

2007-2008	➤ Tamil Nadu Veterinary Infrastructure Improvement Project (TANVIIP) was launched with funds sourced from NABARD RIDF XI.
2008-2009	➤ Livestock Insurance scheme was extended to five more districts (Dharmapuri, Tiruchirapalli, Thiruvannamalai, Tirunelveli and Villupuram).
2009-2010	➤ Livestock Insurance scheme extended to five more districts (Thanjavur, Madurai, Dindigul, Cuddalore and Krishnagiri).
2011-2012	<ul style="list-style-type: none"> ➤ Hon'ble Chief Minister's Special Schemes viz., Free distribution of Milch Cows and Free distribution of Goats/ Sheep were inaugurated ➤ State Fodder Development Scheme (SFDS) launched to promote Fodder Production. ➤ 585 Veterinary 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.

	<ul style="list-style-type: none"> ➤ Infrastructure improved in 360 Veterinary Institutions and 12 Livestock Farms through NABARD RIDF XVII. ➤ Upgrading Bacterial Vaccines Laboratory to Good Manufacturing Practices (GMP) standards at the Institute of Veterinary Preventive Medicine (IVPM) was sanctioned under NADP.
2012-2013	<ul style="list-style-type: none"> ➤ Scheme for Poultry Development was launched. ➤ Five new Joint Director Offices of Animal Husbandry were created to match the number of Districts (except, Chennai). ➤ Embryo Transfer Technology (ETT) was introduced successfully at District Livestock Farm (DLF), Hosur and at field level in eight districts. ➤ 19th Quinquennial Livestock Census was conducted ➤ Two new Veterinary College and Research Institutes were established under TANUVAS at Orathanadu of Thanjavur district and at Tirunelveli.

2013-2014	<ul style="list-style-type: none"> ➤ Directorate of Animal Husbandry and Veterinary Services was awarded with the "Best Practices Award" for improvement of quality Delivery System ensuring Good Governance". ➤ 100 Veterinary Sub-Centres were upgraded to Veterinary Dispensaries. ➤ 11 Cattle Breeding and Fodder Development Units (CBFDs) were created. ➤ 53 Ultra Sound scanning equipment were installed at Clinician Centres, Livestock Farms and Cattle Breeding and Fodder Development Units (CBFDs). ➤ Portable Ultrasound scanning equipment was provided to five Veterinary Polyclinics. ➤ Steps initiated for conservation of indigenous breeds of livestock such as Kangeyam, Umbalachery and Bargur. ➤ Slatted Floors were installed for rearing Goats at five Departmental Livestock Farms with funding under "Integrated Development of Small Ruminants and Rabbits" (IDSRR) Scheme.
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	<ul style="list-style-type: none"> ➤ An acute and extensive outbreak of Foot and Mouth disease was effectively controlled through measures taken on a war footing. ➤ Rural Backyard Poultry Scheme was extended to all districts (except Chennai). ➤ Infrastructure of Dog Breeding Unit at Saidapet was strengthened. ➤ 450 Veterinary Institutions were constructed through NABARD RIDF XIX. ➤ "Stem Cell Research Centre for Animals", the first of its kind in the country, was established on 19.06.2013 at TANUVAS, Chennai. ➤ Silver Jubilee celebrations of TANUVAS.
2014-2015	<ul style="list-style-type: none"> ➤ Assistant Director Offices of Animal Husbandry at Srirangam, Iluppur and Ambattur were created newly. ➤ Animal Disease Intelligence Units (ADIUs) at Pudukkottai and Thiruvannamalai were created. ➤ 100 Veterinary Sub-Centres were upgraded to Veterinary Dispensaries.

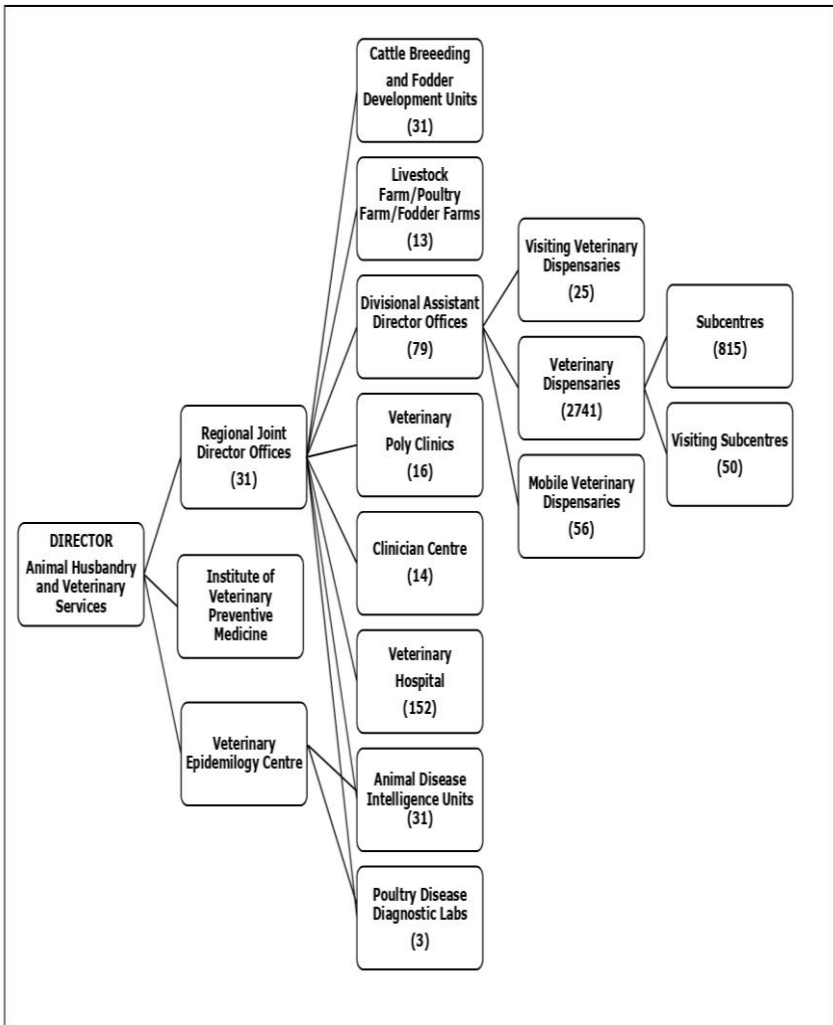
	<ul style="list-style-type: none"> ➤ 50 new Veterinary Sub-Centres were created. ➤ 500 Rural Youth were trained on artificial insemination techniques and provided inputs for establishing Artificial Insemination Centres. ➤ Cattle Insurance Scheme expanded to all the districts of the State under National Livestock Mission. ➤ Buildings for 226 Veterinary Institutions were constructed through NABARD RIDF XX.
2015-2016	<ul style="list-style-type: none"> ➤ Animal Mobile Medical Ambulance Scheme was introduced in five districts. ➤ 100 new Veterinary Sub-Centres were established.
2016-2017	<ul style="list-style-type: none"> ➤ Establishment of Feed and Water Analytical Laboratory at Palladam, Tiruppur District. ➤ Animal Disease Intelligence Units (ADIUs) at Tiruppur and Tiruvallur were established.
2017-2018	<ul style="list-style-type: none"> ➤ Veterinary Epidemiology Centre was created at Saidapet, Chennai. ➤ 100 new Veterinary Sub-Centres were created.

	<ul style="list-style-type: none"> ➤ Animal Disease Intelligence Units (ADIUs) at Perambalur and Theni were established. ➤ Pulikulam Breed Research Station was established in Sivagangai District. ➤ Kangeyam Breed Research Station was established in Erode District.
2018-2019	<ul style="list-style-type: none"> ➤ Tamil Nadu Animal Welfare Board (TNAWB) was established. ➤ Livestock and Poultry Feed Technology Centre at Tirunelveli was established. ➤ Alambadi Cattle Breed Research Station was established in Dharmapuri District.
2019-2020	<ul style="list-style-type: none"> ➤ Establishment of Integrated Livestock Park along with Veterinary College & Research Institute at Chinnasalem. ➤ Animal Disease Intelligence Units (ADIUs) were established at Ariyalur, Kanniyakumari and Ramanathapuram. ➤ Facility for sex sorting of bovine semen was established at District Livestock Farm, Ooty.
2020-2021	<ul style="list-style-type: none"> ➤ Establishment of Goat Research Station in Tenkasi district. ➤ Trichy Black Sheep Research Station was established at Dharmapuri. ➤ Veterinary University Training and

	<p>Research Centre was established at Thoothukudi.</p> <ul style="list-style-type: none"> ➤ Two new Veterinary College & Research Institutes, one at Theni and another at Udumalpet were created.
2021-2022	<ul style="list-style-type: none"> ➤ Establishment of native Poultry Breeding Farm and hatchery unit at the Abhisekapatti District Livestock Farm, Tirunelveli District.
2022-2023	<ul style="list-style-type: none"> ➤ "Vallalar Palluyir Kappagangal" scheme was launched to support NGOs who take care of abandoned and injured pet animals and strays. ➤ Procurement of 245 Mobile Veterinary vehicles for providing Veterinary Services to the farmers in remote villages. ➤ Establishment of Native chicken breeding farm, Hatchery unit and Feed mill at District Livestock Farm, Chettinad, Sivagangai District. ➤ Strengthening of quarantine station at District Livestock Farm, Udthagamandalam.

2023-2024	<ul style="list-style-type: none">➤ Procurement of new genetic pool of 2490 livestock in Departmental farms is under way.➤ A web portal for Jallikattu events has been developed through TNeGA.➤ Setting up of conservation centre for native dog breeds with modern facilities and new infrastructure facilities at Saidapet, Chennai.➤ Usage of sex-sorted semen has been initiated to produce more number of high merit heifer calves, thereby increasing the milk production of the State.
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5. ADMINISTRATIVE SET UP



The Animal Husbandry Department is headed by the Director of Animal Husbandry and Veterinary Services, in the cadre of Indian Administrative Service.

The Director is assisted on technical subjects by four Additional Directors, two Joint Directors, one Deputy Director and nine Assistant Directors at the Directorate. Besides, Director is also assisted by one Joint Director (Admin), one Deputy Director (Personnel) and two Administrative Officers on administration.

A Financial Controller and a Chief Accounts Officer deputed from Finance Department, an Accounts Officer and Assistant Accounts Officer deputed from Treasuries and Accounts Department, Fodder Development Officer from Agriculture Department and Deputy Registrar from Co-operative Department provide

assistance to the Director on the issues concerned.

Regional Joint Directors and Deputy Directors execute the activities of the Department at District level and Assistant Directors at Divisional level.

Institute of Veterinary Preventive Medicine (IVPM) at Ranipet, headed by a Director in the cadre of an Additional Director, manufactures vaccines and veterinary biologicals.

The Veterinary Epidemiological Centre (VEC), headed by a Joint Director, functioning at Veterinary Polyclinic campus, Saidapet, Chennai coordinates and monitors the work of the Animal Disease Intelligence Units (ADIUs) and Poultry Disease Diagnostic Laboratories (PDDLs).

Table 1: Number of post sanctioned

S. No	Name of Post	Numbers
1	Director of Animal Husbandry and Veterinary Services	1
2	Additional Director	5
3	Director, Institute of Veterinary Preventive Medicine, Ranipet.	1
4	Joint Director	35
5	Senior Research Officer	3
6	Deputy Director	44
7	Assistant Director	311
8	Research Officer	7
9	Administrative Officer	33
10	Assistant Research Officer	17
11	Veterinary Assistant Surgeon	3032
12	Research Assistant	30
13	Senior Veterinary Livestock Supervisor	183
14	Ministerial Staff	1256
15	Livestock Inspector Grade I	1397
16	Livestock Inspector Grade II	1221
17	Animal Husbandry Assistant	4911
18	Basic staff	531
19	Other staff	914
20	Foreign service	48
	Total	13980

The following measures have been taken to improve the administration in the Department during 2023-24:

- A total of 192 technical posts including 2 Additional Directors, 22 Joint Directors, 33 Deputy Directors and 135 Assistant Directors were filled up by promotion. In addition, 10 Managers, 37 Senior Veterinary Livestock Supervisor and 6 Record clerk posts were filled up through promotion.
- Through TNPSC, 697 Veterinary Assistant Surgeons, 15 Junior Assistant and 10 Typist posts were filled.
- 3 Junior Assistants, 4 Office Assistants and Tractor Driver were appointed on compassionate ground.

6. VETERINARY SERVICES

Veterinary services are provided through the wide network of Veterinary Institutions and Veterinary Sub-Centres located in all the districts.

They provide various services to the livestock and poultry in the State that includes medical, surgical, gynaecological, infertility treatments, deworming, immunization, disease diagnosis and control, breeding, fodder development, training to farmers and other extension activities. While veterinary services are provided by the professional work force, minor veterinary services and first aid are provided through para veterinarians.

Veterinary institutions have expanded from around 120 institutions during 1950-60's to 3,869 in 2023-24, which includes 16 Veterinary Polyclinics, 14 Clinician Centres, 152 Veterinary Hospitals, 2,741 Veterinary Dispensaries, 25 visiting Veterinary Dispensaries, 56 Mobile Veterinary Dispensaries, 815 Sub Centres and 50 visiting Sub Centres.

Table 2: District wise Field Units providing veterinary services

Sl. No.	District	VPC	CC	VH	VD	VVD	MVD	VSC	VVSC
1	Ariyalur	0	0	2	44	1	1	8	2
2	Chennai	1	0	1	0	0	1	0	0
3	Coimbatore	1	1	15	98	0	2	26	0
4	Cuddalore	0	1	5	92	0	1	56	4
5	Dharmapuri	0	1	3	80	0	2	10	1
6	Dindigul	1	0	5	106	1	1	62	2
7	Erode	2	0	6	106	0	3	24	2
8	Kancheepuram	0	1	0	45	0	1	14	0
9	Chengalpattu	0	1	1	61	0	1	24	0
10	Kanyakumari	1	0	2	49	0	2	15	0
11	Karur	0	1	2	72	2	1	10	1
12	Krishnagiri	1	0	2	79	1	1	13	2
13	Madurai	1	0	4	96	1	1	52	0
14	Nagapattinam	0	0	3	34	1	1	13	2
15	Mayiladuthurai	0	2	1	38	1	1	6	0
16	Namakkal	0	0	5	105	0	3	8	1
17	Perambalur	0	0	0	37	0	0	5	2
18	Pudukottai	0	1	4	101	1	2	31	3
19	Ramnad	0	0	4	55	0	0	14	0
20	Salem	1	0	7	149	0	6	9	0
21	Sivagangai	0	0	2	79	1	0	46	0
22	Thanjavur	1	1	7	105	0	3	28	2
23	Theni	0	0	3	53	1	1	45	0
24	The Nilgiris	0	1	2	29	0	3	7	0
25	Tiruppur	2	0	7	102	1	1	38	3
26	Tiruvallur	0	0	5	88	1	1	25	1
27	Tiruvannamalai	0	1	5	124	2	3	19	5
28	Tiruvapur	0	1	10	72	1	1	29	1
29	Thoothukudi	1	0	2	70	2	1	39	4
30	Tiruchirapalli	1	0	8	103	2	2	32	2
31	Tirunelveli	1	0	5	51	0	1	16	1

Sl. No.	District	VPC	CC	VH	VD	VVD	MVD	VSC	VVSC
32	Tenkasi	0	0	3	61	1	0	18	2
33	Vellore	1	0	4	38	1	1	6	1
34	Tirupathur	0	0	2	37	0	2	9	0
35	Ranipet	0	0	2	46	0	1	10	0
36	Villupuram	0	0	5	101	0	2	6	5
37	Kallakurichi	0	1	2	53	2	2	16	0
38	Virudhunagar	0	0	6	82	1	0	26	1
TOTAL		16	14	152	2741	25	56	815	50

*	VPC	-	<i>Veterinary Polyclinics</i>
	CC	-	<i>Clinician Centres</i>
	VH	-	<i>Veterinary Hospitals</i>
	VD	-	<i>Veterinary Dispensaries</i>
	VVD	-	<i>Visiting Veterinary Dispensaries</i>
	MVD	-	<i>Mobile Veterinary Dispensaries</i>
	VSC	-	<i>Veterinary Sub centres</i>
	VVSC	-	<i>Visiting Veterinary Sub centres</i>

Pattern and functioning of Veterinary Institutions

- ❖ **Veterinary Polyclinic** - headed by Clinician and assisted by Veterinary Assistant Surgeons, functions round the clock and provides specialized services.
- ❖ **Clinician Centre** - headed by Clinician and assisted by a Senior Veterinary Livestock Supervisor, provides specialized services.

