



Annual Report



2018



Department of Animal Production and Health

ANNUAL REPORT 2018

Department of Animal Production and Health

Peradeniya

Sri Lanka

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PREFACE

Demand for foods of animal origin is continued to grow with a similar trend as previous years in Sri Lanka in par with the global context. Being the main technical service providing organization in the Ministry of Agriculture, Livestock Development, Fisheries & Aquatic Resources and Irrigation, the Department of Animal Production and Health (DAPH) is responsible for ensuring availability of quality foods of animal origin according to the demand of the country. Therefore DAPH is carrying out provision of technical guidance and statutory functions related to livestock sector in the country. Accordingly, upgrading and maintaining a healthy animal population, providing required inputs, quality assurance of animal products, animal feed and veterinary pharmaceuticals are the main functions implemented by different divisions of DAPH with collaboration of provincial DAPHs and other livestock stakeholders. As such department facilitates for increased production and productivity improvements in the sector and thereby to achieve sector goals identified in the Livestock Master Plan particularly in the dairy sub sector while supporting poultry, goat and swine sub sectors. Food safety concerns on our involvements greater than ever. We have been partnering with Ministry of Health and other stakeholders for combatting antimicrobial resistance. Contribution for Animal welfare legislation has been enormous in the year. We are fully geared to take up the challenges of rabies eradication from Sri Lanka which is entrusted to us in this year.

Dairy sector showed around six percent annual growth in recent past. Introduction of modernized intensive dairy farms is new intervention to the sector. However the local milk production remains at 40% of total milk consumed in the country. The poultry sector in the country is in growing trend as last year and is demand-sufficient in chicken meat and eggs at current purchasing power levels. However, chicken meat and eggs are yet to be available at competitive prices for further expansion of this industry and to compete in the global market. The growth in Swine and Goat sectors are more or less static and needs more attention.

This 2018 Annual Report of DAPH highlights status of livestock sub-sectors and progress of all programs/projects implemented and activities carried out by the department during the year 2018. Most of livestock sector support services/programs are jointly implemented by the National DAPH and Provincial Departments of Animal Production and Health (PDAPH). Therefore province-wise performance and the progress have been presented in this report wherever necessary.

I am thankful to all Directors and their staff in the department for extending their fullest cooperation for successful accomplishment of programs planned for the year 2018. Special word of appreciation goes to Dr. S.S.P Silva – Director and the staff of Livestock Planning and Economics Division for taking efforts in compiling and publishing this document.

Dr. K.D. Ariyapala
Director General

DEPARTMENT OF ANIMAL PRODUCTION AND HEALTH

VISION

Be the premier organization leading the livestock sector towards socio - economic development of Sri Lanka

Mission

Provide technical guidance and support to achieve sustainable development in the livestock sector by maintaining a healthy animal population and enhanced productivity ensuring food safety and contributing to food security.

1. INTRODUCTION

The Department of Animal Production and Health (DAPH) was established under the Ministry of Rural Industrial Development in September 1978. At present DAPH functions under the Ministry of Rural Economy.

Most of DAPH's field level functions have been devolved to nine Provincial Departments of Animal Production and Health (PDAPH) headed by Provincial Directors.

The DAPH provides technical leadership, expertise and back-up services to Provincial Departments of Animal Production and Health (PDAPH) and other livestock industry stakeholders. The department also implements a range of statutes pertaining to the livestock sector under the provisions of Animals Act, Animal Diseases Act and Animal Feeds Act. A total of 332 Divisional Veterinary Offices scattered throughout the country deliver veterinary services, managed by veterinarians, which are functioning under PDAPH and are the main functional units of the DAPH. In line with the policy decision taken by the government to expand veterinary network to strengthen service delivery system at grass root level, divisional veterinary offices are being established at every Divisional Secretariat level at present. Similarly a policy initiative was taken in 2006 to expand veterinary investigation network by establishing a Veterinary Investigation Centre (VIC) at each District level. 25 VICs have been

established at District level by end of 2018.

Objectives of the DAPH

1. To assure an efficient preventive and curative animal health service.
2. To promote optimal utilization of animal genetic resources.
3. To enhance utilization of quality animal feeds and feed resources.
4. To promote growth and development of the animal feed industry.
5. To conduct research and development towards a sustainable livestock industry.
6. To develop technically competent human resources.
7. To ensure efficient and effective information dissemination and technology transfer.
8. To formulate, monitor and evaluate livestock development projects and programs.
9. To assure safety of products of animal origin.
10. To promote and facilitate good animal husbandry practices.
11. To ensure welfare and wellbeing of animals.
12. To ensure efficient management of departmental activities.

The DAPH has eight (08) functional divisions; six (06) technical divisions and two (02) support service divisions. Sub-units of DAPH are mostly located peripherally, functioning under different divisions of the DAPH.

Animal Health Division

Main Responsibility: Surveillance, prevention and control of scheduled and emerging animal diseases of economic importance by implementing suitable control strategies and eradication programs.

Sub Units:

Veterinary Investigation Centres (VICs) located at:

Ampara, Anuradhapura, Badulla, Batticaloa, Chilaw, Matale, Galle, Jaffna, Hambantota, Homagama, Kalutara, Kegalle, Kundasale, Matara, Nuwara-Eliya, Pannala, Polonnaruwa, Ratnapura, Trincomalee, Vavuniya, Welisara, Wariyapola Monaragala, Mankulam and Kilinochchi.

Animal Breeding Division

Main Responsibility: Development of livestock genetic and feed resources.

Sub Units:

Central Artificial Insemination Station - Kundasale.

Artificial Insemination Centre - Polonnaruwa.

Goat Breeding Stations -Imbulandanda and Thelaha.

Human Resource Development Division

Main Responsibility: Development of human resources, skills development and dissemination of information required for further growth of the livestock sector.

Sub Units:

Institute of Continuing Education for Animal Production and Health - Gannoruwa.

Sri Lanka School of Animal Husbandry-Kundasale.

Sri Lanka School of Animal Husbandry -Seepukulama.

Livestock Knowledge Centre, Getambe.

Livestock Technology Park, Gannoruwa.

Veterinary Research Institute

Main Responsibility: Plan and execute research programs and to provide technical products and specialized services to fulfill the needs of livestock industry.

Sub units:

Central Poultry Research Station - Karandagolla.

Animal Virus Laboratory - Polgolla.

Livestock Planning and Economics Division

Main Responsibility: Formulation of livestock development programs/projects and monitoring and evaluation of livestock development programs/projects implemented by national/provincial DAPH and appropriate agencies.

**Veterinary Regulatory Affairs
Division**

Main Responsibility: Implementation of statutes pertaining to the livestock sector.

Sub units:

Animal Quarantine Stations (Colombo, Katunayake, Hambantota and Mattala)

Administration Division

Main Responsibility: Proper management of resources and ensuring smooth functioning of the Department.

Finance Division

Main Responsibility: Efficient management of finances allocated to the Department.

Members of the Directorate

Members of the Directorate in 2018 were as follows:

Dr. Nihal Wedasinghe, Director General, Dr. (Mrs.) R. Hettiarachchi, Additional Director General - Veterinary Research, Dr. K.D. Ariyapala, Additional Director General - Animal Health, Dr. (Mrs.) T.C. Ratnayake, Additional Director General - Livestock Development, Mr. A.R. Rajarathne, Additional Director General - Administration, Dr. L.W.N. Samaranyaka, Director - Animal Breeding, Dr. S. Hettiarachchi, Director - Animal Health, Dr. S.S.P. Silva, Director - Livestock Planning and Economics, Mrs. D.M.B.M. Dissanayake, Director - Human Resource Development, Dr. (Mrs.) K.P.G.K. Badralatha, Director - Veterinary Research, Mrs. V.P.K. Pilapitiya, Director - Administration, Mr. K. Sarath, Chief Accountant and Dr. (Mrs.) V.R.N. Munasinghe, Director - Veterinary Regulatory Affairs (c.u.).

The Organization structure of the DAPH is shown in Annex I.

2. LIVESTOCK SECTOR REVIEW

2.1. Dairy Sector

The dairy sector has been identified as the priority sector for development among other livestock sub sectors in the country. Cattle and buffalo population in the country in 2018 has been recorded as 1.46 million and 0.46 million respectively (Source: LPE Division, DAPH). Domestic milk production recorded as 494.85 million liters (Source: LPE Division, DAPH). It accounts to 2.5% increment compared to the previous year.

Number of milk chilling centers in the year totaled up to 236. The amount of milk collected by 14 main milk processors in the formal milk market in the year amounted to 269.26 million liters, around 27.5%, 19.9% and 17% of milk collected in the country was from the Central province, North-Western province and the North-Central province respectively.

Average farm-gate price per liter of milk in 2018 was around Rs.70.59. Average cost of production of one liter of milk in up country and mid country in 2018 was recorded as Rs.47.67 under intensive management systems. (Source: LPE Division, DAPH)

Form of powdered milk out of milk and milk products imported was 83.18% which had more than 1.5 % of fat.

Import of dairy products amounted to 104,861.87 MT in 2018, an increase of 6.06% over the corresponding figure of 98,863.89 MT in 2017 (Source: Department of Customs). Out of total dairy products imported into the country in 2018, full cream milk powder amounted to 87,228.39 MT which was an increase of 3.16% when compared with 84,548.90 MT in the year 2017. Similarly, import of non-fat milk powder at 11,799.32 MT in 2018 showed an increase of 37.55% from the 2017 import volume of 8,578.07 MT. Total import bill on dairy products reached Rs. 54.00 billion in 2018.

The average price including Cost, Insurance and Freight (CIF) prices (LKR) of imported dairy products in 2017 and 2018 were as follows:

	2017 (Rs./MT)	2018 (Rs./MT)
Whole milk powder	494,974.44	531,277.09
Skim milk powder	353,438.48	334,586.52

(Source: Department of Customs)

International market prices of whole milk powder showed a decrease towards the end of the year. Comparison of prices in 2017 and 2018 are as follows:

International market prices of dairy products (2017 - 2018)				
Product	Price USD/MT			
	2017 (Avg.)		2018(Avg.)	
	Jan.	Dec.	Jan.	Dec.
Whole milk powder	3,288	3,031.25	3,038	3,088
Skim milk powder	2,238	1,700	1,656	1,925

(Source: <http://future.aae.wisc.edu>)

Total availability of milk and milk products in the country had been 1,263.9 million liters of Liquid Milk Equivalent - LME (domestic production and imports) and the per-capita availability was recorded as 159.20 ml/day in year 2018. That is accounted 54 l/year.

2.2. Poultry Sector

2.2.1. Broiler Industry

Procurement of broiler grandparents and parents were recorded as 28,986 and 1,442,923 respectively during the year 2018. Out of the total procurement of broiler parents, 1,058,993 Day Old Chicks (DOCs) were locally purchased. 157 million broiler chicks were produced in the country during the year, recording a 4% increment compared to 150.6 million broiler chick productions in 2017.

34 broiler breeder farms were in operation during the year. The broiler breeder strains imported by them were Cobb (27.7%), Hubbard (18%), Indian River (21.2%), Ross (20.2%) and Arbor Acres (12.8%). Majority of parent DOC (84%) was purchased from local Grand Parent (GP) farms which are three (03)

in number and the rest was imported from USA (82%) and Poland (18%).

Average price of a day-old broiler chick had been Rs. 83.36 in 2018 ranging from Rs. 69.14 in November and Rs. 93.10 in March. Average farm-gate price of live broiler recorded as Rs. 255.94/kg with the lowest price of Rs. 160.00/kg (October) to the maximum price of Rs. 310.00/kg (April).

2.2.2. Layer Industry

Layer industry remains more or less static during the year. The DAPH implements regulations of parent stock import volume with the consensus of registered layer breeder farms as well as the farmer organizations representing the commercial layers. However, the commercial farmers faced some difficulties with the low egg market prices during the 1st half of the year which resulted in culling of commercial flock as well. As the result the market prices of eggs keep on highly fluctuating during the year 2018.

Imports of layer parents were recorded as 68,511 in the year 2018. Pullet chick production was recorded as 7.59 million which was 9.46 million in year 2017.

Average pullet chick price was recorded as Rs. 89.99 and was ranging from Rs. 128.91 in August to Rs. 63.10 in April, 2018. Eleven (11) layer breeder farms were in operation during the year and Shaver Brown (28.2%), Bovans-White (19.6%), Dekalb white (16.5%) Lohmann LSL (13.5%), Hyline Brown (12.2%) Hyline White (5.4%) and Lohmann Brown (4.7%) were the main layer breeder strains imported by these farms. The majority (45.1%) of those were brown layers. Main importing countries were Canada (78.6%), USA (10.9%) and Brazil (10.6%).

Farm gate price of table eggs (brown) ranged from Rs. 10.75 (January) to Rs. 16.00 (August). Average farm-gate price for the whole year recorded as Rs. 13.51 which is 19.5% increase from the previous year. Average retail price for brown and white eggs recorded as Rs. 15.27 and Rs. 14.09 respectively. Total egg production of the country recorded as 2,852.86 million eggs which included 5% of village chicken eggs.

2.2.3. Poultry Feed Industry

Total animal feed production in the country estimated as 1,328,380.03 MT which is 12% increment compared to previous year (1,183,000.66 MT) (Source: DAPH). Ninety five (95%) of the animal feed produced in the country is used for poultry industry (1,261,650.7 MT) which produced both by the commercial feed producers and farmers themselves. Twenty seven (27) registered poultry feed manufacturers were in operation during the year. The commercial poultry feed production in the country was estimated as 771,773.76 MT which is 14% increment compared to 678,187.5 MT in year 2017. Total self-mixed poultry feed production has also been increased by 9% compared

to previous year amounting to 489,876.92 MT.

2.2.4. Poultry Processing Sector

Fifteen (15) processing establishments and eleven (11) poultry further processing establishments registered under DAPH were in operation during the year 2018. Estimated chicken meat production in 2018 at 214.20 '000MT recorded an increase of 7% over the 2017 volume of 200.98. Total value added meat products manufactured by further processing establishments amounted to 13,328.67 MT in the year, an decrease of 12.3% over the 2017 volume of 14,970.07 MT. Out of this production in 2018, a major portion (90.1%) consisted of chicken meat based value added products.

2.2.5. Exports

Export of poultry meat and meat products were recorded as 171.75 MT in the year 2018, an increase of 22.7 MT from the previous year volume of 149.05 MT. Bulk of the chicken meat and chicken meat products were exported to Maldives. Export of table eggs at 5.6 million increased further by 22.4% compared to corresponding figure of 4.6 million in 2017. A total of 0.12 million day-old chicks were exported during year 2018 recording 47.8% decrement compared to 0.23 million in year 2017. A total of 227,120 hatching eggs were exported during the year 2018 compared 24,840 in year 2017 (Source: AQ Station, Colombo).

2.2.6. Imports

237.02 MT poultry meat and meat products, 17.92 MT liquid eggs and 13.24 MT egg powder were imported to the country during 2018 (Source: AQ Station, Colombo). (Key data pertaining to the Industry in 2018 are given in Annex II.

2.3. Swine Sector

Swine sector is one of the main livestock sub- sectors which placed next to the poultry and dairy sectors in Sri Lanka. Around five thousand farmers are engaged in swine farming as their main income generating activity. Total pig population in Sri Lanka has been recorded as 167,557 in 2018 (Source: LPE Division, DAPH). Estimated pork production in the country had been 112, 43.70 MT during the year 2018 (Source: LPE Division, DAPH). A total of 116.8 MT of pork have been imported into the country in 2018 and 6.6 MT of pork and pork products have been exported (Source: Department of Customs). Monthly average retail price of pork was recorded as Rs.613.31 per kg in the year 2018 ranging from Rs.530/kg in January to Rs. 714.40 in December (Source: DCS).



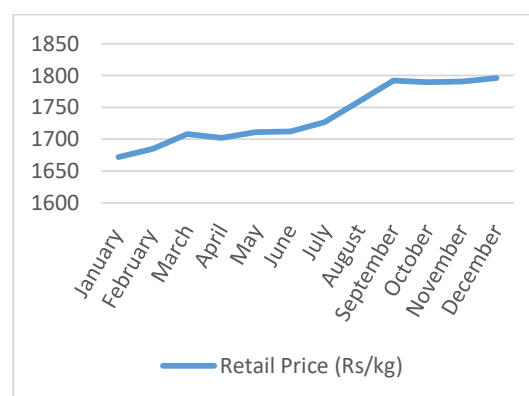
Source: DCS

Figure 2.1: Monthly Average Retail Price of Pork- 2018

2.4. Goat sector

Goat farming is concentrated mainly in dry and intermediate zones of the country where about 75% of goat population is distributed. Goat population in 2018 recorded as 523,238 (Source: LPE Division, DAPH) and number goat farms in the country recorded as 62,782 (Source: LPE Division, DAPH). Average cost of production of mutton was Rs. 310.24 in year 2018. Average retail price of mutton in the country reported as Rs. 1,838.22/kg in the year 2018 ranging from Rs.1,793.33/kg in January to 1,855 kg in December.

A total of 853,948 MT of mutton had been imported into the country during the year 2018. While 0.145 MT had been exported (Source: Department of Customs). Change of average retail prices of mutton is shown below. (Figure2.2).



Source: DCS

Figure 2.2: Retail Price Changes of Mutton 2018

3. ANIMAL HEALTH DIVISION

3.1. Introduction

The animal health division which is one of the five technical divisions in the DAPH is responsible for disease surveillance and control for ensuring required animal health status to development of the livestock industry in the country. The division provided technical leadership and back-up services to prevent entry of exotic diseases and to control and eradicate existing economically important and zoonotic diseases while maintaining animal welfare and ensuring food safety of animal origin.

Animal health division has peripheral units namely Veterinary Investigation Centers (VICs) which are established at district level. Among the 25 administrative districts in Sri Lanka, twenty four of them have already established as functional VICs. Mannar district is still managed by the Vavuniya Veterinary Investigation Center located in the adjoining district. The national level vaccine bank is located at DAPH headquarters for issue vaccine to field level.

