



ANNUAL REPORT 2022



Department of Animal Production and Health

ANNUAL REPORT 2022

**Department of Animal Production and Health
Peradeniya
Sri Lanka**

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ANNUAL REPORT – 2022

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PREFACE

Department of Animal Production and Health (DAPH) is the leading technical organization for livestock production under the purview of Ministry of Agriculture. It is the main technical service provider in the country, responsible for ensuring food security & food safety of foods of animal origin, the major protein source of a healthy diet. Demand for animal protein is continuously rising up and it is quite challenging to cater for the national demand under current circumstances. In par with the demand DAPH has intensified its functions mainly in providing technical guidance and statutory functions related to livestock sector in the country despite the difficulties created with prevailing economic crisis in the country. Upgrading and maintaining a healthy animal population, providing required technical inputs, quality assurance of animal products, animal feeds and veterinary pharmaceuticals, and research and development are the main functions implemented by different divisions of DAPH with collaboration of provincial DAPHs and other livestock stakeholders. By conducting 16 different development programs, department facilitates for increased production and quality improvements in the livestock sector and thereby to achieve sector goals that are identified in the Government policy directives. In last year food security is one of the major concerns in the country and our involvements for obtaining required essentials for livestock production especially for animal feed was continued to be demanding. Department was taken various remedial actions to smoothly run the industry activities during fuel crisis and have been participated for various discussions at higher authorities to ensure continuous supply of imported animal feed ingredients and other requirements to the country under that critical period.

In general, Livestock sector had a slight setback due to the indirect influence of the Covid 19 pandemic followed by economic crisis in the country. As a result, there was a slight decrease in milk production comparing to the year 2021. Similarly, the layer poultry sector in the country faced a difficult time than the previous years in history. Local egg production was decreased by 29% resulting inability to cater local consumer demand. It is the consequences of the same difficulties like import restrictions, non-availability of USD for importation, continuous depreciation of SLR, reduction of locally produced feed ingredients was continued as in 2021. All livestock production (egg, meat, milk) was slightly decreased in this year comparing to 2021. The growth in Swine and Goat sectors are more or less static and needs more attention in coming years.

This 2022 Annual Report of DAPH highlights the status of livestock sub-sectors and presented the progress of all programs/projects conducted by the department during the year 2022. Most of the livestock sector support services/programs are jointly implemented by the central 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 2022. Special word of appreciation goes to Dr. (Mrs.) P.S. Fernando- Director and the staff of Livestock Planning and Economics Division for taking efforts in compiling and publishing this document.

Dr. (Mrs.) K. A. C. H. A. Kothalawala
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 Agriculture.

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

The DAPH provides technical leadership, expertise and back-up services to Provincial Departments of Animal Production and Health (PDAPH) and other stakeholders in livestock industry. 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 337 Divisional Veterinary Offices are scattered throughout the country to handle delivery services, which are managed by Veterinary Surgeons, under preview of PDAPH. Based on the policy decision taken by the government for expansion of veterinary service, divisional veterinary offices are currently being established at every divisional secretariat level to provide strong service delivery system at grass root level. Similarly, a policy initiative was taken in 2006 to expand veterinary investigation network by establishing a Veterinary Investigation Centre (VIC) at each district level. Twenty-five (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 economically important and emerging animal diseases by implementing suitable control strategies and eradication programs.

Sub Units:

Veterinary Investigation Centers (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 and improvement in livestock genetic and animal 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 through 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 and Seepukulama.
Livestock Knowledge Centre, Gatambe.
Livestock Technology Park, Gannoruwa.

Veterinary Research Institute

Main Responsibility: Planning, designing and conducting research for improvement in livestock sector and provide, laboratory services biological products, and expertise 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, submitting for funds and monitoring and evaluation of the progress of livestock development programs/ projects implemented by the central and provincial DAPH and other related agencies and maintaining the databases in livestock sector.

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 human resources and ensure smooth functioning of the Department

Finance Division

Main Responsibility: Efficient and effective management of funds allocated to the Department.

Members of the Directorate

Members of the Directorate in 2022 were as follows:

Dr. (Mrs.) K.A.C.H.A. Kothalawala - Director General (from 01.04.2021)

Dr. N. Jayaweera - Additional Director General/ Animal Health (from 26.07.2021)

Dr. (Mrs.) U.L.P. Mangalika - Additional Director General/ Livestock Development (from 26.07.2021)

Dr. S. S. P. Silva - Additional Director General / Program Planning & International Affairs (from 26.07.2021)

Dr. (Mrs.) U.L.P. Mangalika - (CUD) Additional Director General/ Veterinary Research (From 14.12.2021)

Mrs. Geetha Indrani - Additional Director General/ Administration

Dr. P.G. Senevirathne - Director / Animal Breeding (from 25.11.2021)

Dr. L.W.B. Epakanda - Director Animal Health (25.11.2021 - 2023.02.11)

Dr. (Mrs.) P.S. Fernando - Director / Livestock Planning and Economics (From 25.11.2021)

Dr. (Mrs.) V.R.N. Munasinghe - Director / Veterinary Regulatory Affairs (From 25.11.2021)

Dr. H. Kothalawala- Director / Veterinary Research (from 25.11.2021)

Dr. A. Liyanagamage - Director / Human Resource Development (From 25.11.2021)

Mrs. V.P.K. Pilapitiya - Director/ Administration

Mr. D.M. Ekanayake - Chief Accountant.

The Organization structure of the DAPH is shown in *Annexure 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 2022 has been recorded as 1.61 million and 0.47 million respectively (Source: LPE Division, DAPH) Domestic milk production recorded as 380 million liters (Source: LPE Division, DAPH). It is a Decline of 7.78% compared to the previous year.

Number of milk chilling centers in the year totaled up to 293. The amount of milk collected by 14 main milk processors in the formal milk market in the year amounted to 231.03 million liters. Milk collected in the country was mainly derive from the Central province, North-Central province and the North-Western province. Collected amount was around 31.17%, 25% and 17.26% respectively.

Average farm-gate price per liter of cow milk and buffalo milk in 2022 were

around Rs.115.23 and Rs.135.99 respectively. Average cost of production of one liter of milk in up country and mid country in 2022 was recorded as Rs. 81.22 under intensive management system. (Source: LPE Division, DAPH)

Import of dairy products amounted to 53,797.85 MT in 2022, a decrease of 39.19% over the corresponding figure of 88,481.83 MT in 2021 (Source: Department of Customs). Out of total dairy products imported into the country in 2022, full cream milk powder amounted to 37,407.96 MT which was a decrease of 48.02% when compared with 71,971.99MT in the year 2021. On the contrary, import of non-fat milk powder at 12,117.56 MT in 2022 showed an increase of 9.63% from the 2021 import volume of 11,052.41 MT. Total import bill on dairy products reached Rs. 68.32 billion in the year 2022. Form of Powdered milk out of milk and milk products imported was 69.53% which had more than 1.5 % of fat.

The average price including Cost, Insurance and Freight (CIF) prices (LKR) of imported dairy products in 2021 and 2022 were as follows:

	2021 (Rs. /MT)	2022 (Rs. /MT)
Whole milk powder	724,788.37	1,288,339.74
Skim milk powder	632,656.96	1,263,028.06

(Source: Department of Customs)

International market prices of whole milk powder and skim milk powder were increased towards the end of the year. Comparison of prices in 2021 and 2022 are as follows:

International market prices of dairy products (2021 - 2022)

Product	Price USD/MT			
	2021 (Avg.)		2022 (Avg.)	
	Jan.	Dec.	Jan.	Dec.
Whole milk powder	3,419	4,650	4,856	4,469
Skim milk powder	2,769	3,738	3,894	3,150

(Source: <https://www.clal.it>)

Total availability (domestic production and imports) of milk and milk products in the country had been 767.59 million liters of Liquid Milk Equivalent -LME and the per-capita availability was recorded as 94.81 ml/day in year 2022 that accounted for 34.76 l/year.

2.2. Poultry Sector

Year 2022 could be identified as the worst year for the poultry industry since COVID 19 outbreak in the country. The industry was not fully recovered from COVID 19 control related trade issues in 2020 when it has to face the economic crisis in 2022. Main issues faced by the industry could be sited as inadequacy of feed raw materials, lack of foreign currency for importation of inputs, frequent power cuts and insufficient fuel supply which led to continuous rise of cost of production and market price.

2.2.1. Broiler Industry

Three (3) grandparent (GP) farms and 31 broiler parent farms were functioning during 2022. 33,564 grandparents DOC were imported by the GP farms.

1,157,835 parent DOC were produced by GP farms supplying 93% of the local parent bird requirement. The rest of the parent DOC requirement (89,836) was imported from Australia (88%) and USA (12%). Total procurement of parent birds reached 1,247,671. The imported strains were Ross (77%) and Arbor Acres (23%). The local procurement consisted of Cobb (51%), Arbor Acres (28%) and Indian River (21%).

Parent farms produced 161.38 Mn million broiler chicks recording 9% reduction compared to 176.94 million broiler chick productions in 2021. Out of the total production of DOCs 160.88 (Mn) had been sold for broiler meat production. Respectively chicken meat production decreased by 3% resulting 228.53 ('000MT) in year 2022 compared to 236.79 ('000MT) in 2021.

Average price of a day-old broiler chick was reported as Rs. 152.44 in 2022 ranging from Rs. 123.63 in January to Rs. 219.91 in October. Average selling price of live broiler at Colombo market was recorded as Rs. 975.00/kg with the lowest price of Rs. 655.00/kg in

February to the maximum price of Rs. 1,350.00/kg in September. Fresh chicken meat price at the Colombo market ranged from Rs. 760.83 in February to Rs. 1,472.22 in September with an average value of Rs. 1,092.79 which was twofold of the price of 2021.

2.2.2. Layer Industry

Eleven (11) layer parent farms had been functioning at the beginning of the year. Due to the drastic reductions in demand for commercial layer DOC, 5 breeder farms suspended their operation by midyear removing the breeder flocks in production stage. Also, the importation of layer parent birds reduced to 34,351 which was less than half of the planned import of 85,000 for the year and was imported in the last quarter of the year. Demand for commercial layer DOC returned back to normal by September 2022 but the supply was insufficient by that time due to immature culling of layer parents and reductions in imports. Total layer DOC production was recorded as 5.08 Mn which was half of the production in year 2021 (10.14 Mn). Out of the total production, 4.85 Mn chicks had been sold for egg production. This situation will lead to drastic reductions in table egg production in year 2023.

In 2022, layer parent birds were imported from Brazil (92%) and USA (8%). 64% of them were white strains while 36% consisted of brown egg laying strains. Lohmann LSL (29%), Hyline Brown (23%), Dekalb white (18%), Hyline White (17%), Lohmann Brown (10%), ISA Brown P S (3%) were the layer breeder strains imported.

Average pullet chick price was recorded as Rs. 213.85 and was ranging from Rs. 62.55 in January to 425.00 in December 2022. Average retail price of white and brown eggs at Colombo market was recorded as Rs. 38.86 and Rs. 42.63. White egg price ranged from 17.25 (February) to Rs. 53.88 (August). Brown egg price ranged from Rs. 18.63 (February) to Rs. 70.00 (December). The egg production was decreased by 29% to 2089.70 Mn in 2022.

2.2.3. Poultry Feed Industry

The compounded feed production dropped by 15% during the year 2022 amounting to 1,152,364.52 MT. Ninety four percent (94%) of the total animal feed produced in the country is used for poultry industry. Forty-Five (45) registered poultry feed manufacturers were in operation during the year. The commercial poultry feed production in the country was estimated as 836,138.22 MT which is 18% reduction compared to 1,025,932.54 MT in year 2021. Total self-mixed poultry feed production has increased by 1% compared to previous year amounting 259,846.36 MT. Reduced raw material availability of the country and increased prices could be sited as possible reasons for the observed drops in production.

2.2.4. Poultry Processing Sector

Seventeen (17) processing establishments and sixteen (16) poultry further processing establishments registered under DAPH were in operation during the year 2022. Total value-added chicken meat products manufactured by further processing establishments amounted to 14,396.10 MT.

2.2.5. Exports

Export of chicken meat and meat products were recorded as 1,804.66 MT in the year 2022, an increase of 1086.4 MT from the previous year volume of 718.26 MT. Bulk of the chicken meat and chicken meat products were exported to Thailand, Brazil and China. Export of table eggs increase significantly reaching 17.91 million compared to corresponding figure of 4.1 million in 2021. A total of 0.11 million day-old chicks and 19,800 hatching eggs were also exported during the year 2022 (Source: AQ Station, Colombo).

2.2.6. Imports

171.15 MT of poultry meat and meat products and 54.02 MT of liquid egg were imported to the country during 2022 (Source: AQ Station, Colombo).

Key data pertaining to the industry in 2022 are given in Annexure 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.

It has been recorded that the pig population was 169,097 in the country and the estimated National pork production was 9.30('000) MT. The cost of production of pork recorded as Rs. 343.23 kg for live weight and 511.54 kg to dressed weight (Source: LPE Division, DAPH). Monthly average

retail price of pork was recorded as Rs.1,262.97 per kg in the year 2022 ranging from Rs.881.20 kg (Minimum) in January to Rs. 1,692.29 kg (Maximum) in October (Source: HARTI).

However, local market price for curry pork was recorded as Rs. 944.00 kg. Total of 244.32 MT of pork and pork products have been imported into the country in 2022 and 30.99 MT of pork and pork products have been exported (Source: Department of Customs). Prices of piglings were recorded as Rs 12,000.00 for naturally bred animals and Rs. 15,000.00 for piglings born through artificial insemination (Source: NLDB).

The Economic crisis threatens the swine industry by increasing input prices of all the items thereby increase the cost of production of pork products in the market. The economic crisis and the fuel shortage also affected the marketing of pork products. However, the power shortage created least impact to the swine sector. Depreciation of the rupee value and reducing the buying power of the pork consumers badly affect the marketing channels existed during the year. There was no major disease threat reported in pigs during the year 2022.

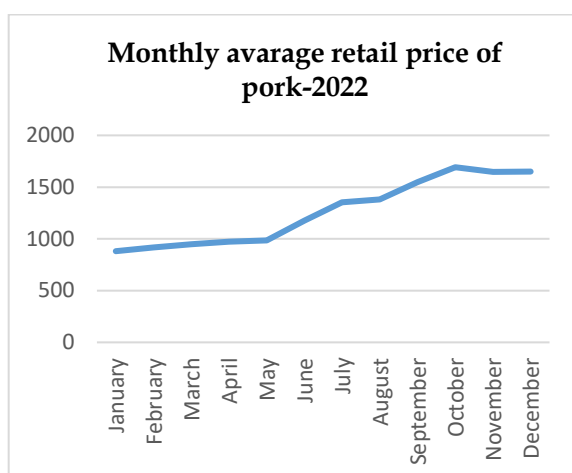


Figure 2.1: Monthly average retail price of pork- 2022 (Source: HARTI)

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 2022 recorded as 773,080 (Source: LPE Division, DAPH) and number goat farms in the country recorded as 82,103 (Source: LPE Division, DAPH). Average cost of production of mutton was Rs. 1,760.83 in year 2022. Average retail

price of mutton in the country reported as Rs. 2,514.30/kg in the year 2022 ranging from Rs. 2,089.42/kg in January to Rs. 2,801.58/kg in November.

A total of 353,070 kg of mutton had been imported into the country during the year 2022. While 11kg had been exported (Source: Department of Customs). Change of average retail prices of mutton is shown below. (Figure2.2)

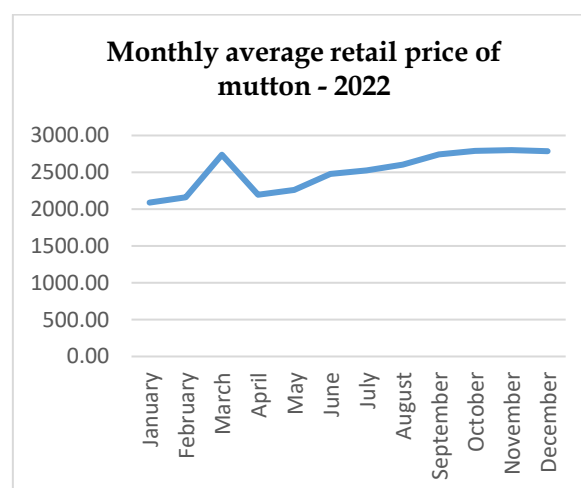


Figure 2.2: Monthly average retail price of mutton 2022 (Source: HARTI)

3. ANIMAL HEALTH DIVISION

3.1. Introduction

The animal health division is one of the six technical divisions in the DAPH which is responsible for disease surveillance and control to ensure the animal health status to the development of the livestock industry in Sri Lanka. The division provides technical leadership and back-up services to prevent the entry of exotic diseases to the country and to control and eradicate the existing economically important and zoonotic diseases in country while maintaining animal welfare and ensuring safety of animal originated foods.

