

# **DEVELOPMENT OF VETERINARY INSTITUTIONS, MEASURES FOR STRENGTHENING THE VETERINARY SERVICES AND EFFECTIVE DISEASE CONTROL AND TRAINING CENTRE-INDUSTRY-INSTITUTION LINKS**

## **7.1 INTRODUCTION**

Effective and efficient delivery of animal health and production services is considered as vital for gainful livestock development and hence, prompt delivery of livestock services has become a subject of rising concern to many national and international organisations including FAO. Significant market led opportunities have recently been opened up for the livestock sector as a result of globalization and economic liberalisation policies initiated by the Government of India in 1991. Livestock production is growing faster than any other agricultural sub-sector and by 2020, this sub-sector is predicted to produce more than half of the total agricultural output in value terms in our country. Growth in demand for livestock products is primarily expected to escalate due to human population growth, increasing urbanization and rising income, as the demand for livestock products is income elastic. These developments present enormous opportunities to boost rural income and accelerate the pace of poverty reduction through promoting livestock sub-sector. However, this requires a policy regime that facilitates sustainable growth in livestock productivity at the farm level as well as in the processing sector.

The production potential of livestock depends primarily on the quality of nutrition, genetic upgradation and upliftment of animal health status. While the productivity improvement is likely to result in a rapid increase in the demand for quality livestock services, the policies and institutions are yet to get geared up to meet these challenges. While those trained in veterinary science argue that it is poor animal health which is the main constraint to livestock production, the nutritionists point to the poor availability of feed and fodder, and the breeders to poor genetics, there is a whole range of livestock services that are needed to enhance the capacity of poor households to exploit the full potential of increased livestock productivity. These services include health and production services such as health care, disease prevention and control, pharmaceutical supplies, feed and fodder supply, breeding, research and extension, and other market oriented services such as credit, livestock insurance, delivery of market information, marketing and processing. In the light of above scenario, an evaluation of veterinary services system in Tamil Nadu was taken up with the following objectives:

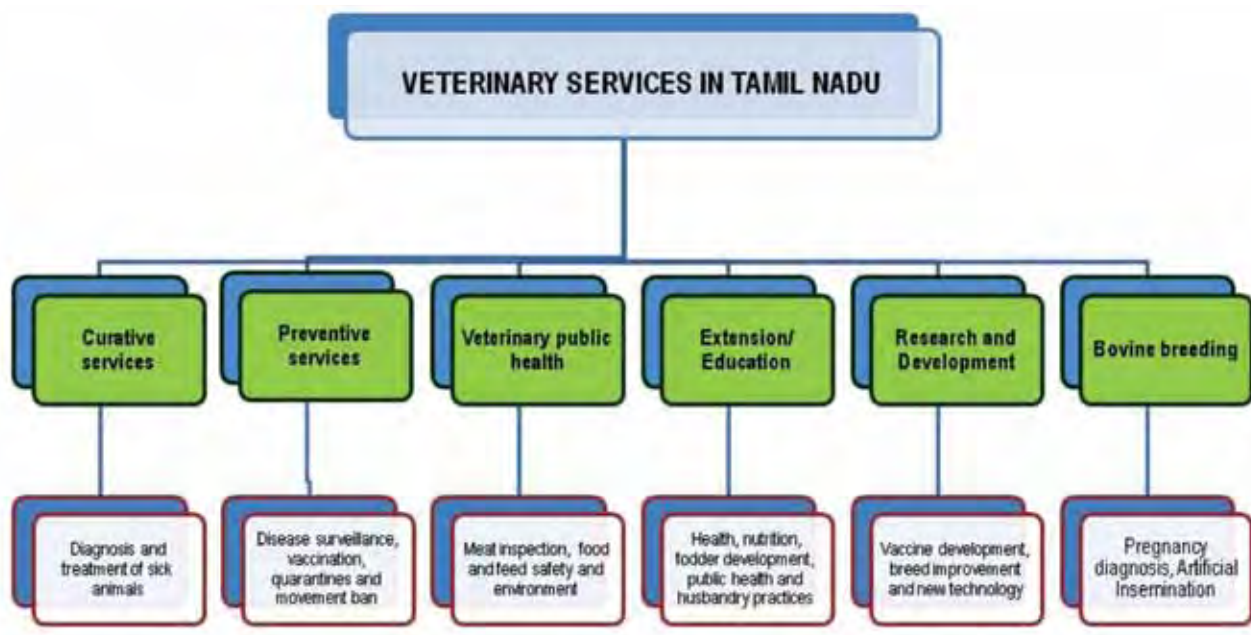
### **7.1.1 Objectives**

- ❖ Review the past performance of major schemes on measures for strengthening the veterinary services and effective disease control by analysis of secondary data.
- ❖ To identify the areas for strengthening the Industry-Institution links through trainings for field staff and farmers.
- ❖ To identify the gaps, constraints - SWOC analysis.
- ❖ To get feedback from stakeholders through interactions and Focus Group Discussions.
- ❖ To suggest measures for further development which will serve as input for Twelfth Plan Document.

### **7.2 VETERINARY SERVICES DELIVERY SYSTEM IN TAMIL NADU**

Public veterinary services offered in Tamil Nadu can broadly be divided into six categories, viz., i) Curative or clinical services, for the treatment of sick animals through diagnosis and the use of drugs; ii) Preventive services, disease surveillance and regulatory bans to stop occurrence of new disease cases in animals; iii) Public health, which relates to zoonotic and food-borne disease control, hygiene, food and feed safety and the environment; iv) Education/ extension, encompassing animal health, nutrition, fodder development, (veterinary) public health education and husbandry practices; v) Research and development for developing vaccines, breed improvement and new technology; and vi) Bovine breeding services, that include pregnancy diagnosis, artificial insemination of bovines with suitable germplasm.