Passive animal disease surveillance is carried out by 332 divisional government veterinary offices islandwide. Number of listed diseases are monitored through clinical signs and monthly reported to Animal health division by the field veterinary surgeons. Disease status is analyzed using 'TAD-info', software. (Software developed World Animal Health

Organization and Food & Agriculture Organization for animal disease data analysis)

The Animal Diseases Act No.59 of 1992 stipulates the actions that have to be taken by different personnel in the event of occurrence of a 'notifiable disease' in the country. The owners are obliged to notify the presence of any suspected case of a 'notifiable disease' to the relevant government veterinary surgeon immediately who in turn will carry out a preliminary investigation. In such a situation, the disease reporting is more active and enhanced by following the required procedure. Immediate reporting in a 'Preliminary Reporting format' followed by 'Weekly Returns' until the period of five weeks after the appearance of last fresh case. This is further supported by the district VICs by performing epidemiological investigation and providing laboratory back-up service for disease diagnosis and confirmation where necessary.

Country status of notifiable diseases is reported monthly to OIE by Animal health division. Disease information are published in World Animal Health Information System (WAHIS). Referred information are collated and managed by the animal health division at national level for decision making.

The Sri Lanka Veterinary Epidemiology Bulletin is prepared bi-annually and circulated among the government and private veterinarians and other stakeholders of the livestock industry.

Main Activities of the Division

The major activities performed during the year are listed as follows:

- National level planning and implementing of animal disease control.
- Monitoring and evaluation of animal diseases status in the country and dissemination of animal health related information locally and internationally.
- Maintenance of vaccine bank, island wide distribution of vaccines and monitoring of livestock vaccination programme.
- Strengthening of veterinary investigation network for improved disease surveillance and laboratory back-up for disease diagnosis.
- Implementation of special programmes for livestock health improvement.
- Planning and implementation of avian influenza surveillance programme and emergency preparedness against emerging, re-emerging and exotic diseases.
- Formulation and implementation of veterinary public health policy in order to effectively control identified zoonotic diseases under 'One health' concept.

3.2. Animal Disease Situation

3.2.1. Bovine Diseases

a. Haemorrhagic Septicaemia (HS)

HS is one of the most important contagious bacterial disease in cattle and buffaloes in Sri Lanka. The key factors in prevention and control of the disease are correct and timely reporting, accurate and rapid diagnosis, and strategic use of high quality vaccine.

HS was reported from Six (06) veterinary ranges during the year 2018 in Eastern, Northern, and North Central provinces and laboratory confirmation was made by the Veterinary Research Institute. The cases numbered 218 with overall 200 deaths. Vaccination is practiced using the alum precipitated and oil adjuvant vaccines which are produced locally. During the year 2018, all the animals in outbreak areas have been vaccinated against HS by divisional veterinary officers.

Table 3.1: Spatial and Temporal Distribution of HS in 2018

No.	District	No. of VS range affected	No. of		Month(s) of Occurrence
			Cases	Deaths	
1	Polonnaruwa	1	122	122	January
2	Ampara	1	14	12	September
3	Batticaloa	2	19	13	May, October
4	Mullaitivu	1	52	47	July
5	Vavuniya	1	11	6	June
	All Island Total	6	218	200	

b. Foot and Mouth Disease (FMD)

FMD was reported in sixty nine (69) veterinary ranges in sixteen (16) districts during the year 2018. The cases numbered to 5,240 with 205 deaths. The total number of cases recorded in the previous year (2017) was 848 with 09 deaths. FMD epidemics in Sri Lanka always commenced during the north-east monsoon between December and February. This coincides with the seasonal movement of livestock returning to the villages as a part of extensive livestock management practice especially in dry zone. The fact remained the same as clearly observed in 2014 epidemic which occurred after a

lull period of four years. The index cases were detected in early January and traced back to late December among cattle herds returning from jungle area near Kanthale tank.

In Sri Lanka uncontrolled movement of cattle by traders, herdsmen and approved organizations without the knowledge of the veterinary authority has been recognized as the main contributory factor in the spread of FMD. Hence, implementation of legislative measures pertaining to animal movement has to play a key role in controlling disease spread.

The distribution of cases at different districts is shown in Table 3.2.

Table 3.2: Spatial and Temporal Distribution of FMD in 2018

No.	District	No. of VS range affected	No. of		Month(s) of Occurrence
			Cases	Deaths	
1	Kurunegala	6	383	11	January, April, June, July, August, November
2	Puttalam	1	16	1	May
3	Batticaloa	5	171	2	January, April, December
4	Ampara	7	187	2	January, February, April, May, June
5	Trincomalee	2	113	0	September, December
6	Anuradhapura	15	1,879	69	February, March, October, November, December
7	Polonnaruwa	6	612	54	January, March, April, October, December
8	Badulla	5	476	5	January, February
9	Moneragala	4	452	35	February, April, May
10	Kandy	5	96	2	February, March, August, September, October
11	Matale	4	392	17	January, March, December
12	Nuwaraeliya	1	22	4	September
13	Hambantota	2	138	3	June
14	Jaffna	3	117	0	January, February
15	Vavuniya	2	182	0	February, June, December
16	Kegalle	1	4	0	September
	All Island Total	69	5,240	205	

c. Black Quarter (BQ)

Eighty (80) cases of black quarter and sixty nine (69) deaths were recorded in the country during the period under review. The case fatality rate was found to be 86%. The cases were reported in Northern Province (Vavuniya, Vavuniya North, Thunukkai, Manthei East and

West), North Central province (Horowupathana) and Eastern province (Kokkadicholai and Thubenkerny)

The distribution of BQ cases at different veterinary ranges is shown in *Table 3.3*.

Table 3.3: Spatial and Temporal Distribution of BQ in 2018

No.	District	Veterinary Range	No. of		Month(s) of Occurrence
			Cases	Deaths	
1	Vavuniya	Vavuniya, Vavuniya North	6	6	February, June
2	Mullaitivu	Thunukkai, Manthai East & West	69	60	April, July, August
3	Battialoa	Kokkadicholai, Thubenkerny	4	2	August, October
4	Anuradhapura	Horowpathana	1	1	August
All Island Total			80	69	

d. Brucellosis

Bovine brucellosis is an economically important disease of cattle and buffaloes which adversely affects their reproduction. It is also zoonotic in nature. In Sri Lanka the disease is endemic in certain parts of Eastern and North-Central provinces. Vaccination against Brucellosis is practiced using the S-19 Brucella vaccine which is produced locally. In total, 4,401 animals have been vaccinated by Veterinary Investigation Centers during the year 2018.

e. Bovine Tuberculosis (TB)

In the year 2018, 737 animals were screened for TB by veterinary investigation centers. Test used to detect positive animals was Comparative

Tuberculin Purified Protein Derivative (PPD) test. The causative organism *Mycobacterium bovis* can cause disease in cattle and other domestic animals and wild animals as well.

Control program on Bovine Tuberculosis has been implemented at national level and a base line data establishment was initiated during the year 2013.

f. Bovine Viral Diarrhea (BVD)

1,870 calves born to imported cows have been tested by ELISA by the VRI in 2018. 49 calves were found to be positive for BVD. This is the first time of detection of BVD antigen in Sri Lanka. Presence of BVD antigen was further confirmed by OIE reference laboratory Weybridge.

3.2.2. Poultry Diseases

Major poultry disease reported by divisional veterinary surgeons in this year was Coccidiosis (177,618 cases). Spatial distribution of the disease indicates its presence in all the districts in the country. Infectious Bursal Diseases (119,104 cases), Avian Salmonellosis (78,928 cases), Fowl Pox (64,958 cases) and Newcastle Disease (62,624 cases) were reported during the year 2018. There is a significant reduction in incidence of Coccidiosis, Newcastle disease, Salmonellosis and Infectious bursal disease when compared with previous year.

a. Newcastle Disease (ND)

Newcastle disease (ND) is an endemic disease among poultry population of Sri Lanka for several decades.

Though vaccination against Newcastle disease is a commonly anticipated programme in the country, its application in the field especially among backyard population appears to be seldom practiced. Furthermore, most of the commercial operations usually do not strictly adhere to the recommended vaccination schedule to ensure protection of birds throughout their lifespan.

Outbreaks of Newcastle disease were observed in all the provinces during the year under review. Major outbreaks were encountered in North Western and Northern provinces in spite of using the locally produced vaccine. A total of 62,624 cases and 6,284 deaths were reported, whereas in the previous year there had been 53,659 cases with 6,270 deaths were recorded.

Table 3.4: Distribution of Newcastle disease (ND) - 2018

Province	Cases	Deaths
Central	1,126	100
Eastern	9,994	987
North Central	4,129	244
North Western	27,039	238
Northern	17,661	4,195
Sabaragamuwa	847	8
Southern	783	182
Uva	299	165
Western	746	165
Total	62,624	6,284

b. Infectious Bursal Disease (IBD)

119,104 cases of Infectious Bursal disease were recorded in the year 2018. More than 75% of the cases were confined to North-Western province.

c. Salmonellosis

Salmonellosis in poultry is caused by *S.pullorum* and *S.gallinarum*. 78,928 cases were reported in the country during the year 2018 and 738 deaths were reported in commercial poultry farms.

Table 3.5: Distribution of Infectious Bursal Disease - 2018

Province	Cases	Deaths
Central	128	28
Eastern	4,158	333
North Central	1,057	348
North western	101,348	1,672
Northern	8,021	986
Sabaragamuwa	2,346	159
Southern	828	41
Uva	132	23
Western	1,086	70
Total	119,104	3,660

Table 3.6: Distribution of Poultry Salmonellosis in Commercial Poultry Farms

Province	Cases	Deaths
Central	28	0
Eastern	898	84
North Central	505	22
North western	69,890	449
Northern	1,557	55
Sabaragamuwa	553	6
Southern	169	32
Uva	198	11
Western	5,130	79
Total	78,928	738

3.3 Veterinary Public Health (VPH) Activities

Requirement to implement VPH activity was recognized in the OIE Performances of Veterinary Services (PVS) evaluation and the Gap Analysis. Also it was identified as a national requirement and the current need of the country. Thus, the Veterinary Public Health unit was established under the Animal health directorate. Priority of VPH was given to Rabies control and mitigation activities of Anti-Microbial Resistance (AMR). As the method of sustainability of VPH activities, Animal health division has proposed a mechanism to establish VPH activities at the provincial level.

3.3.1. Rabies Control Programme

Based on the cabinet decision taken in 2016 (No 16/1858/744/014-1), DAPH has launched the stray dog population control activities and rabies control activities island wide. During the year 2018, in total of 1,191,176 dogs were vaccinated against rabies in island-wide programme. Animal birth control programs as well as awareness programs were conducted with the support of provincial DAPH. Approximately 68,002 dogs were sterilized under the program and 2,604 awareness programs were conducted. In line with the World Rabies Day 2018, national level awareness programs and 09 provincial programs and Rabies week conducted by the central DAPH with the support of provincial DAPH.



Figure 3.1: Vaccination of dogs



Figure 3.2: Sterilization of cats

3.3.2. Awareness Program on Anti-Microbial Resistance (AMR)

In line with the global action plan on Anti-microbial Resistance, Animal health division was involved in national level discussions with relevant organizations to get financial support from WHO. Sri Lanka College of Microbiologists and Sri Lanka Veterinary Association jointly organized eight awareness programs for the benefit of divisional veterinary surgeon. The program consisted of theme presentations conducted by identified resource persons followed by lengthy discussions. At the awareness programs, (1) Antimicrobial resistance in bacteria associated with animals and animal originated food: Evidence from recent

local studies, (2) Contribution of In-feed antibiotics to AMR, (3) How to produce antibiotic free chicken (highlight on nutrition, (4) Importance of bio-security to minimize AMR, (5) Managing AMR at the Human-Animal Interface, (6) Use of Antibiotics in veterinary practice (highlight on the quantities imported to the country) were discussed. 280 divisional veterinary surgeons attended to the awareness programs.

3.4. Contagious Diseases Control

3.4.1. Vaccination of Livestock

Mass-scale preventive vaccination was carried out against Foot and Mouth Disease, Haemorrhagic Septicaemia and Black Quarter in cattle and buffaloes.

Table 3.7: Issue of Vaccines to the Field in 2018

Province	Number of Vaccine doses	
	FMD	BQ
North Western	140,100	59,103
Eastern	270,030	56,562
North Central	203,390	26,070
Northern	108,040	42,042
Southern	50,000	0
Uva	59,250	0
Western	60,000	0
Central	37,800	0
Sabaragamuwa	19,000	0
Total	947,610	183,777

Table 3.8: Province-wise Vaccination Targets and Achievements in 2018

Province	FMD		BQ	
	Target	Progress	Target	Progress
North Western	140,000	103,346	62,000	43,580
Eastern	260,000	256,455	65,000	40,274
North Central	150,000	171,263	26,000	19,477
Northern	150,000	109,167	80,000	41,555
Southern	45,000	34,769	0	0
Uva	50,000	48,474	0	0
Western	60,000	57,248	0	0
Central	30,000	36,821	0	0
Sabaragamuwa	15,000	18,014	0	395
Total	900,000	835,557	233,000	145,281

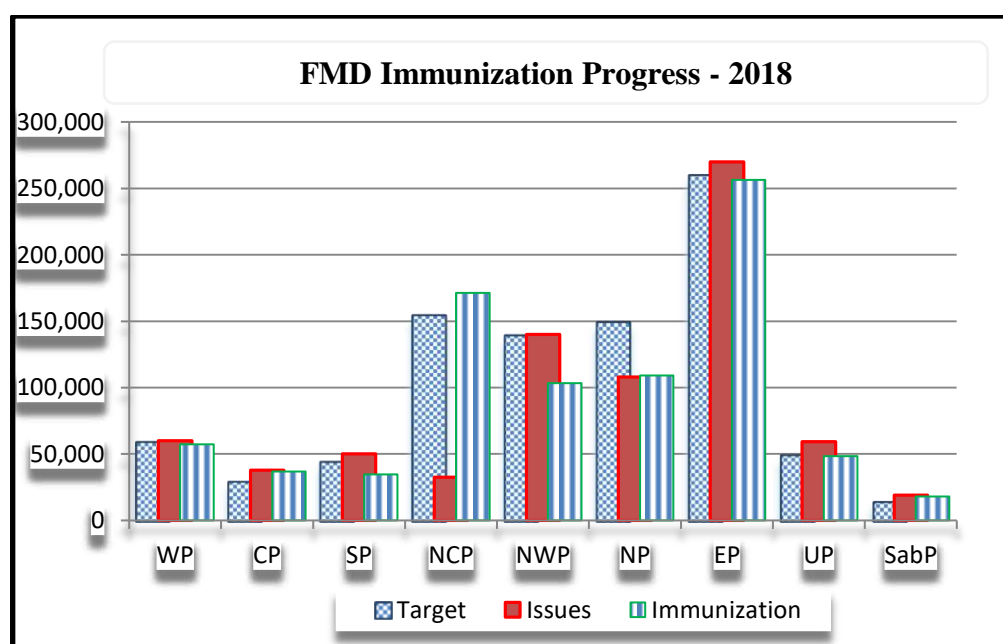


Figure 3.3: FMD Immunization Progress

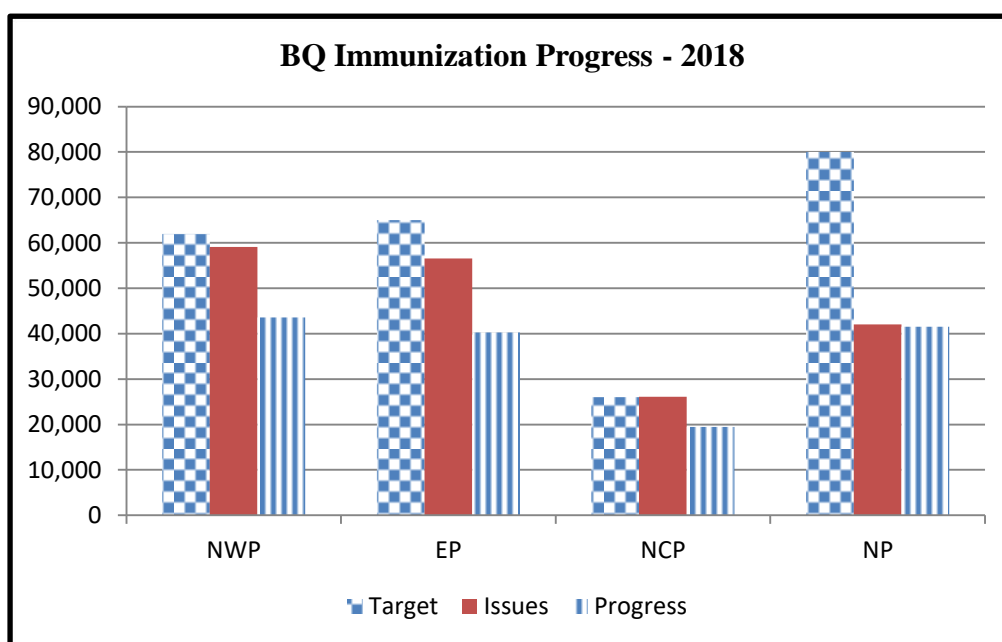


Figure 3.4: BQ Immunization Progress

3.4.2. Vaccination of Poultry

Vaccine against Newcastle disease has been produced locally and distributed through the Government Veterinary Surgeons for free distribution in order to immunize especially the backyard poultry and small-scale poultry farms.

Accordingly 3.94 million doses of vaccine has been distributed to the Field Veterinary Surgeons. Three million birds have been vaccinated using the locally produced vaccine as shown in Table 3.9.

Table 3.9: Vaccination Against Newcastle Diseases using Locally Produced Vaccine

Province	Vaccination
Western	164,573
Central	7,960
Southern	8,601
North Central	38,289
North Western	3,000
Northern	1,041,052
Eastern	1,972,980
Uva	21,320
Sabaragamuwa	46,705
Island Total	3,304,480

3.5. Special Animal Health Programmes

a. Livestock Health Improvement Project

A special project had been initiated in year 2007 in selected dairy farms. Disease status is closely monitored and assistance to improve the health was provided through VIOs. The selected farms were identified with geo-reference, a database was developed with all relevant information and the farms were visited by the respective Veterinary Investigation Officers (VIOs) on a regular basis.