Animal Health division mainly consists with three units as Veterinary Epidemiological Unit, Veterinary Public Health Unit and Veterinary Investigation Centers.

Mainly disease surveillance activities and disease information dissemination activities are done under the Veterinary Epidemiological Unit of Animal Health Division. Number of important diseases are monitored through clinical signs and monthly reported to Animal Health division by the field veterinary surgeons of all 337 divisional government veterinary offices. This passive disease surveillance data is analyzed and the information are shared with provincial authorities and respective field veterinary surgeons quarterly as departmental publications.

Country status for notifiable diseases is reported biannually to OIE by Animal health division. Disease information are published in World Animal Health Information System (WAHIS). Animal Health information are collated and analyzed by the animal health division for decision making at national level. In addition to that, Sri Lanka Veterinary Epidemiology Bulletin is prepared quarterly and circulated among the government and private veterinarians and other stakeholders of the livestock industry.

With the establishment of functional Veterinary Public Health unit in the Animal Health Division in 2021, the Veterinary Public Health (VPH) mechanism is developed and functions are initiated. The main public health functions related to food safety and zoonosis, are implemented in VICs level with the support of provincial officers in each district, with the aim to establish a parallel mechanism at the provincial departmental level which is important to implement VPH activities throughout the country. Under International Health Regulations (IHR), there are many activities to be addressed by VPH unit. The multi-sectorial and multi-disciplinary collaboration approach is one of the essential approaches among them.

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. Through those scattered laboratory network in country Animal Health Division expect to perform epidemiological investigation and providing laboratory back-up service for disease diagnosis and confirmation where necessary.

Main Functions of the Division

- 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 Veterinary Epidemiology Unit

3.2.1 Animal Disease Situation

3.2.1.1 Bovine Diseases

a. Haemorrhagic Septicaemia (HS)

Haemorrhagic Septicaemia (HS) is an acute, fatal, septicemic disease caused by the *Pasteurella multocida* of serotypes B: 2 and E: 2 of the Carter and Heddleston system, corresponding to 6: B and 6: E of Namioka-Carter system. It is a major disease of cattle (*Bos taurus* and *Bos indicus*) and water buffaloes (*Bubalus bubalis*) occurring as catastrophic epizootics in many Asian and African countries resulting in high morbidity and mortality.

The disease was first confirmed in Sri Lanka in 1955 when it broke out in epidemic proportion killing thousands of buffaloes and cattle. Since then, it was named as the most killer disease in domestic large ruminants and outbreaks were encountered in large herds mainly in the dry zone and also in the wet intermediate zone.

Four (04) outbreaks of HS occurred in three veterinary ranges during the year 2022 in North Central province and Eastern Province. Laboratory confirmation of disease was made by the

Veterinary Research Institute. The cases numbered 238 with 122 deaths as summarized in Table 3.1.

Vaccination is practiced using locally produced alum precipitated and oil adjuvant vaccines. During the year 2022, all the animals in outbreak areas had been vaccinated against HS by divisional veterinary officers. 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. Prophylactic vaccination which considered as the major tool in controlling the disease was carried out routinely throughout the year.

Table 3.1: Spatial and Temporal distribution of HS in 2022

No.	District	Name of VS range affected	No. of		Month(s) of occurrence
			Cases	Deaths	
1	Polonnaruwa	02	87	23	February, August, December
2	Batticaloa	02	151	99	October
	All island total		238	122	

b. Foot and Mouth Disease (FMD)

FMD is endemic in Sri Lanka and recognized as one of the most economically important disease affecting livestock industry since middle of the nineteenth century. The serotype “O”, topotype ME-SA lineage Ind-2001 and sub lineage “d” of FMD virus has been identified as the only serotype circulating in the country which was confirm by the World Reference Laboratory, Pirbright, UK. Annual mass scale vaccination campaigns have been carried out by Department of Animal Production and Health (DAHP) since 1984.

Epidemiological study on FMD outbreak in last 15 years and comprehensive understanding on previous FMD outbreaks which shows FMD incidence is very high in four provinces namely North Central provinces, Eastern, North Western and Uva provinces. within five provinces. 10

districts were identified as high risk namely Anuradhapura, Polonnaruwa, Ampara, Batticaloa, Trincomalee, Kurunegala, Puttalam, Jaffna, Mulathivu, Vavuniya where have 70% of total cattle and buffalo population is present an Island. 10 districts identified as medium risk areas namely Kandy, Matale, Kegalle, Gampaha, Colombo, Badulla, Moneragala, Hambantota, Kulutara, Kilinochchi and Mannar. 5 districts identified as low risk, namely Rathnapura, Matara, Galle and Nuwaraeliya. Bi-annual vaccination program should be implemented at High risk and medium risk districts. Some districts had infected foci/ high risk areas due to illegal cattle movement, illegal slaughter point, and nomadic movement and slaughter houses. Provincial Director and his technical experts, should identified/ map these areas are high risk and to recommended to implement biannual vaccination program too.



Figure: 3.1. FMD outbreak at Trincomalee

FMD was reported in *Sixty (60) veterinary ranges in Nineteen (19) districts* during the year 2022. The total cases numbered to *3169 with 164 deaths* as depicted in Table 3.2.

The total number of cases recorded in the *previous year (2021) was 3,825 with 364 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.

FMD vaccination is carrying out for the all cattle and buffaloes excluding below 4 months of age calves and pregnant animals. However, a few herds may not get the vaccine if farmers do not like their animals to be vaccinated. Anyhow VS should organize farmer awareness program on importance of vaccination of cattle. Vaccination coverage should be around 80% in high-risk areas and should have to maintain herd immunity. All the dairy farmers should have registered in Divisional veterinary surgeons' office and animals should

have identification tags. Each Veterinary office should maintain farm register and vaccination register. When farmers requested to transport animal from one VS range to another VS range, Animal Health certificate should issue only vaccinated animals and it should confirm and cross check with farm register and vaccination registration in the VSs office.

Every Veterinary Surgeon's should follow the Animal Act and Animal Disease Act at time of animal transportation activities. Hence, implementation of legislative measures pertaining to animal movement has a key role in controlling disease spreading.

Table 3.2: Spatial and temporal distribution of FMD in 2022

No	District	No of affected VS ranges	No of		Months of occurrence
			Cases	Deaths	
1	Anuradhapura	12	896	26	January, April, May
2	Polonnaruwa	1	176	2	January
3	Kurunegala	3	19	0	January, February
4	Puttalam	6	401	14	January, February
5	Gampaha	4	91	0	January, February
6	Kalutara	3	14	2	January
7	Colombo	2	143	51	January
8	Mullativu	2	85	2	August, December
9	Mannar	1	2	0	October
10	Kandy	4	80	10	January, February, June
11	Matale	1	32	13	February
12	Ampara	5	187	1	March, August, December
13	Trincomalee	6	716	23	January, March, December
14	Batticaloa	2	72	0	March, April
15	Kegalle	2	13	0	February, May
16	Badulla	3	154	18	February, May, June, December
17	Monaragala	1	50	2	December
18	Hambantota	1	35	0	October
19	Galle	1	3	0	May
	All Island total	60	3169	164	

c. Lumpy skin Disease (LSD)

Lumpy Skin Disease (LSD) is a viral disease of cattle and buffalo typically characterized by nodules or lumps on the skin. The main symptoms are visible lumpiness nodular lesions in the skin, fever, loss of appetite, discharge from the eyes and nostrils, rapid decline in milk production, abortions, mastitis and impaired fertility.

The disease is mainly vector born disease transmitted by blood sucking mosquitoes, ticks and flies and rarely by direct contact with infected cows, semen

of infected bull, calf through the mother's uterus and milk.

A disease suspected to be Lumpy Skin Disease (LSD) was reported by the Veterinary Investigation Officer of Jaffna during September 2020. The first reported cases have been in Kopay and the disease have rapidly spread to neighboring farms and even to the other areas and spread to many parts of the country. Susceptibility much higher in cattle than buffaloes. Other species of livestock have not been affected by this viral disease.

LSD was reported in four (04) *veterinary ranges in two (02) districts* during the year 2022. The total cases numbered to 27 *with one death* as depicted in Table 3.3.

Necessary awareness and advices were given by facility of provincial department of Animal Production and health. At present severity of the disease is remarkably reduced.

Table 3.3: Spatial and temporal distribution of LSD in 2022

No	District	No of affected VS ranges	No of		Months of occurrence
			Cases	Deaths	
1	Anuradhapura	3	22	1	January, June, December
2	Badulla	1	5	0	November
	All Island total	4	27	1	

d. Bovine Brucellosis

Bovine Brucellosis is an economically important disease of cattle and buffaloes which adversely affects their reproduction. It is also zoonotic in nature. Brucellosis has been prevalent in Sri Lanka for several decades and it was introduced to the country from India. Its prevalence varies considerably between herds, areas and countries. The disease is endemic in certain parts of Eastern, Northern and North-Central provinces.

A total of 140 cases without deaths were recorded in the country due to brucellosis during the year under review. High incidence of disease was reported from Vavuniya District (15 cases) of Northern Province.

In total 5,936 animals have been vaccinated by Veterinary Investigating centers during the year 2022 using the S-19 Brucella vaccine.

e. Bovine Babesiosis

Four thousand nine hundred (4,900) cases of Bovine Babesiosis were reported island wide during the year according to the data received from VS offices via master returns. Majority of cases in neat cattle were reported in Uva (1155) with the highest in Welimada VS range (382) of Badulla district and North Western provinces (1009) with the highest in Nikaweratiya VS range (223) of Kurunegala district.

An overall *case-fatality rate of 2.63%* was reported among neat cattle in the whole island. Monthly distribution of cases varied from minimum of 238 to maximum of 505 with highest occurrences in first four months of the year.

f. Bovine Tuberculosis (TB)

A total of 57 cases without death were recorded in the country due to Bovine Tuberculosis during the year under review. High incidence of disease was reported in Northern Province.

In the year 2022, 1492 animals were screened for TB by Veterinary Investigation Centers. Comparative Intradermal Tuberculin Test was used to detect positive animals. 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.

3.2.1.2. Swine Diseases.

a. Porcine Reproductive and Respiratory Syndrome (PRRS)

Totally 202 cases of PRRS with 20 deaths were reported in the country during the year 2022. Majority of the cases were found in North Central and Western provinces where have higher swine population comparatively. Disease investigations were carried out in particular areas by District Veterinary Investigation Officers and it was revealed the feeding of untreated swill, introduction of new animals without proper quarantine procedures and poor /minimum biosecurity practices in swine farms are the main sources for disease introduction to those swine farms.

b. Foot and Mouth Disease (FMD)

Foot and Mouth Disease infection was reported in several swine farms of country only during the first quarter the year. *Totally 241 animals were infected and 78 of them were dead by the disease.* Over 50% of them were from Western province. As revealed by disease investigations carried out by Veterinary

Investigation Officers, major causes for the infection in swine farms are feeding animals with untreated/poorly treated swill and introduction of new animals without proper quarantine practices.

3.2.1.3. Poultry Diseases

Sri Lankan poultry sector is in crisis with the shortage of feed raw materials and continuous increase of the price of chicken meat and eggs. Small scale farmers had to close their farms while large scale farmers cut down their production. Poor nutrition and high cost of poultry vaccines are the major issues that affected on poultry health in the country.

Coccidiosis was the major poultry disease reported by field veterinary surgeons, in this year with *total of 167,518 cases and 5,535 deaths.* Majority of cases were reported from Uva, Eastern, North western and Northern provinces.

Colibacillosis (100,097 cases with 2,160 deaths), Infectious Coryza (69,797 cases and 2,455 deaths), Fowl Pox (56,245 cases and 1,521 deaths), Newcastle disease (30,119 cases and 1,732 deaths) were the other major diseases reported during the year 2022.

a. Newcastle Disease (ND)

Newcastle disease is an economically important poultry disease in Sri Lanka. It is endemic in the country and outbreaks have been reported from all provinces during the year under review, as illustrated in the Table 3.4. Major outbreaks have been reported from North western, Northern and Eastern Provinces.

Table 3.4: Distribution of Newcastle disease 2022

Province	Cases	Deaths
Central Province	938	137
Eastern Province	4,867	476
North central Province	1,252	74
Northern Province	5,600	483
North Western Province	9,927	277
Sabaragamuwa Province	2,978	126
Southern Province	1,931	42
Uva Province	2,188	54
Western Province	438	63
Total	30,119	1,732

b. Infectious Bursal Disease (IBD)

Total number of IBD cases reported is gradually reduced by annually. Total 14155 of cases with 674 deaths were reported in the year 2022 as summarized in the Table 3.5. Major outbreaks have been reported from North Western, Eastern, Southern and Uva provinces.

c. Infectious Bronchitis (IB)

Total 12,555 cases with 397 deaths of IB have been reported from all provinces as depicted in Table 3.6. Major outbreaks have been reported from Eastern province.

Table 3.5: Distribution of Infectious Bursal Disease - 2022

Province	Cases	Deaths
Central Province	198	17
Eastern Province	3,350	166
North central Province	3	-
Northern Province	1,261	224
North Western Province	3,442	134
Sabaragamuwa Province	1,628	71
Southern Province	2,062	40
Uva Province	2,204	16
Western Province	7	6
Total	14,155	674

Table 3.6: Distribution of Infectious Bronchitis - 2022

Province	Cases	Deaths
Central Province	429	27
Eastern Province	8,080	136
North central Province	367	6
Northern Province	963	109
North Western Province	1,103	90
Sabaragamuwa Province	1,071	16
Southern Province	36	2
Uva Province	446	3
Western Province	60	8
Total	12,555	397

3.2.2. Disease control and vaccination programs

Preventive vaccination programs have been carried out against economically important major livestock diseases such as Foot and Mouth Disease (FMD), Haemorrhagic Septicaemia (HS) and Black Quarter (BQ) in earmarked locations in the country.

BQ vaccine was produced locally to meet the demand for preventive as well as control vaccination in case of outbreaks. HS oil adjuvant vaccine was produced for

3.2.2.1. Vaccination of Livestock

mass-scale preventive vaccination and the Alum precipitated vaccine was produced as an emergency pre requisite to be used in outbreaks. Foot and mouth vaccine (monovalent, type 'O') was produced locally at AVL, Polgolla.

In total 359,634 doses of HS vaccine, 185,922 doses of BQ vaccine and 243,680 doses of Foot and mouth disease vaccine have been distributed during the period under review as shown in Table 3.7.