In Tamil Nadu, recognising the importance of livestock to the rural poor and their inability to avail the fully paid livestock services, the Government has been extending these services at a huge subsidy with their vast veterinary institutional network built-up in the past five decades through many livestock sector promotion schemes to augment livestock production and productivity. In addition, there are co-operatives, NGOs and private entrepreneurs endeavouring these livestock services to a lesser extent. The key focus all through the past planning periods had been on improving the delivery of veterinary services by strengthening the capabilities and coverage of State Animal Husbandry Departments. However, all these investments aimed mostly at curative services or livestock development schemes including crossbreeding. The share of professionals responsible for disease surveillance and control was only least, supplemented by limited disease prevention role of the animal health service in the field.



### 7.2.1 Public institutions and infrastructure

- ❖ In Tamil Nadu, at present there are 6 Polyclinics, 22 Clinician Centres, 139 Veterinary Hospitals, 1,651 Veterinary Dispensaries, 55 Veterinary Mobile Units, 1485 Veterinary Sub-centres and 57 other units. The Polyclinics and the Clinician Centres are located in the district headquarters.
- ❖ In the rural areas, the Veterinary Health Care and Animal Breeding Services are provided by Veterinary Hospitals, Veterinary Dispensaries, Veterinary Mobile Units and Sub-centres. Further, the minor Veterinary Services are provided by Veterinary Sub-centres. A Veterinary Dispensary is generally manned by one Veterinary Assistant Surgeon, one Livestock Inspector and two Animal Husbandry Assistants. A Veterinary Sub-centre is manned by one Livestock Inspector alone.
- ❖ Manpower strength of state Animal Husbandry Department for providing by public veterinary services are as below:

S. No.	Name of the post	Sanctioned	Filled up	Vacant
1	Commissioner	1	1	--
2	Additional Director (AH)	4	3	1

S. No.	Name of the post	Sanctioned	Filled up	Vacant
3	Joint Director	27	10	17
4	Deputy Director (AH)	30	30	-
5	Deputy Director (Personnel)	1	1	-
6	Assistant Director (AH)	300	272	28
7	Administrative Officer	11	10	1
8	Veterinary Assistant Surgeon	1487	1286	201
9	Junior Veterinary Assistant Surgeon	444	417	27
10	Livestock Inspector	2746	1002	1744
11	Manager	44	34	10
12	Superintendent	154	145	9
13	Assistant	406	201	205
14	Junior Assistant	330	203	127
15	Other Posts (including IVPM, Ranipet)	5794	4101	1693
	<b>TOTAL</b>	<b>11779</b>	<b>7706</b>	<b>4073</b>

### 7.3 PAST PERFORMANCE OF VETERINARY SERVICES DELIVERY SYSTEM IN TAMIL NADU

The past performance of the veterinary services delivery system was reviewed in terms of its targets, achievements, resources utilisation and improvement in the livestock production.

#### 7.3.1 Eleventh Five Year Plan Targets and Achievements (Physical & Financial)

##### 7.3.1.1 Objectives of XI Plan

- ❖ To increase crossbred cattle population and milk production.
- ❖ To increase the artificial insemination coverage of cattle and to introduce artificial insemination in goats at the farm itself.
- ❖ To provide veterinary services and breeding support at the farmer's doorsteps.
- ❖ To strengthen disease diagnosis, surveillance and monitoring activities.
- ❖ To improve the quality and shelf life of livestock vaccines by improving the cold chain network and upgrading all vaccine production laboratories.

- ❖ To conduct training courses for farmers and officials.
- ❖ To strengthen Management information system (MIS) and extension services.

**11<sup>th</sup> Five Year Plan: Financial Achievements (Rs. In Lakhs)**

Sl. No	Sub group	Outlay for 11 <sup>th</sup> Five Year Plan 2007-08 to 2010-11	Expenditure 2007-08 to 2010-11	Percentage Expenditure on Outlay	Outlay 2011-12 (proposed)
1	Veterinary Services & Animal Health	1286.93	2215.38	172.10	7.74
2	Cattle & Buffalo Development	1768.54	1498.72	84.73	3.54
3	Poultry Development	7.03	4.89	71.42	0.00
4	Sheep & Wool Development	62.05	49.74	80.64	0.00
5	Fodder & Feeds Development	1000.00	0.00	0.00	20.00
6	Extension & Training	0.00	0.00	0.00	0.00
7	Direction & Administration	95.06	97.89	103.15	0.34
8	Other Expenditure	185.47	449.63	243.24	141.34
9	Special Component Plan	300.66	287.17	95.34	48.59
10	Tribal areas Sub Plan	0.00	0.00	0.00	1.91
11	Hill Area Development Programme	103.94	207.30	0.00	0.00
12	National Agricultural Development Programme (NADP)	716.95	1420.08	198.04	42.84
13	Western Ghat Development Programme	5.34	0.67	140.00	0.00
	Total State Schemes	4531.97	6231.47		266.30
14	Centrally Sponsored Scheme shared	2433.50	4304.94	176.90	1911.52
15	C.S.S 100%	1181.40	1785.76	151.16	64.00

### Physical targets and achievements (11<sup>TH</sup> Plan)

Activities	Target (2007-08 to 2010-11)	Achievement (2007-08 to 2010-11)	% achieve- ment	Target (2011-12)
Artificial Insemination with exotic, cross bred semen and Murrah graded (In lakhs)	145.27	147.20	101	43.55
<b>Vaccinations</b> (In lakhs) Doses				
i) Hemorrhagic septicemia	42.17	55.41	131	5.00
ii) Black quarter	52.31	58.29	111	3.00
iii) Ranikhet disease	1117.55	1245.03	111	419.85
Livestock Protection scheme camps (in nos)	22000	22000	100	5500
Deworming in Sheep and Goat (in lakh doses)	740.61	779.93	105	281.17
Vaccine production by IVP (in lakh doses)				
i) Bacterial vaccines	204.92	210.91	103	36.50
ii) Viral vaccines	746.50	584.38	78	639.23
Milk production in LMT (estimated)	57.08	68.34	120	69.32
Egg production million nos. (estimated)	9787	11515	118	11600
Meat production in 000' tons (estimated)	268	424	158	480