Under this project 2,335 dairy farms have visited by the Veterinary Investigation Officers during the year 2018. Subsequently 17,191 milking cows have been subjected to California Mastitis Test (CMT) for early detection of sub clinical mastitis. Moreover, 4,635 liters of teat dip solution and 175 liters of CMT Reagents were prepared at VICs and were distributed among these farmers and relevant divisional veterinary surgeons in order to improve the hygienic practices in these farms. Samples that have shown high positive reactions to CMT have been further subjected to laboratory investigation. Bacterial cultures indicated the presence of *Staphylococci*, *Streptococci*, and *E. coli* species. Suitable antibiotics were recommended accordingly.

2,031 samples were subjected to Antibiotic Sensitivity Tests (ABST) and identified the most suitable antibiotics as drugs of choice at different instances. It was recommended to use these antibiotics for preparation of economically beneficial and locally produced udder infusions to be used at farm level. A total 18,726 vials of udder base was issued by the VICs in 2018. Furthermore, intra mammary preparations comprising the most appropriate antibiotics were prepared at some VICs and supplied for treating mastitis cases.

b. Avian Influenza Surveillance Programme

Avian influenza surveillance is a key component in emergency preparedness against the disease in non-infected countries. It plays a major role in early

warning system against the introduction of this exotic disease. The national surveillance programme against Avian Influenza was initiated in 2007 and it was continued in year 2018 too. The surveillance programme for the country was prepared, coordinated and monitored by Animal health division. The field level implementation is carried out by the veterinary investigation officers.

There are three major components in the Highly Pathogenic Avian Influenza (HPAI) surveillance programme, the clinical disease surveillance, sero-surveillance and targeted epidemiological surveillance. Clinical disease surveillance is carried out by field veterinary surgeons and district veterinary investigation officers. Sero-surveillance is designed to detect antibody against HPAI in commercial layer and broiler operations. The sampling sites are identified by veterinary surgeons in accordance with the distribution of poultry population. The program is repeated annually. There were 300 sampling sites identified in the country and 15 samples were collected per site for testing.

Epidemiological surveillance was undertaken to monitor the risk of introduction of HPAI through migratory birds. 35 hot spots were identified along 11 coastal districts in the country as high risk areas. Fresh fecal samples (4,482) and cloacal swabs of migratory birds, cloacal swabs (5,443) and serum samples of backyard poultry and ducks, cloacal swabs of poultry in live bird market (1,165) and poultry processing plants (2,295) were collected by district

veterinary investigation officers. All the samples including were tested at animal virus laboratory of Veterinary Research Institute. Fecal samples and cloacal swabs subjected to virus isolation by inoculating chicken embryonated eggs. The results were found to be negative for the presence of avian influenza viruses.

A total of five thousand seven hundred (5,700) serum samples were collected from commercial layer and broiler birds during the year under review and samples were tested in animal virus laboratory using Enzyme Linked Immuno-Sorbant Assay (ELISA). There have been zero-reactors to evidence the presence of Avian Influenza type 'A' virus antibody and the reactor rates at district level varied. The zero-reactors have been further tested to ascertain the presence or absence of H5, H7 and H9 subtypes. The testing programme will be continued in 2019.

c. Salmonella Control Programme

All the poultry breeder farms having either parent birds or grandparent birds have to be in salmonella-free status in order to ensure the production and supply of salmonella-free chicks. All the breeder farms have been instructed to carry out regular screening programs which is followed by official verification by the relevant Veterinary Investigation Centers and the Veterinary Research Institute.

There were 55 poultry parent farms and 03 grandparent farms registered with the Department for the year 2018. *Salmonella* organism was isolated at

some of the hatcheries. Furthermore, killed salmonella vaccine was allowed in selected breeder farms to control the infection and eleven breeder farms carried out the Salmonella vaccination during the year under review.

d. Upgrading of Regional (District) Veterinary Laboratories - Kurunegala, Puttalam and Gampaha Districts

Poultry, shrimp and ornamental fish industries in Sri Lanka have shown a phenomenal growth over the recent past. Therefore, Wariyapola, Chilaw and Welisara VICs were selected to be further developed to cater the demand of these industries. Laboratory facilities will be developed to facilitate rapid disease diagnosis, regular screening and surveillance of poultry and fish diseases and quality certification of poultry and fish products. The lab services will be provided at affordable cost for the sustainable development of poultry and fish industries.

Small, medium and large scale farmers who supply poultry, shrimp and ornamental fish to the local market as well as the international market are targeted as beneficiaries/ stakeholders.

Upgrading of selected VICs with the PCR and ELISA diagnostic facilities have initiated during 2018 and procurement process of high tech laboratory equipment, chemicals, reagents, glassware and consumables are ongoing.

e. The project “Mitigation of Disease Risks to Livestock and Humans through Targeted Wildlife Disease Surveillance

Throughout the history, zoonoses have affected human health and, wildlife has always played a role in epidemiology of these diseases. Today, zoonoses with wildlife reservoir constitute a major public health problem affecting all continents.

Over 60% of the human infectious diseases that have emerged in the last six decades of the 20th century were caused by infectious agents transmitted from domestic animals and wild animals. Increasing urbanization and loss of forest cover have brought man and wild animals into closer contact, thereby exacerbating the disease threats well as conflicts at this interface.

Cost-effective prevention and control of these zoonoses require an interdisciplinary and holistic approach, and international cooperation. Surveillance, improvement of laboratory capacities, capacity building, research and communication are identified as the key elements of such control strategies.

The OIE gap analysis on the Performance of Veterinary Services (PVS) for Sri Lanka (2012) identifies surveillance for diseases in wild animals as a key component of performance for a national veterinary service. It notes that Sri Lanka has taken important preliminary steps in forging the collaborative agreements among relevant government departments and academia that will permit the evolution of a wildlife disease surveillance

program, but it also urges Sri Lanka to implement an operational wildlife disease surveillance program and to use the results to inform good government of human and animal health throughout the country.

Department of Animal Production and Health has responded to this national requirement and the international obligation by initiating the project “Mitigation of disease risks to livestock and humans through targeted wildlife disease surveillance” with collaboration of the Department of Wildlife Conservation, Faculty of Veterinary Medicine and Animal Science, University of Peradeniya and the Ministry of Health.

Two central laboratories at the Veterinary Research Institute (VRI) and 09 regional laboratories including Anuradhapura, Polonnaruwa, Ampara, Ratnapura, Mankulam, Hambanthota, Dambulla and Homagama Veterinary Investigation Centers were identified to develop for wildlife disease surveillance. The selected laboratories were equipped with items including lab equipment/instruments, consumables, chemicals/reagents, Personal Protective Equipment (PPE), lab furniture, communication/ IT equipment and generators required for wildlife disease surveillance programme.

Capacity development programs were conducted under the project for DAPH and wildlife officers those who are engaging with wild life disease surveillance.

DAPH officers were trained on GIS and application and diagnosis of fish diseases at Post Graduate Institute of Science and Faculty of Veterinary Medicine and Animal Science.

A workshop on necropsy techniques of different species of wild animals was conducted at the Girithale Wildlife Training Center. Workshop and awareness program on zoonotic diseases, wildlife necropsy procedures, sample collection and transport methods were conducted for divisional VSs, VIOs, wildlife veterinarians and veterinary assistants at Ampara district.

As an initiative for the research, an awareness program was conducted for four identified priority diseases (Rabies, TB, FMD, and HS) that have zoonotic and economic importance.

Divisional veterinary ranges, Veterinary Investigation Centers and villages surrounding the National Parks and Wildlife Sanctuaries were identified to appoint community level leaders to establish a wildlife disease information network. An awareness program was conducted in Eastern Province for DAPH and DWC staff.

Three Radio programs “Ananthaya” in City FM were conducted on wild animals, wild animal diseases and their zoonotic importance.



Figure 3.4: Postmortem of a sloth bear

3.6. Veterinary Investigation Services

The concept of strengthening the laboratory back up for veterinary services by providing veterinary investigation facilities at district level by District Veterinary Investigation Centres (DVICs) was recognised in Year 2006. Since then continuous effort has been taken to ensure that these facilities are set up at each and every district. With the establishment of new Veterinary Investigation Centre at Kandy districts, the number of total functioning VICs became twenty five during the year under review.

Veterinary Investigation Centres focused mostly on animal disease investigation in order to support the disease surveillance system in the country. 359 field level investigations carried out during the year 2018. Foot and Mouth Disease, Bovine Viral Diarrhea, Black Quarter, Brucellosis, Babesiosis, Theiliasis and Mastitis in cattle and buffaloes; Newcastle Disease, Salmonellosis, Infectious Bursal Disease and Coccidiosis in poultry are some of the specific disease conditions

diagnosed or/and confirmed at District Veterinary Investigation Centers during this period.

Veterinary Investigation Centers played the leading role in immunization of cattle against bovine brucellosis, bovine babesiosis, contagious pustular dermatitis vaccination in goats, mastitis control programme in cattle, salmonella

control programme in poultry breeder farms and avian influenza surveillance programme at national level. Detail information on activities performed at Veterinary Investigation Centers during the year 2018 has been shown in Annexure III.

3.7. Financial Progress

The capital and recurrent financial allocation and expenditure for the year 2018 are as follows.

	Allocation (Rs. Mn)	Expenditure (Rs. Mn)	Achievement (%)
Capital	306.00	153.82	50.26%
Recurrent	5.73	10.72	187.08%

4. ANIMAL BREEDING DIVISION

4.1. Introduction

Animal breeding division is responsible for national level livestock genetic improvement through facilitation of appropriate breeding techniques and logistic support.

Deep frozen semen is produced at Kundasale and Polonnaruwa Artificial Insemination Centers for artificial insemination (AI) of cattle, buffalo and goat. In addition, field AI programs are facilitated by supplying semen of specific genetic merits imported from other sources. Sexed semen are also supplied to the provinces on demand. The national AI program is monitored and centrally assessed by the division. In addition, nutritionally balanced feeding and feed resource utilization for crossbred cattle and buffaloes in provincial level are promoted through supply and facilitation of seeds and planting materials.

Two goat breeding farms located at Thelahera and Imbulandanda maintain nucleous flocks of Jamunapari goat and

generally issue stud goats for breeding purposes.

Main Functions of the Division

- Conservation and sustainable utilization of livestock genetic resources.
- Improving the genetic make-up through the use of animal reproductive technologies.
- Enhancing the available feed resource base through the introduction of fodder resources.
- Development of skilled human resources in order to strengthen the animal breeding services.

4.2. Special Livestock Development Projects implemented during the year 2018

4.2.1. Livestock Breeding Project

Livestock breeding project encompasses facilitate national AI service and natural service, procurement of germplasm, monitor changes in population trends of Animal Genetic Resources (AnGR), upgrading livestock & poultry and enhance feed resources production and utilization.

a. Production of Semen

Table 4.1: No. of semen doses produced in 2018

Species/Breed	AI Center	
	Kundasale	Polonnaruwa
Jersey	183,199	-
Friesian	16,964	-
Cross	81,742	-
Sahiwal	-	11,986
Murrah	-	212
Girolanda	-	31,842
Total	281,905	44,040

b. Import of Semen

986 doses of Jersey sexed semen, 3,982 doses of cross bred semen, 2,996 doses of Sahiwal semen and 2,497 doses of Murrah semen were imported during the year 2018 to maintain the diversity in local populations.

c. Distribution of Semen

Table 4.2: Breed-wise distribution of semen -2018

Species	Breed	Locally produced	Imported	Total
Cattle	Jersey	135,968	3,315	139,283
	Jersey (Sexed)	-	189	189
	Frisien	52,270	953	53,223
	Sahiwal	24,736	463	25,199
	Cross	51,442	-	51,442
Buffalo	Girolando	-	1,649	1,649
	Murrah	4,004	63	4,067
	Niliravi	-	145	145
Goat	Jamunapari	2,926	474	3,400
	Saanen	240	200	440
Total		271,586	7,451	279,037

d. Artificial Insemination Service

Artificial Insemination (AI) is the proven and efficient reproduction technique widely practiced in the island. Mainly cattle and less frequently buffaloes and goats are inseminated by the trained field staff of both state and private technicians. The role of the Animal breeding division is to facilitate and monitor the program. Good quality semen is produced at Artificial Insemination Centers located at Kundasale and Polonnaruwa and distributed to the veterinary offices together with the liquid nitrogen which is required to maintain the keeping quality.

Table 4.3: Targets, performance and achievement of AI- 2018(Cattle and Buffaloes)

Province	Target	Performance	Achievement (%)
Central	58,190	57,045	98%
Uva	27,725	26,749	96%
North Central	21,000	18,567	88%
North Western	70,000	55,962	80%
Sabaragamuwa	8,560	6,074	71%
Eastern	13,292	9,273	70%
Northern	43,796	28,689	66%
Southern	15,930	10,221	64%
Western	26,633	16,838	63%
Island Total	285,126	229,418	80%

Pregnancy Diagnosis (PD)

Pregnancy Diagnosis (PD) is performed by the range Veterinary Surgeons (VS), usually two months after insemination, manually by per rectal examination to confirm the pregnancy. National achievement in PD during 2018 was 74,101 (58%).

Table 4.4: Province-wise target, performance and achievement of PD- 2018

Province	Target	Performance	Achievement (%)
Uva	12,955	14,051	108%
Eastern	7,175	4,982	69%
Southern	9,570	6,458	67%
Sabaragamuwa	5,381	3,202	60%
North Western	35,000	18,608	53%
Central	21,115	11,169	53%
Northern	11,911	5,931	50%
Western	13,763	5,971	43%
North Central	10,800	3,729	35%
Total	127,670	74,101	58%

Calving

Calving resulted due to AI is usually reported by the field staff through the respective veterinary surgeons. Reported national such number of calving was 69,520 (69%).

Table 4.5: Province wise target, performance and achievement of calving -2018

Province	Target	Performance	Achievement (%)
Uva	8,879	8,494	96%
Sabaragamuwa	3,337	3,096	93%
Southern	4,300	3,942	92%
North Western	29,035	21,926	76%
Central	20,013	15,086	75%
North Central	6,400	4,198	66%
Eastern	5,108	2,922	57%
Northern	11,911	5,570	47%
Western	12,051	4,286	36%
Total	101,034	69,520	69%

AI Training

Fresh training and refresher training are conducted by the DAPH to train and refresh both state and private AI technicians as per the requests made by the range veterinary surgeons. All the

competent AI technicians are registered and code numbers are issued for easy monitoring purpose.

Table 4.6: Training on AI for field staff and students 2018

Technician Category	No. Trained
LDO (Fresh)	98
Private Tech (Fresh)	35
LDO NLDB (Fresh)	22
Total	155

e. Infertility Investigations

The infertility cases in cattle/buffaloes reported by the range VSs are usually attended (by this division) and total of 572 such cases were reported during the year 2018.

f. Natural breeding improvement

Breeding improvement in large herds mainly in the dry zone districts under extensive management has no access to national AI facility and therefore, selected genetically improved stud bulls are provided to such farmers under 50% concession of the real value.

Table 4.7: Issue of stud bulls selected and screened for common diseases 2018

	Target	Achievement *
Cattle	100	32
Buffaloes	50	32
Total	150	64

*Progress slowed due to competitiveness with middlemen for purchasing bulls for beef.

g. Pedigree and Performance Recording Scheme (PPRS)

This project currently is implemented as a pilot breeding project in Kurunegala,

Anuradhapura, Polonnaruwa, NuwaraEliya and Badulla districts. The main target is to identify locally adapted dairy cows with superior genetic merits for lactation yield. Such cows are impregnated with imported proven semen. The bull calves, born to those cows, would possess quantitative Trait Loci (QTL) responsible for both adaptability and additive effect of superior lactation yield. The sons of selected cows are again selected and screened as future semen donors for Artificial Insemination Centers and semen is expected to utilize in local AI programs.

Four (04) number of certified bull calves have been screened and procured during 2018. Capacity building among farmers on the project was implemented and 324 farmers were participated. In addition, 43 veterinary surgeons, 54 Livestock Development Instructors (LDIs), 38 recorders and were exposed to knowledge update program.

h. Pasture development

Facilitation of nursery development under provincial DAPH level was undertaken and total of nine such nurseries were supported during 2018 with technical directions and some inputs including seed and planting materials.

Table 4.8: Progress of the pasture / fodder development activities 2018

Activity	Target	Achievement
TOT on production and utilization (md)	450	497
New establishment of fodder in AI centers (ha)	05	05
Fodder nursery improvement (no.)	09	09
Fodder conservation as hay (Mt.)	04	09

i. Goat development

Division of Animal Breeding maintains two nuclear level goat farms with high genetic merits of *Jamunapari* goat breed. Main objective of the two nuclear goat farms, being the issue of stock for breeding purpose, 175 goats (112 stud goats and 63 female goats) have been issued to the fattener farmers.

4.2.2. Heifer Calf Rearing (HCR) project

Overall outcome of the project is to optimum utilization of AI born heifer calves to raise them as good milkers throughout their lifetime. It is an island-wide project and cash incentives are provided to the farm owners of such registered heifers to motivate them for appropriate feeding of the heifers.

Table 4.9: Physical achievements of Heifer Calf Rearing Project 2018

Payment of incentives		Unit	Target	Achievement*
Farmer incentives	No. registered	No. of payments	21,250	25,602
	2 nd Installment		3,000	1,910
	3 rd installment		2,000	898
	4 th installment		1,000	898
Monitoring of registered calves			600	494

*Targets were hampered due to incidence of Foot & mouth disease prevailed during the year.