- ❖ **Veterinary Hospital** - headed by Veterinary Surgeon, provides veterinary services to the farmers.
- ❖ **Veterinary Dispensary** - headed by Veterinary Assistant Surgeons, provides veterinary and outreach services and implements Government welfare schemes.
- ❖ **Visiting Veterinary Dispensary** - Veterinary Assistant Surgeon is deputed from nearby Veterinary Dispensary for two days a week during afternoon hours, provides veterinary services.
- ❖ **Mobile Veterinary Dispensary**- headed by Veterinary Assistant Surgeons, provides veterinary services to the farmers at village level as per schedule.
- ❖ **Veterinary Sub-Centre** - manned by Livestock Inspector, provides Artificial Insemination and first-aid services.

- ❖ **Visiting Veterinary Sub-Centre** - manned by Livestock Inspector deputed from nearby Sub-Centre for two days a week, during afternoon hours, provides Artificial Insemination and first-aid services.

The activity-wise work done by the above Veterinary Institutions during 2023-24 is as follows:

Table 3: Work done in the Veterinary Institutions during 2023-24

ACTIVITIES		Numbers in lakh
1	Veterinary Treatment (including first aid)	437.65
2	Artificial Insemination(AI)	55.29
3	Vaccination	391.70
4	Castration	11.37
5	Deworming	350.81
6	Calves Born	24.50

6.1.PROCUREMENT OF MEDICINES AND EQUIPMENT

The Department is procuring medicines and equipment through Tamil Nadu Medical Services Corporation (TNMSC), alternative medicine (Sidha medicine etc.,) through Tamil Nadu Medicinal Plant Farms and Herbal Medicine Corporation Ltd., (TAMPCOL) and Mineral Mixture through Aavin / Tamil Nadu Veterinary and Animal Sciences University (TANUVAS).

The fund allocation is given below.

Table 4: Fund Allocation (2024-2025)

Sl. No	Items	Fund Allotted (Rs. in Lakh)
1	Medicine	2249.66
2	Equipment, chemicals and surgical suture materials	287.82
3	Intensive health care (Deworming)	105.00
4	Mineral mixture	501.35
5	Alternate medicine	161.53
6	Reserve fund to meet out emergencies	612.04
	TOTAL	3917.40

7. INSTITUTE OF VETERINARY PREVENTIVE MEDICINE, RANIPET (IVPM)

As a unit of the Department of Animal Husbandry and Veterinary Services, Institute of Veterinary Preventive Medicine (IVPM), Ranipet, is involved in the production of Veterinary Biologicals, Diagnostic reagents and Diluent for use by the field Veterinary Institutions in the State.

Activities of the Institute

- The Institute is producing four Bacterial vaccines and five Viral vaccines for prevention of various livestock and poultry diseases, four Diagnostic reagents and one Diluent.
- The vaccines are produced based on the requirements for Assistance to State for the Control of Animal Diseases (ASCAD) vaccination target and also based on the demand from the farmers and Veterinary

Institutions during disease outbreaks and disasters.

- Sero surveillance, Sero Monitoring and Sero Typing for Foot and Mouth disease (FMD) is carried out through FMD collaborative centre aided by National Animal Disease Control Programme (NADCP).
- Seed and Virulent biological materials are maintained.
- Sale of Vaccines to other States of India.
- Quality Assurance and Quality Control (QAQC) for testing of Vaccines is carried out.
- Timely distribution of various biological products to field institutions.
- Supply of diluents and vaccines for conducting pulse RDVK (Ranikhet Disease) programme in the State.
- IVPM was the first Government Veterinary Biologicals Institute to initiate the

upgradation of vaccine production facilities to Good Manufacturing Practices (GMP) standards as per the mandatory requirement of Drug licensing authority.

The IVPM by means of producing quality vaccines and supplying to all Veterinary Institutions of the department helps in protecting the health of the livestock and poultry thereby achieving the Sustainable Development Goal (SDG) No.3 'Good Health and Well being'.

Table 5: Production details of Biologicals during 2023-24

Sl. No	Biologicals produced	Doses
A.	Bacterial Vaccines	(in lakh)
1	Anthrax spore vaccine	29.997
2	Black quarter vaccine	On demand
3	Enterotoxaemia Vaccine	0.593
4	Haemorrhagic septicaemia vaccine	1.186
B.	Viral Vaccines	(in lakh)
1	Sheep Pox vaccine	1.90

Sl. No	Biologicals produced	Doses
2	Duck Plague vaccine	23.755
3	Ranikhet disease vaccine 'F'	On demand
4	Ranikhet disease vaccine 'K'	449.38
5	Ranikhet disease vaccine ' <i>Lasota</i> '	8.175
C.	Diagnostocs	(in ml)
1	CMT Antigen	2000
2	Brucella abortus Coloured Antigen	1140
3	Brucella abortus plain Antigen	1800
4	Brucella abortus MRT Antigen	890
5	SPCA – Salmonella Pullorum Coloured Antigen	950
D.	Diluent	(in litres)
1	Phosphate Buffer Saline	1500

Projects recently implemented at IVP, Ranipet:

- Facilities for Bacterial vaccines, Anthrax Spore Vaccine and poultry vaccines have been established and strengthened to GMP standards and establishment of a new

Quality Assurance and Quality Control Lab at GLP standard in collaboration with NDDDB and TANUVAS to augment the production of vaccines, to enable supply of better quality vaccines without any interruption to field institutions of this department and also to other States.

New projects under implementation

- Establishment of GMP compliant Pharmaceutical Lab at a total cost of Rs.10.00 crore.
- Establishment of GMP compliant Invitro Brucella and Diagnostic Lab at a total cost of Rs.8.02 crore.

Efforts are being taken to upgrade all the vaccine production facilities in the Institute to GMP standards in collaboration with NDDDB and TANUVAS.

8. DISEASE DIAGNOSIS, PREVENTION, CONTROL AND ERADICATION

Various bacterial, viral, protozoal, parasitic diseases that affect livestock and poultry causes economic losses to the farmers. Control and eradication of livestock diseases is a must, not only for profitable livestock production but also for global acceptance of our livestock and livestock products.

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, following units are functioning in the State.

8.1 Diagnostic units

8.1.1 Veterinary Epidemiology Centre (VEC)

The Veterinary Epidemiology Centre was established at Chennai. The Centre is the nodal centre for all activities related to the Animal Disease Intelligence Units and Poultry Disease Diagnostic Laboratories.

- The Veterinary Epidemiology Centre co-ordinates the Disease Diagnostic activities of the Animal Husbandry sector of the State through ADIUs and PDDLs.

- Undertake investigation during disease outbreaks to provide inputs and remedial measures to the Animal Disease Intelligence units of the State to control the spread of various livestock and poultry Diseases.
- The Unit undertakes Bi-annual inspection of the private poultry farms along with members of special committee the Directorate of Animal Husbandry and Veterinary Services, to check and verify compartmentalization regulations against Avian Influenza to ensure that the compartmentalised farms / establishments have adhered to the principles of compartmentalization prescribed by World Organization for Animal Health (WOAH) and maintains all mandatory bio security and bio safety standards in their Farms.
- The VEC coordinates the testing of stud bulls maintained in the departmental frozen

semen production stations along with a team of scientists to ensure that the frozen semen straws intended for Artificial insemination are distributed from disease free herd.

- Monitoring of vaccination work in the Districts.

8.1.2 Animal Disease Intelligence Units (ADIU)

The Animal Disease Intelligence units are functioning in 31 Districts and are involved in disease diagnosis, surveillance and attending to disease outbreaks immediately on receipt of information.

- The ADIUs collect samples for laboratory diagnosis from affected animals as well as following post-mortem, conduct tests for diagnosis of certain diseases.

- ADIUs send collected samples from ailing and dead animals to other laboratories for further confirmatory diagnosis.
- The ADIUs further attempts to trace the reasons for the outbreak, which will assist in controlling the spread of the disease and prevent outbreaks in future.
- Endemic charts are prepared to know the prevalence of a disease and to forecast for undertaking prophylactic vaccination.
- The ADIUs attend mass contact programs and Special Livestock Health camps for spot diagnosis of diseases.
- ADIUs visit slaughter houses and collect samples to rule out the possibility of spread of zoonotic diseases.
- The ADIUs undertakes periodical visits to Government and private farms for monitoring the health of livestock and poultry.

- The ADIUs are entrusted with the task of collecting pre and post serum samples for Foot and Mouth disease, PPR and Post serum samples for Brucellosis, to assess efficacy of vaccine and immunity levels.

ADIUs at Tiruchirappalli and The Nilgiris Districts are strengthened for testing of Glanders in horses, donkeys, mules, ponies etc.

During the year 2023-2024, 4,28,921 Dung / faeces samples, 19,957 blood smears, 12,027 impression smears, 2,789 blood wet films, 5,325 intestinal scrapings, 20,551 Skin scrapings, 4,631 Nasal washings, 4,564 Blood analysis for various parameters such as TLC, DLC, Hb, ESR etc., 6,818 Biochemical analysis of blood, 7,954 samples of urine, 13,664 Milk samples for mastitis, 9,240 Brucellosis haemagglutination tests, 7,428 Brucellosis-milk ring tests, 12,036 Antibiotic sensitivity tests and 75,234 Other specimens (for example - sera samples from

duck) were tested. In addition 1,605 animals were tested for Tuberculosis and 1,601 animals were tested for Johne’s disease. A least number of 11 confirmed outbreaks of various diseases were occurred during 2023-24

Table 6: Details of Disease outbreak during 2023-24

Name of the Disease	No. of Districts affected	No. of out break
Sheep Pox	1	2
Anthrax	1	3
Lumpy skin disease	2	3
African Swine Fever	1	1
Foot and Mouth Disease	2	2
Total		11

8.1.3 Poultry Disease Diagnostic Laboratory (PDDL)

Poultry Disease Diagnostic Laboratories are functioning in 3 Districts viz., Erode, Namakkal

and Tiruppur are catering to the needs of the poultry farmers in the State especially intensive poultry rearing belts.

PDDLs assist in diagnosing various poultry diseases by collecting samples of droppings, blood samples etc., for testing of various viral diseases, bacterial infections and parasitic infestations, by conducting post-mortem and suggest prompt preventive measures for controlling the prevailing disease as well as emerging diseases.

These labs undertake periodical visits to the poultry units and render advice on managerial practices.

Sale of poultry vaccines for timely control of poultry diseases is also undertaken by these units.

The PDDLs at Namakkal and Erode are Bio safety level II (BSL-II) compliant labs and they

carry out preliminary screening for Low pathogenic avian influenza.

A laboratory for testing of feed and water analysis has been established in Palladam, Tiruppur district.

Poultry Disease Diagnostic Laboratory officials visit poultry farms on regular basis and have examined 1,53,244 samples during the year 2023-2024. In addition, they have conducted 3,862 Rapid plate tests, 62,440 samples were tested for E.coli and 62,377 samples tested for Salmonella. 3,337 samples of water, 1,601 samples of feed, 8,675 samples of air were tested for microbes.

37,003 Haemagglutination test and 42,741 Haemagglutination inhibition tests for confirmation of Ranikhet Disease and estimation of immunity for Ranikhet were conducted

respectively. 934 Antibiotic sensitivity tests were conducted.

Utilizing Elisa method 43,902 poultry serum and 859 duck serums were tested for Avian Influenza antibody.

8.1.4 Central Referral Laboratory (CRL)

Apex laboratory of the State, the Central Referral Laboratory, is located at IVP, Ranipet for diagnosis of livestock and poultry diseases.

This laboratory plays a major role in disease confirmation as per World Organization for Animal Health (WOAH) approved laboratory techniques.

The functioning of ADIU's, PDDL's, CRL and VEC in the State helps for timely disease diagnosis, disease forecasting, surveillance and control of disease outbreaks in the livestock and Poultry thereby achieving Sustainable

Development Goal (SDG) No.3 'Good Health and Well being'.

8.2 Disease Prevention Services

Vaccines against economically destructive livestock diseases such as Anthrax, Black Quarter, Haemorrhagic Septicaemia and Sheep Pox are produced at IVPM, Ranipet and supplied to Veterinary institutions at free of cost on demand basis.

Vaccination is being carried out based on disease forecasting chart prepared in all the Veterinary Institutions every year.

Table 7: Vaccination done during 2023-24

Name of the Disease	Type of animals Vaccinated	No. of animals vaccinated (nos. in lakh)
Anthrax	Cattle, Buffalo, Sheep and Goat	29.19
Black Quarter	Cattle	0.331
Foot and Mouth Disease	Cattle, Buffalo	172.00

Name of the Disease	Type of animals Vaccinated	No. of animals vaccinated (nos. in lakh)
Haemorrhagic Septicaemia	Cattle and Buffalo	0.751
<i>Peste des Petits Ruminants</i>	Sheep and Goat	53.34
Sheep Pox	Sheep	0.761
LSD (using Goat pox vaccine)	Cattle	60.22
Brucellosis	Heifer calves 4-8 months	9.35
RDVK Vaccination	Poultry	138.74
Total		464.683

The regular vaccination of livestock against economically important diseases like FMD, Brucellosis, LSD, Anthrax, Haemorrhagic Septicaemia (H.S), Black Quarter (B.Q), Sheep pox, PPR, etc., under various Central sector schemes helps in developing immunity in livestock against prevalent diseases thereby preventing disease outbreaks and improving the health of the livestock in the state. By implementing the above schemes, Sustainable

Development Goal (SDG) No.3 'Good Health and Well being' is being achieved.

8.2.1 National Animal Disease Control Programme (NADCP)

Vaccination against Foot and Mouth Disease (FMD) and Brucellosis is being carried out in eligible bovine population in the State under the Central Sector scheme of NADCP.