### Achievements of Animal Husbandry Department during different periods

S. No.	Particulars	1996-97 to 2000-01	2001-02 to 2005-06	2006-01 to 2010-11
I	<b>Strengthening of Veterinary Services</b>			
1	<b>Appointments</b>			
	a Veterinary Assistant Surgeons	174	-	559
	b Junior Veterinary Assistant Surgeons	-	-	419
	c Livestock Inspectors	272	-	386

S. No.		Particulars	1996-97 to 2000-01	2001-02 to 2005-06	2006-01 to 2010-11	
		d	Compassionate grounds	175	-	223
		e	Approved probationers	877	-	111
II	<b>2</b>	<b>Establishment of new institutions</b>				
		a	Polyclinics	-	3	-
		b	Veterinary Dispensaries	120	317	51
		c	ADIU	-	-	5
		d	Mobile Veterinary Diagnostic Lab	-	-	16
		e	Upgraded Veterinary Sub Centres	-	-	444
		f	Newly created Veterinary Sub Centres	-	-	30
		g	Visiting Veterinary Sub Centres	2126	55 closed	55
		h	Regional Joint Directorate	1	1 closed	2
	<b>3</b>	<b>Telephone</b>		-	75	531
	<b>4</b>	<b>Achievements</b>		-		
		a	Cases treated (in lakhs)	728.3	870.05	889.64
		b	Deworming (in lakhs)	517.25	745.60	1025.40
		c	Vaccination (in lakhs)	1176.7	1516.99	2298.51
		d	AI (in lakhs)	145.56	157.75	164.59
III	<b>Plans</b>					
	<b>5</b>	<b>Livestock Protection Camps</b>				
		a	Camps conducted	5390	24247	21294
		b	Benefitted animals (in lakhs)	123.64	281.74	256.00
IV	<b>6</b>	<b>Fodder development</b>				
		a	Protection of grazing land	-	2725 Acres	-

S. No.		Particulars		1996-97 to 2000-01	2001-02 to 2005-06	2006-01 to 2010-11
		b	Fodder development			
		i	Government Livestock farms	-	560 acres in 8 farms	2709 acres in 6 farms
		ii	Private lands	-	-	14549 acres
V	7	<b>Conservation of indigenes Livestock breeds</b>				
VI	8	<b>AI charges</b>		-	Increased from Rs.12 to Rs.15	
VII	9	<b>Livestock Insurance</b>		-	-	4.72 Lakhs Livestock in 15 districts
VIII	10	<b>Sheep welfare board</b>		-	-	
IX	11	a	Milk production ('000 tons)	21804.244	24620.454	22598.469
		b	Egg production (Million)	17622.180	24246.004	36094.546
		C	Meat production (Million Kg)	195.417	218.360	248.885
		d	Per capita Milk availability (Gm)	219 (01-02)	232 (06-07)	236 (09-10)
		e	Per capita egg availability	68 (01-02)	123 (06-07)	162 (09-10)

The 11<sup>th</sup> Plan period witnessed an overall improvement in the delivery of veterinary services to the rural farmer. Importance was given to disease prevention and control activities which would have otherwise caused heavy mortality of livestock. To strengthen the disease monitoring system, 5 Animal Disease Intelligence Units were newly added to the already existing 15 Animal Disease Intelligence Units in the 11<sup>th</sup> Plan. Further, 16 Mobile Diagnostic Labs attached to Animal Disease Intelligence units were established.

- ❖ Number of disease outbreaks have come down from 315 during 2007-08 to 39 during 2010-11.



- ❖ Periodical preventive vaccination carried out against Foot and Mouth Disease. The number of Foot and Mouth Disease outbreaks which were 282 during 2007-08 has significantly reduced to 11 during 2010-11.

Year	Anthrax	Black Quarter	Enterotoxaemia	Hemorrhagic Septicemia	Blue Tongue	Foot and Mouth disease	Peste-despe-tis-ruminants	Sheep pox	Total
2007-08	19	3	7	-	1	282	3	-	315
2008-09	6	1	1	-	2	4	3	1	18
2009-10	6	2	-	-	-	-	3	4	15
2010-11	15	2	1	1	7	11	1	1	39

- ❖ Although few mobile units are existing, no farm gate services were performed optimally. However, the Livestock Protection Camps organised by the Department have significantly contributed in bringing the veterinary services and breeding support at the doorsteps of the farmers rearing livestock in remote areas.
- ❖ The infrastructure in the Department was improved with the assistance from NABARD's (National Bank for Agriculture and Rural Development) Rural Infrastructure Development Fund and (ETRP) Emergency Tsunami Reconstruction Project. 444 veterinary sub centres were upgraded to veterinary dispensaries by appointing graduate veterinarians in these institutions which have improved the efficiency in delivery of veterinary services. In addition, 51 Veterinary Dispensaries and 130 sub centres were established during the plan period.
- ❖ The activities implemented under World Bank assisted Tamil Nadu Irrigated Agricultural Modernization and Water-bodies Restoration and Management Project (TNIAMWARM) like providing breeding support and veterinary services at the farmers door step, fodder development, fertility camps, follow up visits, azolla demos, farmers interactive meetings, farmers training, exposure visit, distribution of mineral mixture and mineral licks and oestrus synchronization, have positively contributed to livestock production improvements.
- ❖ The review of past performance of veterinary services delivery system by the Animal Husbandry Department indicated that the targets were achieved as per plan, and the quantum of services also was in commensuration with the allocation and resource

potential. The results exhibited that the department warrants infusion of manpower, funds and infrastructure for setting new targets in the twelfth plan.