4.3. Financial progress

The capital and recurrent financial allocation and expenditure for the year 2018 are as follows

	Allocation (Rs. Mn)	Expenditure (Rs. Mn)	Achievement (%)
Capital	236.2	169.63	71.8%
Recurrent	3.12	1.41	45.2%

5. VETERINARY RESEARCH INSTITUTE

5.1. Introduction

Veterinary Research Institute (VRI) is the only national level Research Institute, involved in veterinary research, diagnostic, consultancy, teaching and technology transfer activities in the livestock sector. In view of improving animal health and livestock production in the country a number of innovative livestock products have been developed and produced by the VRI to the farming community and other stakeholders of the industry. On the other hand diagnostic testing, laboratory and advisory services are carried out by the VRI with the intention of uplifting socioeconomic status of the livestock farming community. Basic and applied researches are conducted in collaboration with various other national and international institutions in

order to explore the novel concepts and scientific advancements.

Main functions of the VRI

- Carryout animal production and health research
- Production of Veterinary vaccines and other biological.
- Laboratory disease diagnostics and investigation
- Provide analytical facilities
- Provide referral laboratory facilities for the livestock industry and other institutions, both nationally and internationally.
- Provide inputs for dairy, poultry and other livestock sectors.
- Provide technology expertise.
- Support implementation of regulations and legislative enactments related to livestock sector.

5.2. Products and Services

The details of manufacture and issues of veterinary products by the VRI in 2018 are as follows.

5.2.1 Products issued

a. Vaccines

Vaccine	Production (Doses)	Issues (Doses)
Hemorrhagic Septicemia (HS) (Oil/ Alum)	335,390	335,390
Black Quarter (BQ)	180,642	129,954
Foot and mouth disease (FMD)	242,130	145,440
Tick fever (<i>Bivalent B bovis</i> & <i>B bigemina</i>)	0	2,420
Brucella S 19	7,500	7,500
Newcastle Disease (ND)	2,986,400	2,986,400
Fowl cholera	411,410	295,010
Swine pasteurellosis	3,000	0
Wart vaccine	0	380

b. Diagnostic reagents

Reagent	Quantity Issued
CMT reagent (L)	60.0
Pullorum antigen (doses)	117,526
RBPT antigen (ml)	160
MRT (ml)	5

c. Therapeutic reagents

Reagent	Quantity Issued
Teat dip solution (L)	85.0
Udder infusion (Vials)	43,942

d. Starter cultures

Starter culture	Quantity Issued
Yoghurt culture (vials)	131
Curd culture (vials)	289

e. Chicks issued from Central Poultry Research Station, Karandagolla

Chick type	Number Issued
Day old chicks (Backyard poultry)	120,760

5.2.2 Services

a. Examination of specimens

Specimen Type	No. of Samples
Blood smears for parasites	1,047
Faecal samples for parasites	1,167
Skin/Litter/Ticks/Intestinal samples for parasites	14
Litter/ bedding samples	61
Skin scrapings	317
Blood samples for disease diagnosis	980
Plasma/blood/serum for brucellosis, leptospirosis and pasteurella	1,004
Tissue samples for histopathology	1,451
Tissue samples for microbiology	1,948
Milk samples for CMT	169
Milk & poultry samples for ABST	333
Serum samples for viral disease diagnosis	9,900
Tissue samples for viral disease diagnosis	2,599
Cloacal/fecal swabs, egg parts, chicken powder for viral disease diagnosis	14,632
Urine samples	8
Semen samples for trichomonas	5

Specimen Type	No. of Samples
Intestinal samples	50
Feed samples for microbiological quality	3,028
Day old chick samples	138
Fish samples for microbiology, parasites and PCR	1,923
Water samples for microbiology	206
Number of PCR done for ruminant, poultry & other monogastric animals	880
Microbiological culture tests carried out	9,000
Total bacterial counts performed	616
Seed preparation of bacterial vaccines (no. of batches)	257
Quality testing bacterial vaccine harvests (no. of batches)	53
Quality testing bacterial vaccine final product (no. of batches)	36

b. Analysis, identification and quality testing of samples

Sample Type	No. of samples
Feed samples for proximate components and minerals	604
Mineral mixtures and blood samples for mineral analysis	107
Milk and milk products samples for microbiological quality	252
Milk and milk products samples for compositional quality	1,774
Species identification using meat, skin and blood samples	104
Soil samples for chemical properties	329
Water samples for chemical properties	35
Plant samples for nitrate, oxalate and soluble carbohydrates	1,724
Seed samples for purity, germination and viability	
Silage samples for quality testing	255

c. Field and laboratory investigations

Investigation Type	No. of investigations
Field Disease Investigations	10
Postmortems	2,459
No. of Lab Disease investigations	1,656
Field Investigation into nutritional problems	7
Field Investigation into milk quality control problem	12
Ration formulation evaluations	15
Confirmation of contagious / Notifiable diseases	50

d. Sample analysis for Statutory purposes, Quarantine, Export certification etc.

Investigation Type	No. of investigations
No. of samples handed for statutory purposes	19
No. of food products for microbiological examination	2
No. of court directed Investigations	123
No. of samples for Quarantine/ Import, Export purposes	3,924

e. Sample analyzed for notifiable diseases

Investigation Type	No. of investigations
No. of samples confirmed for notifiable ruminant animal disease (HS x 10, FMD x 35)	45
No. of samples confirmed for notifiable Swine diseases	00
No. of samples confirmed for notifiable Avian diseases	05
No. of samples confirmed for notifiable Fish diseases	00

5.3. Clients Registered at VRI

Place of registration	No. of clients
Coordinating unit	3,447
Central Poultry Research Station	773
Animal Virus Laboratory	568

5.4. Research Projects

Research projects conducted during the year are as follows:

01. Title: Development of in-house ELISA kit for *Mycoplasma gallisepticum* infection in poultry

Principal Investigator: Dr. K.M.S.G. Weerasooriya

Collaborating Scientists: Dr. P.S. Fernando, Dr. Dr. M.A.R. Priyantha

Duration: 1 Year

Status of the project: Completed

02. Title: Study on use of histopathological and immune histochemical techniques for detection of bovine tuberculosis

Principal Investigator: Dr. G.I.S. Perera

Collaborating Scientists: Dr. S.M.T.S. Manchanayaka, Dr. P.S. Fernando, Dr. H.R.N. Jinadasa

Duration: 3 Years

Status of the project: Continued to 2019

03. Title: Immunohistopathological study on Porcine Reproductive and Respiratory Syndrome (PRRS) and Porcine Parvo Virus (PPV) infection

Principal Investigator: Dr. S.M.T.S. Manchanayaka

Collaborating Scientists: Dr.S. Puvanendiran, Dr. G.I.S. Perera, Dr. P. Bandara, Dr. K.G.I.S. Disnaka

Duration: 3 Years

Status of the project: Continued to 2019

04. Title: PCR based detection of cow milk adulteration in fresh goat milk in Kandy district

Principal Investigator: Dr. A.P.D.G. Pathirana

Collaborating Scientists: Dr. U.L.P. Mangalika

Duration: 2 Years

Status of the project: Continued to 2019

05. Title: Examine the efficacy of selected probiotics and phytobiotics to replace antibiotics in poultry feed

Principal Investigator: Dr. M.W.C.D. Palliyeguru

Collaborating Scientists: Dr. N. Priyankarage

Duration: 3 Years

Status of the project: Continued to 2019

06. Title: Layer performances and Egg Quality characteristics affecting the hatchability, in village chicken at CPRS, Karandagolla

Principal Investigator: Dr. M.W.C.D. Palliyeguru

Collaborating Scientists: Dr. N. Priyankarage

Duration: 3 Years

Status of the project: Continued to 2019

07. Title: Identification of two native wild life species in extinction as a technical assistance to prevent illegal slaughtering

Principal Investigator: Dr. M.W.C.D. Palliyeguru

Collaborating Scientists: Dr. K.H.D.T. Kasagala

Duration: 3 Years

Status of the project: Continued to 2019

08. Title: Establishment of fatty acid profiles of animal feeds and products

Principal Investigator: Dr. W.M.P.B. Weerasinghe

Collaborating Scientists: Dr. N. Priyankarage

Duration: 2 Years

Status of the project: Continued to 2019

09. Title: Community based active survey of dog rabies in Karuwappenkerny Grama Niladhari Division in Sri Lanka

Principal Investigator: Dr. U.K.H. Uberathna

Collaborating Scientists: Prof. N.P. SunilChandra, Prof. L. Srikitjakarn.

Dr.W. Chisowwong

Duration: 1 Year

Status of the project: Completed

- 10. Title:** Occurrence of Ethanol unstable milk and its relation with physico-chemical characteristics of milk
Principal Investigator: Dr. U.L.P. Mangalika
Collaborating Scientists: Dr. A.P.D.G. Pathirana, Dr. M.W.C.D. Palliyeguru
Duration: 3 Years
Status of the project: Continued to 2019
- 11. Title:** Development of strip based methods for detection of common adulterants in milk
Principal Investigator: Dr. U.L.P. Mangalika
Collaborating Scientists: Dr. A.P.D.G. Pathirana
Duration: 3 Years
Status of the project: Continued to 2019
- 12. Title:** Characterization of six isolates of *A. marginale* found from Sri Lanka to obtain the best isolate for cell culture vaccine inoculum
Principal Investigator: Dr. S.S. Iddamaldeniya
Collaborating Scientists: Dr. S. Puvanendiran, Dr. N.D.S. Disanayaka, Dr. N.A.D.E.M. Gunasekara
Duration: 2 Years
Status of the project: Temporarily stopped
- 13. Title:** Development of an *A. marginale* blood vaccine to control the infection at Ridiyagama farm
Principal Investigator: Dr. S.S. Iddamaldeniya
Collaborating Scientists: Dr. S. Puvanendiran, Dr. N.D.S. Disanayaka, Dr. N.A.D.E.M. Gunasekara, Dr. K.G.I.S. Disnaka
Duration: 2 Years
Status of the project: Temporarily stopped
- 14. Title:** Introduction of oil adjuvant vaccine to control ND in Sri Lanka
Principal Investigator: Dr. H. Kothalawala
Collaborating Scientists: Dr. S. Puvanendiran
Duration: 2 Years
Status of the project: Continued to 2019
- 15. Title:** Detection and characterization of MRSA, ESBL and carbapenem resistant *E. coli* among isolates in bovine mastitis
Principal Investigator: Dr. M.A.R. Priyantha
Collaborating Scientists: Dr. P.S. Fernando, Dr. K.M.S.G. Weerasooriya
Duration: 2 Years
Status of the project: Continued to 2019

16. Title: Characterization of ESBL producing E.coli and fluoroquinolone resistant Salmonella species in commercial broilers

Principal Investigator: Dr. M.A.R. Priyantha

Collaborating Scientists: Dr. P.S. Fernando, Dr. K.M.S.G. Weerasooriya

Duration: 2 Years

Status of the project: Continued to 2019

17. Title: Isolation, Identification and characterization of strains of contagious ecthyma(orf) virus from goats for development of vaccine

Principal Investigator: Dr. S. Puvanendiran

Collaborating Scientists: Dr. H. Kothalawala

Duration: 1 Year

Status of the project: Terminated

18. Title: Determining the prevalence of Neosporacanium antibodies in bovines in North Western, Western and Southern provinces

Principal Investigator: Dr. N.D.S. Disanayaka

Collaborating Scientists: Dr. S.S. Iddamaldeniya

Duration: 2 Years

Status of the project: Temporarily stopped

19. Title: Molecular detection and genetic characterization of *Theileri* parasites among cattle in Sri Lanka

Principal Investigator: Dr. N.A.D.E.M. Gunasekara

Collaborating Scientists: Dr. H.P.V.D.S. Bandara Dr. K.H.D.T. Kasagala, Prof. P.V.J. Rajapaksha

Duration: 1 Year

Status of the project: Completed

20. Title: Study the present situation , potentials and constraints of growing duck weed and azolla as animal feed substitutes for farm animals in small scale farming systems in Sri Lanka

Principal Investigator: Mrs. I.K. Leukebandara

Collaborating Scientists: Dr. N. Priyankarage

Duration: 1 Year

Status of the project: Completed

21. Title: Molecular detection methods and diversity of *M. bovis* for effective control strategies.

Principal Investigator: Dr. G.A. Gunawardana

Collaborating Scientists: Dr. G.A. Deepal Chandana, Dr. P.P. Jayasekara

Duration: 3 Years

Status of the project: Continued to 2019

22. Title: Molecular tools and Geographical Information System to develop specific control strategies for bovine mastitis.

Principal Investigator: Dr. G.A. Gunawardana

Collaborating Scientists: Dr. G.A. Deepal Chandana, Dr. P.P. Jayasekara

Duration: 3 Years

Status of the project: Continued to 2019

23. Title: Genetic Polymorphism and climate change impact among farm animals

Principal Investigator: Dr. G.A. Gunawardana

Collaborating Scientists: Dr. G.A. Deepal Chandana, Dr. P.P. Jayasekara

Duration: 3 Years

Status of the project: Continued to 2019

5.5. Research Publications in 2018

Details of research publications are in *Annex IV*.

5.6. Special Achievements

1. Veterinary Research Institute won a National Award for Science and Technology Achievement 2018, awarded by National Science Foundation, Sri Lanka. This award was granted for the 'Development and successful field application of a new vaccine against fowl cholera in poultry, Sri Lanka'.

The research team headed by Dr. Mrs. G. A. Gunawardana, (Head /Molecular Biology Division , Former Head /Bacteriology Division) and the team comprised of late Prof M.C.L De Alwis (Former Director VRI), Dr. Inoka Hemamala (Midland Breeders), Dr. M.A.R. Priyantha, (Veterinary Research Officer/Bacteriology Division), Dr. Gayani Weerasooriya, (Veterinary Research Officer/Bacteriology Division, previously in Midland breeders Pvt limited), Mr. A.A Vipulasiri (retired Research Assistant) and Mr. Mr. S. Rathakrishnan (retired Research Assistant).

2. Researches of Veterinary Research Institute of Drs. H. Kothalawala (Head, Virology) and S.S.P. Silva (Director, LPE) won a National Research Council (NCR) merit award in year 2018 by the National Research Council (NCR) for a publication made in high ranked international journal of Infection Genetics and Evolution. This is in addition to the four presidential awards for the same research in last five years.

This study was carried out under a collaborative project of Obihiro university of Agriculture and Veterinary medicine, japan and VRI.

5.7. Financial Progress

The capital and recurrent financial allocation and expenditure for the year 2018 are as follows.

	Allocation (Rs. Mn.)	Expenditure (Rs. Mn.)	Achievement %
Recurrent	18.67	29.54	158.22*
Capital	262.20	77.69	29.63

*Additional allocations were provided.

6. HUMAN RESOURCE DEVELOPMENT DIVISION

6.1. Introduction

The main responsibility of Human Resource Development (HRD) Division is to develop human resources in order to meet the present and future needs of the livestock sector.

HRD division administers following seven (07) units.

- Institute of Continuing Education for Animal Production and Health (ICEAPH), Gannoruwa, Peradeniya.
- Sri Lanka School of Animal Husbandry (SLSAH), Karandagolla, Kundasale.
- Sri Lanka School of Animal Husbandry (SLSAH), Seepukulama, Anuradhapura.
- The Department library, Gannoruwa, Peradeniya.
- Information communicating unit. / Hotline.
- Livestock Knowledge Center, Getambe.
- Livestock Technology Park.

Main functions of the division

- Training and technology transfer
- Education and career development
- Livestock promotion
- Entrepreneurship development and self-employment support services
- Testing and evaluation

6.2. Training and transfer of technology

6.2.1. Training conducted at ICEAPH

The ICEAPH strives to conduct year round training programs, workshops, seminars to upgrade the knowledge and improve the skills of the officers of this department and personnel of other organizations who are involved in the livestock industry activities.

Achievement of training conducted during 2018 at ICEAPH is given in *Table 6.1* and *Table 6.2*.

Table 6.1: Details of training conducted at ICEAPH

Category	No. of programs planned	No. of programs conducted
AP&H service officers	24	32
Middle level officers	17	14
Development officers	10	07
Supportive staff	06	04
Others	08	06
Total	65	63

Table 6.2: Progress of training conducted at ICEAPH

Item	Target	Achievement
Number of trainees/ participants	1,756	2,173
Number of training man days	2,521	5,336

6.2.2. Special training conducted during the year

The special training conducted during the year 2018 is given below.

Name of the program	No. of program conducted	Number of participated	Man days
Induction training	02	90	1,441
Training programs on chemical, biological & instrumental handling.	01	37	74
Total	03	127	1,515

6.2.3. Training at Sri Lanka School of Animal Husbandry (SLSAH), Seepukulama

At SLASAH, Seepukulama twelve (12) training programs were conducted during the year and 790 trainees participated. Details are as follows.

Category of participants	No. of programs	No. of participants
Government officers	02	65
Farmers	06	190
Student	03	470
Nurse	01	65
Total	12	790

6.3. Educational and career development

6.3.1. Sri Lanka School of Animal Husbandry (SLSAH) Karandagolla, Kundasale

The batch for the academic year 2017-2019 was enrolled on 10.07.2017. Number of students for this programme was 74. This batch is continuing their 2nd academic year with practical training. All students were placed for projects in January 2019. Total number of lecture hours completed - 1,542 hrs. Total number of practical hours completed - 1,560 hrs.

6.3.2 Sri Lanka School of Animal Husbandry (SLSAH) Seepukulama, Anuradhapura

The SLSAH, Seepukulama has been conducting two (02) year Diploma Programme in Animal Husbandry.

The batch for the academic year 2017 - 2019 was enrolled on 10.07.2017. Number of students for this programme was 43. Students are continuing 2nd academic year. They were placed for projects in January 2019. Total number of lecture hours completed - 1,542 hrs. Total number of practical hours completed- 1,560 hrs.