8.2.1.1 Foot and Mouth Disease (FMD) Vaccination Programme under NADCP:

Foot and Mouth disease, is a viral disease that is highly contagious in cloven-footed animals and causes heavy economic loss to the farmers. The disease is controlled by vaccination at regular intervals.

Under the scheme, so far four rounds of FMD vaccination have been successfully completed, since the year 2020.

In the recently concluded 4th round of FMD during November to December 2023, about 85.57 lakh eligible Bovines were vaccinated.

8.2.1.2 Brucellosis Vaccination Programme under NADCP:

Brucellosis is a bacterial disease that infects genital tract of Livestock and causes abortion, infertility in animals. Brucellosis vaccination is done in the eligible bovines of four to eight months old heifer calves once in a lifetime. During the year 2023-24, about 4.88 lakh eligible heifer calves in all the districts were vaccinated in 2nd phase of Vaccination programme and about 4.47 lakh eligible heifer calves were vaccinated in the 3rd phase under this scheme.

8.2.2 Lumpy Skin Disease (LSD)

Lumpy Skin Disease (LSD) is an infectious viral disease of cattle and buffaloes characterised by high fever, skin nodules, reduction in milk production, abortion and

infertility. During 2023-24, outbreaks were reported in Erode and Chennai (Adyar zone). As a prophylactic measure 60.22 lakh cattle were vaccinated during August and September 2023 as per GoI guidelines.

8.2.3 African Swine Fever (ASF)

African Swine fever is a highly contagious and fatal disease affecting domestic and wild pigs caused by the ASF virus and it is non zoonotic. There is no vaccine or drugs available at present to prevent and cure ASF infection. Active surveillance is being carried out in all the districts by the departmental staff. One outbreak was reported in Vellore district, wherein the month of May 2023 death of 14 pigs was reported.

The pigs in area of 1 km radius from epicentre (Infected Zone) were culled (16 nos) by humane procedure as per National Action Plan for ASF to curtail the spread of disease. There is no incidence of ASF in the State as on date after the above episode.

9. LIVESTOCK DEVELOPMENT

9.1 Departmental Farms

There are 13 farms functioning under the department that includes eight livestock farms, three sheep farms, one poultry farm and a fodder seed production farm.

Objective of the departmental farms:

- To disseminate best animal husbandry practices for increasing the production and productivity of livestock in the State.
- To serve as demonstration units for creating awareness among farmers about modern farming practices
- Production of disease free, high genetic merit frozen semen straws and **sex sorted semen straws**.
- To sell genetically superior livestock to the farmers.

- To produce disease free, high genetic merit bull calves for semen production through **In-vitro Fertilization.**
- To impart training to the farmers on best management practices
- To impart refresher training to Veterinarians and para veterinarians.

Conservation of Native breeds

- Native Cattle Breeds of Tamil Nadu are conserved in the departmental livestock farms Viz., Kangeyam, Bargur, Pulikulam at District Livestock Farm, Hosur and Umbalachery Breed at Livestock Farm, Korukkai.
- Other indigenous breeds such as Red Sindhi is maintained at District Livestock Farm, Hosur, Tharparkar and Sahiwal breeds at District Livestock Farm, Chettinad and Sahiwal breed at District Livestock Farm, Abishegapatti.

Table 8: Location of Departmental Farms and the animals maintained

Sl. No	Name of the Farm	Species	Breeds
1	Exotic Cattle Breeding Farm, Eachenkottai (Thanjavur District)	Cattle	Jersey, Umbalachery, Crossbred Jersey
		Buffalo	Murrah
2	District Livestock Farm, Hosur (Krishnagiri District)	Cattle	Crossbred Jersey, Red Sindi, Crossbred Holstein Friesian, Kangeyam, Bargur, Pulikulam
		Sheep	Mecheri
		Goat	Tellicherry, Kodiaadu, Salem Black
		Pig	Large White Yorkshire
		Poultry	Aseel
3	District Livestock Farm, Abishekapatti (Tirunelveli District)	Cattle	Crossbred Jersey, Sahiwal
		Sheep	Kilakaraisal
		Goat	Kanni Adu
		Pig	Large White Yorkshire
		Poultry	Vanaraja, Aseel, Nicobari
4	District Livestock Farm, Udhagamandalam (The Nilgiris District)	Cattle	Jersey, Crossbred Jersey, Holstein Friesian, Crossbred Holstein Friesian

Sl. No	Name of the Farm	Species	Breeds
5	District Livestock Farm, Pudukottai (Pudukottai District)	Cattle	Crossbred Jersey, Crossbred Holstein Friesian
		Sheep	Ramnad White
		Goat	Jamnapari
6	District Livestock Farm, Naduvur (Thanjavur District)	Cattle	Jersey, Crossbred Jersey, Crossbred Holstein Friesian
		Buffalo	Murrah
7	District Livestock Farm, Chettinad (Sivagangai District)	Cattle	Crossbred Jersey, Crossbred Holstein Friesian, Tharparkar, Sahiwal, Kangeyam
		Sheep	Ramnad White
		Goat	Jamnapari, Tellicherry
		Pig	Large White Yorkshire
		Poultry	Aseel
8	Livestock Farm, Korukkai (Tiruvarur District)	Cattle	Umbalachery
9	Sheep Farm, Chinnasalem (Kallakurichi District)	Sheep	Mecheri, Madras Red
		Goat	Salem Black, Tellicherry
10	Sheep Farm, Mukundarayapuram (Vellore District)	Sheep	Madras Red
11	Sheep Farm, Sathur (Virudhunagar District)	Sheep	Vembur
		Goat	Kanni

Sl. No	Name of the Farm	Species	Breeds
12	Poultry Farm, Kattupakkam, (Chengalpattu District)	Fowl	Vanaraja, Nicobari, Kadaknath, White Leghorn, Aseel, Guinea Fowl
		Turkey	Beltsville white
		Quail	Japanese Quail
13	Fodder Seed Production Farm, Padappai (Kancheepuram District)		Fodder Sorghum CoFS- 31, Cumbu Napier Co- 4, Co-5, Desmanthus, Agathi

Category wise sales details

During 2023-24, 247 number of calves, 967 lambs, 787 kids and 732 piglets have been sold to farmers for breeding purpose. 22,789 no.of poultry chicks and 2,34,850 no.of eggs were sold to farmers.

Significant activities

- State Funds have been released for the introduction of new livestock genetic pool in the Departmental farms to reduce the incidence of inbreeding and to increase the

production and productivity of livestock at a cost of Rs.261.31 lakh.

- A sum of Rs.213 lakh has been released for the development and conservation of native breed – Umbalacheri breed at Livestock Farm at Korukkai under Rashtriya Gokul Mission.
- A sum of Rs.50 lakh has been released for strengthening the training centre at District Livestock Farm, Naduvur under Rashtriya Gokul Mission.
- 20 veterinarians working in departmental farms have been trained at Kerala Livestock Development Board at the cost of Rs.8.00 lakhs under Rashtriya Gokul Mission.
- 200 livestock inspectors have been trained at District Livestock Farm, Hosur and Naduvur at the cost of Rs.6.00 lakh under Rashtriya Gokul Mission.

9.2 Frozen Semen Production

There are 3 Frozen Semen Production Stations functioning at Exotic Cattle Breeding Farm, Eachenkottai, District Livestock Farms at Hosur and Udhagamandalam under the Department.

- During 2023-24, 57.48 lakh doses of disease free, high genetic merit frozen semen straws have been produced by these stations, as per the minimum standard protocol stipulated by Government of India. These semen stations are periodically evaluated by the Central Monitoring Unit of Government of India.
- A gender sorted semen production facility has been established at the District Livestock Farm, Udhagamandalam to produce 7.20 lakh gender sorted semen doses over a period of three years with a total outlay of Rs.47.50 crore. A total of 3,09,735 doses have been produced and

the programme of Artificial Insemination with gender sorted semen doses is being implemented in the districts of Coimbatore, Erode, Kanyakumari, Krishnagiri, Madurai, Namakkal, Perambalur, Ranipet, Thanjavur, The Nilgiris, Thiruchirapalli, Tirunelveli, Thirupathur, Thoothukudi and Vellore. A total of 6766 Artificial Inseminations with gender sorted semen doses has been reported.

9.3 Cattle Breeding and Fodder Development (CBFD)

- 31 Cattle Breeding and Fodder Development (CBFD) Units are functioning under the Department and the primary objective of these units is to distribute the Frozen Semen Straws produced by the three Frozen Semen Production Stations to all Veterinary Institutions and Sub Centres across the State.

- Besides distribution of semen straws, these units also supply liquid nitrogen to the veterinary institutions and sub centres.
- The Cattle Breeding and Fodder Development (CBFD) Units of Erode, Karur, Madurai, Thanjavur, Thoothukudi, Tirunelveli and Villupuram have been strengthened at the cost of Rs. 50 lakh each under Rastriya Gokul mission and the work is under progress.
- These units also distribute fodder seeds/fodder slips and tree fodder seedlings to the needy farmers.

9.4 Dog Breeding Unit, Saidapet

Native Breeds of dogs are being maintained as cultural heritage. Conserving Native Breeds can provide important insights into canine genetics, evolution and impact of domestication. Tamil Nadu possesses excellent

native dog breeds such as Rajapalayam, Chippiparai, Kombai and Kanni. To conserve and propagate these native breeds, a Dog Breeding Unit is functioning at Saidapet, Chennai since 1980. Puppies produced in this unit are being sold to the public based on their registration seniority at the price fixed by the Government.

Besides, a conservation center for native dog breeds with modern facilities and new infrastructure facilities is being set up at a cost of Rs.595 lakhs to raise 32 Native dog breeds like Kanni, Rajapalayam, Chippiparai and Kombai.

10. SCHEMES

Animal husbandry provides livelihood opportunities to millions of people and is the mainstay 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.

10.1 Specialized Veterinary Health Care and Awareness Camp

7760 Specialized Veterinary Health care and Awareness camps are being conducted every year from 2021-22 at a cost of Rs.7.76 crores per year to provide preventive and curative veterinary health care facilities to cattle and poultry reared by farmers in villages and to

create awareness among farmers about animal husbandry practices.

The following activities are being carried out in the camp

- Treatment of ailing animals
- Deworming
- Vaccination against diseases
- Castration
- Artificial Insemination
- Infertility treatments
- Pregnancy verification
- Minor surgeries like Chronic Luxation of Patella (CLP)
- Specialized gynecological assistance
- Creating awareness on advanced scientific animal husbandry practices among farmers
- Distribution of mineral mixtures.
- Fodder development awareness programme

- Production, marketing and value addition of livestock products and fodder crop production and utilization.

During 2021-22, 2022-23 and 2023-24 a total of 23,280 special camps were conducted in remote villages at the rate of 7760 camps per year, benefiting 240.92 lakh Livestock and poultry of 26.02 lakh farmers.

Under this scheme, camps are being conducted in remote inaccessible areas, wherein animals are being brought in for treatment, artificial insemination, deworming, vaccination, etc., thereby the health status of the animals were improved. This achieves Sustainable Development Goal (SDG) No.3 'Good Health and Well being'.

Besides, awareness is being created to farmers on various animal husbandry activities and latest scientific management of animals,

thereby achieving the Sustainable Development Goal (SDG) No.4 'Quality education'.

100 special camps have been conducted in all the districts on the occasion of Kalaignar centenary celebration and works like treatment, de-worming, vaccination, artificial insemination, pregnancy diagnosis, supply of mineral mixture ect., have been carried out in the camps and 97,019 livestock and 30,356 poultry of 20,585 farmers have been benefited.

10.2 Fodder Development

The livestock derive their fodder from three major sources viz., cultivated fodder, Crop residues (Most of the dry fodder) and Fodder from Common Property Resources like forests, permanent pastures and grazing lands. Increasing the production of milk and milk products help to lift rural economy but it requires a sound strategy to achieve the

targeted production in dairy sector. Green fodder is the economic source of nutrients for the dairy animals, helps in maintaining good health and improving breeding efficiency of animals. Hence, increased use of green fodder in the ration of animals will reduce cost of milk production and directly contribute to increase in profitability.

High yielding and nutritious fodder is essential for scientific and economic management of livestock, especially crossbred. The demand for both green and dry fodder is increasing day by day. To overcome the fodder scarcity, particularly during the lean period, it is essential that every dairy farm must preserve the surplus fodder either in the form of silage or hay to ensure year round availability of fodder. Shrinking of farm size has consequence in apportioning it for perennial fodder cultivation especially by Small and Marginal farmers. The non availability of land for fodder cultivation

discourages many farmers from taking up dairying. Hence, to augment fodder production and conservation, the Department is implementing various State and Union shared schemes.

With the strenuous efforts of the Department, awareness have been created among Farmers / livestock rearers, that livestock diet must comprise approximately 60-70% green fodder, 20-30% dry fodder and 5-10% supplementary feed to provide needed crude protein and crude fibre.

In order to disseminate latest trend in fodder cultivation aspects and teach the new ideas to the farming community, it is essential that the Department officials should have an updated knowledge on the latest, innovative and adaptive technology in forage production. Hence, Department officials are being given training from time to time in the premier institutes across the country. Accordingly, an

advanced 5 days Training on fodder production and conservation were provided to 60 Veterinary /Agriculture Officer in ICAR – Indian Grassland and Fodder Research Institute (IGFRI), Jhansi, at a cost of Rs.10 lakh during 2023-24.

The landless livestock rearers, small and marginal farmers have traditionally relied on the common grazing land / meikkal land for meeting the significant portion of the fodder requirements of their livestock. Most of the village common lands and the traditional grazing lands are alienated for other development activities. This shrinkage of gazing land is a serious livelihoods threat to above pastoral group. Hence, this Department is keen on rejuvenating the Meikkal land in a phased manner. Initially 1,000 acres of meikkal land has been identified across the state for rejuvenation and implemented in convergence with Department of Rural Development and Panchayat Raj to replace the local low nutritive

grasses with high yielding Perennial grass and legumes and will be made available to the livestock throughout the year at a cost of Rs.167 lakhs there by increase the milk production of cattle.

Now as a next advanced step, to ensure the continuous availability of fodder at village level, it is proposed to develop and restoration of degraded meikkal land and providing employment opportunity to the SHGs to take up production of high yielding fodder varieties i.e., Hybrid Bajra Napier in commercial lines in five selected districts viz., Kanyakumari, Cuddalore, Tiruvannamalai, Villupuram and Salem districts in an area of 5 acres per district at an outlay of Rs.2.33 Crore. Perennial high biomass yielding fodder grass Cumbu Napier will be propagated and maintained as cut and carry system. As the fodder units thus established through this project will act like fodder banks and distributed to the needy farmers at a reasonable cost. In

this scheme, the women are engaged in the fodder production, therefore, contributing to Sustainable Development Goal (SDG) No.5 'Gender inequality', SDG No. 1 'No poverty' and SDG No. 2 'No Hunger'.