## 7.4 SWOC ANALYSIS OF VETERINARY SERVICES DELIVERY SYSTEM IN TAMIL NADU

### Strengths

- ❖ *Extend both animal healthcare and bovine breeding services:* The Public Veterinary Centres (PVCs) offer comprehensive coverage of livestock services that includes AI, animal healthcare, vaccination, extension inputs with regard to husbandry practices, etc.
- ❖ *Curative services and preventive vaccinations are offered free of cost:* PVCs offer all curative services, including surgeries, free of cost. In addition, no fee was charged for the drugs administered.
- ❖ *Bovine breeding through AI at a highly subsidized rate:* AI is being done at all the PVCs at a marginal cost of Rs.15, while private inseminators are levying a huge amount of Rs. 150-200. Besides, the PVCs are supplied with straws of different breeds.
- ❖ *Wide network:* Animal Husbandry Department has the chain of institutions, starting from veterinary sub-centre manned by para veterinarian, to polyclinics equipped with sophisticated tools. All these institutions are manned by qualified and trained personnel specific for the purpose
- ❖ *Providing all the required services:* PVCs offer almost all the livestock services under one roof, which caters the farmers to avail all the services in one arena, avoiding the time lag.

### Weaknesses

- ❖ *Inadequate man power and institutions, improper distribution:* The number of PVCs available to offer livestock services are less than adequate vis-à-vis livestock population and density. Further, the geographical locations of the many PVCs are not amidst rural habitations where their services are highly warranted.
- ❖ *Less than adequate inputs:* All the prescribed treatments, AI straws and other inputs are not available at PVCs, the centres were not stocked with adequate and relevant medicaments, taking into account the agro-climatic and endemic animal health factors. The inputs supply seemed to have been done arbitrarily
- ❖ *Long travel time:* The time required to take/walk the animal to PVC from farm gate is in the range of 5 – 60 minutes with an average of 23.05 minutes. This long time,

as considered by farmers, was due to lesser density of PVCs and their scattered distribution.

- ❖ *Extended waiting time:* The time lag between the first contact with the service provider in the PVC and the receipt of service was in the range of 15 – 45 minutes with an average of 22.35 minutes. This time lag was mainly due to inadequate number of service providers in the PVCs. The PVCs were not maintained with adequate supporting service personnel. In many cases, the veterinarians have to look after starting from registration to disposal of the case and maintaining the sanitation of the vicinity of the centre.
- ❖ *Lengthy service time:* As many scientists noted, interpretation of service time is relatively more difficult since it depends on a number of factors such as complexity of disease, ability of service provider to diagnose and provide treatment quickly, attention paid by service provider, including the time taken to explain the level of sickness to the farmers, provide advice on after care, etc. Thus, while high service time could be due to the complexity of the case, with the service provider paying a great deal of attention in treating the animal, it could also be a reflection of the ability of service provider to provide quick diagnosis and treatment. The service time ranged between 5 and 30 minutes with an average of 14.50 minutes for medical cases, while it varied highly for medical and obstetrical cases.
- ❖ *Less than expected quality:* Although most of the PVCs offer quality services in relation to the inputs that are supplied, the general perceptions of the farmers on the quality of livestock services in some of the PVCs are less than expected. These dissatisfactions are mainly due to less than adequate inputs available in the PVCs.
- ❖ *High indirect costs:* Although the PVCs do not charge for health care and drugs, the labour cost involved to bring the animals to the centre is very high. Many farmers lose their half a day in terms of travel, waiting and service times.
- ❖ *Inaccessibility of services during odd hours:* PVCs, except polyclinics, offer livestock services only during specified hours, which leave the farmers devoid of emergency and critical care for their valuable animals.
- ❖ *Unavailability of need based information:* The veterinarians in the PVCs are very much concerned in attending the cases brought to the centre, and they are unable to provide

the details on animal husbandry practices, etc. at once to the farmers coming the centre.

## Opportunities

- ❖ *Coverage:* Despite the weakness listed, the PVCs cover a large portion of livestock population and their presence is well established. The variety of services offered at one point acts as catalyst, besides the faith on the public system as far as livestock services are concerned.
- ❖ *Cost efficiency:* Although the farmers may have the opportunity cost for the travel and waiting time they spent, the free (highly subsidised in case of AI) service rendered and priceless medicaments, etc., make the PVCs more attractive to the livestock farmers.

## Challenges / Concerns

- ❖ *Poor clarity on the concepts of extension education:* In the era information revolution, awareness level among the farmers are very high, besides the high value livestock wealth they possess. In addition, the farmers prefer to augment the productivity of their stock with existing inputs, which require implementation of newer technologies in the production. These require service providers with updated knowledge and skills, and clear concept on extension methodologies to deliver the same. However, the present state policies do not allow the veterinarians to pursue specialised degrees, which is in vogue. Hence, such policies should be re-evaluated in the context of present needs and updated.
- ❖ *Deadlines and pressures:* In order to improve the livestock production and to ensure livelihood security to rural poor, the state is implementing various beneficial schemes. These schemes are being implemented with the existing strength of technocrats, which, in turn, mounts pressures on them due to deadlines and additional workloads. Increasing the strength of technocrats would enable them to deliver the services in the quality and quantity with which they are expected.
- ❖ *Vulnerabilities:* Inadequate veterinary services in livestock production may contribute to increased vulnerability of livestock industries to emerging infectious diseases, exotic and zoonotic diseases, public health risks from food safety and quality problems, lowered public confidence in animal agricultural products, as well as threats to the national economy. The shortage of veterinarians to serve these sectors may lead to loss of veterinary

expertise and skills necessary of educate future generations and to advance scientific discovery necessary for future agricultural production improvements and responsiveness to veterinary and economic challenges.

- ❖ There were many other important concerns and constraints in farmers' perspectives with regard to major services of public veterinary services system in Tamil Nadu. Of these, long distance to the public veterinary centre was ranked first with a mean score of 69.71, which challenged the farmers from availing timely livestock services. The next major limiting factor was the long waiting time before the animals could be attended to by the service provider at public veterinary centres. The reason could be attributed to the irregular visit timings of service providers, besides a large number of cases gathering in few centres being attended to by a single service provider. That is, when one individual was to attend a number of cases presented to him at one single centre, it would take relatively a longer time to attend to the last cases. This, in turn, warranted ensuring adequate timing and sufficient man power in public veterinary centres. Inadequacy of drugs in public veterinary centres was the third major constraint as ranked by the farmers. Although public veterinary centres were found to have been pumped with a variety of drugs and semen straws, adequacy of specific drugs needed for the most prevalent diseases specific to the areas were found lacking.
- ❖ Poor quality inputs provided in the public veterinary centres was ranked as the fourth major constraint, followed by inconvenient working hours, poor quality services, labour scarcity to take the animals to the centre, inadequacy of skilled staff and poor attitude towards farmers were listed as constraints in availing public livestock services. However, the fees collected at the public veterinary centres were never perceived to be higher by farmers for availing services.
- ❖ Some of the strengths, gaps and the needs of the public veterinary services system implemented by the state Animal Husbandry Department are given below.