Table 3.7: Issuing of vaccines to the field in 2022

Province	Number of Vaccine doses			
	FMD	BQ	HS (Oil)	HS (Alum)
Western	10,200	–	–	–
Central	29,060	–	–	–
Southern	13,860	–	–	–
NCP	43,800	23,661	76,956	9,966
NWP	33,000	48,411	–	–
Northern	20,940	79,035	18,282	–
Eastern	65,800	30,195	212,784	39,864
Uva	5,160	–	–	–
Sabaragamuwa	3,360	–	–	–
NLDB and Other	18,500	4,620	1,782	–
Total	243,680	185,922	309,804	49,830

Table 3.8: Province-wise vaccination targets and achievements in 2022

Province	FMD		BQ		HS	
	Target	Achievement	Target	Achievement	Target	Achievement
Western	94,460	68,325	–	–	–	–
Central	92,360	33,442	–	–	–	–
Southern	77,070	11,859	–	58	–	–
NCP	229,180	62,743	20,000	17,857	23,000	38,488
NWP	166,901	37,428	55,314	41,165	–	–
Northern	176,817	34,267	83,156	77,725	22,869	2,832
Eastern	429,003	61,429	46,370	26,375	276,527	201,000
Uva	84,400	8,767	1,500	–	3,500	–
Sabaragamuwa	30,910	4,992	–	–	4,300	–
Total	1,381,101	323,252	206,340	163,180	330,196	242,320

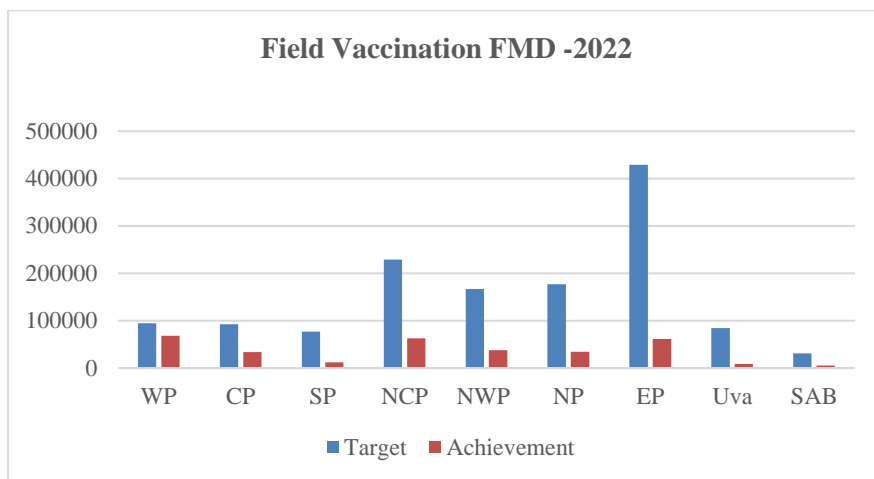


Figure 3.2: FMD Vaccination Progress

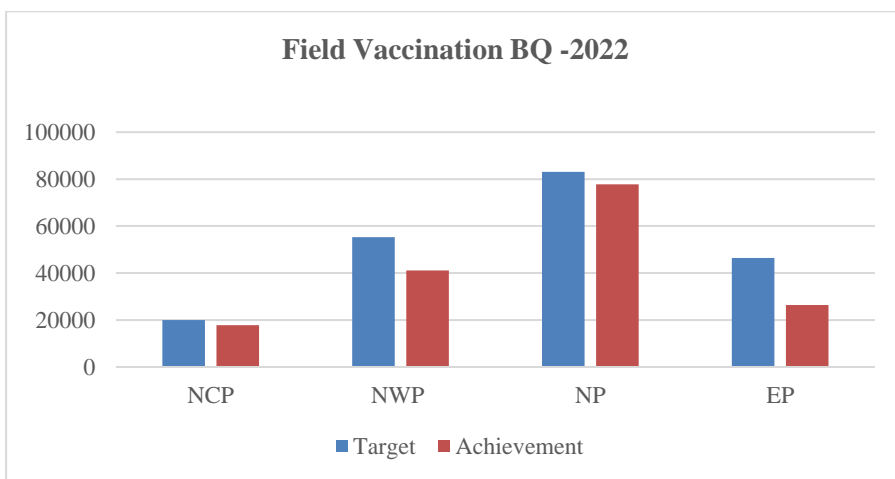


Figure 3.3: BQ Vaccination Progress

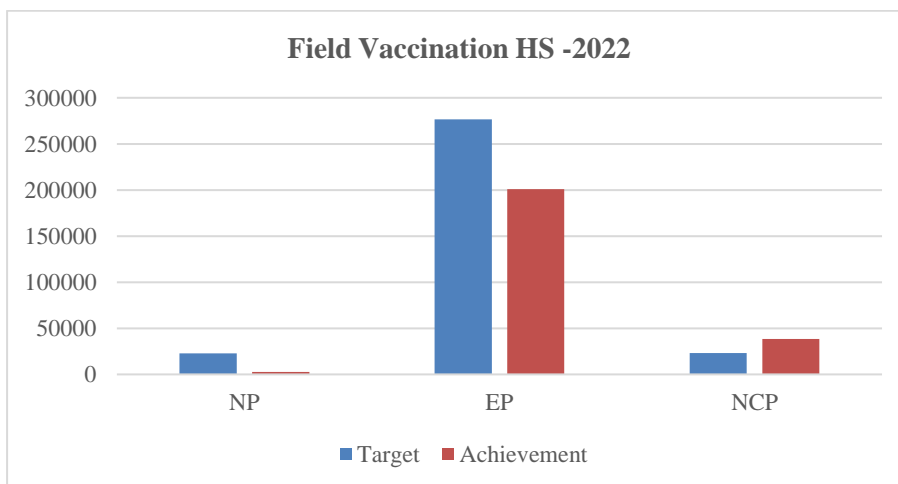


Figure 3.4: HS Vaccination Progress

3.2.2.2. Vaccination of Poultry

Vaccination is the tool used in strategic control of Newcastle Disease in the country. Locally produced vaccine is freely distributed among backyard and small-scale poultry farmers in the country. Total

6.4 million doses of vaccine have been distributed among all provinces and 4 million birds have been vaccinated as illustrated in the Table 3.9.

Table 3.9: Vaccination against Newcastle diseases using locally produced vaccine

Province	Vaccination
Central Province	6948
Eastern Province	2,069,944
North central Province	132,052
Northern Province	1,354,985
North Western Province	7,0853
Sabaragamuwa Province	29,800
Southern Province	8,148
Uva Province	36,900
Western Province	306,496
Total	4,016,126

3.2.3. Special animal health programmes

3.2.3.1. 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 animal health was provided through VIOs regularly. The selected farms were identified with geo-reference; a database was developed with all relevant information.

Under this project 1,340 dairy farms have visited by the veterinary investigation officers during the year 2022. Subsequently 9,180 milking cows have been subjected to California Mastitis Test (CMT) for early detection of sub clinical mastitis. Moreover, 2,960 liters of teat dip solution and 217 liters of CMT Reagents were

prepared at VICs and distributed among the famers 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 tested to identify the causative organisms. Bacterial cultures indicated the presence of Staphylococci, Streptococci, and E. coli species. 13,163 lactating cow udder base vials and 1,820 dry cow udder base vials were issued by the VICs in 2022 for this purpose.

Furthermore, intra mammary preparations comprising the most appropriate antibiotics were prepared at some VICs and supplied for treating of mastitis cases.

3.2.3.2. Project Export Facilitation of Chicken Meat and Eggs through Poultry Health Management

Sri Lanka exports chicken meat, eggs, day old chicks and hatching eggs and contributed considerably to the gross domestic production from the agricultural sector. The project has been conducted from the year 2014 to facilitate the exportation of chicken meat and eggs through poultry health management. The project is focusing on control and prevention of poultry diseases including Avian Influenza, Salmonella and Newcastle diseases and other economically important poultry diseases, depending on the availability of financial allocations.

Highly Pathogenic Avian Influenza has not been reported from Sri Lanka and there is high risk of entry of disease in to the country by the way of migratory birds, smuggling of live poultry, infections carried by international passages and importation of live poultry and poultry products. Therefor the early warning system against HPAI has been strengthened with the project. Continuous surveillance program for Avian Influenza is conducted by the department including clinical disease surveillance, sero

surveillance and epidemiological surveillance.

Sero surveillance is designed to detect the presence of antibodies against Avian Influenza in commercial layers and total of 3,847 samples have been tested during the year 2022 and samples were tested with Enzyme Linked Immuno - Sorbant Assay (ELISA) at Animal Virus Laboratory of Veterinary Research Institute. All the samples were negative for Notifiable Avian Influenza (NAI).

Epidemiological surveillance is conducted in high-risk populations for Avian influenza. Fresh dropping samples of migratory birds, cloacal swabs of backyard poultry in the vicinity of migratory birds, serum samples and cloacal swabs of ducks, cage swab samples from live bird market and cloacal swabs from poultry processing establishments and pet bird breeding establishments are collected under the epidemiological surveillance. Total of 16,417 fresh dropping and cloacal swab samples have been tested with embryonated chicken egg passage at Animal Virus Laboratory of Veterinary Research Institute, during the year under review and all the samples were negative for pathogenic Avian Influenza.



Figure 3.5: Migratory birds in Poonakary and Chavakachcheri VS ranges.

Salmonellosis is an economically important poultry disease due to its zoonotic potential, production losses and vertical transmission. Salmonella monitoring program is conducted in all registered breeder farms. There were 42 poultry breeder farms (broiler - 17, layer - 12, Broiler and layer - 3) registered in DAPH in the year 2022.

Total of 75 breeder farm visits and 97 hatchery visits were done by Veterinary Investigation Centers during the year and totally of 8,044 hatchery samples were collected. One breeder farm was positive for Salmonella with plate agglutination test and positive percentage was less than 1%. Two hatcheries were positive for Type D motile Salmonella.

3.2.3.3. 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 especially towards export market. With the growth and development of the industry especially during the exportation maintaining disease free status is very important to improve the quality of the product. In order to have the disease-free status diagnosis of presence or absence of a disease is very important. Therefore, considering the concentrated locations of poultry (Breeder & commercial farms) and shrimp in the North Western Province and ornamental fish farms in Western provinces; Wariyapola, Chilaw and Welisara VICs were selected to be further developed to cater the demand of these industries. Laboratory facilities were

developed to facilitate rapid disease diagnosis to a reasonable cost to the farmer, regular screening and surveillance of poultry and fish diseases and quality certification of poultry and fish products.

Upgrading of 3 VICs with the PCR and ELISA diagnostic facilities have completed during 2020 & 2021. Required high tech laboratory equipment, chemicals, reagents, glassware and other consumables were procured during 2019, 2020 and 2021.

Capacity building of the three Veterinary Investigation Officers and the relevant staff were done during 2022. Although there were some issues with shortage of electricity and economic crisis during 2022, ELISA diagnostic activities in the antibody detection of major diseases affecting poultry industry such as Chicken Anemia, New Castle Disease, Mycoplasma, Salmonella, Infectious Bronchitis were done mainly in the VIC Wariyapola and to a lesser extent in VIC Chilaw. Furthermore, detection of antibody titers for the vaccine against Chicken Anemia virus was done in VIC Wariyapola for vaccinated farms. The molecular PCR diagnostic activities for the White spot disease of Shrimp in VIC Chilaw was done mainly on trial basis and that of VIC Welisara for the Spring Viremia of carps, Koi Herpes Virus was done for 26 samples from 15 farms in addition to the testing of aquarium water for water quality. Summarized results of ELISA and PCR diagnosis is shown in *Annexure III*.

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

The health of wildlife is deeply entwined with the health of other animals, the environment and even humans. By protecting wildlife health, we safeguard biodiversity- and invest in a healthier, more sustainable future (OIE). This multidisciplinary project initiated as a measure to minimize such disease risks and for the early detection and manages adverse impacts of these diseases on human and livestock health.

The coordinating unit established in the Animal Health Division, coordinated the activities with the contact persons nominated and regional coordinating units were established to facilitate field wildlife disease surveillance activities and communication between regional representatives (Veterinary Investigation Officers, Regional Epidemiologists).

In order to building capacities in human resource, training needs of staff were identified with the goal of improving the knowledge and skills of the people who are actively engage in surveillance program. Selected VICs were supplied with consumable and inventory items to facilitate those regional laboratories more in disease diagnosing aspect. Fresh fecal samples were collected from migratory and resident wild birds at national parks for HPAI and ND surveillance.

3.3. Veterinary Public Health Unit.

3.3.1 Bovine Tuberculosis (bTB)

The bovine tuberculosis is a zoonotic disease caused by *Mycobacterium bovis*. It

can cause disease in cattle, other domestic animals, wild animals as well as in human creating a public health significance.

In the year 2022, 1,641 animals were screened for bovine TB by Veterinary Investigation Centers. The test performed to screen bovine Tuberculosis (bTB) is Tuberculin Skin Test (TST) using purified protein derivatives (PPD). The TST is a comparative intradermal test using bovine and avian PPD. Out of total of 1,641 animals tested in 2022, 8% of them were positive for the TST.

A special bTB screening program was conducted in March 2022 to NLDB farms. Totally 1,440 cattle were tested by Tuberculin Skin Test (TST) and 7% of them were positive for bTB in three farms out of five tested farms. There were two farms identified as bTB infected in Badulla district (one animal from each farm was positive). These farms are to be re-examined. There were 5 bTB positive animals were identified by postmortem in Udugoda NLDB farm in 2022.

3.3.2. Bovine Brucellosis

Brucellosis is an infectious disease of animals with significant economic impact on livestock industry. The disease is caused by bacterium of the family Brucella which trend to infect many animal species such as cattle, pig, goat, sheep, horse and dog including human. Brucellosis in bovine is mainly characterized by abortion, retained placenta, stillbirths and weak calves. The disease is first reported in 1956 in Sri Lanka and since then it has been detected among livestock especially in

cattle and buffalo. The geographical, environmental and socio-economic factors influence to prevent spreading and control the disease in the country. The impact of brucellosis on the economy of livestock industry and public health indicates the importance of control of the disease. The control of human brucellosis totally depends on the elimination of the disease in animal population.

Brucellosis control program is implemented through VICs in every

district of the country. In 2022, totally 1864 bulk milk samples were screened for brucellosis by milk ring test (MRT) and 19% of the samples were got test positive. 893 serum samples were collected from animals in suspected herd (MRT positive) and 6% of them were serologically confirmed as positive for brucellosis. Under this program in 2022, 20 new cattle farms were identified as brucellosis infected.

In order to control the disease, 5,936 animals have been vaccinated (S19 vaccination) by Veterinary Investigating Officers during the year 2022.

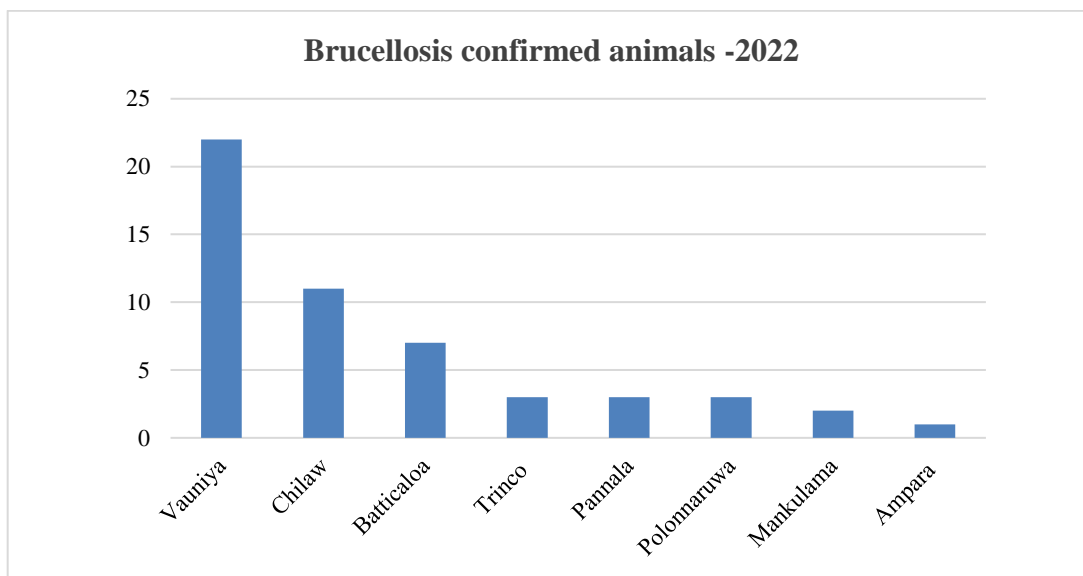


Figure 3.6: Number of Brucellosis confirmed animals

3.3.3. Rabies

Rabies is a vaccine- preventable viral disease which occurs in more than 150 countries and territories. Dogs are the main source of human rabies deaths, contributing up to 99% of all rabies transmission to humans. Rabies can be prevented through vaccination of dogs and prevention of dog bites. Vaccinating dogs, including puppies, is the most cost-

effective strategy for preventing rabies in people because it stops the transmission of its source.

Totally 60 rabies cases have been reported to the DAPH in 2022. They are cattle (24), buffaloes (03), goats (07), dogs (06) and dears (20). A rabies outbreak was occurred in Homagama in herd of deer (400 animals) and 20 deaths were occurred with rabid

signs and 6 of them were laboratory confirmed as rabies positive. Other than that, the laboratory confirmed rabid cases in bovine and canine were 8 and 1 respectively. Rabies diagnosis has been done in Medical Research Institute (MRI) and Faculty of Vet. Medicine & Animal Science, University of Peradeniya.

The World Rabies Day was successfully commemorated in 2022 with two main activities,

1. Webinars for professionals
2. School children awareness programs

The webinars were conducted for professionals in different sectors with One Health approach. Animal rabies in Sri Lanka was discussed including current situation, challenges in diagnosis and prevention and future challenges, WOAHP presentation on rabies, pathogenesis, diagnosis and prevention of rabies in dogs, livestock and wildlife, Human rabies: prevention and control.

The school children awareness programs were conducted in 48 schools in three districts; Kalutara, Kurunagala and Trincomalee. Totally 10,350 students and school teachers were participated in 48 programs. The program was included with presentations, videos, banners and distribution of 10,200 leaflets among school children with the aim of sending the message to school children and their parents as well as to the general public.

3.4. Veterinary investigation services

The first Veterinary Investigation Center in Sri Lanka was set up in Polonnaruwa in 1960s with main objective of providing laboratory back up services to

Thamankaduwa farm which was the main Livestock project in the country. The Veterinary Investigation Cadre was introduced in 1974. The main duties of the officer in charge of VIC were carrying out post mortems of animals and diagnosis of disease in livestock in relation to parasitology, mastitis control work and testing for Brucellosis disease by Roes Bengal test (RBPT). The disease diagnostic work was decentralized and regional Veterinary Investigation Centers were set up Matara, Welisara, Polonnaruwa and Jaffna. Later two more VICs were set up at Pannala in 1989 and in Vavuniya in 1992. In 1994 VICC were placed under the Animal Health Division.