As a part of area expansion under fodder cultivation, this Department is promoting alternate fodder production techniques viz., Intercropping of perennial forage grasses / cereals along with perennial legume forage in plantation garden / orchards to supply superior quality balanced cattle fodder throughout the year. Intercropping of fodder in the Plantation/orchards has been taken up in 2000 acres by providing cultivation incentive of Rs.3,000 per acre during 2022-23 at a total cost of Rs.60 lakh. Based on the success, this scheme has been extended to 2023-24 in which 2000 acres have been covered benefiting 2783 farmers. This scheme enhances the

income of small-scale farmers and thereby contributing to SDG1 (No poverty) and SDG2 (No Hunger)

This Department is giving parallel significance to the fodder conservation as that of production activities. Keeping in view of the constraints in fodder production and in order to overcome the gap between demand and supply, emphasis has been given for efficient utilization of available fodder by minimizing the wastage. In this regard, to maximize the output by reducing the wastage of fodder and reduce the drudgery in farm operation, 3,000 numbers of Power Driven Chaff Cutters (2HP) are being distributed at 50% subsidy to farmers for Feeding of chopped fodder to livestock at a cost of Rs.4.90 crore. In this scheme the livestock are fed with chaffed fodder will have high net biological value of the fodder increasing the milk production thereby increasing farmer's economic growth fulfilling Sustainable

Development Goal (SDG) No.1 'No poverty' and (SDG) No. 2 'No Hunger'.

10.2.1 Fodder Development activities in Departmental Farms

The concept of fodder slip propagation has been popularized among the farmers due to the insistent efforts of the department for past several decades resulted in the promotion of the production and supply / exchange of quality fodder slips among the farmers themselves. Further, to demonstrate the way of preservation cum conservation methods to the farmers, a baler unit were established in District Livestock Farm, Chettinad, Naduvur and ECBF, Eachenkottai to preserve the seasonal surplus fodder and usage during lean period. Around 18731 MT of green fodder were produced in an area of 1440 acres in 12 departmental farms and 16.65 lakh of fodder Slips were distributed

to the needy farmers at subsidised cost during 2023-24.

10.3 Poultry Development

10.3.1 Scheme for Establishing Small Scale Native chicken farm units (250 birds / unit) in Rural Areas

Native Chicken are being reared for agricultural sustainability, economic benefits and cultural heritage.

They play a major role for the rural poor and marginalised section of the people with respect to their subsidiary income and also provide them with nutritious chicken egg and meat for own consumption.

During the year 2022-23, in order to encourage entrepreneurs in Native Chicken rearing, 100 small scale (250 birds / unit) native chicken poultry farming units were established at 50 % subsidy in 10 Districts viz., Ariyalur, Cuddalore, Perambalur, Ramanathapuram,

Sivagangai, Tirunelveli, Tenkasi, Thoothukudi, Theni and Virudhunagar at a total cost of Rs.180 lakh. Following the success of this scheme, 100 small-scale (250 Birds /unit) native chicken poultry farming units were established in the remaining 26 districts (excluding Chennai and Nilgiris) at a cost of Rs. 180 lakh with 50 percent subsidy in 2023-24.

Under this scheme, 50 percent subsidy (Rs.1,50,625) is provided by the State Government for the following components.

- ✓ Construction of poultry shed
- ✓ Purchase of equipment (feed tray and watering tray)
- ✓ Feed cost for 4 months (upto grower stage)

The remaining 50 percent contribution of the scheme will be raised by the beneficiary either through the bank or from his own

resources. 250 numbers of 4-week-old Native chicks are provided at free of cost to each beneficiary from District Livestock Farm, Hosur.

Under this scheme, beneficiaries can earn upto Rs.2.31 lakhs in a year by sale of eggs, chicks, spent hens and cocks.

10.3.2 Native Chicken Breeding Complex and Hatchery Unit at District Livestock Farm, Abhishegapatti

In order to provide good quality native chicken to the farmers in Southern Districts, a Native Chicken Breeding Complex and Hatchery Unit is being established at the District Livestock Farm Abhishegapatti in Tirunelveli District under National Agricultural Development Program with financial assistance from Union and State Governments in the ratio of 60:40 at a total cost of Rs.942.31 lakh.

Through this, every week 10,000 chicks will be hatched out in the farm and every year 5 lakh numbers of day-old Native chicks will be distributed to the farmers.

10.3.3 Native Chicken Breeding Complex, Hatchery and Feed Mill Unit at District Livestock Farm, Chettinad

A Native Chicken Breeding Farm, a Hatchery Unit and a feed mill is being established at the District Livestock Farm, Chettinad in Sivagangai District under State Fund at a total cost of Rs.1381.92 lakh to supply pure germ plasm native chicks to the farmers in Eastern Districts of Tamil Nadu.

Through this, every year 4 lakh numbers of day-old Native chicks and 2000 tonnes of feed will be produced and distributed to farmers in Eastern Districts.

Department's Support in natural disaster

Department of Animal Husbandry played an active role in saving lives of the animals affected in southern cyclonic rain. A fund of Rs.1.00/- crore has been utilized for relief work and rehabilitation of damaged buildings of the Animal Husbandry Department for the districts affected by Michaung cyclone namely Chennai, Kanchipuram, Chengalpattu and Tiruvallur and for the districts of Thoothukudi, Tirunelveli and Tenkasi which were affected by extremely heavy rains. Further, Rs.2537.40 lakh loans has been sanctioned for purchase of Milch cow to 5812 number of farmers in the above districts.

10.4 World Bank Assisted Tamil Nadu Irrigated Agriculture Modernisation Project (TNIAMP)

Animal Husbandry Department is one of the line departments involved in the implementation of World Bank Assisted Tamil Nadu Irrigated

Agricultural Modernization Project. Animal Husbandry activities are being implemented in 47 sub basins covering 34 districts at a total out lay of Rs.38.94 crore over a period of 6 years.

Animal Husbandry activities were carried out in 4 phases like formation of Dairy Interest Groups (DIG), Calf Management, Mastitis Management, fertility-cum-healthcare camps, programmed breeding, artificial insemination at farmers' door step and Fodder Development.

Under the project so far,

- **124 Dairy Interest Groups (DIG)** consisting 3100 farmers have been formed.
- **33,600 female calves** have been dewormed.
- **33,600 female calves** have been provided with Mineralized salt licks.
- **53,274 cows** have been covered for mastitis.

- **5,376 fertility-cum-healthcare camps** have been conducted.
- **53,760 cows** have been covered under programmed breeding.
- **9,39,961 Artificial Insemination** have been performed at the farmers' doorstep.
- **5,926 ha.** have been brought under fodder cultivation.

By the above activities, 3.08 lakh farmers have been benefitted and 1.64 lakh high merit heifer calves were born. Further, the above intervention has resulted in an additional increase of 6.48 Lakh Litres per Day (LLD) in the project area.

During 2024-25, it is proposed to carried out Animal Husbandry activities at a cost of Rs.2.24 crore.

10.5 Establishment of Advanced Institute for Integrated Research on Livestock and Animal Sciences (AIIRLIVAS)

An Advanced Institute for Integrated Research on Livestock and Animal Sciences (AIIRLIVAS) is being established at Thalaivasal Koot Road, Salem District in 1102.25 acres, at a cost of Rs.564.44 crore.

10.5.1 Objectives

- Establishment of livestock and poultry farms on proven scientific technologies to be adopted by the farmers.
- Creation of opportunities to students and researchers to undertake research based on the actual field demands and find suitable remedial measures.
- Skill upgradation among farmers, field veterinarians and other stakeholders in the sector.

- To create a platform for nurture entrepreneurs / start-ups, technology holders, innovators and facilitate necessary forward and backward linkages for livestock enterprises.
- Establishment of an Advanced Centre of Excellence for Livestock and Animal Sciences.

AIIRLIVAS is proposed to become a world-reputed organisation with education, skill development and promotion of entrepreneurship for veterinary sector expansion under one umbrella. To carry out these activities, the following facilities are created:

1. Livestock Farm Complex comprising indigenous cattle unit, sheep and goat unit, piggery unit, native dogs unit, animal quarantine and isolation facilities, farm

veterinary hospital, clinical lab and poultry units.

2. Fisheries Demonstration Complex

comprising intensive fish seed rearing unit with aeration facility, Aquaponics unit, ornamental fishery unit and modern fish kiosk.

3. Post Graduate Education Complex

comprising administrative block, academic block, laboratories, faculty rooms, hostels and staff quarters.

4. Extension and Skill Development Complex

comprising skill development and training centre, instrumentation and fabrication centre, model livestock units, integrated farming systems and hostels for students and farmers.

5. Research Complex

comprising livestock breeding and technology unit and research units.

6. Business Incubation and Seamless Integration Complex comprising business incubation centre and centre for seamless integration.

7. Meat Production and Processing Complex comprising separate slaughter and processing facilities for sheep and goat, poultry and pigs.

8. Forage Research Zone with demarcated areas for irrigated fodder, dry fodder, silage, silvi-pasture and fodder seed production.

In the first phase, 25 acres of land has been cultivated with Co.FS.29 fodder crop and distributed to District Livestock Farm Udhagamandalam.

9. Public Interaction Zone comprising children's park, amphitheatre, interpretation centre with AR/VR facilities, car park, marketing facilities for livestock products, farm inputs, fodder inputs and farm

equipment, food court and rest rooms, bank branch and ATM.

All the following civil works are created by the Project implementing departments/Line departments

1. Public works Development

a) Skill Development Complex b) Research Complex c) Business Incubation and Seamless Integration Complex d) Meat Production and Processing Complex e) PG Education Complex and Poultry units of Livestock Farm Complex f) Iconic structures such as Administrative Building, Public Interaction Zone, VIP guest house and entrance arch, in which civil works completed. Common facilities work and High/medium voltage Electrical installation work is under progress.

2. Tamil Nadu Veterinary and Animal Science University (TANUVAS)

a) Indigenous Cattle unit b) Sheep and Goat unit) Native dog breeding unit d) Animal Quarantine facility, e) Isolation facility f) Farm veterinary hospital g) Clinical laboratory h) Piggery unit i) Poultry units (Hatchery & Feed mill) of Livestock Farm Complex. Construction of Instrumentation & Fabrication centre, Integrated livestock farms, Model livestock units of Skill Development Centre are taken up and civil works completed and electrical works under progress.

3. Tamil Nadu General and Distribution Corporation Limited (TANGEDCO) and Tamil Nadu Transmission Corporation Limited

Commissioning of 110/22 Kv Sub-Station work in 7.52 acres was completed through TANGEDCO.

4. Agricultural Engineering Department:

a) First phase of Micro-Irrigation work completed in the Western Block (WB 6) with plastic pipes placed for about 16000 meters to irrigate the area for fodder cultivation. b) 389 nos. of rainguns were installed under one pumping station. c) Land Development Work at the Micro-Irrigation installed area by the Agricultural Engineering Department is under progress. d) Rainfed land development area located in the Eastern Block for fodder cultivation is under progress.

5. Tamil Nadu Water Supply and Drainage Board (TWAD):

The following works have been completed in the water supply project:

- Head works at Koodakal
 - Water treatment plant at Chittoor
- 1) Three booster stations –
 - i) Kandarkulamanickam
 - ii) Pallitherupatty

- iii) Kuralnatham
- 2) Ridge sump at Kamalapatty
- 3) Three break Pressure Tanks –
 - i) Eswaramoorthypalayam
 - ii) Kalludachankundru
 - iii) Malliyakarai
- 4) Four master service reservoirs – 2 Nos of 25 LL capacity and 2 Nos of 10 LL capacity within AIIRLIVAS premises

Surface water will be drawn from River Cauvery at Koodakal village of Salem District and supplied to the project through pipelines extending 156 kms passing through the above facilities. Supply of water has commenced from 01.02.2022.

6. Department of Fisheries and TNJFU

- a) Intensive Fish Seed rearing unit with aeration facility is implemented by the department of fisheries.

- b) Aquaponics and ornamental fish culture units is implemented by the Tamilnadu Jayalalitha Fisheries University.

11. VETERINARY INFRASTRUCTURE

Veterinary institutions have evolved from merely offering treatment for sick livestock to serving as knowledge resource and extension centers. Farmers can access any of these veterinary institutions within their vicinity to obtain the required services. Consequently, it is crucial that all these institutions are equipped with the necessary infrastructure. With rural development as the ultimate goal, the Department's infrastructure is being developed with assistance from the NABARD Rural Infrastructure Development Fund (RIDF XXV,XXVII,XXVIII), NADP, the Establishment and Strengthening of Veterinary Hospitals and Dispensaries (ESVHD), and state funds.

Table 9: Scheme-wise fund allocation for Infrastructure Development

S. No	Name of the Scheme	No. of Buildings	Total Allocation (Rs. in crore)
1	State Fund	35	62.82
2	ESVHD	256	25.51
3	NADP	100	28.66
4	NABARD XXV (2019-2020)	102	43.30
5	NABARD XXVII (2021-2022)	88	57.46
6	NABARD XXVIII (2022-2023)	37	25.00
Total		618	242.75

The Hon'ble Chief Minister of Tamil Nadu on 27.02.2024 inaugurated Saidapet Veterinary Poly clinic constructed at a cost of Rs.3.00 crore and inaugurated the office buildings of the Joint

Director, Assistant Director , Animal Disease Intelligence Unit and Veterinary Dispensary building , which was completed at a cost of Rs. 11.14 crore.

Orders have been issued to construct new buildings for 25 veterinary institutions under the NABARD RIDFXXIX assistance at a total cost of Rs.16.30 crore.

A sum of Rs. 20.00 crore has been sanctioned for strengthening the diagnostic infrastructure of the 50 Veterinary Institutions by providing Portable Ultrasound Scanners and X-Ray units.

12. LIVESTOCK CENSUS AND INTEGRATED SAMPLE SURVEY

12.1 Livestock Census

Livestock census is conducted across the country once in every five years and it encompasses several activities to be carried out within the stipulated time frame. The first livestock census was conducted during the year 1919-20. The latest 20th Livestock Census was conducted during the year 2019. The livestock census is 100% funded by the Union Government. 21th Livestock Census will be conducted during the year 2024-25.

Table 10: Species wise Livestock and Poultry Population All India and Tamil Nadu as per 20th Livestock census

S. No	Species	20 th Livestock census of All India	20 th Livestock census of Tamil Nadu
1	Exotic/Crossbred Cattle	51356405	7724719
	Indigenous/Non-descript Cattle	142106466	1793941
	Total Cattle	193462871	9518660

S. No	Species	20 th Livestock census of All India	20 th Livestock census of Tamil Nadu
2	Buffaloes	109851678	518795
3	Mithuns	386305	0
4	Yaks	57570	0
	Total Bovine	303758424	10037455
5	Exotic/Crossbred Sheep	4088133	277650
	Indigenous sheep	70172482	4222841
	Total Sheep	74260615	4500491
6	Goats	148884786	9888746
7	Horses and Ponies	342226	5417
8	Donkeys	123587	1428
9	Mules	84261	305
10	Camels	251956	7
11	Exotic/Crossbred Pigs	1896944	17106
	Indigenous Pigs	7158544	49666
	Total Pig	9055488	66772
	Total livestock	536761343	24500621
12	Dogs	9434039	1296655
13	Rabbits	549941	26513
14	Total Poultry Birds in Backyard Poultry	317073357	21264570
	Farm Poultry	534736574	99516530
	Total Poultry	851809931	120781100

As per the 20th Livestock Census, Tamil Nadu ranks 1st in Poultry, 4th in Sheep, 7th in Goats, 13th in Cattle and 14th in Buffalo population in the country.