### Constraints in availing livestock services from public veterinary centres

S. No.	Constraints	Animal health services	Bovine breeding services
1.	Long distance	I (69.71)	I (69.54)
2.	Long waiting time	II (61.03)	II (61.60)
3.	Inadequate drugs in the veterinary centres	III (53.99)	III (53.40)
4.	Poor quality inputs in the centres	IV (50.18)	IV (50.00)
5.	Inconvenient working hours of the veterinary centres	V (42.88)	V (42.71)
6.	Poor quality service	VI (40.60)	VI (40.06)
7.	Labour scarcity to take the animal to the centre	VII (32.56)	VII (32.77)
8.	Inadequacy of trained staff	VIII (31.23)	VIII (31.80)
9.	Poor attitude of the staff in the centre	IX (24.63)	IX (23.60)
10.	High cost	X (0.00)	X (0.00)

### Initiatives in public veterinary services and gaps in implementation

Initiatives	Gaps	Need
Disease investigation	Low awareness level in the concepts	Epidemiological approaches
Preventive vaccinations	Non availability of timely vaccines	Supply of vaccines with other adequate other inputs including vaccinators
Artificial insemination	Non availability of semen straws to inseminate the bovines as per the breeding policy	Sustained supply of adequate quantity and variety of AI straws, preferably sex assorted
Curative health care	Inadequate medicaments with respect to the agro-climatic region	Supply of medicaments in adequate quantity, considering endemic and agro-climatic factors
Mass campaign programmes	Non availability of timely budget	Revolving fund
Fodder development	Funds for demonstration and timely seed supply	Fodder seed revolving fund and creation of fodder seed bank
Training and HRD	Service providers are not trained periodically	Creating training centres and infrastructures, besides allowing them to pursue special degrees
Large net work of institutions	Vacancies	Logistic support for reaching out Computer with internet connectivity
Capacity building on technical and managerial skills	Sustainability	Creating a Management Institute for Livestock Sector in Tamil Nadu (MILSTAN) and sustaining through NADP <i>etc.</i>
Livestock demonstration farms	Not being as model farms for farmers	Periodical replacement of non-performing stock and implementing newer technologies

## **7.5 NEED TO STRENGTHEN THE VETERINARY SERVICES DELIVERY SYSTEM IN THE STATE**

- ❖ There are a total of 111.89 lakh cows, 20.09 lakh buffaloes, 92.75 lakh goats and 79.91 lakh sheep in the State. As per the recommendation of the National Commission on Agriculture (NCA), One Veterinary Institution is to be provided for every 5,000 cattle units (one cattle unit = 1 cow / 1 buffalo /10 sheep / 10 goats / 5 pigs / 100 poultry) to ensure proper Veterinary Health Care. As per the Livestock Census 2007, there are 162.74 lakh cattle units in the State, which require 3,255 Graduate Veterinary Institutions as per the NCA norms.
- ❖ Also on an average, at present there is one Veterinary Institution for every 7 Village Panchayats in Tamil Nadu. As per the National Commission on Agriculture norms, one Veterinary institution for every 4 Village Panchayats. (ie. 162.74 lakh Cattle Units ÷ 12608 Village Panchayats = 1290 Cattle Units/ Village. Thus, one Veterinary Institution can cover 4 Village Panchayats having an animal population of 5163 Cattle Units).
- ❖ As the government has launched an ambitious scheme to distribute 60,000 free milk cows to the beneficiaries residing at the rural areas in the next five years in order to give a boost to the milk productivity for the State, besides distributing 4 Goats /Sheep to 7 lakh poorest of the poor families living in the rural areas to enhance their standard of living. The successful implementation of these Animal Husbandry Schemes depends on the Extension and Veterinary Services across the State. Hence the Veterinary Health care system needs to be strengthened.

## **7.6 CREATION OF INSTITUTIONS AND INFRASTRUCTURE**

### **7.6.1 Rural Veterinary Dispensaries**

- ❖ Tamil Nadu requires an additional 1,382 Veterinary Institutions if the norms of the NCA are to be ideally followed. This is particularly important in view of the intention of Government in distribution of free 60,000 cows and 28 lakh Goats/ Sheep to the people in rural areas. Hence as a first step, the existing Veterinary Sub-centres can be upgraded as Rural Veterinary Dispensaries with qualified man power and staffing.
- ❖ These Rural Veterinary Dispensaries can continue from the present Subcentre premises and further strengthened through funds provided under NABARD-RIDF and Government of India/ State Government funds being provided for strengthening the buildings of Veterinary Institutions.



### 7.6.2 Scheme Monitoring Cell

For efficient supervision, monitoring and evaluation of day to day activities of the Schemes, one Monitoring Cell (One wing for Free Milch Cow Scheme and one wing for Sheep & Goats Scheme) needs to be created. The Monitoring Cell at the Commissionerate will monitor the following works to implement the free Milch Cow Scheme and free Goats /Sheep Schemes :

- ❖ To receive and communicate the Government references to the Subordinate officers of the entire State.
- ❖ To implement the Scheme, communicate instructions and guidelines to the Subordinate offices.
- ❖ Monitoring of selection of Beneficiaries.
- ❖ Budget distribution for the additional staff for the Schemes and for the purchase of animals *etc.*
- ❖ Adopting procurement procedures.
- ❖ Formation of Animal Purchase Committee as per requirement and approval of the purchase.
- ❖ Monitoring the distribution of Cows/ Goats /Sheep to the poor people in rural areas.
- ❖ Assets verification.
- ❖ Getting weekly/monthly report for the implementation of the Scheme and also pertaining to provision of Health Services.
- ❖ Data collection/compilation/evaluation and reporting to the Government periodically.
- ❖ Recording and reconciliation of accounts and standardizing accounting procedures.