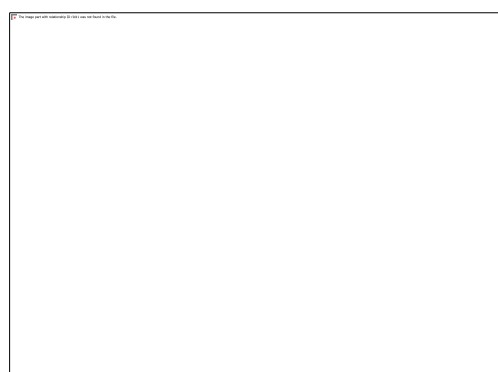


Figure 6.1: Diploma students engaged in practical training

6.3.3. Internship training for veterinary graduates

One (01) internship programme was conducted and completed in the year 2018. Details of this program is given below.

Batch Number	No. of Internees
Batch - 1 DAPH/ICE/ITN /2018 /i	73
Batch - 2 DAPH/ICE/ITN /2018 /ii	07

6.3.4. Foreign training

Details of overseas training awarded to DAPH officers in 2018 are given in *Annex V*.

6.4. Examinations

The HRD division is responsible for conducting examinations for Department officers. Details of examinations conducted by DAPH in 2018 are given in *Annex VI*.

6.5. Information and publicity

6.5.1. Publications in 2018

a. New prints

Booklet	01
Guide line	0

b. Translated prints

Leaflets	0
Booklets	01

c. Reprints in 2018

Leaflets	03
Booklets	09

6.5.2. Sale of Publications in 2018

No. of booklets/leaflets	35,459
No. of photographs (10"x12" size)	35
No. of CD's	45

6.5.3. Mass media activities

The division continued broadcasting/telecasting/ publishing programs and articles in various TV channels/ radio stations and newspapers. Details are given in *Table 6.3*.

Table 6.3: Mass media activities in 2018

Type of media	No. of programs (planned)	TV/ Radio channel/ News paper	No. of Telecasts/Broadcasts/Releases
TV	Sinhala - 09	ITN /SLRC	09
Radio	Sinhala-72 Tamil-12	SLBC - Colombo - Sathwarawaya SLBC - Colombo - Wannamaradam Krushi FM WEB Radio	72 12 40
Paper articles		News paper	03
News releases	12	All media	12
Press conference		All media	03

6.5.4. Exhibitions

Details of exhibitions participated in 2018 are as follows.

Table 6.4: Exhibitions conducted / participated in 2018

Category	Venue	No. of Days
Younpuraya	Nikaweratiya	2018.03.29-2018.04.02
Lanka Pet Expo” Exhibition 2018	BMICH, Colombo	2018.05.05-2018.05.06
The Annual Science Exhibition “SHIZEN18”	GothamiBalikaVidyalaya, Colombo	2018.06.29
Educational Exhibition	PelawaMahaVidyalaya,Muruthalawa	2018.07.05
V2025 Enterprise ,Sri Lanka	District Secretariat Monaragala	2018.08.29-2018.08.31
Agricultural Exhibition	Agricultural Training Institute, Homagama	2018.09.06-2018-09.08
Agricultural Exhibition	Faculty of Agriculture , University of Peradeniya	2018.10.04-2018.10.07
Health Benefits of Eating Eggs program	Bibila	2018.10.12
Harvest 2018 Agricultural Modernization Exhibition	BMICH, Colombo	2018.12.11-2018.12.16

6.6. Entrepreneurship development and self - Employment support services

The entrepreneurship development and support training.

Topic	Venue	No. of Programs	No. of Participants
Small scale milk processing	Wannigama	02	56
	Wannigama	05	158
	Bibila	07	133
	ICE Gannoruwa	03	84
	Milco,Digana	01	22
	Seppukulama	01	06
Total		19	459

Follow up technical training programs

Topic	Venue	No. of Programs	No. of Participants
Small scale milk processing	Polonnaruwa	02	52
Total		02	52

6.7. The Department Library

The Department library continued serving as the national level library for livestock industry related fields and veterinary science.

- Purchase of local and foreign library books and journals :- 107
- Acquisition of print and non-print library materials related to the livestock and other allied subject areas :- 100%

6.8. The Departmental Hotline Service

The DAPH maintains a hotline service (Tel: 081-2388463) to facilitate stakeholder needs. The details of performances in 2018 are given below.

	Activity	Target	Cumulative Progress
01	Registration of clients (on request)	1,400	1,561
02	Provision of technical guidance	1,200	1,502
03	Direction clients for training	100	107
04	Coordination with other institution	160	337
05	Direct advisory	200	192
06	Written technical advisory service for postal requests & e-mails	24	16
07	Handling of public requests / complaints	60	76
08	Follow up service to evaluate customer satisfaction	140	183
09	Collection of newspaper articles related on livestock	440	789
10	Directing articles on livestock issues to DG, Directorate & PDs	60	191
11	Distribution of leaflets - free of charge for exhibition/ seminar	480	1,447
12	Data analysis, presentation	2,880	2,900

6.9. Livestock Technology Park

The details of performances in 2018 given below.

Project / Programme	Activity	Expanded activities	Output target	Progress at the end of year
Establishment of livestock technology park	Demonstrate model livestock units to the public	Facilitation of visitors		32,785

Project / Programme	Activity	Expanded activities	Output target	Progress at the end of year
	Development and maintenance of different units of the Livestock Technology Park	Supply of animals (2 types)	100%	100%
	Development of Infrastructure facilities	Supply of inputs (3 types)	100%	100%
		Supply of services (2 services)	100%	100%

6.10. Financial progress

The financial allocation for capital and recurrent projects/ activities for the year 2018 and actual expenditure are given below.

	Allocation (Rs.Mn)	Expenditure (Rs.Mn)	Achievement (%)
Capital	66,200,000.00	54,657,149.40	82.7%
Recurrent	15,325,000.00	15,076,976.27	98.4%

* Additional allocation were provided

7. LIVESTOCK PLANNING AND ECONOMICS DIVISION

7.1. Introduction

The Livestock Planning and Economics (LPE) Division is responsible for planning, monitoring and evaluation of livestock development programs and activities implemented by the department to support development of the livestock sector in Sri Lanka. LPE division also maintains the national level database to collect and compile livestock statistics and data which are accessible to the public and to policy makers, researchers, university students. The data processing unit is responsible for data entry, analysis and preparation of reports/ documents to the relevant authorities.

Main functions of the division

- Identification and formulation of livestock development programs and projects;
- Monitoring, evaluation and economic analysis of livestock development programs and projects of the department;
- Conduct economic studies to assess feasibility and viability of livestock development programs and projects;
- Periodic review of livestock industry and identify issues that need to be addressed for policy formulation;
- Management of livestock data base at national level;

- Co-ordinate livestock development programs with provincial DAPH and other state institutions and organizations;
- Coordinate implementation of e-government policy in the department.

7.2. Identification and designing of livestock development programs and projects

LPE division is responsible for identification and formulation of livestock development projects and forwarding them to funding agencies. Funding could either be through the national budget or foreign donor agencies.

7.2.1. Projects for the National Budget- 2019

Five (05) new project proposals for 2019 were formulated in collaboration with respective divisions in 2018. These project proposals were forwarded to relevant authorities.

Furthermore, 21 on-going projects of the DAPH for continuation for coming years were reviewed; proposals forwarded and necessary approvals were obtained.

7.3. Monitoring, evaluation and economic analysis of livestock development programs and projects

7.3.1. Physical and financial progress review of departmental programs

a. Action plan and progress

Action plan for physical and financial progress review of the DAPH was prepared for the year 2019. The physical and financial progress was monitored and reported monthly on the basis of thrust area.

Capital expenditure utilization of the DAPH was 45.95% in 2018 which was lesser than the previous year (63.83%). The progress of recurrent fund utilization was 97.33% in 2018, which was higher than the corresponding figure of 95.59% in the year 2017. The details are given in *Chapter 10*, under the Finance division.

b. Progress review meetings of the department

Physical and financial progress of departmental programs is reviewed at progress review meetings represented by respective directors and relevant officers of divisions. LPE division organised and facilitated to conduct such reviews throughout the year.

7.3.2. Monitoring of animal production, health and extension activities in provincial DAPH

a. Monitoring through master returns

Activities of provincial DAPH are monitored through master returns submitted monthly by divisional veterinary surgeons in the country. Data were processed and analysis reports were prepared and communicated to provincial DAPH as well as all divisions of the DAPH and the ministry as well.

Analysis of selected data is given in *Annex VII*. Data on animal health activities are given separately under section on animal health division.

7.4. Review of livestock industries and management of livestock database at national level

Availability of reliable statistics is one of the main pre-requisites for any planning and monitoring pertaining to the livestock sector. This is also one of the main responsibilities of the LPE division.

7.4.1. Data collection, compilation and management

Data collection systems have been further improved during the year. Data on livestock population, production, prices, imports and exports etc. were collected on industry- basis. The analyzed data are preserved in electronic livestock statistics databases. Ten year livestock data has been updated.

a. Milk collection

Data were collected from leading milk processing organizations in the formal milk marketing in the year 2018. Total milk collection by 14 key organizations was 269.26 million litres. Central Province, North Western Province and the North Central Province contributed for this total as 27.5%, 19.9% and 17% respectively. District-wise milk collection data for the year 2018 is given in *Annex VIII*.

b. Import and export of animals/animal products and feed ingredients

Quantities and the value of import of animals, animal products and feed ingredients in 2018 was obtained from Sri Lanka Customs and analyzed. Quantities of dairy products, meat and meat products imported into the country in 2018 is totaled 104,861.87MT and 1,388.25MT with the value of Rs.54.00 billion and Rs.798.06 million respectively. Imported quantity of dairy products has been increased, imported quantity of meat products increased during the year 2018 when compared with the year 2017.

Total of 1,089.34MT of milk and milk products and 3,809.57MT of meat and meat products have been exported to other countries during year 2018.

c. Data bank

LPE division maintains the national data bank containing all livestock data, statistics and related documents, reports, and bulletins which can be used

by DAPH and other state officers, students from university and other educational institutes, and private entrepreneurs.

d. Dissemination of data/statistics

Important livestock statistics collected from various organizations, other divisions of DAPH, regional veterinarians, private companies, farms, etc., by division of LPE, are analyzed, compiled and published on website as Livestock Statistical bulletin, Dairy bulletin and Livestock outlook for the year 2017. It was disseminated to all the relevant organizations and other stakeholders in 2018. A total of 148,352 website users were reported in 2018.

e. Sector reviews

Poultry industry monitoring

A poultry industry monitoring committee was established in the department to monitor the poultry industry in Sri Lanka in year 2012. This committee is consisted of industry representatives and officers from the department as well. Department of Agriculture is also representing the meeting to facilitate and overcome the issues related to poultry industry. This committee was chaired by the Director General of the Department. Many issues have been addressed during the year 2018 and one meeting was conducted.

In addition to main committee meeting three (3) stakeholder meetings and several other technical meetings were conducted to address the issues faced by the industry.

7.5. Coordination of development programs with provincial DAPH and special development projects

Several development programs were jointly implemented by the national and provincial DAPH and technical back-up services and inputs were mostly provided by the national DAPH.

7.5.1. Provincial Director's meetings

LPE division organizes and coordinates Provincial Directors' meetings to review on-going livestock development programs and to discuss on administrative and financial matters. Three (03) such meetings were held during the year 2018.

7.5.2. Special livestock development Projects

a. Improvement of veterinary service delivery system of field veterinary offices

A project to improve services of provincial veterinary offices was commenced in year 2008 aiming at improving infrastructure facilities of veterinary offices.

Construction work of six (06) veterinary offices were continued from 2017 in Southern province (Lunugamwehera) and Eastern province (Trincomalee and Kaluwanchikudy), Southern province (Pasgoda), North Central province (Aralaganvila) and Sabaragamuwa province (Ayagama).

Construction of two (02) veterinary offices started in 2018, in Central

province (Pundaluoya) and Uva province (Ethimale).

Construction work of one (01) veterinary office in Uva province (Ethimale) was completed in the year 2018.

b. Programme to mitigate environment issues pertaining to livestock industry

To address the environmental issues pertaining to the livestock sector, a technical backup system was developed and it had been given positive results over the years. Since the environmental issues are one of the constraints which hinder the development of the sector, it has been given the priority as previous year. Accordingly following activities were conducted and implemented by Livestock Planning and Economics Division of the Department in year 2018.

- Based on the nature of the environmental problems reported, other organization, institutions and relevant officers were informed and coordinated. Furthermore, follow-up activities of the issues were addressed.
- Joint field visits were organized with respective technical experts from relevant institutions, along with the respective veterinary surgeons and provided necessary guidance and advised them to overcome the issues prevailed. The joint visits were participated by officers from Central Environmental Authority, Ministry of Health, Local

government and Sri Lanka Police etc.

- Series of workshops were conducted to aware provincial staff of Northern Province on livestock waste management and law/regulations, five such workshops were done during the year 2018. Two day training programme, including a field visit was organized to selected field staff of Livestock Development Instructors (LDIs) on livestock waste management to support establishment of environmental friendly livestock farms in their ranges.

7.6. Publications

The division compiled following publications/reports during the year 2018.

- Action Plan DAPH -2018
- Physical and Financial Monitoring Plan DAPH - 2018
- Annual Report -2017
- Monthly Physical and Financial Progress Reports of DAPH
- Budget Report DAPH Progress for 2018 and Plans for 2019
- Livestock Development Projects- 2019
- Statistical Bulletin
- Action Plan 2018- LPE Division
- Poultry Sector Forecast

- Dairy Bulletin
- Livestock Outlook
- Livestock Information Bulletin

7.7. Other Activities

7.7.1. E -Government Programme

Livestock Planning and Economics Division (LPE) is responsible to liaise with ICTA and to handle correspondences regarding Lanka Government Network (LGN) and Government Information Centre (GIC). Dr. S. S. P. Silva of the LPE division serves as a Chief Innovative Officer (CIO) for ICTA.

The LPE division holds the responsibility of managing and updating the department website www.daph.gov.lk. Livestock data, statistics, maps, departmental activities and details of each division have been incorporated into the web site. Regular updating of news and the events of the department is a valuable feature in the department web site. By the end of the year number of web users have become increased remarkably which has been calculated automatically as 406 users per day. The online application service (e-service) for import and export of animals is also an additional service provided by the department web site.

7.8. Financial Progress

The financial allocation for capital and recurrent expenditure for the year 2018 and actual expenditure as given below:

	Allocation (Rs. Mn.)	Expenditure (Rs. Mn.)	Achievement (%)
Capital	252.40	67.20	27%
Recurrent	1.55	0.74	48%

8. VETERINARY REGULATORY AFFAIRS DIVISION

8.1. Introduction

Implementation of statutes made under the provisions of Animals Act, Animal Diseases Act and Animal Feeds Act are handled by the Veterinary Regulatory Affairs (VRA) division.

Main Functions of the Division

- Strengthen/Improve Animal Quarantine management system in Sri Lanka to prevent entry of exotic animal diseases/illegal imports.
- Trade facilitation of import and export of animals and animal products of animal origin and other inputs.
- Quality assurance of processed, further processed poultry meat, frozen fish, animal feed ingredients, veterinary drugs and biological / products.
- Safeguard and protect productive national herd to accomplish a traceability system and to achieve objectives of the master plan.

8.2. Animal quarantine and inspection service

8.2.1.Import of animals, animal products and post import quarantine activities

Animal quarantine service is one of the essential services provided by the DAPH. It mainly deals with the inspection and quarantine of import

and export of animals, animal products and by-products.

a. Quarantine Holdings

Large animals, zoo animals, pet animals and birds, ornamental fish were subjected to quarantine holdings at Animal Quarantine Stations (AQS), Colombo, Katunayake during the year 2018.

b. Import and Quarantine Surveillance

Details of consignments that were subjected to quarantine surveillance in 2018 are given in *Annex IX*.

c. Sampling of Imported Poultry (HPAI surveillance programme)

Consignments of Day-Old Chicks (DOC) were released to importers under the quarantine surveillance agreement and monitored by the weekly reports sent by the importer. Serum samples and cloacal swabs were taken at the point of entry and during the farm inspections. When mortality was above 4%, the relevant farm/s were visited by Animal Quarantine Officers (AQOs) immediately to investigate and to rule out the possibility of HPAI infection.

As part of the active surveillance programme carried out against HPAI, imports were closely monitored clinically and laboratory testing was done during the surveillance period. (Table 8.1)

Table 8.1: HPAI Surveillance Programme - Laboratory test results - 2018

No of farm visits	No. of samples dispatch to laboratory	Test results
Animal Quarantine Station- Colombo Day old chicks -07	Cloacal swabs- 240 Serum samples-160	Negative Negative
Animal Quarantine Station Katunayake Day old chicks -53	Cloacal swabs-3,315 Serum samples-1,241 (Dead chicks & bedding papers tested for Salmonellosis- 399) Holding pet animals, Pigeons fecal dropping swabs tested for HPAI- 472	Negative Negative Negative
Animal Quarantine Station- Mattala	Cloacal swabs-100 Serum samples-60	Negative Negative

8.2.2. Export of Animals, Animal Products and By Products

a. International Veterinary Health Certificates for Meat

Details of export Health Certificates issued by the Chief Animal Quarantine Officer (CAQO) in 2018 are given in *Table 8.2.*

Table 8.2: Health certificates issued for export (2017 - 2018)

Item	No. of Health Certificates issued	
	2017	2018
Ornamental fish	3,042	3,121
Dogs	163	176
Cats	97	66
Poultry -DOC	46	39
Hatching eggs	-	18
Pet birds	02	03
Zoo animals	-	01
Elephant	-	-
Rabbit/Rat/Hamsters/G. Pig	-	-
Animal products (meat & meat products)	3,414	3,250
Table eggs	1,354	1,550
Animal by-products	47	73
Leather	20	09

b. Exports

Details on consignments of animals and animal products that were subjected to animal quarantine inspections and approved for export are given in *Annex X.*

8.3. Regulatory Activities - a. Poultry Livestock Industry

The VRA division facilitates international trade in animals and animal products through review and recommendations of request for imports.

The regulatory activities carried out in 2018 in related to poultry industry are given in *Table 8.3*.