The concept of strengthening the laboratory back up for veterinary services by providing veterinary investigation facilities at district level by District Veterinary Investigation Centers (DVICs) was recognized in year 2006. Since then, continuous effort has been taken to set up one VIC for each district. With the establishment of new Veterinary Investigation Centre at Kandy district, the total number of functioning VICs became twenty-five.

At present, VICC Chillaw and Welisara are functioning as specialised laboratories for aquatic animal diseases and VIC Wariyapola functions as the specialized laboratory for poultry diseases. All three VICC has the capacity of conducting RTPCR tests for disease diagnosis. In addition, 9 VICC namely, Anuradhapura, Polonnaruwa, Ampara, Homagama, Rathnapura, Hambanthota, Kundasale, Maankulum, and Dambulla have been improved to conduct wildlife disease

surveillance activities and VIC Kundasale is capable of conducting RTPCR.

Year, 2022 has been a difficult year for the VICs to conduct field level activities due to economic crisis. However, all the VICs have done a tremendous duty to fulfil their objectives. Veterinary Investigation Centres focused mostly on animal disease investigation in order to support the disease surveillance system in the country and field level investigations were mainly focused on Foot and Mouth Disease, Bovine Black Quarter, Brucellosis, Babesiosis, Theilariasis and Mastitis in cattle and buffaloes; Newcastle Disease, Salmonellosis, Infectious Bursal Disease, Marek's Disease and Coccidiosis in poultry, PRRS outbreaks in Swine 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, 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 2022 has been shown in *Annexure IV*.

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 is 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 high yielding planting materials.

Two goat breeding farms located at Thelahera and Imbulandanda maintain nucleus herds of Jamunapari and Boer goats respectively 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 2022

4.2.1. Livestock Breeding Project (LBP)

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 and enhance feed resources production and utilization.

a. Production of semen

Table 4.1: No. of semen doses produced in 2022

Species/Breed	AI Center	
	Kundasale	Polonnaruwa
Jersey	117,149	-
Friesian	17,618	-
Sahiwal Cross	11,976	47,578
Sahiwal	1,747	-
Murrah	-	7,326
Girolanda Cross	17,662	27,862
Boer	7,184	-
Jamunapari	22,861	-
Saanan	9,539	-
Total	205,736	82,766

b. Distribution of semen

Table 4.2: Breed-wise distribution of semen -2022

Species	Breed	Locally Produced	Imported	Total
Cattle	Jersey	107,118	135	107,253
	Jersey (sexed)	-	231	231
	Friesian	34,230	300	34,530
	Friesian (sexed)	-	93	93
	Sahiwal	-	163	163
	Cross	81,137	7	81,144
Buffalo	Murrah	4,026	119	4,145
	Niliravi	-	-	-
Goat	Jamunapari	3,855	-	3,855
	Saanan	1,144	-	1,144
	Boer	1,118	-	1,118
Total		232,628	1,048	233,676

c. 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- 2022

Province	Target	Performance	Achievement (%)
Western	21,145	14,260	67%
Central	58,445	49,487	85%
Southern	15,230	9,021	59%
Northern	37,279	23,842	64%
Eastern	14,121	7,809	55%
North Western	72,215	41,725	58%
North Central	23,970	18,806	78%
Uva	26,040	21,092	81%
Sabaragamuwa	7,659	4,744	62%
Island Total	276,104	190,786	69%

d. 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 2022 was **65,779 (50%)**

Table 4.4: Province-wise target, performance and achievement of PD- 2022

Province	Target	Performance	Achievement (%)
Western	11,053	6,907	62%
Central	29,223	13,495	46%
Southern	9,150	5,800	63%
Northern	12,019	5,048	42%
Eastern	8,873	4,485	51%
North Western	37,565	15,122	40%
North Central	8,180	4,370	53%
Uva	12,114	8,520	70%
Sabaragamuwa	4,457	2,032	46%
Total	132,634	65,779	50%

e. 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 **65,492 (73%)**.

Table 4.5: Province wise target, performance and achievement of calving - 2022

Province	Target	Performance	Achievement (%)
Western	5,280	6,056	115%
Central	19,483	15,497	80%
Southern	4,180	3,953	95%
Northern	10,400	4,541	44%
Eastern	6,070	2,791	46%
North Western	19,101	17,981	94%
North Central	12,510	5,473	44%
Uva	9,118	7,347	81%
Sabaragamuwa	2,999	1,853	62%
Total	89,141	65,492	73%

f. 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 2022

Technician Category	No of Trained
Livestock Development Instructors	09
Private Technicians	25
Dairy Extension Officers	02
Total	36

g. Infertility investigations

Infertility cases are attended on request basis and required reproductive hormones are supplied to the provinces. However reproductive hormones were not distributed to the provinces in the year 2022 because suppliers were unable to supply requested hormones to the DAPH.

A total of 253 infertility cases were attended by field Veterinary Surgeons in the year 2022 using Hormones which had supplied to the field at the end of the year 2021.

Further 45 veterinary surgeons were identified as reproductive specialists from the field and trained them on infertility investigation.

h. Pasture development

A mechanism was initiated to production & distribution to high yielding fodder planting materials in the country.

Issued planting materials

Variety	No. of planting materials
CO 3	300
CO 4	100
CO 5	9,800
Packchong	51,600
Sampoorna	200
Red Napier	800
Total	62,800

Model cultivation unit at Gannoruwa was further developed to use as study and demonstration purpose.

Two hundred (200) number of Jack trees were planted at GBCs in Thelahera & Imbulandanda.

Three (03) training programs were conducted on correct agronomic practices of recently introduced hybrid Napier varieties. Hundred and thirty-five (135) LDIs who are working in NWP, Uva & Sabaragamuwa provinces were trained.

Pasture & Fodder Development Committee was initiated to facilitate for exchanging data and information. Total land extent of hybrid forage (Napier, Sorghum & Maize) was estimated as 20,699 acres in Sri Lanka in year 2022.

FAO project on “Improving small holder dairy production through the introduction of quality forage varieties” was initiated & inception meeting was held on 03rd November 2022. Budget was revised to receive more benefits to the farmers.

i. Goat development

Division of Animal Breeding maintains two nucleus Goat Breeding farms with high genetic merits of Jamunapari and Boer goat breeds. Main objectives of these two nucleus goat breeder farms are issue breederble goats to the local goat farms for breeding purpose and produce semen donor stud goats to the Central Artificial Insemination Centre, Kundasale.

37 Jamunapari goats (14 male goats and 23 female goats) and 12 Boer male goats have been issued from above two nucleus Goat Breeder farms in 2022.

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 dairy animals throughout their lifetime. It is an island-wide project and both cash incentives and calf starter feed are provided to the farm owners of such registered heifers to motivate them for appropriate feeding of the heifers.

Table 4.7: Physical achievements of Heifer Calf Rearing project - 2022

Payment of incentives		Unit	Target	Achievement
Farmer incentives	No. registered	No. of calves	5220	2,793
	2 nd Installment	No. of payments	1,600	232
	3 rd installment		1,000	136
	4 th installment		900	81
Random monitoring of registered calves			400	135

*Gap between target and achievement is due to covid-19 pandemic situations prevailing in the country.

5. VETERINARY RESEARCH INSTITUTE

5.1. Introduction

Veterinary Research Institute (VRI) is the research arm of the DAPH and is involved in veterinary research, diagnostic and analytical testing, consultancy, providing expertise for national and regional committees, regulatory and statutory functions, 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 such as vaccines, therapeutic and diagnostic reagents, starter cultures and other industry inputs have been

developed and produced by the VRI to the farming community and other stakeholders of the industry. On the other hand, diagnostic and analytical 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 manufactured and issued veterinary products by the VRI in 2022 are as follows.

5.2.1. Products issued

Table 5.1: Vaccines

Vaccine	Production (doses)	Issues (doses)
Hemorrhagic Septicemia (HS) (OA)	325,000	325,000
Hemorrhagic Septicemia (HS) (APV)	74,250	74,250
Black Quarter (BQ)	195,591	195,591
Tick fever vaccine	0	1,320
Foot & Mouth disease (FMD)	345,000	345,000
Brucella S 19	17,000	7,000
Newcastle Disease (ND Primary)	3,772,200	3,772,200
Newcastle Disease (ND Secondary)	3,259,800	3,259,800

Table 5.2: Diagnostic reagents

Reagent	Quantity issued
FMD transport medium (ml)	4,000
AI transport medium (ml)	7,000
CMT reagent (L)	31
Pullorum antigen (doses)	226,221
RBPT antigen (ml)	185
MRT (ml)	270

Table 5.3: Therapeutic reagents

Reagent	Quantity issued
Teat dip solution (L)	390
Udder infusion (Vials)	94

Table 5.4: Starter cultures

Starter culture	Quantity issued
Yoghurt culture (vials)	12
Curd culture (vials)	95

Table 5.5: Chicks issued from Central Poultry Research Station, Karandagolla

Chick type	Number issued
Table eggs	64,689
Embryonated eggs (vaccine production and lab purposes)	81,424
Day old chicks (Backyard poultry)	69,681

5.2.2. Services

Table 5.6: Examination of specimens

Specimen type	No. of samples
Blood smears for parasites	698
Fecal samples for parasites	174
Skin/litter/ticks/intestinal samples for parasites	83
Litter/ bedding samples	89
Skin scrapings	731
Blood samples for disease diagnosis	919
Plasma/blood/serum for Brucellosis,	Brucellosis - 380
Leptospirosis/Neospora caninum	Leptospirosis - 327
<i>N. caninum</i> -	485
Tissue samples for histopathology	2,457

Specimen type	No. of samples
Tissue samples for microbiology	1,200
Milk samples for CMT	75
Milk & poultry samples for ABST	29
Serum samples for viral disease diagnosis	919
Tissue samples for viral disease diagnosis	112
Milk samples for disease diagnosis	77
Cloacal/fecal swabs, egg parts, chicken powder for viral disease diagnosis	48
Urine samples for microbiology	2
Tissue samples for microbiology	2,457
Stomach content for microbiology	66
Intestinal samples for microbiology/ parasitology	79
Feed samples for microbiological quality	173
Day old chick samples	84
Fish samples for microbiology, parasites and PCR	2,431
Water samples for microbiology	111
Number of PCR done for ruminant, poultry & other monogastric animals	84
Total bacterial counts performed	284
Other Bacterial Counts (E coli, Salmonella, Coliforms)	284
Seed preparation of bacterial vaccines (no. of batches)	HS - 15 BQ - 140
Quality testing bacterial vaccine harvests (no. of batches)	HS - 14 BQ - 10
Quality testing bacterial vaccine final product (no. of batches)	HS - 14 BQ - 9
Seed preparation of viral vaccines (no. of batches)	24
Quality testing of viral vaccines (no. of batches)	22

Table 5.7: Analysis, identification and quality testing of samples

Sample type	No. of samples
Feed samples for proximate nutrient (DM, ash sand, crude protein, crude fat and crude fiber) analysis components and minerals	2,738
Feed samples, Mineral mixtures and blood samples for mineral (Ca, P, Mg, Cu, Zn, Co, Mn, Na, K) analysis	292
Feed samples for gross energy Analysis	198
Feed and animal origin food samples for total aflatoxin analysis	647
Feed samples for ADF, NDF analysis	8
Feed samples for non-protein nitrogen analysis	12
Feed samples for Metabolizable energy calculation	9
Milk and milk products samples for microbiological quality	282
Milk and milk products samples for compositional quality	258
Species identification using meat, skin and blood samples	1
Soil samples for chemical properties	19
Water samples for chemical properties	7
Plant samples for nitrate, oxalate and soluble carbohydrates	123
Silage samples for quality testing	136

Table 5.8: Field and laboratory investigations

Investigation type	No. of investigations
Field disease investigations	7
Postmortems	475
No. of lab disease investigations	1,276
Field investigation into nutritional problems	12
Ration formulation evaluations	14
Confirmation of contagious / notifiable diseases	91
Field disease investigations	7

Table 5.9: Sample analysis for statutory purposes, quarantine, export certification etc.

Investigation type	No. of investigations
No. of samples handed for statutory purposes	14
No. of food products for microbiological examination	79
No. of court directed Investigations	14
No. of samples for quarantine/ import, export purposes	3,210

Table 5.10: Sample analyzed for notifiable diseases

Investigation type	No. of investigations
No. of samples confirmed for notifiable ruminant animal disease	HS - 2 FMD - 12
No. of samples confirmed for notifiable swine diseases	PRRS - 13

5.1. Clients registered at VRI

Table 5.11: Clients registered at VRI

Place of registration	No. of clients
Coordinating unit	2,712
Central Poultry Research Station (CPRS)	275
Animal Virus Laboratory	434

5.2. Research projects

Research projects conducted during the year 2022 are as follows:

1. Title: Effects of climatic variations on semen quality of bulls at Artificial Insemination Center, Polonnaruwa
Principal Investigator: Dr. U.G.V.S.S. Kumara
Duration: 2 years
Status of the project: Terminated

2. Title: Studying the heat detection rate and pattern of heat of white cattle in Uppuweli farm in Eastern Province
Principal Investigator: Dr. U.G.V.S.S. Kumara
Duration: 2 years
Status of the project: Terminated

3. Title: Examine the efficacy of selected probiotics and phytobiotics to replace antibiotics in poultry feed
Principal Investigator: Dr. M.W.C.D. Palliyeguru
Duration: 2 years
Status of the project: Completed

4. Title: Investigation of Aflatoxin in cow milk and trace back to feed aflatoxin concentrations
Principal Investigator: Dr. S.S.K. Daluwattha
Duration: 3 years
Status of the project: Continue to 2023
5. Title: Investigate the use of exogenous fibrolytic enzymes (EFE) on ruminant feed
Principal Investigator: Dr. S.S.K. Daluwattha
Duration: 2 years
Status of the project: Completed
6. Title: Establish methodology to quantify hazardous chemicals and veterinary drug residues in animal feed and animal products
Principal Investigator: Dr. M.W.C.D. Palliyeguru
Duration: 2 years
Status of the project: Continue to 2023
7. Title: Examine the digestibility, nutrient composition and anti-nutrients of local potential energy and protein supplements to utilize them as animal feeds
Principal Investigator: Dr. M.W.C.D. Palliyaguru
Duration: 2 years
Status of the project: Completed
8. Title: Introduction of serological vaccine matching technique to assess ability of cross protection of locally produced FMD vaccine against field isolates
Principal Investigator: Dr. H Kothalawala
Duration: 2 years
Status of the project: Completed
9. Title: Characterization of fowl adenoviruses associated with inclusion Body Hepatitis in chickens in Sri Lanka
Principal Investigator: Dr. S Puvanendiran
Duration: 3 years
Status of the project: Continue to 2023
10. Title: Differentiating avirulent and virulent Newcastle Disease virus strains
Principal Investigator: Dr. W.M.A.D. Wanninayaka
Duration: 2 years
Status of the project: Continue to 2023
11. Title: Detection of Infectious Bronchitis Virus using Enzyme Induced Hemeagglutination Assay
Principal Investigator: Dr. W.M.A.D. Wanninayaka
Duration: 2 years
Status of the project: Completed

12. Title: Isolation, identification and characterization of *Avibacterium paragallinarum* and *Pasteurella multocida* clinical isolates in commercial layers
Principal Investigator: Dr. M.A.R. Priyantha
Duration: 2 years
Status of the project: Continue to 2023
13. Title: Investigation into quinolone resistance in *E. coli* isolated from bats colony in Kandy suburb
Principal Investigator: Dr. M.A.R. Priyantha
Duration: 1 year
Status of the project: Completed
14. Title: Correlation of unstable nonacid milk (UNAM) with milk mineral composition, urine pH and body condition score in selected farms in Kandy district)
Principal Investigator: Dr. A P D G Pathirana
Duration: 3 years
Status of the project: Continued for 2023
15. Title: Correlation of unstable nonacid milk (UNAM) with milk mineral composition, urine pH and body condition score in selected farms in Kandy district)
Principal Investigator: Dr. A P D G Pathirana
Duration: 3 years
Status of the project: Continued for 2023
16. Title: Microbial molecular profiling to determine origin and transmission of Bovine mastitis
Principal Investigator: Dr. G.A. Gunawardena
Duration: 3 years
Status of the project: Continued for 2023
17. Title: Development of multiplex PCR to detect causative bacteria of bovine mastitis
Principal Investigator: Dr. G.A. Gunawardena
Duration: 3 years
Status of the project: Continued for 2023
18. Title: Characterization of bacterial strains for new control strategies in bovine mastitis
Principal Investigator: Dr. G.A. Gunawardena
Duration: 3 years
Status of the project: Continued for 2023
19. Title: Cattle genotyping for offspring and parent identification
Principal Investigator: Dr. G.A. Gunawardena
Duration: 3 years
Status of the project: Continued for 2023

20. Title: Molecular Epidemiology and prevalence of pathogenic Theileria species in goats in dry and intermediate zones of Sri Lanka
Principal Investigator: Dr. P.G.I.D. Amarasiri
Duration: 2 years
Status of the project: Continued for 2023
21. Title: Propagation of *Babesia bigemina* and *Babesia bovis* vaccine seed for Babesial vaccines
Principal Investigator: Dr.S.S.Iddamaldeniya
Duration: 2 years
Status of the project: Continued for 2023
22. Title: Development of an irradiated *Babesia bigemina* and *Babesia bovis* vaccines for bovine Babesiosis in Sri Lanka
Principal Investigator: Dr.S.S.Iddamaldeniya
Duration: 2 years
Status of the project: Continued for 2023
23. Title: Determination of immune response in cows infected with *Neospora caninum* during pregnancy
Principal Investigator: Dr. N.D.S. Dissanayake
Duration: 1 year
Status of the project: Completed
24. Title: Investigation of potential of hybrid fodder and legume varieties as cattle feed
Principal Investigator: Dr. W.M.P.B. Weerasinghe
Duration: 3 years
Status of the project: Continued for 2023
25. Title: Evaluation of agronomic characters and nutritive values of Mulato 11 (*B. ruziensis* x *B. decumbens* x *B. brizantha*) in different harvesting intervals in Yala and Maha seasons at wet zone in Sri Lanka
Principal Investigator: Dr. M.W.D.C. Weerathunga
Duration: 2 years
Status of the project: Continued for 2023
26. Title: Detection of pathogenesis, phenotypic and genotypic characterization of *Eimeria* species in Sri Lankan poultry
Principal Investigator: Dr. G. I. S. Perera
Duration: 3 years
Status of the project: Continued for 2023
27. Title: Surveillance study on sanitizers and the level of usage in the poultry processing plants to minimize food borne pathogen contamination
Principal Investigator: Dr. K.M.S.G. Weerasooriya
Duration: 1 year
Status of the project: Completed

5.3. Research Publications in 2022

Details in research publications are in *Annexure V*.