### 7.6.3 Super specialty Polyclinics

The state has a large network of veterinary infrastructure and professional veterinarians and para veterinarians. However, changing internal and external environments warrant the animal health and breeding service delivery system to become more dynamic and needs-oriented, financially sustainable, and closer to the ground. Increasing demand for livestock products led the minds of farmers to possess high yielding livestock population. Sustained efforts of the DAH through Artificial Insemination programmes, the livestock population with exotic germplasm has increased many folds. The introduction of exotic breeds coupled with rising prices of animals and advancing husbandry practices necessitate high quality animal healthcare with wider accessibility. The number of polyclinics

equipped to provide such quality livestock services are only 6 in the state, and that too with minimum technocrats. Hence creation of super specialty polyclinics with recent diagnostic aids and subject matter specialists in clinical subjects with mobile ambulatory facilities at the district level would be ideal. These super specialty polyclinics will provide round the clock livestock services to the referred animals of the district/ surroundings. The number of such super specialty polyclinics required to be created is to be 32 each with one Deputy Director (Common for both, Regional disease services and polyclinics) and 4 Veterinary Assistant Surgeons specialized in veterinary medicine, obstetrics & gynaecology, surgery and preventive medicine.

#### **7.6.4 Disease surveillance and monitoring laboratories**

Animal disease surveillance can serve as sentinels for natural infectious disease epidemics. There are two specific reasons that animal disease surveillance is critical. The first, being the direct impact to the human and the second, being an economic impact. Animals, as a source of infectious diseases in humans are referred to as zoonoses. Serious economic impacts would be expected if animal disease were introduced, prevalent or suspected. Since animals may be the primary targets of an introduced disease/epidemic it is critical that this population be regularly monitored with all critical diseases reported. The state government is taking strenuous efforts to control major diseases affecting livestock causing huge economic losses viz., Rinderpest, Black quarter, Hemorrhagic septicaemia, Anthrax and Foot and mouth Diseases. Rinderpest has been eradicated from the country and India was declared free from Rinderpest disease on 25th May 2006 by the International Committee of the world organization for Animal Health (OIE), Paris. While Rinderpest has been eradicated, other diseases continue to pose a major threat to animal population of the state. Some of the emerging diseases like Peste Petitis Ruminants (PPR), Blue tongue, Sheep pox and Goat pox, Swine fever, Contagious Bovine Pleuro Pneumonia, New Castle Disease, Avian Influenza in poultry continued to cause substantial economic losses. Establishment of specialized diagnostic laboratories at regional level is imperatively essential and would serve as a mean to execute various programmes on animal health and bio-security. Each Disease surveillance and monitoring laboratory should be manned by specialists in veterinary pathology, microbiology and preventive medicine and parasitology, so as to cater the objectives.

#### **7.6.5 Disaster Management Cell**

Animal health care during natural calamities and disaster require special attention since such calamities can drive the poor in to destitution. Hence disaster management cell for livestock sector should be created at regional level to support and safe guard the livelihood of livestock owners of the state during such calamities. The disaster management cell may be created under Disease surveillance laboratory.

### **7.6.6 Fodder Development Cell**

Nutrition especially green fodder plays a vital role in animal production and reproduction. In the era of technology and modernization, awareness on fodder production in relation to production potential of the animal is less among livestock farmers. Hence creation of regional fodder development cell with the objectives of:

- ❖ Creation of awareness of fodder production
- ❖ Development of region specific fodder varieties based on agroclimatic conditions and animal rearing pattern
- ❖ Distribution of latest varieties of seeds, fodder slips and fodder saplings
- ❖ Training on Fodder cultivation procedures and feeding pattern may be given to field veterinarians and farmers for effective adoption
- ❖ Enrichment of fodder for increased benefit
- ❖ Data base may be created

### **7.6.7 Infrastructure in the veterinary dispensaries**

Public veterinary centres should be improved by equipping with necessary infrastructure and imparting latest technical know-how to the service providers, so that early recovery from illness can be ensured. In order to make sure that all the prescribed treatments are available at public veterinary centres, the centres should be stocked with adequate and relevant medicaments, taking into account the agro-climate and endemic diseases existing in different areas.

### **7.6.8 Veterinary call centres**

- ❖ The Animal Husbandry Department provides Veterinary care and breeding and related services to the entire livestock population of the state. Artificial Insemination using frozen semen straws that transmits the genetic potential of superior bulls horizontally to a vast breedable female bovine population is in vogue since 1991 in the state. The Animal Husbandry Department performs approximately 40 lakh artificial Inseminations through the AI centres. Considering 45 per cent conception rate, about 35 per cent of the total breedable population is only covered. This is because of the fact that not all villages have an Artificial Insemination centre at their neighbourhood. The animals have to be walked for more than 2 to 5 kms for availing curative and breeding services, which adversely affects the conception rates. These factors coupled with low plane of nutrition to the animals (lack of grazing and balanced feed) compromise the fertility

rates, conception rates and calving rates. Non-availability of qualified veterinary services also exposes the livestock owners to quackery, which can be avoided by providing veterinary services at the farm-gate by qualified service providers. This will not only avoid the stress of walking the animals over long distances to the Veterinary institutions but also save the precious man hours that the farmer has to spend in taking the animal to the service provider.