Table 8.3: Regulatory activities carried out in 2018

Activity	Description	Number
Registration	Registration of new breeder farms	Broiler - 2
	Registration of new hatcheries	4
	Registration of new processing centers	-
Registration of Renewal	Renewal of breeder farms	Broiler - 34, Layer - 15
	Renewals of hatcheries	53
	Renewal of grand parent farms	3
	Renewal of processing centers	15
	Renewal of further processing centers	11
Facilitation of imports	Issuing pre clearance approvals(No. of consignments)	186
	Revision/ preparation of import health requirements	2

b. Other animals, animal products and animal by products

Regulatory activities carried out during the year 2018 in respect to livestock and livestock products are given below.

Table 8.4: Issue pre-clearance approvals

Activity	No. of Application received	Number approved	Number of animals/ Quantity
1. Live Animals			
Dogs & Cats	355	348	518
Horses	5	4	31
Cattle	1	1	230
Zoo Animal	6	6	102
2. Genetic Material (Semen)			
Cattle	1	1	
Buffalo	8	8	20,100 Doses
Pig	1	1	100 Doses
Goat	2	2	400 Doses
Sheep	1	1	1,000 Doses
3. Animal product meat & meat products (Beef/Mutton/Edible Fat/Tallow)			
Bait	205	200	2,237.58 MT
	132	132	4,177 MT
4. Animal by products			
Fur/Wool/Hair/Bristles	91	89	74,582.8 Kg
Leather	142	142	

8.4. Veterinary Drug Control Authority

Veterinary Drug Control Authority (VDCA) was promulgated under the provision of the Animal Disease Act No. 59 of 1992 and related regulation. VDCA has the responsibility of authorizing manufacture, import, re-packing, export, marketing and use of veterinary pharmaceutical and biological products to safeguard animal health and in turn human health in Sri Lanka. VDCA committee members for the year 2018 and their fields of expertise as stated below.

- 01. Dr. N. Wedasinghe - Chairman
- 02. Prof. S.P. Guneratne - Nutrition
- 03. Dr. D.D.N. De Silva - Pharmacology
- 04. Prof. Anil Pushpakumara - Reproduction

- 05. Dr. A. Arulkanthan - Parasitology
- 06. Dr. S. Samarakoon - Clinical practice
- 07. Dr. H. Kothalawela - Microbiology
- 08. Dr. W. Samarasinghe - Special member represents local manufactures
- 09. Dr. C.G. Wijesinghe - Registrar (Actg.) (2018 Jan-May)
- 10. Dr. M.D.N. Jayaweera- Registrar (2018 June onwards)

Seven committee meetings of VDCA and Ten user permit panels were conducted during this year. Expired stocks of samples collected over the period of 03 years were properly disposed in the year 2018.

a. New products registered in VDCA

New pharmaceuticals and biological products registered in 2018 are as follows;

Table 8.5: Imports for Free Sales

Antibiotic	Injectable	01
	Oral preparations	01
Acaricide	Oral preparations	01
Anthelmintic	Oral preparations	01
Vaccines	Poultry	05
	Canine	02
Supplements	Vitamins	02
Hormones		01
NSAID		02
Disinfectant		01
Total		17

Table 8.6: Local Manufacture for Free Sales

Anthelmintic	Oral	05
Antibiotics	Oral	02
Antiparasitic	Oral	01
Herbal wound spray	Topical application	01
Total		09

b. Invoice Recommendations

During the year 2018, 561 invoices were recommended by VDCA, to import veterinary pharmaceuticals and biological products for the worth of 3,111.30 million Sri Lankan rupees.

c. User Permit Approvals

Table 8.7: User Permit Approvals

Species	Category	Issued
Poultry	Vaccines	63
	Adjuvants for vaccine production at VRI	02
Fish	Vaccines	02
	Hormones	01
Cattle	Antiprotozoal	03
	Vaccine	06
	Hormone	01
	Antibiotic - Udder infusion preparation at VRI	01
Feline	Vaccines	01
Wild Animal	Sedatives/Anesthetics	06
Swine	Vaccine	02
Total		88

8.5. Implementation of Animal Feed Act

Under the provisions of Animal Feeds Act, No.15 of 1986 and its regulations, the Animal Feed Advisory Committee (AFAC) has been established to exercise control over the manufacture, import, export, sale and use of animal feeds in order to ensure the quality at the local market.

Subsequent amendments for Animal Feeds Act have been carried out and published as Animal Feed Act No.15 of 2016 to further strengthen the activities carried out under the act.

Dr. N. Priyankarage, former Veterinary Research Officer, Animal Nutrition Division, Veterinary Research Institute

was appointed as a new Animal Feed Registrar during the year 2018.

According to the amendments of the act, number of members of the AFAC has been increased up to 8 and new committee has also been appointed during the year 2018.

01. Dr. Nihal Wedasinghe - Director General, Department of Animal Production & Health
02. Prof. S.S.E. Ranawana - Animal Nutritionists, former Professor, Wayamba University of Sri Lanka
03. Prof. K. Samarasinghe - Animal Nutritionists, professor in Animal Science, University of Peradeniya
04. Professor J.M.P.K. Jayasinghe - Aquatic Specialists, former Professor, Wayamba University of Sri Lanka

- 05. Dr. W.M.P.B. Weerasinghe- Animal Nutritionist, Veterinary Research Officer, Veterinary Research Institute
- 06. Dr. (Mrs.) W.I.P. Peiris- Veterinary Surgeon, Ministry of Livestock Development
- 07. Dr. W. Samarasinghe- Animal Feed Industry Representative

The details of activities performed during the year are as follows:

a. Table 8.8: Renewals/ new licenses for animal feed

Activity	Number of products
Renewal of animal feeds	1,936
New licenses issued; For Animal feed Manufacture	91
For Animal feed Imports	363

b. Collection of Turn over returns

Table 8.9: Compound animal feed production by type: 2017-2018

Type of Feed	Quantity 2017 (MT)	Quantity 2018 (MT)
Poultry Feed	678,187.50	771,773.76
Cattle Feed	50,272.01	40,737.38
Calf Feed	1,011.50	22,460.14
Pig Feed	1,140.36	1,311.42
Fish Feed	693.90	1,020.17
Horse Feed	246.50	290.00
Goat Feed	93.00	95.00
Other Feed	1,230.89	654.97
Total feed production	732,875.70	838,342.84
Self-mixed	450,125	489,876.92

Total	1,183,000.66	1,328,380.03
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* Source: TOR -2018 (by Registered animal feed manufacturers)

When compare with the year 2017, 14% increment of compound animal feed production and 9% increment of self-mixing feed have been observed during the year 2018.

All most all self-mixed feed was poultry feed and about 95% from total feed production was poultry feed.

c. Usage of raw materials

Details of the raw materials used by the registered feed manufacturers are given in *Annex XI*.

Table 8.10: Poultry feed production by category (2017-2018)

Type of poultry feed	Quantity 2017 (MT)	Quantity 2018 (MT)
Chick Starter	31,255.79	10,138.95
Layer Grower	24,364.51	26,911.38
Layer	105,756.32	119,217.86
Total Layer Feed	161,376.63	156,268.19
Broiler Booster & Starter	123,043.07	187,138.41
Broiler Finisher, Grower & Withdrawer	311,779.54	334,613.01
Total Broiler Feed	434,822.61	521,751.42
Broiler Breeder	64,792.35	58,137.05
Layer Breeder	17,195.91	35,617.10
Total Breeder Feed	81,988.26	93,754.15
Total Layer Feed	161,376.63	156,268.19
Total Broiler Feed	434,822.61	521,751.42
Total Breeder Feed	81,988.26	93,754.15
Total Poultry Feed	678,187.50	771,773.76

* Source: TOR -2018(by Registered Animal feed manufacturers)

d. Implementation of Bovine Spongiform Encephalopathy(BSE) regulations on animal feed imports

Screening verified and approval was given to import 34,367.4 MT of Meat and bone meal from the countries which were declared as BSE free countries.

e. Export of animal feed

Vitamin and mineral premixes and vitamin E were exported to the South Asian countries by two large scale premixing manufacturers and two small scale manufacturers. 637 veterinary export certificates were issued during the year 2018. 27,555.72 MT of powdered and 110,770 liters of liquid feed

ingredients were exported during the year 2018.

8.6. Vitamin mineral premix production-2018

Vitamin & mineral premix production in year 2018 is recorded as 18.27 MT.

8.7. Animal identification and traceability programme

Necessary inputs (200,000 ear tags, 50,000 cattle vouchers, and fuel to implement the program at filed level) were provided to the provinces to facilitate implementation of this programme. A total of 197,900 cattle were ear tagged during the year 2018.

8.8. Financial progress

The capital and recurrent financial allocation and expenditure for the year 2018 are as follows.

	Allocation (Rs. Mn)	Expenditure (Rs. Mn)	Achievement (%)
Capital	29.00	13.84	47.72%
Recurrent	4.55	5.31	116.70%

09. ADMINISTRATION DIVISION

9.1. Introduction

The main responsibility of this division is managing staff cadre and supporting employee services to achieve objectives of the Department.

Main functions of the division

- Attend to establishment matters related to all staff of the Department of Animal Production and Health.
- Handling correspondences regarding implementation of service minutes of technical services of DAPH.
- Attend to matters regarding the pensions/ loans/ quarters/ lands/ Agrahara scheme and legal issues of the department.
- Handling correspondences regarding recruitments, promotions, transfers and appraisals of the staff.
- Office management.

9.2. Present cadre positions of the Department

The present approved cadre positions of divisions (Animal Health, Animal Breeding, Veterinary Research, Human Resource Development, Livestock Planning and Economics, Veterinary Regulatory Affairs, Administration and Finance) of the department amounted to 950 and actual cadre position was 768 (*Project I: 202 Project*

II:322 and Project III: 244). Details of cadre positions are given in the *Annex XII*.

9.3. Approval from the management service

New cadre positions have not been approved by the Management Services Department during the year 2018.

9.4. Appointments

Following new appointments were made during the year 2018.

Veterinary Surgeons- 39
 Veterinary Research Officers- 04
 Livestock Development Officer-17
 Public Management Assistant-06
 Research Assistant-01
 Research Officers-02

9.5. Promotions

Promotions given during the year are as follows;

Additional Director General (VRI)-01
 Additional Director General (LD)-01
 Additional Director General (AH)-01
 Veterinary Investigation Officer-06
 Veterinary Surgeons- 95
 Livestock Development Officers -06
 Veterinary Research Officers- 02
 Livestock Officers -03
 Public Management Assistant-01
 Research Assistant-13
 Office Employee Service-01

9.6. Transfers

Details of transfers made to and from the DAPH are stated below;

Transfer to DAPH- 02

Transfer from DAPH - 05

9.7. Retirements

Details of staff members who have retired from the service in 2018 are as follows;

Director (Breeding)	01
Veterinary Surgeons	05
Livestock Development Officers	02
Vaccine Superintendent	01
Livestock Officers	01
Public Management Assistant	01
Field Assistant	02
Office Employee Service	02
Drivers	03

9.8. Resignations

There were no resignations of DAPH at year-2018

9.13. Financial progress of the division

The capital and recurrent financial allocation and expenditure for the year 2018 areas follows:

	Allocations (Rs. Mn)	Expenditure (Rs. Mn)	Achievement (%)
Capital	17.50	6.51	37%
Recurrent	10.07	7.36	73%

9.9. Vacation of Post

Development Officer-01

Public Management Assistant-01

Office Employee Service-05

Veterinary Research Officers- 01

9.10. Releases from the DAPH on permanent basis

There was 01 Field Assistant releases from the DAPH on permanent basis during the year 2018.

9.11. Loans Approved

Type of loan	No.	Amount (Rs.)
Distress Loan	259	25,892,260.00
Property Loan	05	11,079,000.00

9.12. Insurance Payments

During the year, 168 applications were approved for "Agrahara" insurance scheme.

10. FINANCE DIVISION

10.1. Introduction

The Departmental Head pertaining to the financial activities for the year 2018 was 292. The activities of the Department were performed under two (02) programs and three (03) projects. Financial allocations and the expenditure summary for the year 2018 are as in *Annex XIII*.

A sum of Rs. 540.70 million for the recurrent expenditure and Rs.1,165.00 million for the capital expenditure was received by the Department for the year 2018, totaling Rs. 1,705.70 million.

10.2. Allocations

a. Departmental Allocations

Head: 292

	Estimated allocation (Rs.)	Supplementary allocation received from the Treasury (Rs.)	Net allocation (Rs.)	Expenditure (Rs.)	Percentage of the expenditure
Recurrent (Rs.)	540,700,000	-	540,700,000	526,256,531	97.33%
Capital (Rs.)	1,165,000,000	-	1,165,000,000	535,369,172	45.95%
Total (Rs.)	1,705,700,000	-	1,705,700,000	1,061,625,703	62.24%

Allocations received from other Ministries and Departments

Vote	Allocation (Rs.)	Expenditure (Rs.)	Percentage of the expenditure
154-2-5-35-2506	7,000,000.00	5,991,519.44	85.50%
111-2-15-17-2509-11	150,000,000.00	75,360,333.23	50.24%
104-01-02-00-1003	268,387.10	227,995.00	85.00%

10.3. Public Servants' Advance Account "B"

	Limits of the Annual Estimates (Rs.)	Actual Value (Rs.)
Balance carried forward		81,154,418.00
Maximum debit limit	23,000,000.00	32,459,491.51
Minimum credit limit	39,000,000.00	43,832,630.60
Maximum limit of the debit balance	120,000,000.00	92,527,557.13
	Credits not affecting the limits	4,843,020.60
	Balance brought down	92,527,557.13

10.4. General Deposit Account

The balance of the General deposit account of the Department as at 31.12.2018 was Rs.21, 593,645.79

It was prepared as follows:

6000/0000/00/0001/0110/000 -	927,170.96
6000/0000/00/0013/0106/000 -	5,296,378.31
6000/0000/00/0016/0098/000 -	12,595,921.52
6000/0000/00/0002/0153/000 -	2,774,175.20

10.5. Departmental Income

The income received by the Department for the year 2018 is given in *Table 10.1*.

Table 10.1: Departmental income - 2018

Income Subject No.	Particulars of the income	Total income received * (Rs.)
2002-01-01	Rent	6,308,446.48
2002-02-99	Loan interest	4,347,938.49
2003-01-00	Departmental sales	54,300,710.04
2003-02-99	Other	4,573,045.98
2003-99-00	Other receipts	5,116,929.59
2002-01-99	Other Rent	-
	Total	74,647,070.58

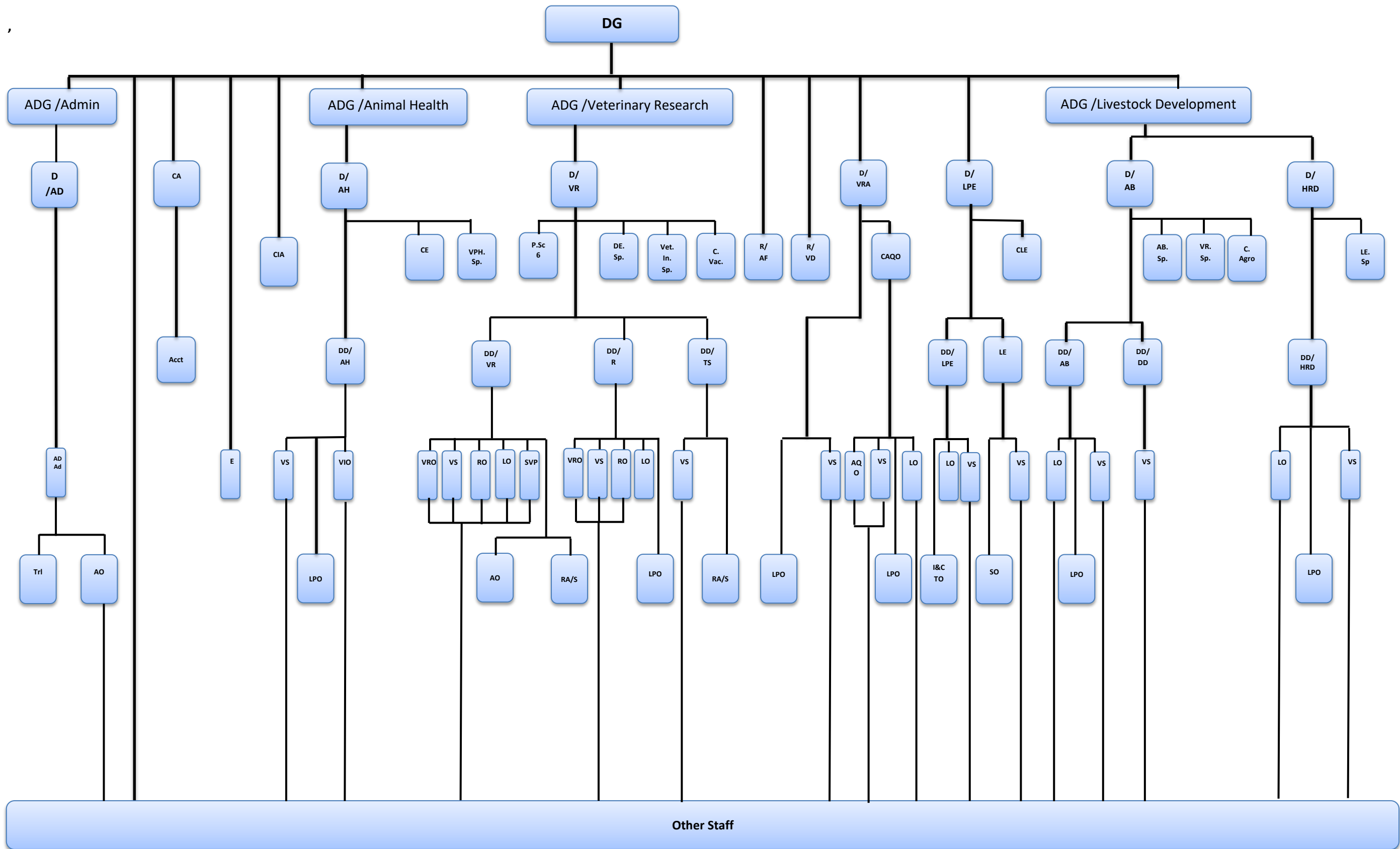
*Revised

Rs.1,059.834 million was obtained from the Treasury for the activities of the department and Rs.71.6 million received as income, miscellaneous revenue and there was no balance.