5.6. Special Achievements

Table 5.12. New Vaccines invented, and products or tests established in 2022

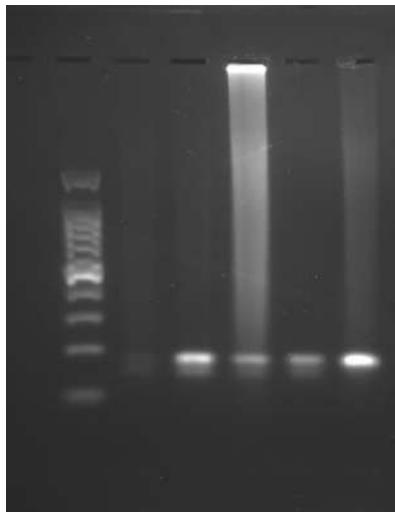
S.No	Name	Vaccine/Product/Test	Division
1	Dr. G.A. Gunawardene	Three vaccines for bacterial mastitis were produced using selected local seed cultures.	Molecular Biology
2	Dr. G.A. Gunawardene	Developed 3 biological formulations with beneficial bacteria.	Molecular Biology
3.	Dr. S.S. Iddamaldeniya	Irradiated vaccine for <i>Babesia bigemina</i>	Parasitology
4.	Dr. J.K.H. Ubeyrathne	Lumpy skin disease (LSD) diagnosis by PCR	CVIC
5.	Dr. J.K.H. Ubeyrathne	Mycobacterium paratuberculosis diagnosis by PCR	CVIC
6.	Dr. P.G.I.D. Amarasiri	Established PCR for <i>Theileria yokoyama</i>	Parasitology
7	Dr. N.D.S. Dissanayake	Established PCR and ELISA for <i>Neospora caninum</i>	Parasitology
8	Dr. Chamari Palliyaguru	Established detection of Aflatoxin in animal feed by LCMS-MS	Animal Nutrition
9	Dr. Dishyantha Pathirana	Established alkaline phosphatase test to test milk pasteurization	Dairy Technology Laboratory
10	Dr. Dishyantha Pathirana	Established a test to detect salt in butter	Dairy Technology Laboratory



Figure 5.1. Preparing beneficial bacterial broths

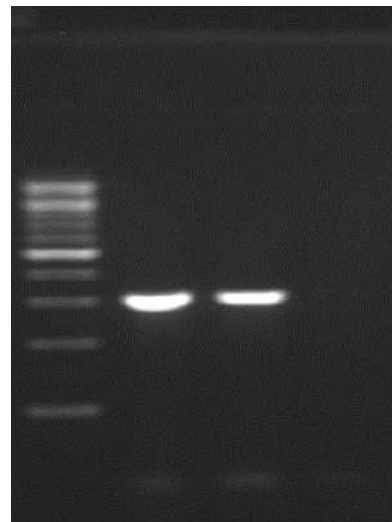


Figure 5.2. A vaccine prepared for mastitis



Ladder -ve +ve Samples (192 bp)
100bp

Figure 5.3. Established PCR for Lumpy Skin Disease diagnosis



Ladder +ve (608bp) -ve

Figure 5.4. Established PCR for *Mycobacterium paratuberculosis* diagnosis

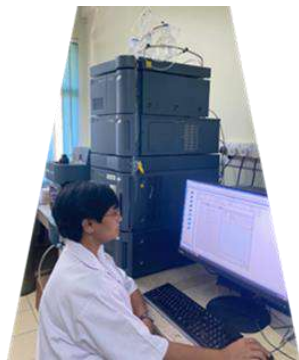


Figure 5.5. Detection of Aflatoxin in animal feed by LCMS-MS



Figure 5.6. Conducting Splenectomy to produce *Babesia bigemina* vaccine

5.6.2. Graduations and Awards

Table 5.13. Graduations and Awards

S. No	Name	Graduation/Award	Thesis/Paper	University /Association
1	Dr. Nilukshi Liyanagunawardene	PhD in Veterinary Science	Molecular Epidemiology of <i>Salmonella enterica</i> in poultry in Sri Lanka	Massey University, New Zealand
2.	Dr. Gayani Weerasooriya	Doctor of Philosophy in Veterinary Medicine and Animal Science	Food borne pathogens in poultry	University of Adelaide, Australia
3.	Dr. Shalika Perera	Best scientific paper	Detection of an outbreak of inclusion body hepatitis in commercial broiler chickens in North Western and Western Provinces in Sri Lanka	XX th Annual Scientific Sessions of World Poultry Science Association, Sri Lanka
4.	Dr. M.W.D.C Weerathunga	Air Commodore Dr. R.M.P.H. Dassanayake award for best presentation in Animal Production	Isolation and Preliminary characterization of aerobic yeast from dry zone cattle in Sri Lanka as a potential feed additive	74 th Annual Scientific Sessions of Sri Lanka Veterinary Association

6. HUMAN RESOURCE DEVELOPMENT DIVISION

6.1. Introduction

The main responsibility of Human Resource Development (HRD) Division is to develop human resources 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.
- Livestock Knowledge Center, Getambe/ Hotline.
- 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. Details of trainings conducted during 2022 at ICEAPH are shown in Table 6.1 and Table 6.2 respectively.

Table 6.1. Details of training conducted at ICEAPH

Category	No. of programs planned	No. of programs conducted	
		(online)	(On ground)
AP&H service officers	17	12	8
Research Assistant, Livestock Development Officers/ Instructors	12	3	9
Development Officers	6	0	9
Management Service Officers	6	0	8
Others	4	0	3
Total	45	15	37

Table 6.2. Number of trainees and man days

Item	Target	Achievement
Number of trainees/ participants	1,132	1,672
Number of training man days	2,060	2,614

6.2.2 Special training conducted during the year.

Table 6.3. Special trainings/webinars conducted during the year 2022

Name of the program	Number of participants
Webinar on Animal Breeding	45
Webinar on Animal Virology Lab	32
Webinar on Livestock and Poultry Industry status with import turmoil	40
Webinar on Bovine Tuberculosis - control measures Prof. Mark Neil, New Zealand ministry of Primary Industries.	40
Webinar on Retrospective Study of Hemorrhagic Septicemia	40
Webinar on Effect of chlorine on Campylobacter persistence, are current methods controlling the chicken meat contamination	40
Webinar on Antimicrobial Resistance and MRSA Superbug	40
Webinar on Sri Lanka's Dairy sector: where to move and what to do, Prediction and a trend analysis	100
Webinar on Bovine Tuberculosis in Sri Lanka	100
Webinar on Dynamics & distribution of public & private research and extension roles for technological innovation and diffusion: case studies of the implementation and adaptation of precision farming technologies	50
Webinar on A Novel approach against Salmonella, A review of polymeric nano particle vaccine for broilers and layers	50

•E lecture series on dairy farming commenced on March 18, 2022 until April 16, 2022 from 6.00pm to 7.30pm every Monday and Friday. This program is facilitated by Market Oriented Dairy project with the collaboration of Florida University. Exam based on e lectures was held 29th April 2022 and practical training was held on 18th to 21st May at Habarana.

Table 6.4. Facilitated Meetings / Programs by ICEAPH

Category	No. of programs
Meetings	112
Programs	39

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

1. Small Scale poultry farmer training [60 Trainees]
2. Animal Husbandry training for school students [66 students]
3. Goat Management training [14 Trainees]
4. Multi-Purpose Development Task Force training (Jan - May) NVQ 3 level [30 Trainees]

6.3. Educational and career development

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

Thirty-two (32) students of 2019/2022 batch were completed two year Higher National Diploma in Livestock Production Technology course. Their final assessment was held in December 2022 and they were sent for on the job trainings (OJT) under the supervision of NAITA.

Students are enrolled for the Higher National Diploma in Livestock Production Technology (NVQ 5,6) course (2022/2024 batch) in March 2022. Sixty (60) students were registered for the course and they were completed their first year first semester final exam in November and they are continuing their second semester.

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

Sixty (60) students were registered for the course at SLSAH, Seepukulma in march 2022. These students are enrolled for the Higher National Diploma in Livestock Production Technology (NVQ 5,6) course for year 2022-2024. They also completed their first year first semester final exam in November 2022 and they are continuing their second semester.



Figure 6.1: Students enrollment ceremony

6.3.3. Internship training for veterinary graduates

One (01) internship program was conducted and completed in the year 2022/23. Details of this program are given below.

Batch Number	No. of Internees
DAPH/HRD/ICE/INT/2022/23 (01.12.2022 -31.05.2023)	67

6.3.4. Foreign training

Information about foreign scholarships and programs during the year 2022 is shown in *Annexure VI*.

6.3.5. Support for Post Graduate Training

The Human Resource Development Division was unable to sponsor for Post Graduate Training in this year due to unavailability of funds.

6.4. Examinations

HRD division is responsible for conducting examinations for officers in the Department of Animal production and health. Details of examinations conducted by DAPH in 2022 are given in *Annexure VII*.

6.5. Information Dissemination and Publications

6.5.1. Publications in 2022

a. New prints

Leaflets 11

b. Reprints in 2022

Leaflets 11

Booklets 03

c. Revised Printing

1. Goat Management Manual

2. Dairy Management Manual

6.5.2. Sale of publications in 2022

No. of booklets/leaflets 22,670

No. of photographs (10"x12") 02

No. of CD's 03

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 6.5

Table 6.5. Mass media activities in 2022

Type of media	No. of programs (planned)	TV/ Radio channel and program	No. of Telecasts/ Broadcasts/ Releases
TV	Sinhala - 02	ITN- Ranbimata Arunella	02
Radio	Sinhala- 60	SLBC - Swadesheeya Sewaya - Sathwa Rawaya	20
		SLBC - Kadurata FM - Sathwa Govipola	20
		SLBC - Non-Allocation Radio program	01
		Krushu FM WEB Radio	20
Video production	20	Livestock Television YouTube channel	15
Posts	12	DAPH Extension Facebook page	20

6.5.4. Exhibitions

HRD division was participated in an exhibition held at University of Peradeniya.



Figure 6.2: Exhibition stall

6.6. Entrepreneurship development and self - employment support services

Table 6.6. Details of entrepreneurship development and self - employment support trainings 2022

Topic	Venue	No. of Programs	No. of Participants
Dairy Based Industrial Entrepreneur. Training [By Mrs. Chandrika Wijesundara]	Imbulandanda, Seppukulama, Mailapitiya, Kandakadu	04	160

6.7. The Department Library

For the year 2022, A provision of 5 lakhs was allocated, and under that provision Rs. 327,580/= had been approved for the tender to buy 30 foreign books.

However, the bookstores informed that they could not provide the books at the tendered price due to fluctuation of exchange rates and the economic crisis in the country. According to the instructions received, the purchase of books in the year 2022 was suspended.

6.8. The Departmental Hotline Service

The DAPH maintains a hotline service (Tel: 081-2388463) to facilitate stakeholder needs.

Table 6.7. Activities done by hotline service in 2022

	Activity	Target	Cumulative Progress
01	Registration of clients (on request)	On request	1,430
02	Provision of technical guidance		1,320
03	Non-technical guidance		110
04	Coordination with other institution		404
05	Direct / Postal advisory		138
06	Telephone advisory		1,292
07	No. of questions answered		18,691
08	Follow up service to evaluate customer satisfaction		159
09	No. of clients visited to booklets and direct advisory		94
10	Leaflets issued free of charge		25,693

6.9. Livestock Technology Park

Table 6.8. Livestock Technology Park - details of performance in 2022

Project/Program	Activities	Expended activities	Progress at the end of the year
Establishment of Livestock Technology Park	Demonstrate modal Livestock units to the public	Facilitation of visitors	13,317 visitors
	Conduct Demonstration sessions	Pasture and Fodder demonstration sessions for university students	7 programs
		Livestock Pasture and Fodder demonstration sessions for school students	60 programs
		Livestock Pasture and Fodder demonstration sessions for Diploma Students	4 programs
		Establishment of Pasture and Fodder unit adding new plants	100%
		Culling of birds from poultry unit (20 birds)	100%
		Renovation of animal units (Rabbit unit)	100%
		Establishment of Bio fence around the pasture land	100%

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, researches, 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 database at National level.

- Coordinate 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 - 2022

One new project proposal for the year 2023 were formulated in collaboration with Animal Breeding division of the Veterinary Research Institute. It focuses to strengthen Sri Lanka's rural economy while reducing the protein deficiency by introducing female-based backyard village chicken farming. This project proposals were forwarded to relevant authorities during the year 2022.

Furthermore, 16 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 2022 of DAPH was implemented successfully even in economic crisis in the country. The physical and financial progress was monitored and reported monthly on the basis of thrust area. At the end of 2022, action plan of the DAPH was prepared for the year 2023 considering the budget allocation.

Capital expenditure utilization of the DAPH was 87.99% in 2022 which was higher than the previous year (71.06%) The progress of recurrent fund utilization was 97.19% in 2022, which was higher than the corresponding figure of 95.13% in the year 2021. 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 *Annexure VIII*. 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 2022. Total milk collection by 14 key organizations was 231.04 million liters. Central Province, North Central Province and the North Western Province contributed for this total as 31%, 25% and 17% respectively. District-wise milk collection data for the year 2022 is given in *Annexure IX*.

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 2022 was obtained from Sri Lanka Customs and analyzed. Quantities of dairy products, meat and meat products imported into the country in 2022 is totaled 53,797.86 MT and 800.32 MT with the value of Rs.68.33 billion and Rs.1,104.85 million respectively. Imported quantity of dairy products and meat products have been decreased during the year 2022 when compared with the year 2021.

Total of 1,591.05 MT of milk and milk products and 585.59 MT of meat and meat products have been exported to other countries during year 2022.

c. Data bank

LPE division maintains the National databank 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 Poultry Forecast 2022, Livestock Statistical Bulletin, Dairy bulletin and Livestock outlook for the year 2022. It was disseminated to all the relevant organizations and other stakeholders in 2022.

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.

Two (2) committee meetings were conducted during the year 2022. Main committee meetings were supplemented by another three (3) stakeholder meetings. As it was not possible to hold physical meetings due to health regulations most of the industry coordination activities were done by using virtual platforms.

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. Two (02) such meetings were held during the year 2022.

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.

Activities of this projects are withheld according to the Circular No:3/2022 issued by Ministry of Finance on 2022.04.26

b. Programme to mitigate environment issues pertaining to livestock industry

Since the environmental issues are one of the constraints which hinder the development of the Livestock sectors in Sri Lanka, it has been given the priority in year 2022 too, also the technical backup system which was established has been given positive results. Following activities were conducted and implemented by Livestock Planning and Economics Division of the Department in year 2022.

Based on the nature of the environmental problems reported, other organizations, 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. To assess the Environmental Impact two field visits were done to livestock farms with Central Environmental Authority.

A radio programme was conducted in “Kadurata seveya”-Kandy on Eco-friendly livestock farming. A Field visit done to Wellavaya and Thanamalvila on compost production sites and training was conducted to the local farmers on efficiency use of livestock manure and it’s important of protecting environment.