- ❖ In order to make these possible, a round the clock in-centre and mobile livestock services facilities could be created and their financial sustainability could be ensured on recovering partial cost, at least in terms of transport, involved in rendering these services.
- ❖ Establishing veterinary call centres in each block of Tamil Nadu would serve to extend breeding services at the farmers' doorstep thereby improving the conception rates and increase production and productivity; to provide emergency services for the livestock of the farmers at their doorstep; to provide technical consultation to the farmers in various Animal Husbandry practices; and to provide knowledge and training to farmers on best practices in feeding, breeding and management of all species of livestock.
- ❖ Approximately, 1600 unemployed/ under employed registered veterinarians (registered with the employment exchange as on 31.12.2010) are available in the state whose knowledge and skills can effectively be utilised to augment the productivity potential of the livestock population in the state. Improvement in productivity ultimately leads to increased production and a consequent improvement in rural economy. By utilizing these productive force as extension veterinary officers, the number of breedable bovines that are brought under organized veterinary services will increase manifold and thus the productivity potential of the available livestock can be improved, while sustainably ensuring the health of the livestock. Requirement for a call centre would be a Computer for communication tool kit at block level, a Geographical positioning system, a Mobile phone with GPRS, and sufficient medicines and semen straws with kit.
- ❖ Anticipated Benefits of establishing veterinary call centres at block level include (i) Doorstep delivery of services to the farmers by qualified Veterinary practitioners, (ii) Improvement in conception rates and calving rates, (iii) Immediate attention to the health of livestock results in reduced economic loss through reduction in morbidity and mortality, and (iv) Awareness creation on best practices by the Veterinarians resulting in improved practices and a consequent improvement in economy of farmers.

## **7.7 TRAINING AND HUMAN RESOURCES DEVELOPMENT**

### **7.7.1 Management Institute for Livestock Sector in Tamil Nadu (MILSTAN)**

In order to meet the growing challenges and opportunities emerging in the livestock sector in the WTO regime and to protect the interest of the farmers, the staff of State Animal Husbandry Department needs to be competitive, motivated and committed. Understanding the market dynamics, group dynamics, consumer behaviour and interpersonal communication skills become vital to them, as heavy pressure is exerted on them to maintain high quality production, besides ensuring disease free environment. In addition, staff at senior level are expected to manage a large number of personnel working under them. To meet all these challenges and concerns, the State Animal Husbandry Department needs to evolve and strengthen a sound HRD system with proper vision, mission and goals. In this context, establishment of Management Institute for Livestock Sector in Tamil Nadu (MILSTAN) with a vision of creating competent, confident and committed Staff who provide effective services to farmers, in line with the State Management Institute for Livestock Development in Andhra Pradesh (SMILDA) functioning in Andhra Pradesh. The objectives of the MILSTAN would be (i) to Identify and address the factors affecting conditions for learning and performing; (ii) to establish a permanent HRD faculty with delegated responsibilities and budget with apt specification for personnel, roles and functions; and (iii) to develop and implement Information system related to staff and staffing.

### **7.7.2 Trainers Training Centre (TTC)**

In addition to the proposed MILSTAN, creation of a Trainers Training Centre within the ambit of Tamil Nadu Veterinary and Animal Sciences University, to plan, organise, implement, monitor and evaluate orientation courses for newly appointed college lectures/ university Assistant Professors / Veterinary Assistant Surgeons/ Junior veterinary surgeons/ Agricultural Officers. This human resource development centre will also organise refresher courses for serving teachers, and orientation programmes for senior administrators and heads of department, principals, officers, *etc.* This centre should be staffed with a Professor cum Director, an Associate Professor and two Assistant Professors.

### **7.7.3 Para veterinarians (Skilled personnel)**

Para-professionals, either as para-veterinarians or community based animal health workers (CBAHWs), have for some time now been considered one of the most promising means for increasing the provision of animal health services in the rural areas. However, accountability for the services they render remains a concern. One of the other critical constraints in regulating and monitoring the services provided by these para-veterinarians is that there does not exist a clear

definition of 'Minor Veterinary Services' that can be provided by trained personnel other than registered veterinarians. From the national perspective, the Veterinary Council of India (VCI) Act 1984 created a provision for certain personnel holding a diploma or certificate of veterinary supervisors, stockmen or stock assistant, *etc.* to render 'minor veterinary services' under the supervision of a Registered Veterinary Practitioner (RVP). The above provision is subject to the condition that respective state governments have by order permitted such persons. The direct implication of the Clause 30b of the Veterinary Council of India Act 1984 (No.52 of 1984) is that it makes it mandatory for all State Governments to identify 'Minor Veterinary Services' over and above the few examples indicated in the act and notify the same in the respective state government gazettes. The indirect implication is that the standards of the jobs and tasks involved in performing the notified 'Minor Veterinary Services' have to be described, which forms the basis for appropriate skill development. In the light of the emerging importance of para-veterinarians in livestock service delivery, and the issues regarding quality, the Government of Andhra Pradesh recognized that to ensure quality services, it is vital to have a strong regulatory framework in place. Similar frameworks should also be issued by the state of Tamil Nadu to propose a definition of the 'Minor Veterinary Services' in the context of its specific needs, and to prepare a list of services that can be rendered by para-veterinarians. The categories of para veterinarians may be as vaccinator, flock man for deworming, technicians and centralized data entry operators. The number of those trained personnel requirement is to be 1925 vaccinator @5 vaccinators/ block (385 blocks), 770 flock men for deworming livestock @2 flock man/block, 96 technicians@5 Assistant/ Polyclinics and 44 centralized data entry operator @one for each district and two for each directorate will be required. They should be trained as Skilled Assistants for duration of not less than 6 months by the university for technicians, 3 months for vaccinator, flock man and centralized data entry operators.