Annexures

- Annex I Organizational structure of the DAPH
- Annex II Key data on the poultry industry (2017- 2018)
- Annex III Activities performed at veterinary investigation centers - 2018
- Annex IV Research publications in 2018
- Annex V Names of officers attended overseas training/ meetings/ workshops/ visits - 2018
- Annex VI Details of examinations conducted in 2018
- Annex VII Provincial activities
- Annex VIII Milk collection by main milk collecting organizations – 2017 - 2018
- Annex IX Details of consignments (imports) subjected to quarantine surveillance in 2018
- Annex X Export of animals, animal products and animal by-products – 2018
- Annex XI Usage of raw materials by registered animal feed manufactures - 2018
- Annex XII Present cadre positions of the Department and staff strength (2018.12.31)
- Annex XIII Financial allocations and the expenditure summary – 2018

Organizational Structure



Other Staff : BA , DO, DA, Le.Ass, Pro.Ass., Pro.Ass.Com, TO, Drftm, RA, LIB, LDO, PMA

Dri, Tra.Ope., Lab.Ass, Mech, BO, Cpt, Elec, Ban.Kee., Watc, CatC, MM, GtC, AnC, Grs, OES, Liv.Ass, GL, SL, FA

DG	-Director General – Dept. of Animal Production & Health
ADG	-Additional Director General
D/AD	-Director, Administration
D/VRA	-Director, Veterinary Regulatory Affairs
D/LPE	-Director, Livestock Planning and Economics
D/HRD	-Director, Human Resource Development
D/AB	-Director, Animal Breeding
D/VR	-Director, Veterinary Research
D/AH	-Director, Animal Health
CA	-Chief Accountant
CLE	-Chief Livestock Economist
CE	-Chief Epidemiologist
VPH.Sp.	-Veterinary Public Health Specialist
P.Sc	-Principal Scientist
DE.Sp.	-Dairy Engineering Specialist
Vet.In.Sp.	-Veterinary Investigation Specialist
C.Vac	-Chief Vaccinologist
R/AF	-Registrar/ Animal Feeds
R/VD	-Registrar/ Veterinary Drugs
CAQO	-Chief Animal Quarantine Officer
AB.Sp.	-Animal Breeding Specialist
VR.Sp.	-Veterinary Reproduction Specialist
C.Agro.	-Chief Agronomist
LE.Sp.	-Livestock Extension Specialist
CIA	-Chief Internal Auditor
Acct.	-Accountant

DD/AH	-Deputy Director, Animal Health
DD/VR	-Deputy Director, Veterinary Research
DD/R	- Deputy Director, Research
DD/TS	-Deputy Director, Technical Service
DD/LPE	-Deputy Director, Livestock Planning and Economics
DD/HRD	-Deputy Director, Human resource Development
DD/AB	-Deputy Director, Animal Breeding
DD/DD	-Deputy Director, Dairy Development
LE	-Livestock Economist
AD. Ad	-Assistant Director/ Administration
SVP	-Superintendent of Vaccine Production
AQO	-Animal Quarantine Officer
VRO	-Veterinary Research Officer
VIO	-Veterinary Investigation Officer
VS	-Veterinary Surgeon
LO	-Livestock Officer
RO	-Research Officer
E	-Engineer
AO	-Administrative Officer
RA/S	-Research Assistant/Special
LPO	-Livestock Promotion Officer
Trl	-Translator
I & CTO	-Information & Communication Technical Officer
SO	-Statistical Officer

Other Staff

BA	-Budget Assistant
DO	-Development Officer
DA	-Development Assistant
Le.Ass	-Legal assistant
Pro.Ass.	-Programming Assistant
Pro.Ass.Com	-Programming Assistant (Communication)
TO	-Technical Officer
Drftm	-Draftman
RA	-Research Assistant
LIB	-Librarian
PMA	-Public Management Assistant
LDO	-Livestock Development Officer
Dri	-Driver
Tra.Ope.	-Tractor Operator
LA	-Laboratory Aide
Mech	-Mechanic
BO	-Boiler Operator
Car	-Cpt
Elec	-Electrician
Ban.Kee.	-Bungalow Keeper
O.E.S.	-Office Employment Service
GL	-Gardening Laborer
SL	-Sanitary Laborer
Watc	-Watcher

BBC	-Bast Bullock Care – taker
MM	-Milk Man
GC	-Goat Care – taker
AG	-Animal Guardian
LM	-Lawn Mower
ACA	-Animal Control Aide
FA	-Field Assistant

Key Data on the Poultry Industry (2017-2018)

Activity	2017	2018	Growth (%)
1. Procurement of Grand Parent and Parent stock			
Grand Parent Stock (Broiler)	33,136	28,986	-12.52
Parent Stock ('000)			
Broiler	1,299.58	1,442.92	11.02
Layer	108.08	68.51	-36.61
2. Production of Day - Old Chicks (Mn)			
Broiler	150.59	156.99	4.24
Layer	9.46	7.59	-19.76
3. Production of Poultry Feed (1000 MT)			
	1,128.31	1,261.65	11.81
4. Export of Poultry Products			
Day- Old Chicks	238,165	121,890	-48.82
Chicken and Chicken Products (MT)	149.05	171.75	15.22
Table Eggs	4,600,624	5,632,780	22.43
Hatching Eggs	24,840	227,120	814.33
5. Import of Poultry Products			
Chicken and Chicken products (MT)	243.13	237.02	-2.51
Egg Products (MT)- Egg Powder/Egg Albumin	5.50	13.24	140.72
- Liquid Egg	82.04	17.92	-78.15

Activities Performed at Veterinary Investigation Centers- 2018

Programme	Activity	Total
1. Disease Investigation in the field	1.1 Field Investigation	413
	1.2 Sample collection for testing	2,923
	1.3 Investigation Reports	325
	1.4 Follow-up / further investigation	130
2. Laboratory Service for disease diagnosis	2.1 Post-mortem examinations	
	- Poultry (No. of birds)	4,314
	- Other Species	279
	2.2 Testing of samples	
	- Bacteriological (Culture)	5,011
	- ABST	2,031
	- Parasitological - Blood	6,313
	- Fecal Sample	2,682
	- Skin	91
	- Serological	15
	2.3 Milk analysis (including PPRS)	18,625
- CMT on request	5,638	
2.4 Samples dispatch for further testing	2,034	
3. Vaccine Production & Vaccination	3.1 CPD Vaccine (No. of farms)	124
	3.2 Wart Vaccine (No. of Animals)	456
	3.3 Babesiosis Vaccine (No. of Animals)	462
4. No. of samples dispatched & tested	4.1 FMD	353
	4.2 HS	13
	4.3 Raniket	100
	4.4 Rabies	56
5. Supply of lab. Inputs to Veterinary Offices	5.1 CMT reagent (Litre)	400
6. Dairy Farm Health Improvement Project	6.1 New farm registration	468
	6.2 No. of Total Registered Farm	265
	6.3 Farm Visited	2,414
	6.4 Mastitis screening (CMT)	17,191
	6.5 milk sample testing (ABST)	963
	6.6 No. of sample tested for Helmenthiosis	6,189
	6.7 Teat dip solution issued (L)	5,103
	6.8.Issuing of Udder infusion vials (free issue)	18,726
	6.9.Issuing of Udder infusion vials (for payment)	1,341
7. Brucellosis control Programme	7.1 Screening dairy herds (MRT)	1,748
	7.2 Animal screening in suspected herds (RBPT)	2,164
	7.3 No. of samples submitted for CFT	820
	7.4 Vaccination of Animals S19	4,401
8. Salmonella Control Programme	8.1 No of Breeder farm visits	119
	8.2 No of Breeder farm to be monitored	58
	8.3 No of birds tested	32,092
	8.4 No of hacheries to be visited	44
	8.5 No of Hatchey visits	132
	8.6 No of Hatchey samples tested	10,314
9. Avian Influenza surveillance programme	9.1 No of serum samples	5,700
	9.2 No of dropping samples at Hotspots	4,482
	9.3 No of cloacal swabs (Backyard)	5,443
	9.4 No. of sample (live bird market)	1,165
	9.5No. of Samples (Poultry Processing Estalishment)	2,295
	9.6 Duck serum sample	865
	9.7 No of cloacal swabs (Duck)	980
10. No. of Animals Tested for TB	10.1 No. of PPD Tests	737

Research Publications in 2018

Peer review Journals

1. Hattori, K., Donomoto, T., Manchanayake, T., Shibahara, T., Sasai, K., & Matsubayashi, M. (2018). *First surveillance and molecular identification of the Cryptosporidium skunk genotype and Cryptosporidium parvum in wild raccoons (Procyonlotor) in Osaka, Japan*. Parasitology Research, 117(11), 3669-3674.
2. Herath, H.M.G.P., Ranaweera, K.K.T.N., Weerasinghe, W.M.P.B. and Kumara Maheepala, M.B.P. 2018. Serum metabolic profile based assessment of nutritional status of temperate crossbred, stall-fed, lactating dairy cows; a case in a medium scale mid-country cattle farm, *Tropical Agricultural Research*, 29 (2): 157– 166.
3. Kanamori, K., Manchanayake, T., Matsubayashi, T., Imai, N., Kobayashi, Y., Sasai, K., & Shibahara, T. (2018). *Genetic and histopathological identification of Cystoisospora suis in a post-weaned piglet with watery diarrhea*. Japan Agricultural Research Quarterly, 52(1), 55-61.
4. Ranaweera, K.K.T.N., Herath, H.M.G.P., Weerasinghe, W.M.P.B. and Mahipala, M.B.P.K., 2018. Serum metabolic profile based assessment of energy balance in tropical and temperate crossbred dairy cattle at post-partum transition stage. International Symposium in Agriculture and Environment January 2018, (Faculty of Agriculture, University of Ruhuna). Pp 77-80.
5. Randiwela, R.G.G.G.V.W, Mangalika, U.L.P., Adikari, A.M.J.B. , Pathirana, A.P.D.G. and Weeragalla, W.A.P.P. (2018) PCR based assay for the detection of cow's milk adulteration in buffalo curd. International Journal of Livestock Research. 8 (7): 67-79.
6. Shanazia, A.S.F, Mangalika, U.L.P., Nayananjalie WAD (2018) Effect of different coagulants on the quality of Paneer made from cow milk, International Journal of Scientific and Research publications, vol. 8 issue 4 189-193
7. Shanazia, A.S.F, Mangalika, U.L.P., Nayananjalie WAD (2018) Effect of different coagulants on the quality of Paneer made from buffalo milk, Journal of Agriculture & Value Addition, vol. 1 issue 1 71-79
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11. N. Liyanagunawaedena, P.S. Fernando, R.S. Kalupahana, C. R. Karunaratna, N.P. French, A. Midwinter, J. Zhang & J. Benschop (2018). Motile *Salmonella* spp in Sri Lankan Poultry: An impending public health threat?. 4th One Health AotearoaSymposium, 12 -13 December 2018, Nordmeyer Theatre, University of Otago, Wellington, New Zealand.

Names of Officers Attended Overseas Training/ Meetings/ Workshops/ Visits - 2018

Name of the Officer	Course/ Programme	Country
Mr. B.K.S. Perera	International program on Management Auditing for the public sector International Auditors	Malaysia
Dr. G.G.I.A. Jayawickrama	The Global Health Security Agenda(GHSA) Regional Meeting	Thailand
Dr. K.D. Ariyapala	Professional Development program on sustainable consumption and production	Thailand
Dr. Sumathy Puvanendiran	International Training Course on Sustainable consumption and production	India
Mr. C.F. Bulathge	The Netherland Fellowship program 2017-2018 International; Diploma in Animal Feed	Netherland
Dr. T.P. Wijayathilaka	The Asian Rabies Control Network meeting	Thailand
Dr. Nihal Wedasinghe	Second PPR Regional Roadmap meeting for SAARC	Bangladesh
Dr. N. Priyankarage	Global Workshop of the ESBL EC Tricycle Survey - Protocol development	Netherland
Dr. C.G. Wijesinghe	Regional seminar for OIE National Focal Points for veterinary products	Thailand
Mrs. R.A.T. Chandima Mr. D.M.D.P. Dissanayake Mrs. D.M.M.C. Sirisena	Training Program on "Animal Feed and Nutrient Analysis"	India
Dr. M.D.N. Jayaweera Dr. L.W.B. Epakanda	Regional Training on "Animal Disease Informatics and Biostatistics"	India
Mr. A.R. Rajarathna Mr. L.G.A.S. Jayawardana Mr. K.A. Bandusiri	Seminar on Animal Husbandry Production & Management for the Belt Road Countries.	China
Dr. Nihal Wedasinghe	OIE Delegates & 86 th General Sessions	France
Dr. T.P. Wijayathilaka	2018 Seminar on Safety Management and Agricultural Livestock and Fisheries products for Asian countries	Korea
Dr. U.D. Ramanayake	Meeting to initiate the Dairy Genetics Working Group Under the aegis of the Dairy Asia Platform.	India
Dr. M.B.D. Lakmalie	2018 AFACI International Training Program	Korea

Dr. U.L.P. Mangalika	Leadership Training at Asia Institute of Technology (AIT)	Thailand
Dr. D.L.N. Kumudinie	The 21 st Century Challenge – Improving of Animal Husbandry	Israel
Dr. P.G. Seneviratna	AFACI Program Workshop	Cambodia
Dr. S.S.P Silva	Inter country Meeting to Review Implementation of National Action Plan on AMR	Thailand
Dr. K.D. Ariyapala	OIE Regional Seminar	China
Dr. U.S. Gunarathne	NTFC Tour to Australia for Strengthening Sri Lanka – Australia Cooperation in the Area of Trade Facilitation	Australia
Dr. S. Hettiarachchi	OIE Regional Workshop	Korea
Mrs. V.P.K. Pilapitiya	Capacity Building Training Program for class 1 Officers of SLAS Service	Malaysia
Dr. K.M.H.G. Sarath Priyantha	Training Slots under the India Technical Economic Co-Operation (ITEC) Scholarship Scheme of the ministry of External Affairs	India
Dr. H.P.V.D.S. Bandara	Workshop on Simulation Exercise for Disease X	Thailand
Dr. Nihal Wedasingha Dr. K.D. Ariyapala Dr. S.S.P. Silva	Workshop on “Biotech tour to the United States	United States of America
Dr. K.P.G.K. Badralatha Dr. G.G.I.A. Jayawickrama	SAARC Epidemiology Network Forum Regional Workshop	Thailand
Dr. P.S. Fernando	OIE Regional Short-term Training on Antimicrobial Resistance	Japan
Mr. K. Sarath Mr. B.K.S. Perera	International Program on “Enterprise Project and Organization Management”	Thailand
Dr. L.W.N. Samaranayake	The 7 th Leman China Swine Conference and 2018 World Swine Industry Expo	China
Dr. K.D. Ariyapala Dr. N. Priyankarage	2 nd Regional workshop for Veterinary Education Establishments and Veterinary Statutory Bodies	Japan
Dr. M.D.N. Jayaweera	Invitation to attend the Technical Conference “Inventing and Regulating New Technologies for Animal Health	India

Dr. R. Hettiarachchi	41 st APHCA Business Session and 15 th International Symposium of Veterinary Epidemiology and Economics	Thailand
Dr. G.G.I.A. Jayawickrama	Global Workshop on the World Animal Health Information System for recently appointed National Focal points for Animal Disease Notification to the OIE	France
Dr. K.H.D.T. Kasagala Dr. P.G.I.D. Amarasiri	Regional Workshop on Biological Safety Cabinet Technology	Thailand
Mr. B.K.S. Perera	International Pro. On Mgt. Auditing for the Public sector International Audit	Malaysia
Dr. U.S. Gunarathna	Slida International Training Pro. On Quality Infrastructure Development In Support of World Trade	Sweden
Dr. G.G.L.A. Jayawickrama	The Global Health Security Agenda Regional Meeting	Thailand
Dr. K.D. Ariyapala	Sustainable Consumption & Production	Thailand
Dr. T.P. Wijayathilaka	The Asian rabies Control Network Meeting	Thailand
Dr. Nihal Wedasinghe	Second PPR Regional Road map Meeting for SAARC	India
Dr. Sumathy Puvanendran	International Training. Course on Poultry Viral Disease diagnostics	India
Dr. H.N.P. S. De Zoysa	Slida International Training Pro. On Quality Infrastructure For Food Safety	Sweden
Dr. N. Priyankarage	Global Workshop of the ESBLEEC Tricycle survey protocol development	Netherland
Dr. C.G. Wijesinghe	Regional seminar for OIE National Focal point for Veterinary Products	Thailand

Details of Examinations Conducted in 2018

No	Name of the Exam	Number of Applicant	Number of Exams
01	2nd year final exam for 2015/2017 Animal Husbandry Diploma batch in SLSAH-Karandagolla & Seppukulama	128	01
02	Department exams 1 & 11 for Livestock Development Officers in Southern & Sabaragamuwa Provinces (2018/02/24,25) (on request)	21	02
03	Department exams 1 & 11 for Livestock Development Officers in NWP & Central provinces (2018/03/24,25) (on request)	28	02
04	Recruitment Exam for LDOs in DAPH	38	01
05	Recruitment Exam for RAs in DAPH	28	01
06	2 nd year Repeat exam 2016/2018 Animal Husbandry Diploma batch in SLSAH-Seppukulama (3 subjects)	09	01
07	LDI Promotion Exam, Uva Province	22	01
08	1 st Year Computer & Information Technology Practical Exam 2017/2019 Animal Husbandry Diploma batch in SLSAH-Seppukulama	04	01
09	1 st year Repeat exam for 2015/2017 Animal Husbandry Diploma batch in SLSAH-Seppukulama	34	01
10	1 st Year Computer & Information Technology Repeat Practical Exam 2017/2019 Animal Husbandry Diploma batch in SLSAH-Seppukulama	04	01
11	AP&H Service EB - i (coordination) (2018/12/29, 30)	198	01
12	AP&H Service EB - ii (coordination) (2019/12/ 26, 27, 28)	223	01