Training was conducted to officers- at North Western Province on Eco-friendly Livestock farming at Vannigama Training Centre. An environment related leaflet was prepared and distributed at Dairy Symposium under the DETI project.

7.6. Publications

The division compiled following publications/reports during the year 2021.

- Action Plan DAPH -2022
- Action Plan 2022- LPE Division
- Annual Report -2021
- Annual Performance report 2021
- Livestock Statistical bulletin 2021
- Poultry Sector Forecast 2022
(2-Online publications)
- Dairy Bulletin 2021
- Livestock Outlook 2021

7.7. Other activities

7.7.1. E -Government program

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. (Mrs.) P.S. Fernando 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. The online application service (e-service) for import and export of animals is also an additional service provided by the department web site.

In addition to that, LPE plans to launch a new website in the year 2023.

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 and amendments of the Acts and regulations pertaining to livestock & poultry sector are handled by the VRA division.

Main functions of the division

- Strengthen animal quarantine management system in Sri Lanka to prevent entry of exotic animal diseases and 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 and 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

In year 2022 & 2023 shrimp bloodstock consignment and 28 Day old chick consignment were subjected to their own farm quarantine under the supervision of animal quarantine officers. Twenty-two numbers of horses (Two consignments) and Two (02) Pigeon consignments were held and quarantined at Katunayake quarantine station.

b. Import and quarantine surveillance

Details of imported Animal products and Animal Feed and Veterinary drugs and biological which were subjected to quarantine surveillance in 2022 are given in *Annexure X*.

c. Sampling of imported poultry (HPAI surveillance program)

Consignments of Day-Old Chicks (DOC) are released to importers under the quarantine surveillance agreement and monitored by the weekly reports sent by the importer. Serum samples and cloacal swabs are taken at the point of entry and during the farm inspections. If the mortality rate exceeds four percent (4%) during the quarantine period, the relevant farms are visited by Animal Quarantine Officers (AQO) immediately to investigate and to rule out the

possibility of HPAI infection. As part of the active surveillance program carried out against HPAI, imports were closely monitored clinically and laboratory testing were done during the surveillance period.

Table 8.1 Animal Quarantine Surveillance program and laboratory test results - 2022

No of farm visits	No. of samples dispatch to laboratory	Test results
<u>Animal Quarantine Station- Colombo</u> Fish Farm -74 Meat Imports- 53 Animal Feed-	Packing Water samples - 41 Fish Samples -710 Samples-112 Samples-1110	Negative Negative Negative Negative for Pathogenic Organism
<u>Animal Quarantine Station - Katunayake</u> DOC -22 Pet birds (Holding)-03 Horse-01(Consignment)	HPAI -2210 Salmonella - 376 Serum Samples -680 HPAI - 52 Salmonella - 02 Feed Samples-13 Blood-43 Blood Smear-43 Fecal -43 Serum-43 Nasal Swabs-43	Negative
<u>Animal Quarantine Station- Mattala</u> Pet birds- 70 (23 batches) Fish Farm- 06	Pooled fresh dropping Sample 625 swabs -126 bottles Blood samples-13 Fecal -13 Pet bird carcass-02 Water Samples-13 Live Fish - 57 Pre-Import quarantine inspection & post import Quarantine Surveillance	Negative Negative

d. Consignment detained / destroyed / re-exported in the year 2022

Six (06) consignments of animals and animal products were detained/ destroyed/ re-exported in the year 2022 (Annexure XI).

8.2.2. Export of animals and animal products

a. International veterinary health certificates for meat

Details of export health certificates issued by the Chief Animal Quarantine Officer (CAQO) in 2022 are given in Table 8.2

Table 8.2: Health certificates issued for exports (2021-2022)

Item	No. of health certificates issued	
	2021	2022
Ornamental fish	3,141	2,905
Dogs	67	355
Cats	30	156
Poultry -DOC	23	24
Hatching eggs	12	03
Pet birds	45	43
Zoo animals	-	-
Elephant	-	-
Rabbit/Rat/Hamsters/G. Pig	-	01 (G.Pig)
Animal products (meat & meat products)	2,235	2,306
Table eggs	988	1,010
Animal by-products	95	78
Leather	03	-

b. Exports

Details on consignments of animals and animal products that were subjected to animal quarantine inspections and approved for export in 2022 are given in *Annexure XII*.

8.3. Regulatory activities - livestock industry

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

a. Poultry

The regulatory activities carried out in 2022 in related to poultry industry are given in Table 8.3.

Table 8.3: Regulatory activities carried out in 2022

Activity	Description	Number
New Registration	Registration of new processing centers	00
Renewal of Registration	Renewal of breeder farms	77
	Renewal of hatcheries	50
	Renewal of grandparent farms	03
	Renewal of processing centers	16
	Renewal of further processing centers	11
Facilitation of imports	Issuing pre clearance approvals (No. of consignments)	120
	Revision/ preparation of import health requirements	01

b. Other animals, animal products and animal by products

Regulatory activities carried out during the year 2022 in respect to livestock and livestock products are given below.

Table 8.4: Pre-clearance approvals

Activity	No. of Applications received	Number Approved	Number of animals / Quantity
1. Live animals			
Pets - Dogs & Cats	417	414	529 Animals
Horse		2	18 Animals
Rabbit		01	01 Animal
Guineapigs		01	01Animal
Live Fish	39	39	39 Consignments
2. Genetic Material (Semen)			
Cattle	06	5	21,200 Doses
Goat	01	1	600 Doses
Day Old Chicks	50	50	50 Consignments
3. Animal Products			
Meat and Meat Items			
Beef	61	27	148.9 MT
Mutton		35	234.674 MT
Pork		07	102.689 MT
Lamb		27	77.872 MT
Edible Fat/Tallow/Casing		02	03 Consignments
Poultry Meat	19	19	19 Consignments.
Frozen Fish - Bait	48	48	79 MT
4. Animal by products			
Fur/ Wool/ Hair/ Bristles	45	45	30,315.56 Kg
Leather	110	110	110 Permits
Gelatin	150	150	1,217.482 MT
Feathers	22	22	22 consignments.
5. BSE (Hide Glue, Yoghurt Cultures, Veterinary Equipment)	205	205	205 Consignments

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 is responsible for regulating manufacture, import, re-packing, export, marketing and use of veterinary pharmaceutical and biological products to safeguard animal health and thereby the public health aspects as well.

VDCA is also responsible for maintaining marketing authorization information, inspection of manufacturers (GMP), antimicrobial usage and resistance (AMU and AMR) leading for animal health sector.

VDCA committee members for the year 2022 and their fields of expertise are as

stated below. The VDCA committee was newly appointed in July 2022.

01. Dr. (Mrs).Hemali Kothalawala-
Chairman
02. Dr. Ruchika Fernando - Vet.
Pharmacology
03. Dr. A. Arulkanthan - Vet.
Parasitology
04. Prof. Anil Pushpakumara - Vet.
Reproduction
05. Dr. Wasantha Kumara - Vet.
Clinical Practice
06. Dr. H. Kothalawala - Vet.
Microbiology
07. Dr. (Mrs) Chamari Palliyaguru-
Animal Nutrition
08. Dr. Sujith Sudusinghe - Special
member representing Local
manufactures
09. Dr. (Mrs.) A. P. Wickramasinghe,
Registrar/ Acting (from
01.01.2022 to 07.09.2022) and Dr.
H.P.V.D.S.Bandara, Registrar
(From 08.09.2022 to 31.12.2022)

Five committee meetings of VDCA and eleven User Permit Panels were conducted. A system for registration of Veterinary test kits and devices was initiated during this year.

a. New products registered in VDCA

New veterinary pharmaceutical and biological products registered in 2022 as follows.

Table 8.5: Imports for free sales

Pharmacological type	Dosage Form	Number Registered
Antibiotics	Injectable	4
	Oral preparations	5
	Topical application	2
Antiparasitics - Ectoparasiticides	Topical application	2
Antiparasitics- Ecto and Endoparasiticides	Injectable	5
Antiparasitics - Anthelmintics	Oral	8
Antiparasitics -Antiprotozoals	Injectable	2
	Oral	3

Pharmacological type	Dosage Form	Number Registered	
Antihistamines	Injectable	2	
Anesthetics and Sedatives	Injectable	5	
Supplements	Vitamin	Injectable	4
	Vitamin and Mineral	Injectable	2
	Mineral	Injectable	1
Biological	Poultry Vaccines	Injectable	5
	Feline Vaccines	Injectable	1
	Canine Vaccines	Injectable	2
	Swine Vaccines	Injectable	1
Hormones - Reproductive	Injectable	2	
NSAIDs	Injectable	1	
Herbal-Wound Spray	Topical application	1	
Herbal-Antiparasitic Spray	Topical application	1	
Herbal- Reproductive	Oral	2	
Herbal- Analgesic	Oral	1	
Total		62	

Table 8.6: Local manufacture for free sales

Pharmacological type	Dosage Form	Number registered
Antiparasitics- Anthelmintics	Oral	2
Antiparasitics - Endo and Ectoparasiticides	Oral	1
Chelating Agents (Aquarium)		1
Herbal -Shampoos -Sprays	Topical application	2
	Topical application	2
Total		8

a. Invoice approvals

During the year, 562 invoices were approved by VDCA, to import veterinary pharmaceuticals and biological products for the worth of approximately 4,039.91 million Sri Lankan rupees.

b. User permit approvals

Table 8.7: User permit approvals

Species	Pharmacological type	Issued
Poultry	Vaccine	14
Equine	Antiparasitic	1
	Topical application	1
	Hoof treatment	3
Fish	Hormone	1
Dog and Cat	Supplement-Energy	2
-	Test kits	39
Total		61

8.5. Implementation of Animal Feed Act

With the view of ensuring the quality of available animal feed in local market, the Animal Feed Act No.15 of 1986 and its regulations were implemented to regulate, supervise and control the manufacture, sale, distribution of animal feed and import of animal feed and feed ingredients.

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.

8.5.1 Animal Feed Advisory Committee

Under the provisions of the Animal Feed Act, the Animal Feed Advisory Committee has been established and it comprises with five persons who have technical knowledge and experience in animal nutrition and animal feed, one feed industry representative. The Animal Feed Advisory Committee has been appointed during the year 2022 for the period of three years.

Table 8.8: Newly appointed Animal Feed Advisory Committee

Name	Position of the Committee	Designation
Dr.K.A.C.H.A. Kothalawala	Chairperson	Director General, DAPH
Prof. S.S.E. Ranawana	Member	Animal Nutritionist, Former Professor Wayamba University of Sri Lanka
Prof. J.K. Vidanadachchi	Member	Animal Nutritionist, Professor of Animal science, University of Peradeniya
Prof. Sumith Magamage	Member	Professor of Animal Production, Sabaragamuwa University of Sri Lanka
Dr. W.M.P.B .Weerasinghe	Member	Animal Nutritionist, Veterinary Research Officer, Veterinary Research Institute
Mr. E.D.M. Epasinghe	Member	Scientist, National Aquatic Resources Research & Development Agency
Mr. Mohamad Imitiaz	Member	Animal Feed Industry Representative
Dr. N. Priyankarage	Registrar	Animal Feed Advisory Committee.

8.5.2 Registrations and Renewals

Under the provisions of the animal feed act, all feed manufacturers and feed/feed ingredients/additive importers should be registered. After submission of all necessary documents with relevant application,

comprehensive evaluation of submitted documents and inspection of premises is carried out by appointed authorized officers prior to the registration. After registration licenses are issued and valid for the period of one year.

After submission of respective application with turn over returns at the end of each calendar year, the licenses are renewed.

Table 8.9: Number of Registration of Feed Manufacturers and Importers - 2022

Activity	Total Number of Registered Manufacturers/ Importers	Newly Registered Manufacturers/ Importers in 2022	Number of Registered Products in 2022
Number of Manufacturers	58	18	130
Number of Importers	162	65	719
TOTAL	220	83	849

Table 8.10: Number of Renewals of Feed Manufacturers and Importers - 2022

Activity	Number of Manufacturers /Exporters/ Importers	Number of Products
Number of Manufacturers	82	3717
Number of Exporters	06	
Number of Importers	185	
TOTAL	273	

8.5.3 Animal Feed Production - 2021 & 2022

Based on turn over returns, animal feed production of registered feed manufacturers was compiled.

Table 8.11: Compound Animal Feed Production by Type - 2021 / 2022

Type of Feed	Quantity 2021 (MT)	Quantity 2022 (MT)
Poultry Feed	1,025,932.54	836,138.22
Cattle Feed	63,121.05	46,023.68
Calf Feed	1,362.91	3,248.52
Pig Feed	3,360.87	4,447.55
Shrimp/Fish Feed	587.21	1,214.5
Horse Feed	179.00	42.78
Goat Feed	175.84	44.35
Other Feed	1,849.22	1,358.56
Feed production from Registered Manufacturers	1,096,568.64	892,518.16
Self-mixed	258,295.26	259,846.36
Total Feed Production	1,354,863.90	1,152,364.52

** Source: TOR -2022 (by Registered Animal feed)*

Total animal feed production as well as the total poultry feed production by registered feed manufacturers has decreased during the year 2022. The

quantity of feed produced by self-mixers (especially poultry feed producers) has been remained unchanged.

However, commercial feed production has been reduced and the reasons behind the reduction may be the reduction of raw material importation that leads to shortage of raw materials in the country and high costs in available raw material. Therefore, self- mixers tend to mix

their required quantity by themselves using available feed raw material and alternative feed stuffs.

Graphical illustration of total feed production is given in the *Annexure XIII*.

Table 8.12: Poultry Feed Production by Category -2021/2022

Type of poultry Feed	Quantity 2021 (MT)	Quantity 2022 (MT)
Chick Starter	16,084.93	10,364.77
Layer Grower	45,636.88	22,019.57
Layer	227,480.85	135,612.40
Total Layer Feed	289,202.66	167,996.74
Broiler Booster & Starter	259,350.71	193,636.04
Broiler Finisher & Grower & Withdrawer	405,798.49	394,306.63
Total Broiler Feed	665,149.19	587,942.67
Broiler Breeder	57,511.41	76,535.50
Layer Breeder	14,069.28	3,663.31
Total Breeder Feed	71,580.69	80,198.81
Total Poultry Feed	1,025,932.54	836,138.22

* Source: TOR -2022 (by Registered Animal feed manufacturers)

Vitamin Mineral Premix Production -2022

Based on turn over returns of vitamin and mineral premix manufacturers and exporters, production of vitamin & mineral mixtures was quantified.

Table 8.13: Vitamin and Mineral Premix Production - 2022

Type	Quantity
Vitamin/Mineral Premix for Local Use (Powder) MT	962.505
Vitamin/Mineral Premix for Export (Powder) MT	23,055.12
Vitamin/Mineral Premix for Export (Liquid) m ³	243.67

8.5.5. Usage of Raw Materials - 2022

Locally purchased as well as imported raw materials are used for animal production. Details of the raw materials used by the registered feed manufacturers are given in *Annexure XIV*. Wheat importation has been limited in 2022 and imported maize was used as the main energy supplement in poultry feed production. Some quantity of wheat as an energy supplement has been imported by the commercial feed manufacturers during the first quarter of the year 2022.

a. Use of Meat and Bone Meal for Animal Feed Production

With the view of implementing BSE regulations on animal feed production, screening verified and approval was given to import 23,223.96 MT of Meat and Bone Meal from the countries which were declared as low risk in Bovine Spongiform Encephalopathy by OIE.

8.5.6. Import of Animal Feed

Animal feed such as prawn/shrimp feed, fish feed, bird feed and pet feed (Dog & Cat) have been imported. Prawn/Shrimp and fish feed are used in shrimp and ornamental fish farming while pet food is imported to cater the customer requirement.

Table 8.14: Import of Animal Feed - 2022

Type	Quantity (MT)
Prawn/Shrimp Feed	12,746.52
Fish Feed	4,083.10
Pet Food (Dog & Cat)	936.676
Bird Feed	150.83

8.5.7. Export of Animal Feed

Vitamin and Mineral premixes, Vitamin E and other feed additives were manufactured and exported to the south Asian and African countries by nine registered premixing manufacturers.

Table 8.15: Issuance of Veterinary Export Certificates - 2022

Number of Veterinary Export Certificates Issued	Quantity of Vitamin/Mineral and other products exported (MT) as powder	Quantity of Vitamin/Mineral and other products exported (m ³) as liquid
927	23,055.12	243.67

8.6 Animal identification and traceability program

Necessary inputs including 136,000 ear tags and fuel to implement the program at field level were provided to the provinces to facilitate implementation of this program. A total of 75,099 cattle were ear tagged during the year 2022.

09. ADMINISTRATION DIVISION

9.1. Introduction

The key responsibility of this division is to maintain and coordinate the organizational and operational activities of the department continuously & to provide required infrastructure facilities, while ensuring the proper management of the department and providing services to clients of the department in order to achieve the objectives of the organization.