12.2 Integrated Sample Survey (ISS) Scheme

Annual Sample Surveys are being conducted under the Centrally Shared 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 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 11: SEASONWISE SURVEY OF ESTIMATED MAJOR LIVESTOCK PRODUCTS 2022-23

Item	Summer (March to June)	Rainy (July to October)	Winter (November to February)	Total 2022-23
Milk (Lakh Metric Tonnes)	33.70	34.96	34.51	103.17
Egg (Million Nos.)	6891.3 8	7212.91	7456.37	21560.6 6
Meat (Thousan d Tonnes)	237.77	230.11	236.50	704.38

13. JALLIKATTU - THE TRADITIONAL AND CULTURAL IDENTITY OF TAMIL NADU

Jallikattu, a 5,000-year-old traditional event of rural people of Tamil Nadu, has a history associated with the socio-cultural ethos of Tamil Nadu.

Every year Jallikattu / Manjuvirattu / Vadamadu / Erudu vidum Vizha events are notified in the State Gazette from January till May as per the Prevention of Cruelty to Animals (Tamil Nadu Amendment) Act 2017. These events are to be conducted as per the Tamil Nadu Prevention of Cruelty to Animals (Conduct of Jallikattu), Rules 2017.

Suitable Standard Operating Procedure (SOP) exclusively for the conduct of Jallikattu /Manjuvirattu /Vadamadu/Erudu vidum Vizha events have been framed by the Government and the district administrations have been instructed to ensure the conduct of the event as

per SOP, so that the bulls are not subjected to unnecessary pain and suffering during the events. Since 2017, an average of 350 events of Jallikattu /Manjuvirattu /Vadamadu/Erudu vidum Vizha are notified every year.

During this year, an online Web Portal (www.jallikattu.tn.gov.in) for identification and registration of Jallikattu / Manjuvirattu / Vadamadu / Erudu Vidum Vizha bulls across the State has been newly developed and launched. The applications were submitted by the organisers for conduct of the Jallikattu / Manjuvirattu / Vadamadu / Erudu Vidum Vizha events through the portal and processed based on the recommendations of the concerned District Collectors. 214 events have been conducted from January to May 2024, out of which 197 events were processed through the portal and 17 events were processed offline.

14. ANIMAL WELFARE MEASURES

14.1 Activities of Tamil Nadu Animal Welfare Board (TNAWB)

Article 51(A)(g) of the Constitution of India emphasizes the importance of treating animals with compassion and in a humane manner. This constitutional provision underscores the moral and ethical responsibility of society towards animals and reflects the recognition of their intrinsic value and welfare.

The Government of Tamil Nadu has taken steps to reconstitute the Animal Welfare Board of Tamil Nadu to address animal welfare issues in the state. By doing so, the government demonstrates its commitment to upholding the constitutional directive of treating animals with compassion and ensuring their welfare.

The Hon'ble Chief Minister as the Chairman and the Hon'ble Minister of Fisheries-Fishermen Welfare and Animal Husbandry as the

Vice-Chairman of the Tamil Nadu Animal Welfare Board. Their leadership can provide the necessary direction and support to ensure that the board effectively addresses the various issues concerning animal welfare in the state.

Additionally, the Chief Secretary, Principal Secretaries of concerned Departments, Commissioners / Directors of concerned Departments, Registrars, and Honorary Members further strengthens the board's composition. The Tamil Nadu Animal Welfare Board is well-positioned to formulate and implement policies, initiatives and programs that promote the well-being and protection of animals across the state.

During the year 2023-24, Rs.9.59 crore was sanctioned for strengthening of Tamil Nadu Animal Welfare Board and establishment of Animal Birth Control facilities in the state.

During the Budget announcement for the year 2024-25, Rs.11.115 crore has been earmarked.

14.1.1 Vallalar Palluyir Kappagangal

The announcement of the "Vallalar Palluyir Kaapagangal" scheme in the 2022-23 budget speech reflects a commendable initiative by the government to commemorate the 200th birth anniversary of Saint Vallalar, known for his profound compassion towards all living beings. The scheme's focus on supporting Non-Governmental Organizations (NGOs) that care for abandoned, injured pet animals, and strays aligns with Vallalar's philosophy of universal compassion and empathy "Whenever I see a wilted plant, I too wilt".

With an allocation of Rs. 20.00 crore for the year 2022-23. This funding can significantly enhance the capacity of NGOs to provide shelter, medical treatment and rehabilitation for

vulnerable animals, thereby alleviating their suffering and promoting their well-being.

The following activities are proposed to be financially supported:

- 1) Feeding and medical treatment for abandoned, sheltered, injured pet and stray animals.
- 2) Providing ambulance to Society for the Prevention of Cruelty to Animals (SPCAs) / AWOs / NGOs to ensure that emergency Veterinary care is provided at all times for the animals in distress.
- 3) Providing infrastructure including provision of shelters on scientific basis in the name of 'Vallalar Palluyir Kaapagangal'.
- 4) Animal Birth Control (ABC) and Immunization Program for stray and pet dogs and cats.

Under Vallalar Palluyir Kaapagangal Rs.6.18 Crore has been released to 29 Animal Welfare Organizations / NGOs for provision of food, medical facility, ambulance and infrastructure.

For the year 2024-25, Rs.15.00 crore has been provided for implementation of Vallalar Palluyir Kapagangal scheme.

14.2 Society for Prevention of Cruelty to Animals

The establishment and regulation of SPCA in all districts is notified by the Ministry of Social Justice and Empowerment No. S.O.271 (E) dated 26.03.2001 in the Gazette of India, under section 38, sub-section 1 of PCA Act 1960 (59 of 1960).

District Societies for the Prevention of Cruelty to Animals (SPCAs) play a crucial role in safeguarding the rights, freedom, and welfare of animals within their respective jurisdictions. Under the leadership of the District Collector, these organizations are tasked with several key responsibilities aimed at promoting animal welfare and preventing cruelty.

The activities of District SPCAs are overseen and monitored by the District Management Committee, which helps to coordinate efforts, allocate resources, and evaluate the effectiveness of animal welfare initiatives within the district. Through collaborative efforts and proactive measures, District SPCAs strive to create a more compassionate and responsible community that values and protects the well-being of all animals.

- Ensuring Animal Rights and Welfare
- Addressing Animal Cruelty
- Formulating By-laws and Guidelines
- Setting up and Monitoring of Infirmaries and Animal Shelters

14.3 Animal Birth Control Programme

This programme is being implemented to prevent the indiscriminate breeding of stray dogs and reduce incidence of Rabies. The Union Government has formulated the Animal Birth

Control Rules (2023) to control the stray dog population by the Corporations, Municipalities and local bodies.

Under this programme, stray dogs are caught in a humane manner, sterilized, vaccinated against rabies and released in the same place from where they were caught.

The scheme will be implemented by all Corporations, Municipalities and local bodies after receiving Project Recognition Certificate from Animal Welfare Board of India.

During the Budget announcement for the year 2024-25, Rs.20.00 crore has been earmarked to strengthen animal sterilization project and to ensure effective operation of animal birth control centres across Tamil Nadu.

14.4 Pet Shop Registration

As per the Union Government Ministry of Environment, Forest and Climate Change, under notification G.S.R.844 (E) dated 06.09.2018 and Prevention of Cruelty to Animals (Pet Shop) Rules 2018, regulating pet shops is an essential

step towards ensuring the welfare and well-being of animals sold and kept as pets. Without regulations, there is a risk of exploitation, neglect, and mistreatment of animals in these establishments.

The registration process, which involves submitting an application and affidavit along with a non-refundable fee of Rs. 5000, serves as a mechanism for monitoring and regulating the operations of these establishments.

By reaching out through press releases and raising awareness about the registration process, TNAWB is ensuring that pet shop owners understand their obligations and responsibilities towards animal welfare. Till date, 450 pet shops have already registered demonstrates a positive response from the pet shop community.

15. TAMIL NADU LIVESTOCK DEVELOPMENT AGENCY (TNLDA)

Tamil Nadu Livestock Development Agency was established in 2002 to implement Cattle and Buffalo breeding programme to increase the production of milk and productivity.

15.1 Objectives of the Agency

The Primary Objective of the Agency is to increase the milk production and productivity of the animals by bringing all the breedable female cattle and buffaloes under defined breeding.

15.2 Implementation Plans

Tamil Nadu Livestock Development Agency is implementing Rashtriya Gokul Mission and National Livestock Mission programmes.

15.3 Activities under Rashtriya Gokul Mission

Special efforts were made to seek more funding under RGM which is 100% funded by the

Union Government with continuous follow up. The release of funds was increased from Rs.33.47 crores in 2022-23 to Rs.109.96 crore in 2023-24, i.e. almost tripled.

15.3.1 Frozen Semen Production Stations

The strengthening of the semen production facility at the District Livestock Farm, Hosur by construction of a new semen processing facility has been taken up at a cost of Rs.9.75 crore. The strengthening of the District Livestock Farm, Udhagamandalam by construction of a new collection yard, frozen semen distribution centre, bull washing and waiting area, glass ware sterilisation room and construction of retention wall for the collection yard, special repairs to the buildings and providing bio-security fencing for the Frozen Semen Production Station at a total cost of Rs.6.00 crore has been taken up.

15.3.2 High Genetic Merit Bulls

Under the Rashtriya Gokul Mission, 32 Crossbred Jersey High Genetic Merit Bulls were allotted and lifted for District Livestock Farm, Hosur, 46 Crossbred Jersey and 5 Sahiwal High Genetic Merit Bulls were allotted and lifted for Exotic Cattle Breeding Farm, Eachenkottai, 17 Crossbred Holstein Friesian and 9 Crossbred Jersey High Genetic Merit Bulls were allotted and lifted for District Livestock Farm, Udthagamandalam.

Under the Crossbred Jersey Field Performance Recording programme 5 crossbred Jersey male calves were lifted for District Livestock Farm, Hosur, 20 Crossbred Jersey male calves were lifted for Exotic Cattle Breeding Farm, Eachenkottai, and 12 Crossbred Jersey male calves were lifted for District Livestock Farm, Udthagamandalam.

15.3.3 Frozen Semen and Liquid Nitrogen Storage and Distribution

The strengthening of civil structures for the frozen semen and liquid nitrogen storage and distribution has been taken up with a total outlay of Rs.3.50 crore at the Cattle Breeding and Fodder Development Units at Erode, Karur, Madurai, Thanjavur, Thoothukudi, Tirunelveli and Villupuram.

15.3.4 Development and Conservation of Indigenous Breeds

Construction of 3 cowsheds, one milch cow shed, procurement of agriculture machinery and equipment for the conservation of Umbalachery breed at the Livestock Farm, Korkai, Thiruvarur has been taken up at a cost of Rs.2.14 crore.

15.3.5 Training centre

The strengthening of the training centre for the personnel at the District Livestock Farm,

Naduvur has been taken up at an estimated cost of Rs.50.00 lakh.

15.3.6 Man power Development

Thirteen veterinarians working in the farms of the Department were given training on Fertility problems in female bovines at the training centre of Kerala Livestock Development Board, Mattupatty.

Seven veterinarians working in the frozen semen production facilities of the Department were also given training on modern trends in cryopreservation of bovine semen at the training centre of Kerala Livestock Development Board, Mattupatty.

Two hundred Livestock Inspectors have been given refresher training on Artificial Insemination at the training Centres of District Livestock Farm, Hosur and Naduvur.

15.3.7 Sex Sorted Semen production facility

A sex sorted semen production facility has been established at the District Livestock Farm, Udthagamandalam to produce 7.20 lakh sex sorted semen doses over a period of three years with a total outlay of Rs.47.50 crore. A total of 3,09,735 doses have been produced and the programme of Artificial Insemination with sex sorted semen doses is being implemented in the districts of Coimbatore, Erode, Kanyakumari, Krishnagiri, Madurai, Namakkal, Perambalur, Ranipet, Thanjavur, The Nilgiris, Thiruchirapalli, Tirunelveli, Thirupathur, Thoothukudi and Vellore. A total of 6766 Artificial Inseminations with sex sorted semen doses has been reported.

15.3.8 Invitro fertilisation and Embryo Transfer technology

In-Vitro Fertilization and Embryo Transfer programmes have been started at the District Livestock Farm, Hosur, Krishnagiri District at a

cost of Rs.4.55 crore. An invitro fertilization laboratory has been established. A total of 83 calves (Red Sindhi - 66, Kangeyam-14 and Pulikulam -3) have been produced.

Under invitro fertilisation programme, 81 embryos had been produced, 61 embryos have been transferred and 11 pregnancies have been reported.

15.3.9 Nationwide Artificial Insemination Programme (NAIP)

The Nationwide Artificial Insemination Programme is being implemented with an aim of providing Artificial Insemination services to all breedable females of reproductive age at the farmer's doorstep, in 13 districts namely Thiruvannamalai, Virudhunagar, Villupuram, Chennai, Cuddalore, Kanchipuram, Nagapattinam, Pudukottai, Ramanathapuram, Sivagangai, Salem, Nilgiris and Thiruvallur.

The fourth phase of the scheme is being implemented. Under this scheme, so far, 18.13

lakh animals of 12.96 lakh beneficiaries have been covered through 26.46 lakh Artificial Inseminations.

15.3.10 Fertility camps

Organising of 388 fertility camps by the Department of Animal Husbandry at an estimated cost of Rs.38.00 lakh has been taken up.

15.4 Activities under National Livestock Mission

15.4.1 Entrepreneurial Development Programme

The scheme is implemented Under Realigned National Livestock Mission, for Entrepreneurship Development under following activities.

- Establishment of Entrepreneurs for breed development of Rural Poultry

- Establishment of Entrepreneur for breed development in small ruminant sector (sheep and goat farming):
- Promotion of Piggery Entrepreneur
- Entrepreneurial activities in feed and fodder

15.4.1.1 Eligible entities

Individuals / Self Help Group (SHG)/Farmers Producer Organizations (FPO)/Farmers Cooperatives (FCOs)/Joint Liability Groups (JLGs) and Section 8 companies are eligible under the programme.

15.4.1.2 Subsidies under the programme

50% of the capital expenditure of the project or maximum as applicable, whichever is less

- Rural Poultry farm of 1100 birds with rural hatchery is eligible for a subsidy of Rs.25.00 lakh

- Sheep and goat farm with unit size of 105 to 525 goats / sheep is eligible for subsidy of Rs.10.00 lakh to Rs.50.00 lakh
- Piggery enterprise of size 55 to 110 pigs is eligible for subsidy of Rs.15 lakh to Rs.30 lakh
- Hay / Silage making units with 2000 to 2400 metric tonnes per year / Total Mixed Ration (TMR) / Fodder Block making units with 30 metric tonnes per day capacity are eligible for a subsidy of Rs.50.00 lakh.

Under the programme, Government of India has approved sixty applications with total project cost of Rs.48.03 crores and a subsidy of Rs.21.22 crores. Out of this a sum of Rs. 1.65 crore has been released as first instalment of subsidy to the entrepreneurs.