Annex VII

**Provincial Activities
Progress of Services / Activities of Provincial DAPH - 2018**

Dispensary Cases	WP	CP	SP	NP	EP	NWP	NCP	UP	SP	Total
Cattle/Buffalo	5,259	3,145	9,079	22,613	10,122	23,207	8,552	3,618	2,993	88,588
Goat/Sheep	3,289	1,918	2,326	31,958	9,071	5,956	3,310	765	1,739	60,332
Pigs	367	491	506	419	526	501	332	349	351	3,842
Poultry	75,865	22,496	35,119	395,599	94,625	2,277,729	89,818	11,385	27,662	3,030,298
Pet Animal	30,083	9,247	11,664	29,339	2,146	17,862	3,570	3,486	4,601	111,998
Other	1,076	354	463	4,333	912	603	290	100	314	8,445
Total	115,939	37,651	59,157	484,261	117,402	2,325,858	105,872	19,703	37,660	3,303,503

Field Cases	WP	CP	SP	NP	EP	NWP	NCP	UP	SP	Total
Cattle/Buffalo	9,198	11,692	9,905	20,695	14,240	30,228	14,317	11,209	6,099	127,583
Goat/Sheep	4,694	3,437	2,615	10,449	8,829	8,292	5,602	876	1,946	46,740
Pigs	2,017	5,005	680	379	369	2,583	1,736	115	342	13,226
Poultry	63,662	23,563	53,670	114,502	58,835	129,780	15,910	22,854	21,723	504,499
Pet Animal	261	54	228	343	4,391	47	362	75	179	5,940
Other	14	16	5	8	637	328	-	7	108	1,123
Total	79,846	43,767	67,103	146,376	87,301	171,258	37,927	35,136	30,397	699,111

Issue of Health Certificates	WP	CP	SP	NP	EP	NWP	NCP	UP	SP	Total
Cattle/Buffalo	737	1,721	702	1,935	2,599	976	1,275	1,878	278	12,101
Goat/Sheep	213	28	296	40	534	40	285	1,055	29	2,520
Pigs	278	367	207	1,167	958	366	374	103	187	4,007
Poultry	400	196	85	199	50	198	262	94	33	1,517
Other	4	9	5	31	6	86	3	-	4	148
Total	1,632	2,321	1,295	3,372	4,147	1,666	2,199	3,130	531	20,293

Annex VIII

Milk Collection by Main Milk Collecting Organizations 2017 - 2018

Province	District	Milk Collection Lts.	
		2017	2018
Western	Colombo	1,696,401	1,340,386
	Gampaha	7,902,688	5,069,780
	Kalutara	2,164,264	1,668,373
	Total	11,763,353	8,078,539
Central	Kandy	14,338,987	12,027,309
	Matale	12,676,096	12,180,638
	Nuwara-Eliya	61,993,702	49,968,776
	Total	89,008,785	74,176,723
Southern	Galle	1,174,806	919,237
	Hambantota	15,729,191	15,755,909
	Matara	908,436	945,469
	Total	17,812,433	17,620,615
North Central	Anuradhapura	33,448,002	34,607,875
	Polonnaruwa	14,151,700	11,169,159
	Total	47,599,702	45,777,034
North Western	Kurunegala	42,049,876	43,024,495
	Puttalam	12,119,289	10,505,857
	Total	54,169,165	53,530,352
Northern	Jaffna	5,919,863	7,582,851
	Kilinochchi	4,221,067	3,485,072
	Mannar	2,540,929	2,064,254
	Mullativu	5,400,700	5,431,239
	Vauniya	5,130,670	5,243,540
	Total	23,213,229	23,806,956
Eastern	Ampara	9,582,021	7,730,803
	Batticaloa	8,318,604	8,819,330
	Trincomalee	5,222,962	5,846,759
	Total	23,123,587	22,396,892
Uva	Badulla	10,866,678	16,999,569
	Moneragala	4,864,251	4,688,634
	Total	15,730,929	21,688,203
Sabaragamuwa	Kegalle	435,774	336,501
	Rathnapura	1,981,268	1,849,107
	Total	2,417,042	2,185,608
* Other		-	
Island Total		284,838,225	269,260,922

* Collection details received from ;

- | | |
|--|---------------------------------|
| * Ambewela Products | * Cargills Quality Dairies |
| * CIC Dairies Pvt. Ltd | * Fontera Brands Lanka Pvt. Ltd |
| *Kotmale Dairi Product (Pvt) Ltd | * Lanka Dairies (Pvt) Ltd |
| * Milco (Pvt)LTD | * Richlife Dairies Ltd. |
| * Nestle Lanka Ltd. | * Chello milk products. |
| * Pelwatte Dairy Industries Ltd. | * Pattipola Livestock |
| * Polonnaruwa Milk Co-op Society | * NLDB |
| * Other- area is not clearly mentioned | |

Details of Consignments (Imports) subjected to Quarantine Surveillance in 2018

Type of Animal /Animal- product/Animal By-product		No. of consignments arrived		Quantity arrived (No. / MT)		No. of consignments inspected	
		2017	2018	2017	2018	2017	2018
1.	DOC - Grand Parents	07	07	55,670	139,891	07	07
	- Layer Parents	20	14	116,144	120,770	20	14
	- Broiler parents	34	36	393,090	442,350	34	36
2.	Meat - Poultry	29	26	243.15	239.69	29	26
	- Beef	37	44	208.71	193.52	37	44
	- Mutton	43	29	562.75	374.29	43	29
	- Lamb	33	36	91.56	185.47	33	36
	- Pork	07	07	69.34	123.76	07	07
	- Duck	10	14	17.21	23.39	10	14
	- Turkey	03	07	25.26	50.25	03	07
	- Casings	04	03	5.28	3.5	04	03
	-Goat meat pro/Carcasses	04	12	97.64	206.34	04	12
3.	Meat and Bone Meal	170	216	21,224.63	29,455.28	170	216
4.	Ornamental fish (marine+-Fresh water)=	245	373	2,888,853	3,467,960 47 boxes	245	373

Details of Consignments (Imports) subjected to Quarantine Surveillance in 2018

Type of Animal/Animal- product/Animal By-product		No. of consignments arrived		Quantity arrived (No. / MT)		No. of consignments inspected	
		2017	2018	2017	2018	2017	2018
5.	Cattle	02	01	5,030	246	02	01
	Zoo animals	02	02	02(1-Parrot/1- Elephant)	05(1-Parrot/4-Kangaroo)	02	02
	Horses	04	04	27	36	04	04
	Pet birds	05	13	455	603	05	13
	Live Shrimps	-	03	-	446	-	03
6.	Dogs/Cats	259	307	366-nos	481-nos	259	307
7.	Fish meal	162	127	7,092.54	5,175	162	127
8.	Prawn feed	203	253	6,690.63	12,581.62	203	253
9.	Tallow	14	32	476.89	4,616.05	14	32
10.	Gelatin	72	65	749.98	630.58	72	65
11.	Egg powder	04	07	3.7	11.04	04	07
12	Egg Albumin	02	02	1.8	1.3	02	02
	Whole liquid egg	08	01	82.04	17.92	08	01
13.	Feather /Skins/Bristles - Other Products	68	90	Bristles-68.94 Feather-0.96 Skins-0.63	Bristles-72.95 Feather-0.67 Skins-0.7	68	90

Details of Consignments (Imports) subjected to Quarantine Surveillance in 2018

Type of Animal/Animal- product/Animal By-product		No. of consignments arrived		Quantity arrived (No. / MT)		No. of consignments inspected	
		2017	2018	2017	2018	2017	2018
14.	Frozen fish	1,074	856	29,827.74	21,114.06	1,074	856
15.	Fish Food	74	74	1,621.85	1,363.74	74	74
16.	Leather	215	223	724.07	400.91	215	223
17.	Feed Ingredients (Soya bean meal, Corn meal, Wheat, Maize, Rape seed, Guar meal, palm kernel, cotton seed meal)	1,353	1,116	476,795.26	531,989.27	1,353	1,161
18.	Chicken products (Chicken powder, Chicken essence, Chicken extract, Chicken soup)	42	09	571.05	57.48	42	09
19.	Pet food	95	112	1,646.79	1,596.09	95	112
20.	Vaccines	45	127	410,883	3,810,607,700 doses/ 38.66 MT/ 603,000 ml/16,747,550 vials	45	127
21.	Veterinary drugs	103	139	500.6	293.52	103	139
22.	Semen	02	07	4,190 doses	11,100 doses 0.03 MT	02	07
23.	Yoghurt culture	07	06	1.06	0.71	07	06

Export of Animals, Animal Products and Animal By-Products - 2018

Category		Number/ Quantity (MT)in 2017	Number/ Quantity (MT)in 2018
	Item		
01	Ornamental fish	26,222,461 (tails)	28,163,682 (tails)
02	Dogs (Travelled with owners)	163- nos	176- nos
03	Cats (Travelled with owners)	97- nos	66 -nos
04	Poultry -DOC	246,022	155,428
05	Pet birds	26 -nos	655- nos
06	Zoo animals	--	12 -nos (2- Anaconda/ 10 - Goats)
07	Animal products-meat and meat products	2,125.3	3,910.81
08	Table eggs	4,600,624	5,632,780
09	Hatching eggs	--	286,520
10	Animal byproducts- Artistic brushes/dog chews/elephant dung papers/hat/hat parts/chank Drums Bone grits/cattle bone and crushed/dry crab shells/Enzymes/cattle Feed/	2,055,390 pieces 04 44.97	1,589,338 pieces 19 44.47
11	Leather	34.3	2.85

Usage of Raw Materials by Registered Animal Feed Manufactures - 2018

Category		Local Usage(MT)	Imported (MT)	Total Imported (MT)
A	Cereals			
	1.Maize	158,950.85	71,468.60	230,419.45
	2.Wheat	2,492.50	18,606.70	21,099.20
	3.Other	16,927.44	3,400.00	20,327.44
B	Cereal by products			
	1.Rice polish	38,903.31	-	38,903.31
	2.Rice bran	8,303.16	-	8,303.16
	3. Broken rice	41,162.42	43,282.00	84,444.42
	4.DDG	1,460.56	3,975.50	5,436.06
	5.Wheat bran	58,995.57	-	58,995.57
	6. Other	15,854.98	20,502.69	36,357.67
C	Oil Meal			
	1.Coconut meal	3,091.36	-	3,091.36
	2.Soya Bean Meal	23,534.36	116,386.41	139,920.77
	3.Cotton seed meal	-	13.40	13.40
	4.Sunflower meal oil	-	462.60	462.60
	5. Other	1,837.00	13,208.40	15,045.40
D	Animal by products			
	1.Fish Meal	1,563.70	1,063.70	2,627.40
	2.Meat & Bone Meal	4,142.29	20,477.20	24,619.49
	3.Other	3,662.43	477.00	4,139.43
E	Feed Grade Oil			
	1.Pro Fat	0.45	-	0.45
	2.Gro Fat	1,298.17	4,331.79	5,629.96
	3.Berger Fat	-	901.00	901.00
	4.Vegetabel Oil	20.60	8,752.39	8,772.99
	5. Other	658.09	400.00	1,058.09
F	Mineral Supplements			
	1.Shell grit	9,695.46	-	9,695.46
	2.Di Calcium phosphate	807.20	3,835.70	4,642.90
	3.Pre-mixes	310.39	743.60	1,053.99
	4. Others	6,147.21	239.50	6,386.71
G	Additives			
	1.Vitamins	120.47	7,206.99	7,327.46
	2. Minerals& Trace elements	128.59	428.67	557.26
	3. Toxin Binders	217.25	391.16	608.41
	4. Probiotic	24.04	18.61	42.65
	5. Prebiotic	33.30	-	33.30
	6. Acidifiers	42.66	7.00	49.66
	7. Emulsifier	36.26	3.50	39.76

Category	Local Usage(MT)	Imported (MT)	Total Imported (MT)
8. Organic acid	11.21	-	11.21
9. Anticoccidial	61.81	75.91	137.72
10. Enzymes	194.68	263.67	458.35
11. DL - Methionine	464.16	1,590.71	2,054.87
12.Lysine	395.44	1,570.60	1,966.04
13.Growth promoters	58.51	367.81	426.32
14. Other	2,624.53	4,336.12	6,960.66
Energy supplement			
1. Bakery meal	-	8,205.10	8,205.10

Present Cadre Positions of the Department and Staff Strength (2018.12.31)

S. No.	Designation	Approved Cadre	Current			Vacancies
			Project I	Project II	Project III	
1	Director General	1	1	0	0	0
2	Additional Director General	3	3	0	0	0
3	Additional Director General(Admin)	1	1	0	0	0
4	Director (Administration)	1	1	0	0	0
5	Chief Accountant	1	1	0	0	0
6	Director (AP&HS)	6	1	2	2	1
7	Registrar (Animal Feed)	1	1	0	0	0
8	Registrar (Veterinary Drugs)	1	1	0	0	0
9	Chief Animal Quarantine Officer	1	1	0	0	0
10	Chief Livestock Economist	1	0	0	0	1
11	Chief Epidemiologist	1	0	0	0	1
12	Principal Scientist	6	0	0	0	6
13	Veterinary Investigation Specialist	1	0	0	0	1
14	Chief Vaccinologist	1	0	0	0	1
15	Livestock Extension Specialist	1	0	0	0	1
16	Livestock Reproductive Specialist	1	0	0	0	1
17	Animal Breeding Specialist	1	0	0	0	1
18	Chief Agronomist	1	0	0	0	1
19	Veterinary Public Health Specialist	1	0	0	0	1
20	Dairy Engineering Specialist	1	0	0	0	1
21	Assistant Director (Admin)	2	2	0	0	0
22	Chief Internal Auditor	1	1	0	0	0
23	Accountant	3	3	0	0	0
24	Deputy Directors	8	0	1	0	7
25	Vaccine Superintendent / AD Vaccine	1	0	0	0	1
26	Animal Quarantine Officers	10	3	0	0	7
27	Veterinary Research Officer	24	0	22	0	2
28	Veterinary Investigating officer	26	0	15	0	11

Present Cadre Positions of the Department and Staff Strength (2018.12.31)

S. No.	Designation	Approved Cadre	Current			Vacancies
			Project I	Project II	Project III	
29	Research Officer	5	0	3	0	2
30	Agriculture Economist	1	1	0	0	0
31	Livestock Officer	16	1	0	13	2
32	Livestock Economist	1	0	0	0	1
33	Veterinary Surgeon	61	15	27	13	6
34	Civil Engineer	1	1	0	0	0
35	Legal Officer	1	0	0	0	1
36	Administrative Officer	3	1	1	0	1
37	Statistical Officer	1	1	0	0	0
38	Translator	2	2	0	0	0
39	Technical Officer	6	3	0	0	3
40	Draftsman	1	1	0	0	0
41	Information Communication Officer	1	1	1	0	0
42	Livestock Development Officer- Special	8	0	2	5	1
43	Livestock Development Officer- tech Service	59	17	10	32	0
44	Livestock Development Officer	6	1	0	2	3
45	Librarian	3	0	0	1	2
46	Budget Assistant	2	2	0	0	0
47	Development Officer	112	36	28	33	15
48	Development Assistant	3	0	2	1	0
49	Legal Assistant	2	1	0	0	1
50	Programme Assistant	2	0	0	2	0
51	Programme Assistant (Communication)	2	0	0	1	1
52	Public Management Assistant	72	41	14	12	5
53	Research Assistant (Special)	7	1	2	0	4
54	Research Assistant	70	4	61	5	0
55	Driver	76	19	35	16	6
56	Tractor Operator	3	0	1	0	2

Present Cadre Positions of the Department and Staff Strength (2018.12.31)

S. No.	Designation	Approved Cadre	Current			Vacancies
			Project I	Project II	Project III	
57	Laboratory Assistant	47	1	26	2	18
58	Mechanic	2	1	0	0	1
59	Boiler man	1	0	0	0	1
60	Carpenter	3	0	0	0	3
61	Electrician	1	0	1	0	0
62	Bungalow Keeper	1	0	0	0	1
63	Watcher	3	0	0	3	0
64	Cattle Caretaker	5	0	0	0	5
65	Milkman	4	0	0	0	4
66	Goat Caretaker	4	0	0	0	4
67	Animal Caretaker	12	0	0	0	12
68	Grass Cutter	15	0	0	0	15
69	Office Employee Service	32	13	2	10	7
70	Livestock Assistant	23	3	6	12	2
71	Garden Laborer	1	1	0	0	0
72	Sanitary Laborer	1	0	1	0	0
73	Field Assistant	161	12	59	81	9
Total		950	287	276	246	182

Source: Administration Division

Financial Allocations and the Expenditure Summary - 2018

	Allocation (Rs. Mn.)	Expenditure (Rs. Mn.)	Balance at 31.12.2018 (Rs. Mn.)	Expenditure as a % of Allocation
Project 1				
Capital Expenditure	178,000,000	90,951,760	87,048,240	51.10%
Recurrent expenditure				
Personal Emoluments	431,550,000	424,633,218	6,916,782	98.40%
Other	109,150,000	101,623,313	7,526,687	93.10%
Total	718,700,000	617,208,291	101,491,709	85.88%
Project 11				
Capital Expenditure	500,000,000	189,622,210	310,377,790	37.92%
Total	500,000,000	189,622,210	310,377,790	37.92%
Project 111				
Capital Expenditure	487,000,000	254,795,202	232,204,798	52.32%
Total	487,000,000	254,795,202	232,204,798	52.32%
Total Capital Expenditure	1,165,000,000	535,369,172	629,630,828	45.95%
Total Recurrent Expenditure	540,700,000	526,256,531	14,443,469	97.33%
Total Capital & Recurrent Expenditure	1,705,700,000	1,061,625,703	644,074,297	62.24%

Livestock Planning and Economics Division
Department of Animal Production and Health

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LPE/2019/03