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 953 and actual

cadre position was 747 (*Project I: 200 Project II: 329 and Project III: 218*)

Details of cadre positions are given in the *Annexure XV*.

9.3. Appointments

Development Officer-21

9.4. Recruitments

Legal Officer-01

9.5. Promotions

Director - 09
 Registrar (Animal Feed) - 01
 Chief Animal Quarantine Officer- 01
 Chief Accountant - 01
 Deputy Director- 01
 Accountant- 01
 Veterinary Surgeon - 15
 Animal Quarantine Officer - 01
 Veterinary Investigation Officer - 10
 Livestock Development Officer- 01
 Research Officer- 02
 Livestock Officer- 02
 Development Officer - 05
 Management Services officer - 06
 Driver- 06
 Tractor Operator- 01
 Mechanic- 01
 Office Employment Service- 05
 Field Assistant - 14

9.6. Transfers

Chief Internal Auditor- 01
 Assistant Director- 01
 Civil Engineer- 01
 Administrative Officer- 01
 Technical Officer- 01

Development Officer- 14
 Management Services Officer - 14
 Driver - 11
 Office Employ Service - 04
 Field assistant - 07

9.7. Retirements

Details of staff members who have retired from the service in 2022 are as follows;

Veterinary Investigation Officer	01
Veterinary Surgeon	01
Livestock Development Officer	01
Veterinary Research Officer	01
Research Assistant	01
Livestock Promotion Officer	02
Librarian	01
Management Services Officer	01
Laboratory Aide	01
Bungalow Keeper	01
Office employee service	01
Field Assistant	01

9.8. Resignations

Research Assistant - 01

9.9. Vacation of Post

Veterinary Surgeon- 01
 Research Assistant- 01
 Field Assistant- 01

9.10. Releases from the DAPH on permanent basis

Animal Quarantine Officer- 01
 Veterinary Surgeon-02

9.11. Loans Approved

Type of loan	No.	Amount (Rs.)
Distress Loan	110	10,175,923.00

10. FINANCE DIVISION

10.1. Introduction

The Departmental Head pertaining to the financial activities is 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 2022 are as in *Anneure XVI*.

A sum of Rs. 698.60 million for the recurrent expenditure and Rs. 489.00 million for the capital expenditure was received by the Department for the year 2022, totaling Rs. 1,187.60 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.)	644,600,000	54,000,000	698,600,000	678,993,642	97.19 %
Capital (Rs.)	519,000,000	(30,000,000)	489,000,000	430,298,043	88 %
Total (Rs.)	1,163,600,000	-	1,187,600,000	1,109,291,685	93.41 %

Allocations received from other Ministries and Departments

Vote	Allocation (Rs.)	Expenditure (Rs.)	Percentage of the expenditure
No allocations received from other Ministries and Departments -			

10.3. Public Servants' Advance Account "B"

	Limits of the Annual Estimates (Rs.)	Actual Value (Rs.)
Balance as at 01.01.2022		95,267,924.99
Maximum debit limit	35,000,000.00	20,048,778.26
Minimum credit limit	24,000,000.00	29,916,211.33
Maximum limit of the debit balance	130,000,000.00	
Credits not affecting the limits		
Balance as at 31.12.2022	Balance brought down	85,400,491.92

10.4. General Deposit Account

The balance of the General deposit account of the Department as at 31.12.2022 was Rs. 16,573,963.71

The breakdown of the deposit accounts as follows

6000-0-0-1-0-110	57,822.50
6000-0-0-13-0-106	8,961,443.15
6000-0-0-16-0-98	6,307,271.06
6000-0-0-2-0-153	1,247,427.00
Total	16,573,963.71

10.5. Departmental Income

The income collected by the Department for the year 2022 is given in Table 10.1.

Table 10.1: Income collected - 2022

Income Subject No.	Particulars of the income	Total income received * (Rs.)
2002-01-01	Building rent	7,800,612.82
2002-02-99	Loan interest to Public Servants	3,795,512.87
2003-01-00	Departmental sales	272,333.70
2003-02-99	Sundries	604,806.57
2003-99-00	Other receipts	54,533,821.22
	Total	67,007,087.18

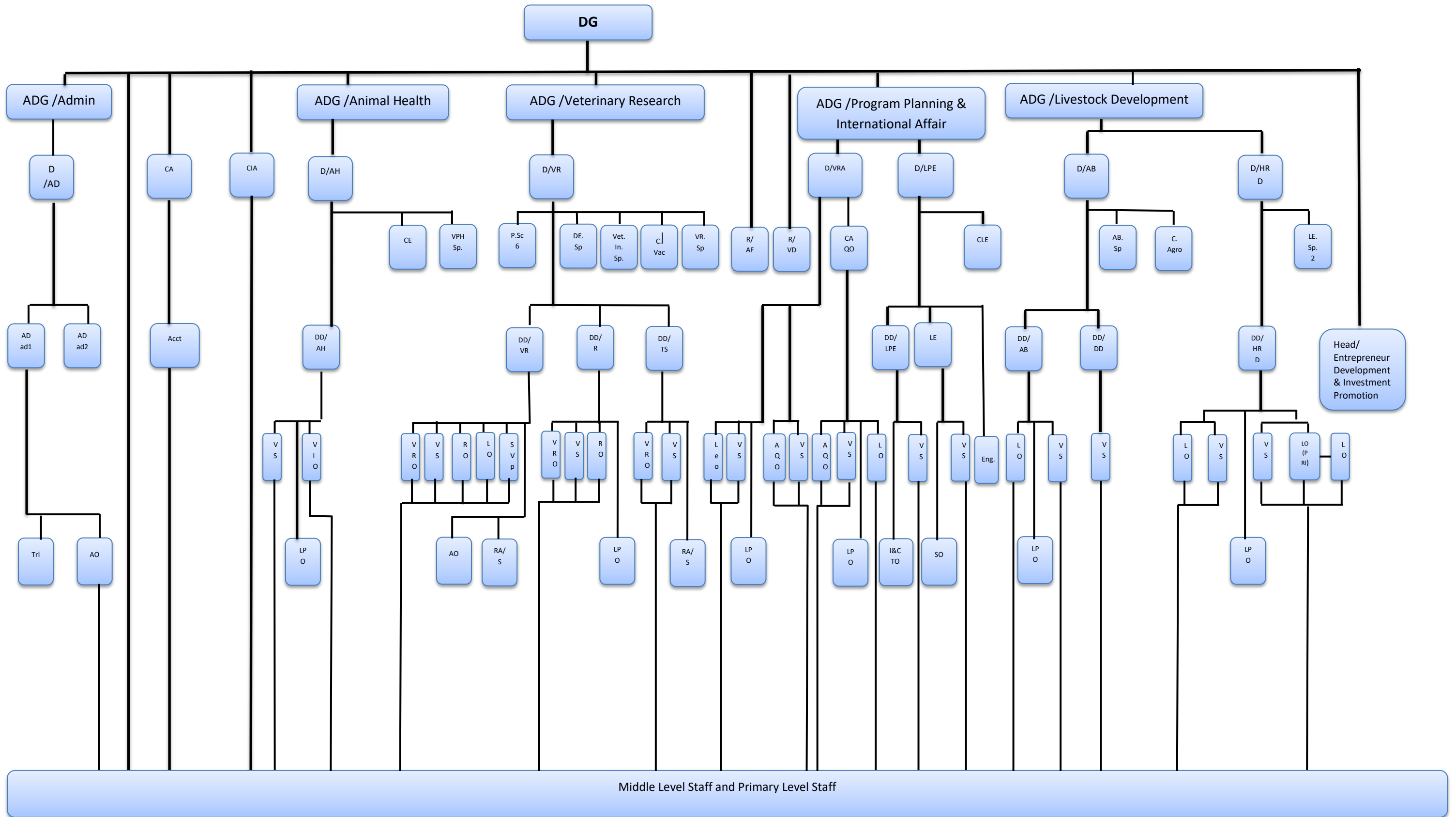
*Revised

Rs. 1017.56 million was obtained from the Treasury for the activities of the department and Rs. 67 million received as income, miscellaneous revenue and there was no balance.

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Organizational Structure



Other Staff: DO, DA, Le.Ass, Pro.Ass., TO, Drftm, RA, MSO, LIB, LDO
 Dri, Tra.Ope., LA, Mech, BO, Car, Elec, Ban.Kee, Watc, BBC, MM, GtC, AG, LM, KKS, ACA, 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
LE.Sp.	-Livestock Extension Specialist
C.Agro.	-Chief Agronomist
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
Leo	-Legal Officer
Eng.	-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	
DO	-Development Officer
DA	-Development Assistant
Le.Ass	-Legal assistant
Pro.Ass.	-Programming Assistant
TO	-Technical Officer
Drftm	-Draftman
RA	-Research Assistant
MSO	-Management Services Officer
LIB	-Librarian
LDO	-Livestock Development Officer
WR	-Warden
Dri	-Driver
Tra.Ope.	-Tractor Operator
LA	-Laboratory Assistant
Mech	-Mechanic
BO	-Boiler Operator
Car	-Carpenter
Elec	-Electrician
Ban.Kee.	-Bungalow Keeper
Watc	-Watcher
BBC	-Bast Bullock Care-taker
MM	-Milk Man
GtC	-Goat Caretaker

AG	- Animal Guardian
LM	-Lawn Mower
KKS	-Office Employment Service
ACA	-Animal Control Aide
GL	-Garden Laborer
SL	-Sanitary Laborer
FA	-Field Assistant

Annexure II

Key Data on the Poultry Industry (2021-2022)

Activity	2021	2022	Growth (%)
1. Procurement of Grand Parent and Parent stock			
Grand Parent Stock (Broiler)	30,052	33,564	11.69
Parent Stock ('000)			
Broiler	1,511.60	1247.67	-17.46
Layer	91.82	34.35	-62.59
2. Production of Day - Old Chicks (Mn)			
Broiler	176.94	161.37	-8.80
Layer	10.14	5.3	-47.73
3. Production of Poultry Feed (1000 MT)	1,025.93	836.14	-18.50
4. Export of Poultry Products			
Day- Old Chicks	97,422	106,384	9.20
Chicken and Chicken Products (MT)	718.26	1,805	251.3
Table Eggs	4,139,339	17,916,455	332.83
Hatching Eggs	313,200	19,800	-93.68
5. Import of Poultry Products			
Chicken and Chicken products (MT)	139.86	171.15	22.37
Egg Products (MT)- Egg Powder/Egg Albumin	22.71	0.00	-100.00
- Liquid Egg	51.00	54.02	5.92

Annexure III

Progress of ELISA and PCR testing at 3 VICs (Wariyapola, Welisara, Chilaw)

Se · N o.	VIC	Type of test		Purpose of test	Cumula tive No. of samples	Summary of all results up to now
		ELISA	PCR			
1	Wariyapola	✓		Detection of CAV antibodies	388	Antibody titers for CAV were detected in 5 vaccinated farms (represented by 130 samples). 210 samples out of 258 samples were positive for CAV in 18 farms.
2	Chilaw	✓			24	19 samples out of 24 samples were positive for CAV in 2 farms.
3	Wariyapola	✓		Detection of IB antibodies	328	232 samples out of 328 were positive for IB in 15 farms
4	Chilaw	✓			24	All 24 samples were positive for IB in 2 farms.
4	Wariyapola	✓		Detection of MG antibodies	384	127 samples out of 384 were positive for MG in 20 farms
5	Chilaw	✓			40	21 samples out of 40 were positive for MG in 2 farms
6	Wariyapola	✓		Detection of ND antibodies	220	209 samples out of 220 were positive for ND in 15 farms
7	Chilaw	✓			36	23 samples out of 36 samples were positive for ND in 3 farms
8	Wariyapola	✓		Detection of Salmonella antibodies	74	8 samples out of 74 were positive for Salmonella in 4 farms
9	Wariyapola	✓		Detection of MS antibodies	150	49 sample out of 150 were positive for MS in 9 farms.
10	Chilaw	✓			12	12 samples were positive for MS in 1 farm
11	Welisara		✓	Detection of Koi herpes virus & Spring viremia	26	All the 26 samples were negative for KHV & SV in 15 farms
12	Chilaw		✓	Detection of white spot	10	2 samples out of 5 were positive for White spot Virus (from CVIC) All 5 samples were negative for White spot virus from market waste.
Total					1686	

Activities Performed at Veterinary Investigation Centers - 2022

Annexure IV

Program	Activity	Target	Progress	%
1. Disease Investigation in field	1.1 Field Investigation	590	427	72
	1.2 Sample collection for testing	2,985	2,819	94
	1.3 Investigation Reports	590	382	65
	1.4 Follow-up / further investigation	329	202	61
2. Laboratory Service for disease diagnosis	2.1 Post-mortem examinations-Poultry (No of birds)	4,545	2,858	63
	- Other Species	427	370	87
	Testing Samples - Bacteriological (Culture)	4,825	2,677	55
	- ABST	2,615	1,422	54
	- Parasitological - Blood	5,975	6,749	113
	- Fecal Sample	3,525	2,595	74
	- Skin	181	121	67
	- Molecular (PCR)	130		
	2.3 Milk analysis (including PPRS)	12,210	6,242	51
	- CMT on request	6,020	4,196	70
2.4 Samples dispatch for further testing	1,245	1,280	103	
3. Vaccine Production & Vaccination	3.1 CPD Vaccine (No. of farms)	258	98	38
	3.2 Wart Vaccine (No. of Animals)	710	500	70
4. Supply of lab. Inputs to VS Offices	4.1 CMT reagent (Liter)	526	217	41
5. Dairy Farm Health Improvement Project	5.1 New farm registration	75	60	80
	5.2 No. of Total Registered Farm	2,400	1,525	64
	5.3 Farm Visited	2,440	1,340	55
	5.4 Mastitis screening (CMT)	16,300	9,180	56
	5.5 milk sample testing (ABST)	1,870	803	43
	5.6 No. of sample tested for Helminthiosis	8,550	5,053	59
	5.7 Teat dip solution issued (L)	4,330	2,960	68
	5.8. Issuing of udder infusion vials (free)			
	Lactating Cow	27,675	13,163	48
Dry Cow	8,160	1,820	22	
6. Brucellosis control Program	6.1 Screening dairy herds (MRT)	3,330	2,827	85
	6.2 Animal screening in suspected herds (RBPT)	2,935	1,488	51
	6.3 No. of samples submitted for CFT	645	451	70
	6.4 Vaccination of Animals S19	7,400	5,936	80
7. Salmonella Control Program	7.1 No of Breeder farm to be monitored	67	102	152
	7.2 No of Breeder farm visits	138	75	54
	7.4 No of hatcheries to be visited	50	56	112
	7.5 No of Hatchery visits	200	97	49
	7.6 No of Hatchery samples tested	14,700	8,044	55
8. Avian Influenza surveillance program	8.1 No of serum samples	5,190	3,534	68
	8.2 No of dropping samples at Hotspots	10,350	6,273	61
	8.3 No of cloacal swabs (Backyard)	10,830	7,546	70
	8.4 No. of sample (live bird market)	1,530	1,215	79
	8.5 No of Cloacal swabs (pet bird Establishment)	180		
	8.6 No. of Samples (Poultry Processing Establishment)	5,040	2,760	55
	8.7 Duck serum sample	900	682	76
	8.8 No of cloacal swabs (Duck)	900	694	77
9. No. of Animals Tested for TB	9.1 No. of PPD Tests	2,060	1,492	72
	10. Aquaculture	85	518	609

Research Publications 2022

Dissanayaka L.M.J.N.K., Kumara Mahipala M.B.P., Uthpali A.N., Senanayaka S.D., Rajapakse R.G.S.C., Jinadasa H.R.N. and **Weerasinghe W. M. P. B.** (2022). Isolation and characterization of lactic acid bacteria (LAB) from forage silage to be used as an inoculant for ensiling forage. Extended abstracts of the 4th International conference of agricultural sciences, Sabaragamuwa University of Sri Lanka. Pp 252-255.