16. TAMIL NADU VETERINARY AND ANIMAL SCIENCES UNIVERSITY (TANUVAS)

Tamil Nadu is a pioneering state in providing quality health care to animals. With the purpose of providing cutting-edge veterinary care for animals, Asia's First Veterinary University was founded in 1989 by the then Honourable Chief Minister of Tamil Nadu, Kalaingar Dr. M. Karunanidhi, the Champion of Farmers and Public Welfare. With the following goals, TANUVAS has been a frontrunner in veterinary clinical sciences and has remained a national leader in veterinary education and research:

- To impart education in different branches of Veterinary and Animal Sciences as the university may determine;

- To further the advancement of learning and prosecution of research in Veterinary and Animal Sciences; and
- To undertake the extension of such sciences to the rural people in co-operation with the government departments concerned

16.1 Units of TANUVAS

16.1.1 Constituent colleges of TANUVAS

Sl. No.	Colleges	Admission Strength
1.	Madras Veterinary College, Chennai (B.V.Sc & AH)	120
2.	Veterinary College and Research Institute, Namakkal (B.V.Sc & AH)	100
3.	Veterinary College and Research Institute, Orathanadu (B.V.Sc & AH)	100
4.	Veterinary College and Research Institute, Tirunelveli (B.V.Sc & AH)	100
5.	Veterinary College and Research Institute, Salem (B.V.Sc & AH)	80

Sl. No.	Colleges	Admission Strength
6.	Veterinary College and Research Institute, Theni (B.V.Sc & AH)	80
7.	Veterinary College and Research Institute, Udumalpet (B.V.Sc & AH)	80
8.	College of Food and Dairy Technology, Koduveli (B.Tech)	60
9.	College of Poultry Production and Management, Hosur (B.Tech)	40
	Total	760

**16.1.2 Peripheral Research Stations,
Laboratories and Centres
of TANUVAS**

Sl. No.	District	Research Stations / Laboratories / Centres
1.	Chennai	<ul style="list-style-type: none"> ➤ Poultry Research Station, Madhavaram ➤ Livestock Farm Complex, Madhavaram ➤ Central University Laboratory, Madhavaram ➤ Viral Vaccine Research Centre, Madhavaram ➤ Bacterial Vaccine Research Centre, Madhavaram ➤ Zoonoses Research Laboratory, Madhavaram

Sl. No.	District	Research Stations / Laboratories / Centres
		<ul style="list-style-type: none"> ➤ Laboratory Animal Medicine, Madhavaram ➤ Pharmacovigilance Laboratory for Animal Feed and Food Safety, Madhavaram ➤ Translational Research Platform for Veterinary Biologicals, Madhavaram ➤ Biosafety Level III Laboratory, Madhavaram ➤ Centralised Clinical Laboratory, Vepery ➤ Centralized Instrumentation Laboratory, Vepery ➤ Centre for Stem Cell Research and

Sl. No.	District	Research Stations / Laboratories / Centres
		Regenerative Medicine, Vepery
2.	Chengalpattu	<ul style="list-style-type: none"> ➤ Post graduate Research Institute in Animal Sciences, Kattupakkam ➤ Institute of Animal Nutrition, Kattupakkam ➤ Central Feed Technology Unit, Kattupakkam ➤ Krishi Vigyan Kendra, Kattupakkam ➤ Veterinary University Training and Research Centre, Melmaruvathur
3.	Kancheepuram	<ul style="list-style-type: none"> ➤ Farmers Training Centre

Sl. No.	District	Research Stations / Laboratories / Centres
4.	Dharmapuri	<ul style="list-style-type: none"> ➤ Alambadi Cattle Breed Research Centre ➤ Veterinary University Training and Research Centre ➤ Tiruchy Black Sheep Research Centre
5.	Villupuram	<ul style="list-style-type: none"> ➤ Veterinary University Training and Research Centre
6.	Salem	<ul style="list-style-type: none"> ➤ Mecheri Sheep Research Station, Pottaneri ➤ Veterinary University Training and Research Centre ➤ Avian Disease Laboratory, Thalaivasal

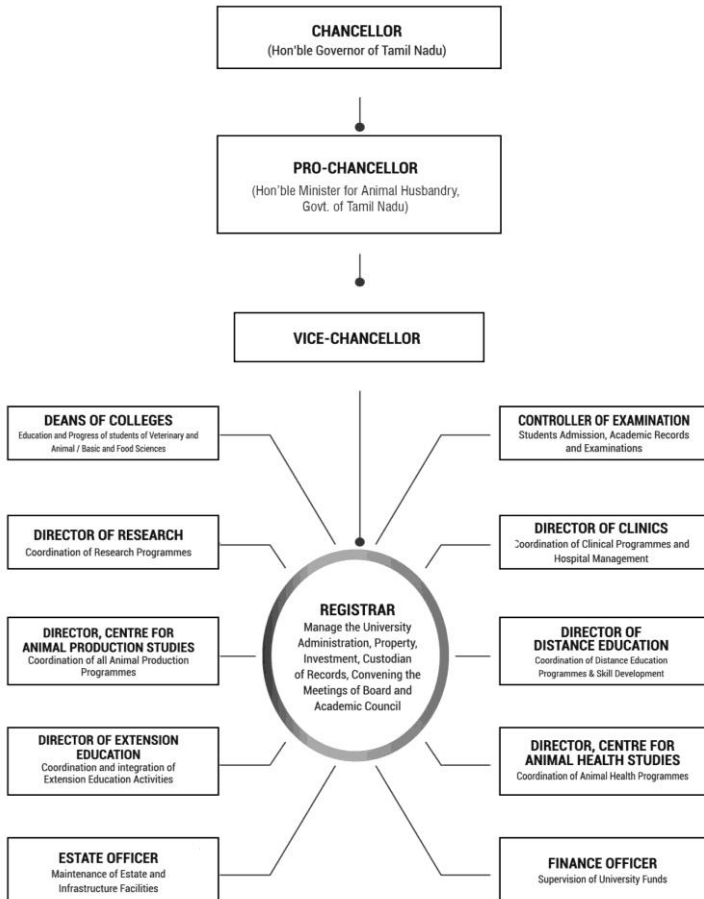
Sl. No.	District	Research Stations / Laboratories / Centres
7.	Erode	<ul style="list-style-type: none"> ➤ Bargur Cattle Research Station, Bargur ➤ Kangayam Cattle Research Station, Erode ➤ Veterinary University Training and Research Centre
8.	Nilgiris	<ul style="list-style-type: none"> ➤ Sheep Breeding Research Station, Sandynallah
9.	Namakkal	<ul style="list-style-type: none"> ➤ Poultry Disease Diagnostic and Surveillance Laboratory ➤ Animal Feed Analytical and Quality Assurance Laboratory ➤ Ethnoveterinary

Sl. No.	District	Research Stations / Laboratories / Centres
		Herbal Research Centre for Poultry ➤ Krishi Vigyan Kendra
10.	Sivagangai	➤ Pulikulam Cattle Research Station, Manamadurai ➤ Krishi Vigyan Kendra, Kundrakudi
11.	Pudukottai	➤ Regional Research and Education Centre
12.	Madurai	➤ Veterinary University Training and Diagnostic Centre
13.	Kallakurichi	➤ Krishi Vigyan Kendra
14.	Theni	➤ Farmers Training Centre
15.	Tiruvarur	
16.	Ramanathapuram	➤ Veterinary University Training
17.	Kanyakumari	

Sl. No.	District	Research Stations / Laboratories / Centres
18.	Vellore	and Research Centres
19.	Thiruvannamalai	
20.	Krishnagiri	
21.	Cuddalore	
22.	Perambalur	
23.	Tiruppur	
24.	Coimbatore	
25.	Thanjavur	
26.	Nagapattinam	
27.	Dindigul	
28.	Tiruchirappalli	
29.	Virudhunagar	
30.	Tenkasi	<ul style="list-style-type: none"> ➤ Goat Research Centre ➤ Regional Centre for Conservation of Native Dogs
31.	Karur	<ul style="list-style-type: none"> ➤ Veterinary University Training and Research Centre

Sl. No.	District	Research Stations / Laboratories / Centres
		➤ Backyard Poultry Research Centre

16.1.3 Organogram



16.2 Education

The various degree and diploma courses offered by the University with admission strength are detailed below:

Degree and Diploma Courses	Admission strength
Bachelor of Veterinary Science and Animal Husbandry	660
Bachelor of Technology (Food Technology)	40
Bachelor of Technology (Poultry Technology)	40
Bachelor of Technology (Dairy Technology)	20
Master of Veterinary Science	160
Master of Technology (Food Technology)	10
Master of Technology (Poultry Technology)	3
Master of Technology (Dairy Technology)	3

Degree and Diploma Courses	Admission strength
Master of Technology (Dairy Chemistry)	3
Master of Science (Biotechnology)	3
Doctor of Philosophy (Veterinary)	88
Doctor of Philosophy (Biotechnology)	3
Doctor of Philosophy (Food Technology)	5
Post Graduate Diploma – Regular mode (4 disciplines)	14
Post Graduate Diploma – Distance mode (22 courses)	240

16.3 Important events of TANUVAS during 2023

- “Buffalo Mela - 2023” and Two-day Workshop on “Dairypreneurship and Scientific Rearing of buffaloes for Rural Women” in collaboration with Central Cattle

Breeding farm, Alamathy was celebrated at College of Food and Dairy Technology, Koduveli on 14.06.2023 and 15.06.2023 benefitting 100 farmers.

- Veterinary Teaching Hospital Information and Management System (VeTHIMS) for digitization of clinical activities in all the TANUVAS hospitals.
- International Conference on “Global perspectives in ethnoveterinary herbal research for production of residue free animal products and first annual convention of Indian society of ethnoveterinary herbal research” was conducted from 19.07.2023 to 21.07.2023 at Veterinary College and Research Institute, Orathanadu benefitting 174 delegates including foreign experts.
- TANUVAS GRAND supplement production unit established under National Agricultural Development Programme has been inaugurated.

- The newly constructed Seed Processing Unit and Bunker Silo Unit at Livestock Farm Complex, building for Warden's Office at VC&RI, Namakkal was inaugurated by the Vice-Chancellor, TANUVAS on 23.08.2023.
- "Regional cattle show" and one day seminar on "Conservation of Malaimadu cattle" was organized at Chinnaovulapuram village, Theni district on 22.09.2023 and was inaugurated by District Collector, Theni district.
- With the assistance from Government of Tamil Nadu, the Goat Research Centre established at Chinnakovilankulam, Sankarankoil Taluk, Tenkasi district was inaugurated by Honourable Minister for Fisheries – Fishermen Welfare and Animal Husbandry, Government of Tamil Nadu on 23.09.2023.
- A one-day sensitization workshop on "Mudhalvarin Mugavari" for University

Officers and Administrative staff of TANUVAS was conducted at Madras Veterinary College on 10.10.2023 and Veterinary College and Research Institute, Tirunelveli on 27.10.2023.

- Under the Government of India funded National Project on Bovine Breeding project on “Tribal community participatory breeding approach of the endangered Toda Buffalo in the Nilgiris hills for its sustainability”, an Annual Cultural Event was conducted on 13.10.2023. During the event, “Best Toda Buffalo Breeder” award was given to ten selected Toda tribes having elite group of Toda buffaloes.
- State level Poultry stakeholders workshop on “Sustainable poultry production through one health poultry approach” was conducted at Veterinary College and Research Institute, Udumalpet on

- 17.10.2023 benefitting 121 poultry farmers, 34 stakeholders and 53 poultry associates.
- On 29.01.2024, foundation Stone was laid by the Honourable Minister for Fisheries, Fishermen Welfare and Animal Husbandry, Government of Tamil Nadu, for the new establishment of TANUVAS Veterinary University Training and Research Centre at Tiruchendur, Thoothukudi district funded by Government of Tamil Nadu.
 - In commemoration of Muthamizh Arignar Kalaignar Dr. M. Karunanidhi Centenary Celebrations, the following activities were undertaken at TANUVAS.
 - ✓ Pulikulam Cattle Research Station, Manamadurai conducted an awareness programme on "TANUVAS technologies to improve the productivity of Livestock" at Kalayarkovil on 23.06.2023 benefitting 130 livestock rearers.

- ✓ "Specialized Veterinary Health Care and Awareness Camp" was jointly organized by Department of Animal Husbandry, Thoothukudi, TANUVAS and Aavin on 27.06.2023 at Sekkarakudi Village, Thoothukudi District. Honourable Minister for Fisheries – Fishermen Welfare and Animal Husbandry inaugurated the camp.
- ✓ Veterinary College and Research Institute, Namakkal along with Department of Animal Husbandry, Namakkal organized Mega Veterinary Health Campaign on 27.06.2023. During the camp, 264 cattle, 3 Buffaloes, 364 goats, 79 dogs, 413 poultry, one horse and rabbit were treated.
- ✓ Veterinary University Training and Research Centre, Tiruchirappalli exhibited the latest techniques / equipments related to livestock / desi chicken farming and different livestock breeds during the

Mega Veterinary Health camp organized by Department of Animal Husbandry and Aavin, Tiruchirappalli on 27.06.2023 at Kalingamudaiyanpatti, Tiruchirappalli.

- ✓ Veterinary College and Research Institute, Theni participated in a special animal health camp conducted by Department of Animal Husbandry and Aavin, Theni on 27.06.2023 at Erasakkanayakanur village. During this event 308 cattle, 415 Goat, 210 Sheep, 436 Poultry and 20 other animals were treated and 157 livestock and poultry farmers benefitted.
- ✓ Veterinary College and Research Institute, Udumalpet, Veterinary University Training and Research Centre, Tiruppur, Aavin and Department of Animal Husbandry, Tiruppur district jointly organized a special Veterinary Health Camp on 27.06.2023 at Andipudur

village, Kundadam, Tiruppur district benefitting 1,535 animals and 222 farmers.

- ✓ A special treatment camp was conducted in Vadugapalayam Pudur, an adopted village of Veterinary University Training and Research Centre, Tiruppur along with the Department of Animal Husbandry, Tiruppur on 28.06.2023 benefitting 47 animals and 30 farmers.
- ✓ One hundred tree saplings were planted in Pulikulam Cattle Research Station, Manamadurai on 18.07.2023.
- ✓ In collaboration with Animal Husbandry Department, Veterinary College and Research Institute, Namakkal organized animal health camp on 21.07.2023. A total of 275 cattle, 15 Buffaloes, 412 goats, 215 sheep, 199 poultry and 86 other species of animals were treated for various health ailments.

- ✓ Veterinary College and Research Institute, Salem organized a Veterinary Health Camp at Varagur Amman Nagar village of Thalaivasal block on 27.07.2023 and 156 animals were treated in the camp.
- ✓ Veterinary College and Research Institute, Tirunelveli, Department of Animal Husbandry and Aavin jointly organized "Veterinary Health and Awareness Camp" at Kakarampatty and Angamangalam villages of Thoothukudi district and Kurumbalaperi of Tenkasi district on 04.09.2023, 22.09.2023 and 23.09.2023 respectively.
- ✓ Tree sapling planting campaign was organized at Sheep Breeding Research Station, Sandynallah on 14.10.2023. More than 100 saplings were planted in the campus.