#### **7.7.4 Establishment of various directorates in Animal Husbandry**

Currently all the activities of animal Husbandry Department are supervised by single directorate. Decentralising the duties and responsibilities and creating joint directorates to manage different specializations would improve the output to a maximum level. The following speciality wings are suggested to exploit the full potential of the department and thus to augment the production of livestock sector:

##### **1. Veterinary services**

- ❖ Polyclinics
- ❖ Clinician Centres

- ❖ Veterinary Hospital
- ❖ Veterinary Dispensary
- ❖ Sub-Centre
- ❖ Mobile Centres

## **2. Farms**

- ❖ Cattle and Buffalo development
- ❖ Sheep and Goat Development
- ❖ Poultry Development
- ❖ Fodder Development

## **3. Livestock Product technology**

- ❖ Meat products
- ❖ Poultry production
- ❖ Rural Bio energy and Biogas
- ❖ Export and import policy

## **4. Disease Surveillance and Disaster management**

- ❖ Disease diagnostic laboratories
- ❖ Vaccine production
- ❖ Disaster Management
- ❖ Poultry Disease Diagnostic Laboratories

## **5. Extension and Training**

- ❖ Extension and Training Centre
- ❖ Database creation
- ❖ Planning and policy
- ❖ Trainers Training Centre

## RESPONSE GROUP DISCUSSION - VETERINARY SERVICES



Dr. K.N. Selvakumar, Principal Investigator explains the objectives of the project



Dr.P.S. Rahumamathullah, Special officer, VCRI, Tirunelveli interacts with the participants



Dr.R. Sankarasubramanian, Deputy Director, DLF, Abishegapatti offers his views on status of Veterinary Services



A Livestock specialist tenders his remarks



A Lady Veterinary Assistant Surgeon narrates her experiences and expectations



## RESPONSE GROUP DISCUSSION - VETERINARY SERVICES



A livestock farmer recounts his problems with current style of veterinary services delivery



A progressive livestock farmer shares his views and expectations of the community



Women farmers brief their problems in availing veterinary services



A Veterinary Assistant Surgeon explains the problems faced by service providers



A Technocrat explicates his expectations as service provider



Participants keenly watching the deliberations

**7.8 FEED BACK AND SUGGESTIONS EXPRESSED BY LIVESTOCK FARMERS AND LINE DEPARTMENT OFFICIALS DURING THE RESPONSE GROUP DISCUSSION ON “VETERINARY SERVICES” AT TIRUNELVELI ON 24.03.2012**

Service initiatives	Problems	Suggestions
<p>Disease control and preventive vaccination</p>	<p><i>Livestock farmers</i></p> <ul style="list-style-type: none"> <li>While many farmers complained that they do not receive vaccination for their livestock against economically important diseases, some of them reported incidence of diseases even after vaccination</li> <li>It was inferred from the discussion that many farmers had low awareness on the importance of preventive vaccination</li> </ul> <p><i>Line department officials</i></p> <ul style="list-style-type: none"> <li>Vaccines were not supplied at right time with other inputs adequately</li> <li>Too high targets</li> <li>Inadequate supporting staff and other man-power required for vaccination (like vaccinators)</li> </ul>	<p><i>Livestock farmers</i></p> <ul style="list-style-type: none"> <li>Vaccination should be carried out at farm gate, as assembling in one place may predispose for the disease transmission</li> <li>Wider publicity should be made as done in polio vaccination campaign, so that maximum coverage can be ensured</li> </ul> <p><i>Line department officials</i></p> <ul style="list-style-type: none"> <li>Vaccines should be supplied at right time with other inputs adequately</li> <li>Facilities for cold chain maintenance should be created, which would ensure quality of vaccines</li> <li>Targets should be reasonable considering the man-power and other work pressures</li> <li>Supporting staff and vaccinators should be appointed for effective vaccination</li> </ul>
<p>Artificial insemination</p>	<p><i>Livestock farmers</i></p> <ul style="list-style-type: none"> <li>Most of the farmers expressed their hurdles in taking the animals to the service centres, which is mainly due to labour scarcity</li> <li>Many farmers informed that their animals require repeated insemination for every conception</li> <li>Farmers, at times, were not getting their choice of semen straw</li> </ul> <p><i>Line department officials</i></p> <ul style="list-style-type: none"> <li>Supplies of semen straw were uneven and the quality of the straw could not be assessed for want of infrastructure in the service centres</li> </ul>	<p><i>Livestock farmers</i></p> <ul style="list-style-type: none"> <li>Facilities for inseminating at the farm gate should be created, through increasing number of mobile units</li> <li>The inseminated animals may be supplied with mineral mixtures etc, so as to increase the probability of conception</li> <li>All the variety of semen straws should be made available in the centre so that the farmers would have choices</li> </ul> <p><i>Line department officials</i></p> <ul style="list-style-type: none"> <li>Semen straws should be supplied in adequate quantity and quality, preferably sex assorted</li> <li>Infrastructure such as microscope should be created in each centre, which would allow them to verify the quality of semen straw</li> </ul>

<p>Curative health care</p>	<p><i>Livestock farmers</i></p> <ul style="list-style-type: none"> <li>• Most of the farmers complained that they found difficulties in taking the ailing animals to the service centres, which is mainly due to labour scarcity and exorbitant labour charges</li> <li>• The travel and waiting times were too long</li> <li>• The chance of early recovery was low</li> <li>• Accessibility and availability of these services at right time were difficult</li> </ul> <p><i>Line department officials</i></p> <ul style="list-style-type: none"> <li>• Lack of adequate diagnostic infrastructure</li> <li>• Inadequate medicaments with respect to the agro-climatic region</li> </ul>	<p><i>Livestock farmers</i></p> <ul style="list-style-type: none"> <li>• Number of veterinary institutions delivering livestock services should get augmented, besides ensuring their presence amidst rural habitations</li> <li>• The chance of early recovery depends on adequate diagnostic infrastructure, in addition to updated technical efficiency available with the service provider. Hence, public veterinary centres should be improved by equipping with necessary infrastructure and imparting latest technical know-how to the service providers</li> </ul> <p><i>Line department officials</i></p> <ul style="list-style-type: none"> <li>• Creation of adequate diagnostic infrastructure</li> <li>• The centres should be stocked with adequate and relevant medicaments, taking into account the agro-climatic and endemic animal health factors</li> </ul>
<p>Training, HRD and capacity building on technical and managerial skills</p>	<p><i>Line department officials</i></p> <ul style="list-style-type: none"> <li>• Service providers are not trained periodically with latest technologies</li> <li>• Lack of managerial skills</li> </ul>	<p><i>Line department officials</i></p> <ul style="list-style-type: none"> <li>• Creating training centres and infrastructures, besides allowing them to pursue special degrees</li> <li>• Creating a Management Institute for Livestock Sector in Tamil Nadu (MILSTAN) in line with the successful management institutes across the country and sustaining it through NADP etc.</li> </ul>