16.4 Research

The University is accomplished with strong research infrastructure. There are 12 research stations and 15 research laboratories carrying out research in specific areas like animal health, animal production, veterinary biologicals, zoonoses, livestock feed analysis, disease diagnosis and surveillance, ethnoveterinary medicine, pharmacovigilance etc. During the reporting period of 2023-24, TANUVAS has earned 32 projects to the tune of Rs.1,861.94 lakh under competitive mode from the national funding agencies for carrying out research activities at TANUVAS.

16.4.1 Schemes in progress

Government of India has sanctioned two schemes on "Surveillance, molecular characterization and development of vaccine candidate for Porcine parvo virus" and "Technological interventions towards sustainable livelihood for desi and improved pig farmers"

under National Livestock Mission with a total budget outlay of Rs.74.58 lakh for implementation at TANUVAS to control parvo disease in pigs and also to strengthen the livelihood of pig farmers.

Government of India has sanctioned two schemes on “Evaluation of genetic resistance against parasitic infection (*Haemonchus contortus*) in indigenous goat breeds of Tamil Nadu through candidate gene approach” and “Evolving non-forage fibre based Total Mixed Rations (TMR) from agroindustrial by-products to alleviate feed shortage in goats of Tamil Nadu” under National Livestock Mission with a total budget outlay of Rs.212.01 lakh for implementation at TANUVAS to improve the goat farming through scientific interventions.

Further, under Rashtriya Gokul Mission programme, Government of India has sanctioned a scheme on “Managerial and marketing strategies for profitable indigenous

cattle farming” with a budget outlay of Rs.9 lakh for implementation at TANUVAS.

The Government of Tamil Nadu has also sanctioned a scheme on “Fodder conservation and utilization in Tamil Nadu” with the budget out lay of Rs.150 lakh to prevent fodder deficit in drought season and the work is in progress at TANUVAS.

16.5 Technologies

In order to increase the health, production, and other value added aspects of meat and dairy products, TANUVAS is developing technologies. The technologies of TANUVAS ready for commercialization are Curd Strainer Machine, Pet food for Puppy dogs and value added products like Functional Bovine Colostrum Beverage Powder, Microencapsulated carrot powder enriched with ginger flavour, Shelf life extension of coconut sap (Neera) through novel processing techniques, Protein and dietary fibre

enriched functional noodles, Functionally enriched herbal frozen dessert, Protein enriched peanut milk based Misti Doi, Whey based oral rehydration drink with antioxidants, Ready to reconstitute functional milk powder and Fibre enriched Functional kulfi.

16.6 Capacity building programmes

TANUVAS conducted various capacity building programmes for students as well as for faculty members to update their knowledge on the latest advancements in Veterinary, Animal and Food Sciences.

16.6.1 Initiatives for Students

- In coordination with NAARM, Hyderabad, TANUVAS organized a national awareness workshop on “Development of soft skills for entrepreneurship among Vet graduates” on 18.03.2023 at Madras Veterinary College benefitting 99 Veterinary students.

- In collaboration with Tamil Virtual Academy, Chennai, Kani Tamil Peravai was established at Madras Veterinary College to promote computing knowledge in Tamil language amongst the students and faculty on 24.03.2023.
- Thirty Seven students of III year, B. Tech (Food Technology) underwent skill development training programme in bakery products at Central Palmgur and Palm Products Institute, Kadhi and Village Industries Commission, Madhavaram, Chennai from 27.03.2023 to 31.03.2023.
- Skill development training programme for the Final and Pre-Final year of B.Tech (Poultry Technology) students was organized by Rubicon Skill Development Pvt Ltd. at College of Poultry Production and Management, Hosur on 29.03.2023 and 30.03.2023.

- 13th Clinical Case Conference on “Farm and Companion animal practice for veterinary students” was conducted at the Madras Veterinary College, Chennai from 23.08.2023 to 25.08.2023 benefitting 400 students from 15 states.
- To commemorate the International year of Millets-2023, National conference cum workshop on “Millets as a nutritional paradigm in ensuring food security” was organized at College of Food and Dairy Technology, Koduvelli on 14.09.2023 benefitting 600 students.
- Under the ICAR funding scheme on Institutional Development Plan of TANUVAS, skill development training programmes were conducted at the constituent colleges benefitting pre-final and final year undergraduate students.
- Under the ICAR funding scheme on Institutional Development Plan of

TANUVAS, during 2022-23, a total of 28 students from Madras Veterinary College, Chennai, Veterinary College and Research Institute, Namakkal and College of Food and Dairy Technology, Koduveli underwent overseas externship at Oklahoma State University, USA for 4-6 weeks.

16.6.2 Initiatives for Faculty members

- Training programme on “CRISPR/CAS based molecular diagnostic platforms” was held at Translational Research Platform for Veterinary Biologicals from 03.07.2023 to 07.07.2023 benefitting 20 participants from six different states.
- National Conference on Diagnostic Cytology was held on 08.07.2023 and 09.07.2023 at Madras Veterinary College, Chennai benefitting 100 participants from various states of the country.
- In association with World Association for the Advancement of Veterinary

Parasitology, 29th International Conference on “Parasites: Global impacts, local solutions” was organized at Madras Veterinary College, Chennai from 20.08.2023 to 24.08.2023 benefitting 350 delegates from 56 countries.

- Under the ICAR funding scheme on Institutional Development Plan of TANUVAS, during 2022-23, a total of 24 faculty members from TANUVAS have visited various Veterinary Universities in USA, Europe, Australia to gain knowledge on modern teaching and research methods during the year 2023.

16.7 Clinical services

The university is home to a first-rate network of teaching veterinary facilities that provide clinical services for farm and companion animals. A total of 3,02,288 animals were treated during the year 2023. Referral facilities with ultrasonography, endoscopy, electro-

cardiography, orthopaedics, haemodialysis, ophthalmology, dermatology, canine blood bank, etc. are available in the teaching veterinary hospitals. CT scan facility is also available at Madras Veterinary College and Veterinary College and Research Institute, Namakkal.

During the reporting period, 12 training programmes on latest clinical service activities were conducted benefitting 200 veterinarians from the Department of Animal Husbandry and Veterinary Services, Government of Tamil Nadu and private companies. Apart from this, a national conference on Advancement of veterinary clinical practice to global standards was conducted benefitting 150 veterinarians.

16.8 Extension Activities

By carrying out capacity building programmes, frontline demonstrations and on-farm trials, university outreach efforts are aimed at equipping farmers, farm women, rural youth, school dropouts and self-help groups with

scientific livestock and poultry farming methods for their livelihood. The innovations created by TANUVAS for livestock and poultry were also promoted through print, electronic, and e-Extension activities.

During 2023, a total of 4,118 trainings benefitting 53,605 farmers, and 60,774 advisory services were given to farmers by this University through its various outreach units in the districts besides offering inputs for livestock farm activities. Some of the important events organised for the farming community during 2023 are:

- With the assistance from National Livestock Mission, Government of India, hands on training entitled "Preparation of distillers grain based extruded feed for dairy cattle through advanced techniques" was organized for 80 farmers at Institute of Animal Nutrition, Kattupakkam during the reporting period.

- With the assistance from NABARD, District Level Farmers Workshop on "Augmenting Milk Production through scientific balanced feeding technique among rural dairy farmers" was organized at Veterinary University Training and Research Centre, Vellore and released a mobile app on "TANUVAS Samacheer Theevanam" on 12.05.2023 benefitting 120 dairy farmers.
- In co-ordination with Vazhnthu Kattuvom Project, TANUVAS conducted a sponsored Training of Trainers Programme on "Profitable dairy farming" at Veterinary College and Research Institute, Tirunelveli from 24.05.2023 to 26.05.2023 for 36 trainers.
- With the assistance from Tamil Nadu State Council for Science and Technology, a state level training programme on "Dissemination of proven technologies to augment sheep and goat production for

doubling the farmer's income" was organized at Veterinary College and Research Institute, Namakkal from 08.08.2023 to 10.08.2023 benefitting 52 sheep and goat farmers.

- Under National Agriculture Development Programme, training programme on "Technologies for green fodder and fodder seed production" was conducted at Veterinary University Training and Research Centre, Salem on 07.08.2023 to 11.08.2023 and at Veterinary College and Research Institute, Namakkal from 21.08.2023 to 25.08.2023 benefitting 35 farmers with fodder seeds.
- A workshop cum demonstration on "Scientific rearing of backyard poultry" was organized at Veterinary University Training and Research Centre, Ramanathapuram on 24.08.2023 benefitting 30 farmers.

- With the assistance from Tamil Nadu Rural Transformation Project, training programmes on “Desi chicken rearing” at Veterinary University Training and Research Centre, Tiruchirapalli and “Goat rearing and management training for farmers of Pudukottai district” at TANUVAS-Regional Research and Educational Centre, Pudukottai were conducted benefitting 72 poultry farmers with inputs.
- In commemoration of International Year of Millets-2023, special camps on “Minor millets production and value addition” was conducted by Krishi Vigyan Kendra, Villupuram II at Cithalapatnam and Soolankurichi villages of Kallakurichi district on 12.10.2023 and 26.10.2023 respectively benefitting 131 farm women.
- Training programme on “Provisions of the protection of plant varieties and farmers

right Act, 2001” was conducted at Krishi Vigyan Kendra, Namakkal on 26.10.2023.

16.8.1 Distance Education courses

The Directorate of Distance Education is offering 22 Postgraduate diploma courses for the veterinarians to update their knowledge and skills on latest technologies in animal husbandry and veterinary sciences. In addition, 10 skill development and 10 self-employment courses in animal husbandry sector are being offered to the farmers and rural youth to boost livestock and poultry production thereby enhancing the rural income.

During the year 2023-24, 93 students enrolled for 18 Postgraduate diploma courses, 11 persons for three skill development courses and 343 farmers and unemployed youths for seven self-employment courses offered through distance education mode.

16.9 Awards / recognitions

- Tamil Nadu Veterinary and Animal Sciences University ranked 12th among all the Agricultural Universities of the country in the NIRF-ranking list 2023.
- Tamil Nadu Veterinary and Animal Sciences University participated in the Conclave of Excellence in Higher Education of Tamil Nadu at Raj Bhavan held on 26.07.2023. Honourable Governor-Chancellor felicitated TANUVAS for its 12th ranking in NIRF 2023 in Agriculture and Allied Sector.
- The Vice-Chancellor, TANUVAS and The Dean, Veterinary College and Research Institute, Salem have been admitted as Fellow of National Academy of Veterinary Sciences for significant contribution for the advancement of Veterinary Sciences on 1st July 2023.
- Tamil Nadu Scientists Award-2021 has been granted to two Professors from TANUVAS

namely Dr. A.Elango, Dean, Veterinary College and Research Institute, Salem and Dr. R.Rajendran, Professor and Head, Department of Animal Genetics and Breeding, Madras Veterinary College, Chennai by Tamil Nadu State Council for Science and Technology, Chennai.

- Institute of Animal Nutrition, Kattupakkam was presented with the Dr. S.Chinnamani Award for Excellence in Agro-forestry Extension (2021-22) by ICAR for the excellent work carried out under ICAR-Agroforestry Network project.
- College of Food and Dairy Technology (CFDT), Koduveli, TANUVAS certified as Eat Right Campus by the FSSAI, Ministry of Health and Family Welfare, Government of India.
- Thiru Ranjith Kuttan, the Toda farmer (Documented by Sheep Breeding Research Station, Sandynallah, TANUVAS) received

Breed Conservation Award from the National Bureau of Animal Genetic Resources, Karnal on 23.12.2023 for conserving the Endangered Toda Breed of Buffalo.

- Poultry Research Station of TANUVAS has been awarded Second Prize for conservation of Aseel breed of Chicken in the Institution/Community category by National Bureau of Animal Genetic Resources, Karnal on 23.12.2023.
- Bargur Cattle Research Station, Bargur of TANUVAS has been awarded Third Prize in the Large Ruminant Category (Institutions) for conservation of Bargur breed of cattle by National Bureau of Animal Genetic Resources, Karnal on 23.12.2023.
- TANUVAS bags "Appreciation Certificate for Best CeRA (Consortium for e-Resources in Agriculture) Usage - 2022 among SAUs/CAUs/Deemed University in Southern

Region” from the Indian Council of Agricultural Research, New Delhi.

- Mr. S.Lakshmanan, Final year B.V.Sc. & A.H. student of Veterinary College and Research Institute, Orathanadu, TANUVAS has secured FIRST rank in the All India Entrance Examination for Admission 2023 (ICAR AIEEA PG 2023) under Animal Biotechnology subject, conducted by Indian Council of Agricultural Research.
- Selvi Thulasimathi Murugesan, III year B.V.Sc. & A.H. student of Veterinary College and Research Institute, Namakkal won the gold medal in individual women category, silver medal in doubles women category and Bronze medal in mixed doubles in the recently held Para-Badminton International at Sao Paulo, Brazil.
- During the year 2023, a total of four patents have been granted for the following

technologies developed by the faculty members of TANUVAS.

1. A tick-controlling formulation of dimethicone and the process thereof
2. A method for detecting RBC/platelets bound antibodies in canines and the kit thereof
3. A mechanical width adjustable dual integration arm device for hoisting the injured animal
4. A Hammer with pre-determined tattooing pins for impregnating the information of the animal

16.10 Start-ups in Livestock sector

To nurture Start-ups and entrepreneurs in the area of veterinary, animal sciences and allied sectors, TANUVAS established a Veterinary Incubation Foundation (VIF) with the financial support of Entrepreneurship Development and Innovation Institute (EDII), Chennai, a Govt. of

Tamil Nadu undertaking. The salient activities of VIF during 2023 are:

- A total of 16 start-ups were incubated at VIF@TANUVAS during the year 2023 to develop novel animal husbandry based products/technologies.
- “IEDP - Veterinary Student Hub” established at VIF @ TANUVAS was inaugurated by the Commissioner of Animal Husbandry and Veterinary Services, on 10.01.2023. During the occasion, ‘Bead Express’ developed by Chimertech Innovations LLP for Poultry feed miller purposes, ‘CPV Ab Diagnostic Kit’ developed by Transcience Innovative Technologies for Canine Parvo Disease, ‘Vitasheet’ Developed by Jeshron Biotech Solutions for Vitamin Supplements to Poultry were released.
- Workshop on “Design Thinking” was organized from 09.03.2023 to 11.03.2023

benefitting 40 Veterinary students from all the nine constituent colleges.

- Workshop on “Tech- Entrepreneurship Boot Camp cum Ideathon 2.0” was conducted at the constituent colleges during the month of June 2023 benefitting 520 students.
- First Women Entrepreneurship Meet and one day workshop on “Leaders in heels; Inspiring women entrepreneurs around the World” was organized on 03.08.2023 benefitting 120 women participants.
- Training program on “Veterinary entrepreneurship and personality development cum employability skills” for 16 batches was organized benefitting 320 veterinary students from Madras Veterinary College, Veterinary College and Research Institutes, Namakkal, Tirunelveli and Orathanadu from 11.09.2023 to 15.12.2023.

- M/s. Jeshron Biotech Solutions Pvt Ltd, Incubatee of VIF has received Rs.15.00 lakhs from StartupTN under the TANSEED 5.0 grant (Women-Led Startup Category).
- VIF @ TANUVAS has received the sum of Rs.3.00 lakhs for operational expenditure from TANSIM, Govt of Tamil Nadu on 05.10.2023.
- VIF @ TANUVAS exhibited products developed by its incubatees in Global Bio India 2023 at New Delhi, Organized by DBT – BIRAC, Govt of India from 04.12.2023 to 06.12.2023.
- During the year 2023, The VIF@TANUVAS incubatees viz., Citrus Agro-Vet Pvt Ltd, Diagnostics (OPC) Pvt Ltd, Moore's Systems and Aggromalin Pvt Ltd have completed their tenure at VIF. Hence, these startups graduated as 'Successful Entrepreneurs'.

16.11 Industry-Institute Linkage

With a view to have collaborative research and educational programs between industries and academic institutions, TANUVAS has executed MoUs with the following national institutes during the year 2023-24.

- Kerala Veterinary and Animal Sciences University, Wayanad
- Madras Crocodile Bank Trust, Chennai
- Indian Institute of Packaging, Mumbai
- National Institute of Food Technology, Entrepreneurship and Management, Thanjavur
- Biotech Consortium India Ltd., New Delhi
- Assam Agricultural University, Khanapara, Guwahati
- Madras Diabetes Research Foundation, Chennai
- Tamil Nadu Dr. MGR Medical University, Chennai

16.12 Priorities for 2024-25

The livestock industry is increasingly important to rural livelihoods, and it is possible to ensure the sector's sustainability by advancing animal welfare, boosting buffalo populations, improving animal productivity, enhancing rural livelihoods, maintaining ecological balances, enhancing animal genetic potential and promoting organic farming. Together with involving young people and empowering women in animal husbandry, strengthening the veterinary resource workforce, teaching entrepreneurship skills, and giving livestock research first priority would support the livestock industry.

TANUVAS can progress by collaboration and tie-ups to promote not only livestock sector, but also the well-being of the public through One Health approach. This approach is a collaborative effort of multiple disciplines

working locally, nationally and globally to attain optimal health for people, animals and the environment, which would help in controlling notifiable zoonotic diseases.

Considering the above, TANUVAS envisions the following activities:

- Strengthening One Health approach
- Addressing infertility and repeat breeding in cattle and buffaloes through assisted reproductive techniques
- Conservation of native germplasms of Tamil Nadu
- Mitigating methane emission in dairy cattle and enhancing milk production
- Augmenting green fodder production by establishing fodder seed farms
- Popularization of TANUVAS GRAND supplement and anionic salt supplements to augment dairy production and to mitigate milk fever in dairy cattle of Tamil Nadu

- Implementing disease control measures for the emerging diseases in livestock including Lumpy Skin Disease in cattle
- International tie-ups in the area of academic and research programmes
- Skill development training on animal husbandry activities to unemployed youth and rural women
- Continuing veterinary education programme for veterinary professionals
- Strengthening of e-governance initiatives through development of management systems and user apps
- Establishing industry-university collaborative research consortium to facilitate industry driven research and also promote start-ups in livestock sector
- Developing climatic stress amelioration strategies / techniques for livestock
- In addition to the prevailing “Lab to Land” approach, University envisages to address

the stakeholders' issues through the "Land to Lab" approach by prioritizing the problems encountered by the farmers.

The Tamil Nadu Veterinary and Animal Sciences University is offering advanced learning in veterinary, animal and food sciences besides research and extension services which strengthen the livestock, poultry and food sector in the state.

17. Budget Estimate for the year 2024-2025

Rs. In thousands				
SCHEME DESCRIPTION	REVENUE	CAPITAL	LOAN	TOTAL
State's Expenditure	10359553	0	0	10359553
Central sector schemes	11	0	0	11
Externally Aided projects (IAMWARM-World Bank Scheme)	5043	0	0	5043
Schemes Shared between state and Centre	72026	0	0	72026
Infrastructure (State fund)	0	101901	0	101901
Infrastructure - NABARD	0	178484	0	178484
Infrastructure - AIIRLIVAS	0	196600	0	196600
00602 - Animal Husbandry	10436633	476985	0	10913618
00601 - Secretariat	109328	0	5000	114328
00603 - TANUVAS	3461464	0	0	3461464
Grand Total	14007425	476985	5000	14489410

18. CONCLUSION

Animal Husbandry and Dairying constitutes an important economic activity in Tamil Nadu. The sector indeed has immense potential to uplift rural communities by creating sustainable livelihood opportunities. The government's efforts in implementing comprehensive programs across various aspects of animal husbandry are vital for ensuring rural employment and income growth.

Modernizing veterinary services and other facilities is crucial for the sector's growth and sustainability. Under the leadership of the Hon'ble Chief Minister, these efforts can be streamlined and enhanced to ensure the sector's long-term prosperity. With planning and visionary leadership, animal husbandry can indeed become a cornerstone of Tamil Nadu's rural economy.

ANITHA R. RADHAKRISHNAN
Minister for Fisheries - Fishermen
Welfare and Animal Husbandry



Hon'ble Chief Minister of Tamil Nadu handed over posting orders to Veterinary Assistant Surgeons selected through TNPSC on 16.02.2024



Hon'ble Chief Minister of Tamil Nadu handed over Small Scale Native Chicken Scheme benefits to beneficiaries during Government Welfare Scheme Distribution Function held at Perambalur



Hon'ble Chief Minister of Tamil Nadu inaugurated the newly constructed Veterinary Polyclinic building at saidapet on 27.02.2024



Hon'ble Minister of Youth Welfare and Sports Development inspected the health camp for Horses and provided relief measures and distributed feed and fodder to all horses reared in flood affected areas of chepauk sponsored by TNAWB



Hon'ble Minister for Fisheries-Fishermen welfare and Animal Husbandry inspected the District Livestock Farm Pudukottai.



Hon'ble Minister for Fisheries-Fishermen welfare and Animal Husbandry inspected the Bull sheds in District Livestock Farm Ooty at The Nilgiris District.



Hon'ble Minister for Fisheries-Fishermen welfare and Animal Husbandry inspected the newly Constructed Sex Sorted Semen Lab at District Livestock Farm Ooty at The Nilgiris District.



Additional Chief Secretary to Government, Department of Animal Husbandry ,Dairying Fisheries and Fishermen welfare inspected the Exotic Cattle Breeding Farm At Eachenkottai, Thanjavur District.



Additional Chief Secretary to Government, Department of Animal Husbandry ,Dairying Fisheries and Fishermen welfare visited the flood affected areas in Thoothukudi District and inspected the Specialised Veterinary Health Camp organized by the government.

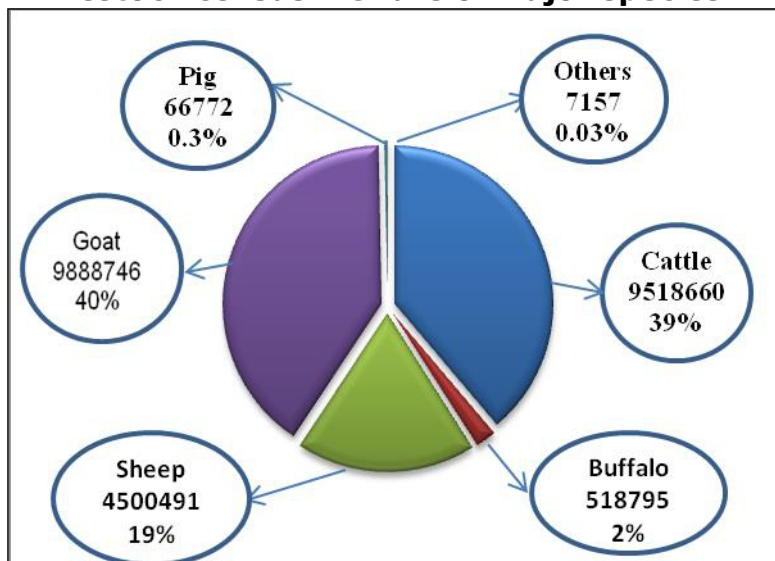


Hon'ble Minister for Fisheries-Fishermen welfare and Animal Husbandry inaugurated Specialized Veterinary Health Camps in Thothukudi District.

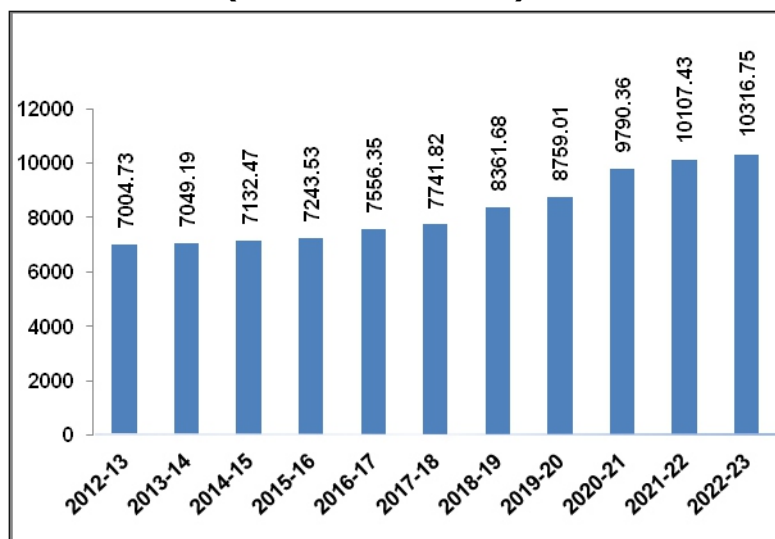


Hon'ble Minister for Fisheries-Fishermen welfare and Animal Husbandry inspected the functioning of Quality Control lab at the Exotic Cattle Breeding Farm Eachenkottai in Thanjavur District.

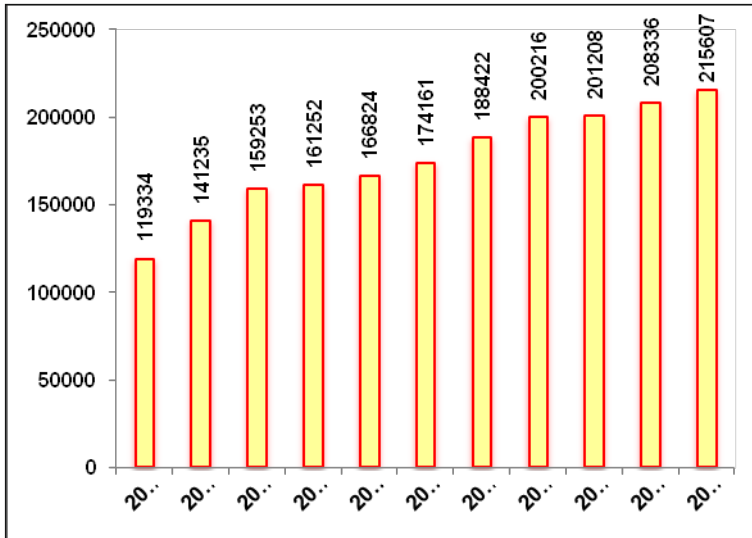
Livestock census – Share of Major species



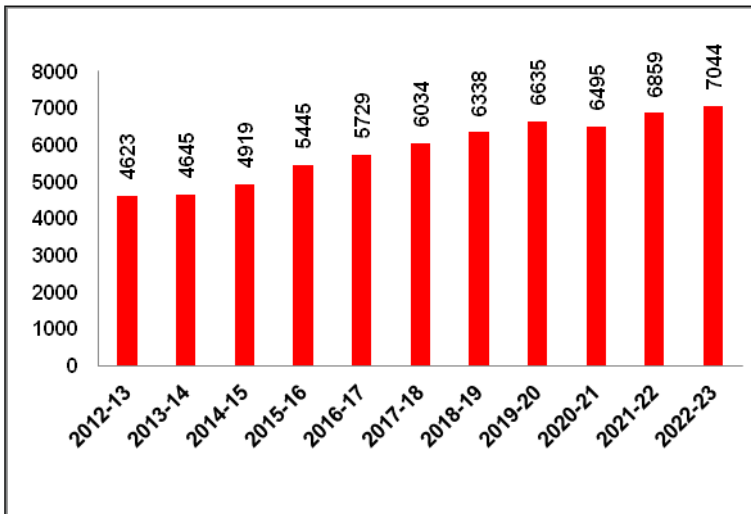
Estimated Milk Production (Lakh Metric Tonne)



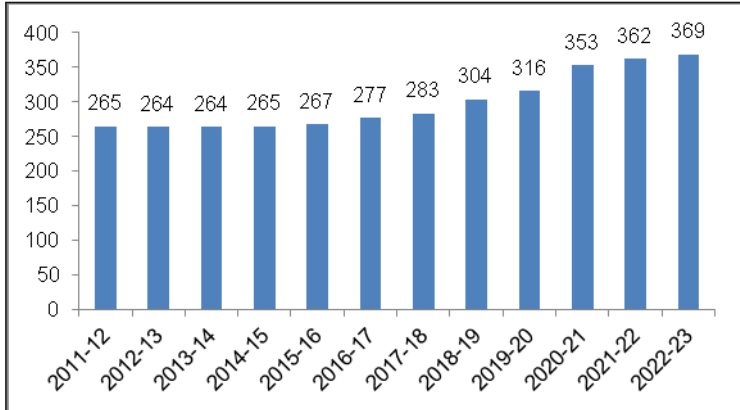
Estimated Egg Production (Lakh nos.)



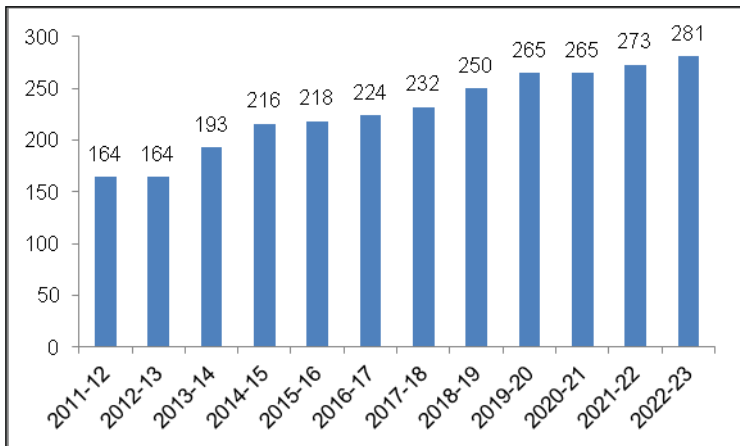
Estimated Meat Production (Lakh kgs.)



Percapita availability of Milk (Grams/day)



Percapita availability of Egg (Nos./year)



NATIVE BREEDS OF CATTLE



ALAMBADI



KANGAYAM



BARGUR



PULIKULAM



UMBLACHERY



TODA BUFFALO

NATIVE BREEDS OF SHEEP



TRICHY BLACK



KILAKARSAL



MADRAS RED



NILGIRI



RAMNAD WHITE



COIMBATORE

NATIVE BREEDS OF SHEEP



CHEVAADU



MECHERI



SEMBUR



KATCAIKATTY BLACK

NATIVE BREEDS OF GOATS



KANNI ADU



SALEM BLACK



KODI ADU

NATIVE BREEDS OF DOGS



RAJAPALAYAM



CHIPPIPARAI



KANNI



KOMBAI

POULTRY BREEDS RAISED IN TAMILNADU



ASSEL



KADAKNATH