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Names of Officers Attended Overseas Training/ Meetings/ Workshops/ Visits - 2022

S No	Name	Designation	Programme	Country & Duration
1	Dr. (Mrs.) W.M.A.D. Wanninayake	Veterinary Research Officer, Polgolla	MID (Molecular data for Infectious Diseases)	01st to 23rd April 2022 Belgium
2	Dr. D.M.U.N.K. Dunuwila	Veterinary Surgeon	Feed Formulation Workshop	26th to 29th July 2022 Nepal
	Dr. S.S.K. Daluwatta	Veterinary Surgeon		
3	Dr. H. Kothalawala	Director, Veterinary Research	Coordination Meeting of the Veterinary Diagnostic Laboratory Network (VETLAB NETWORK) with Directors of African and Asian Veterinary Laboratories.	22nd to 26th August 2022 Vienna, Austria
4	Dr. M.A.R. Priyantha	Veterinary Research Officer, VRI	Working group (WG) for the National Inventory of Dangerous Pathogens (NIDP) S.L.	8th to 12th August 2022 Bangkok, Thailand
5	Dr. M.A.R. Priyantha	Veterinary Research Officer, VRI	Training Course for Veterinary Diagnostic Laboratory Network Partners on Trans boundary Animal Diseases	19th to 30th Sep. 2022 Austria
6	Dr.(Mrs.) U. Sadisha Gunarathna	Veterinary Surgeon Animal Quarantine Office	Food Safety Risk Analysis	5th to 8th Sep. 2022 India
7	Dr. (Mrs.) W.M.S.S. Wansekara	Veterinary Surgeon Animal Health Division	Training Course on Animal Production and Health an Egyptian International Centre for Agriculture	14th Oct. to 17th Dec. 2022 Egypt
8	Dr. (Mrs.) K.A.C.H.A. Kothalawala	Director General	MOD Assisted Dairy Farm Study Tour	20th to 29th Oct. 2022 USA
9	Dr. (Mrs.) Gayani Weerasooriya	Veterinary Research Officer	Cold Chain Management of the Poultry Processing Industry	13th to 16th Sep. 2022 Thailand
10	Dr. (Mrs.) G.I.S. Perera	Veterinary Research Officer	Diagnosis of Peste des Petits Ruminants in Small Ruminants and other Non - Conventional Hosts	17th to 28th Oct. 2022 Austria

S No	Name	Designation	Programme	Country & Duration
11.	Dr.(Mrs) Nilukshi Liyanagunawardena	Veterinary Research Officer	3 rd Asia workshop at Chulangkarn University, Thailand	6 th to 12 th Nov. 2022
	Dr. (Mrs.) P.S .Fernando	Veterinary Research Officer		6 th to 9 th Nov. 2022
	Dr (Ms.) J.K.H. Uberathna	Veterinary Research Officer		
12.	Dr. (Mrs.) N.M.I.D. Karunadasa	Veterinary Surgeon	Program on “Modern Housing and Management”	25 th to 28 th Sep. 2022, Nepal
13.	Dr. K.M.H.G. Sarath Priyantha	Chief Livestock Economist	Invitation to participate in the regional expert workshop on “Enhancing national climate actions to reduce methane emissions in Livestock system in the context of the Global Methane Pledge.	21 st to 27 th Sep. 2022, Bangkok, Thailand
14.	Dr. K.H.D.T. Kasagala	Veterinary Surgeon	Regional training course on proper sampling use of statistics, risk assessment and ISO/ICE 17025:2017 including lead assessor roles	28 th Nov. to 9 th Dec. , Pakistan
15.	Dr. (Mrs.) D. Piumi Harshamala Fernando	VIO, Kaluthara	Regional training of Trainers workshop on Mass Dog Vaccination	28 th Nov. to 2 nd Dec. , Bangaluru, India

Annexure VII

Details of Examinations Conducted in 2022

No	Name of the exam	Number of applicant	Number of exams
01	Coordination of efficiency bar exams of AP&H service	90	2
02	Conducting departmental exams & EB exams for other services (On request)	17	1
03	Conducting recruitment exams for LDOs & RAs	66	2
04	Conducting semester exams for Diploma Students	151	8
05	Conducting semester exams (Repeat) for Diploma Students	06	3

Provincial Activities

Annexure VIII

Progress of Services / Activities of Provincial DAPH - 2022

Dispensary Cases	WP	CP	SP	NP	EP	NWP	NCP	UP	SP	Total
Cattle/ Buffalo	4,733	2,853	3,507	19,676	16,661	17,728	12,916	2,950	2,409	83,433
Goat/ Sheep	4,397	1,901	1,406	31,175	19,898	6,942	2,893	723	1,741	71,076
Pig	1,407	1,525	313	1,067	2,298	4,438	608	584	305	12,545
Poultry	29,127	45,411	13,875	283,321	93,143	108,836	42,050	67,876	43,158	726,797
Pet Animal	35,103	15,073	27,257	30,102	2,864	14,136	6,960	4,433	8,559	144,487
Other	1,459	350	332	1,728	1,718	1,604	213	48	472	7,924
Total	76,226	67,113	46,690	367,069	136,582	153,684	65,640	76,614	56,644	1,046,262

Field Cases	WP	CP	SP	NP	EP	NWP	NCP	UP	SP	Total
Cattle/ Buffalo	11,084	12,318	11,358	16,906	12,456	26,495	12,886	7,538	5,067	116,108
Goat/ Sheep	8,509	5,962	4,132	11,290	10,284	6,901	3,568	973	3,015	54,634
Pig	3,472	487	1,028	606	1,423	3,910	584	502	497	12,509
Poultry	16,181	17,376	5,561	19,742	80,533	3,692	33,116	77,499	44,154	297,854
Pet Animal	188	113	75	36	103	84	15	56	795	1,465
Other	63	12	5	32	46	1,050	6	17	2	1,233
Total	39,497	36,268	22,159	48,612	104,845	42,132	50,175	86,585	53,530	483,803

Issue of Health Certificate	WP	CP	SP	NP	EP	NWP	NCP	UP	SP	Total
Cattle/ Buffalo	592	1,688	811	2,283	2,215	906	1,146	1,016	355	11,012
Goat/ Sheep	314	1,035	240	8,031	1,315	337	488	415	187	12,362
Pig	114	86	11	136	34	75	45	65	49	615
Other	4	4	5	20	0	62	13	8	3	119
Total	1,024	2,813	1,067	10,470	3,564	1,380	1,692	1,504	594	24,108

Annexure IX

Milk Collection by Main Milk Collecting Organizations 2021 - 2022

Province	District	Milk Collection (Liters)	
		2021	2022
Western	Colombo	1,888,472	1,273,490
	Gampaha	3,391,458	2,724,304
	Kalutara	1,229,302	891,512
	Total	6,509,232	4,889,306
Central	Kandy	8,925,295	8,522,207
	Matale	12,658,463	9,615,049
	Nuwara-Eliya	57,172,708	53,899,838
	Total	78,756,466	72,037,093
Southern	Galle	831,016	620,144
	Hambantota	7,754,721	4,016,872
	Matara	618,307	417,214
	Total	9,204,044	5,054,230
North Central	Anuradhapura	42,249,758	46,670,301
	Polonnaruwa	10,201,859	11,136,493
	Total	52,451,617	57,806,794
North Western	Kurunegala	37,496,693	34,162,991
	Puttlam	7,166,153	5,733,138
	Total	44,662,846	39,896,129
Northern	Jaffna	5,099,360	3,655,515
	Kilinochchi	2,387,023	2,332,103
	Mannar	1,637,411	1,386,133
	Mullativu	2,549,903	3,016,982
	Vauniya	3,435,808	2,742,521
	Total	15,109,505	13,133,254
Eastern	Ampara	8,508,452	8,564,882
	Batticaloa	4,409,685	5,092,215
	Trincomalee	5,199,047	4,878,971
	Total	18,117,184	18,536,068
Uva	Badulla	13,314,141	12,841,118
	Moneragala	5,491,088	5,480,940
	Total	18,805,229	18,322,058
Sabaragamuwa	Kegalle	214,920	159,552
	Rathnapura	1,714,047	1,205,017
	Total	1,928,967	1,364,569
Island Total		245,545,090	231,039,501

Collection details received from;

- * Milco (Pvt) Ltd.
- * Cargills Quality Dairies (Pvt) Ltd.
- * Nestle Lanka Ltd.
- * Richlife Dairies Ltd.
- * Ambewela Products (pvt) Ltd.
- * CIC Dairies (Pvt.) Ltd
- * Pelwatte Dairy Industries Ltd.
- * Pattipola Livestock Co. Ltd.
- * Lanka Dairies (pvt) Ltd
- * Chello Dairies (Pvt.) Ltd
- * Fonterra Brands Lanka (Pvt) Ltd.
- * NLDB
- * Ceylon Cold Stores PLC
- * Polonnaruwa District Milk Cooperative Society

Details of Consignments (Imports) Subjected to Quarantine Surveillance in 2022

Type of animal /Animal- product		No. of consignments arrived		Quantity arrived (No. / MT)		No. of consignments inspected	
		2021	2022	2021	2022	2021	2022
1.	DOC - Grand parents - Layer parents - Broiler parents	08 19 23	09 07 12	51,906 99,755 309,967	57,723 49,731 90,513	08 19 23	09 07 12
2.	Meat - Poultry - Beef - Mutton - Lamb - Pork - Duck - Turkey - Casings -Goat meat pro.	07 21 32 21 03 02 02 05 06	13 25 17 17 12 04 01 02 02	75.010 58.990 563.010 155.179 51.809 3.950 22.816 4.626 126.040	171.154 98.311 200.14 116.867 236.320 6.560 9.648 2.1 48.023	07 21 32 21 03 02 02 05 06	13 25 17 17 12 04 01 02 02
	Total No of import con:	66	53				
3.	Meat and bone meal	254	189	37,678.366	24,678.529	254	189
4.	Ornamental fish (marine + fresh water)	204	175	224,8570 nos/57 boxes	771,468 nos/ 7 bags	204	175

Details of Consignments (Imports) Subjected to Quarantine Surveillance in 2022

Type of Animal/Animal- product		No. of consignments arrived		Quantity arrived (No./MT)		No. of consignments inspected	
		2021	2022	2021	2022	2021	2022
5.	Cattle	01	-	125 nos	--	01	--
	Zoo animals						
	Horses	01	02	14	22	01	02
	Pet birds	08	05	1,391	423	08	05
	Live shrimps	24	23	17,512	3,708	24	23
	Live corals	--	--	--	--	--	--
	Goat	--	--	--	--	--	--
	Crabs	--	--	--	--	--	--
	Pigeon	02	02	220	188	02	02
	Rabbit	--	01	--	01	--	01
	Guinea Pig	--	01	--	01	--	01
6.	Dogs/Cats	360	325	546	441	360	325
7.	Fish meal	84	43	3,304.36	1,785.605	84	43
8.	Prawn feed	403	349	4,711.46	19,153.911	403	349
9.	Tallow	--	--	--	--	--	--
10.	Gelatin	79	54	952.990	450.460	79	54
11.	Egg powder	03	01	21.51	18	03	01
12.	Egg albumin	01	--	1.2	--	01	--
	whole liquid egg	--	02	--	36.016	--	02

Details of Consignments (Imports) subjected to Quarantine Surveillance in 2022

Type of Animal/Animal- product		No. of consignments arrived		Quantity arrived (No. / MT)		No. of consignments inspected	
		2021	2022	2021	2022	2021	2022
13.	Feather/Skin/Bristle - Other PRODUCTS	49	38	Bristle-47.62 Feather-0.655 Skins-0.02	Bristle-70.6 Feather-0.910 Skins-0.40	49	38
14.	Frozen fish	355	215	13,734.101	8,037.82	355	215
15.	Fish food	162	102	3,838.671	3,524.46	162	102
16.	Leather	110	253	144	170.339	110	253
17.	Feed ingredients (Soya bean meal, Corn meal, Wheat, Maize, Rape seed, Guar meal, Cotton seed meal, Bakery meal, Millet)	1,427	1,789	448,973.627	441,877.568	1,427	1,789
18.	Chicken products (chicken powder, chicken essence, chicken extract, chicken soup)	06	09	6.59	24.05	06	09
19.	Pet food	150	90	3,357.23	1,240.133	150	90
20.	Vaccines	180	170	5,935,309,259 doses/ 2 boxes/ 444 Mt/ 54,545 pcs/ 86,800 vials/ 3,760 L/4,600 packs/ 1,870 bottles	5,390,504,090 doses/ 3 L/4,000 packs/ 8,700 pcs/100,700 vials/ 1,506 bottles	180	170

Annex X cont....

Details of Consignments (Imports) subjected to Quarantine Surveillance in 2022

Type of Animal/Animal- product		No. of consignments arrived		Quantity arrived (No./ MT)		No. of consignments Inspected	
		2021	2022	2021	2022	2021	2022
21.	Veterinary drugs	182	132	191.563 Mt/ 12,325 pcs/ 796,800 ml/ 27,240,000 doses/ 950,300 mg	177.5976 Mt/ 94,200 tablets/ 100 units/1 bottles/ 650 pcs	182	132
22.	Semen	02	03	8,450	8,000	02	03
23.	Yoghurt culture	04	02	0.04	0.1	04	02
24.	Test kit	07	11	275	1,150 nos/ 620 packs	13	11
25.	Veterinary products	26	23	10.835 Mt/ 1,372.5 L/348,800 tab/9,266 nos/ 2,600 packs	22.664 Mt/ 172.5 L/94201 nos	26	23
26.	Turkey Eggs	01	--	120 nos	--	01	--
27.	Artemia	24	09	1,500 cans/ 6.675 Mt	3.1835 Mt/ 850 cans	24	09
28.	Veterinary Equipment -Nos	05	02	1,979 nos	2 nos	05	02
29.	Feed Additives	02	02	0.05	0.105	02	02
30.	Yeast Powder	--	01	--	0.2	--	01
31.	Collagen	--	02	--	0.27	--	02

Details of Consignments Detained / Destroyed in 2022

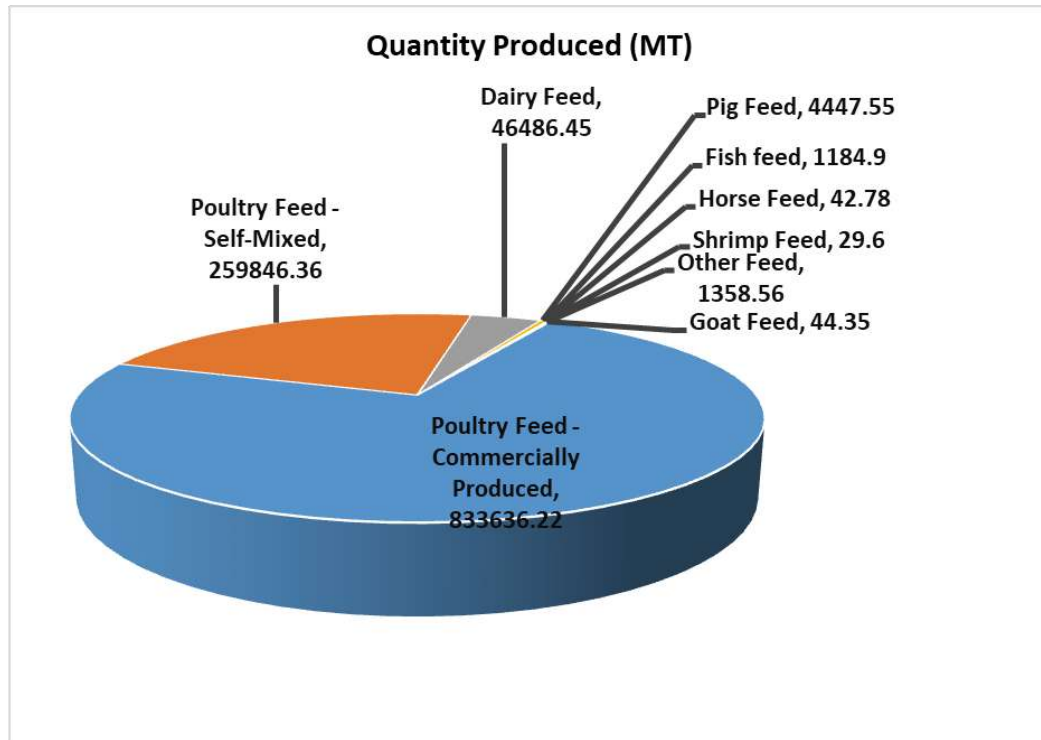
No	Type of consignment	Country of origin	Reason for destruction/ detention	Quantity Kg/ No.	Action taken
Katunayake					
1	Live fish	India	No Permit	5 packs	Destroyed
2	Live Fish	Thailand	No Permit	10	Destroyed
Colombo					
3	Maize	India	+ Parasites	12 containers	Destroyed
4	Fish Meal	Uruguay	Not satisfactory in physical properties	4 containers	Detained and informed to custom.
5	Meat(Beef)	Australia	+ for Salmonella	104.15 kg	Detained-Informed to DG through DVRA
6	Beef Tenderloin	Australia	+ for Salmonella	233.5 kg	Detained-Informed to DG through DVRA
7	Apple Consignment	China	Expiration due to non -release of containers containing imported apple stock.	24,906 kg	Released to the Zoo
8	Crude Coconut Oil	Indonesia	Not suitable for human use	06 -containers	Released -Animal Feed manufacturing
9	Wheat	Ukraine	Pest Infestation	01 container	Pending-Recommendation of Animal feed registrar
10	Basmati rice	Pakistan	Poor Quality	02 Containers	Released - Animal feed Ingredients
11	Bird Feed	Ukraine	Not fulfill Plant Quarantine requirements	26,000 kg	Released Recommendation of Animal feed registrar

Export of Animals and Animal Products - 2022

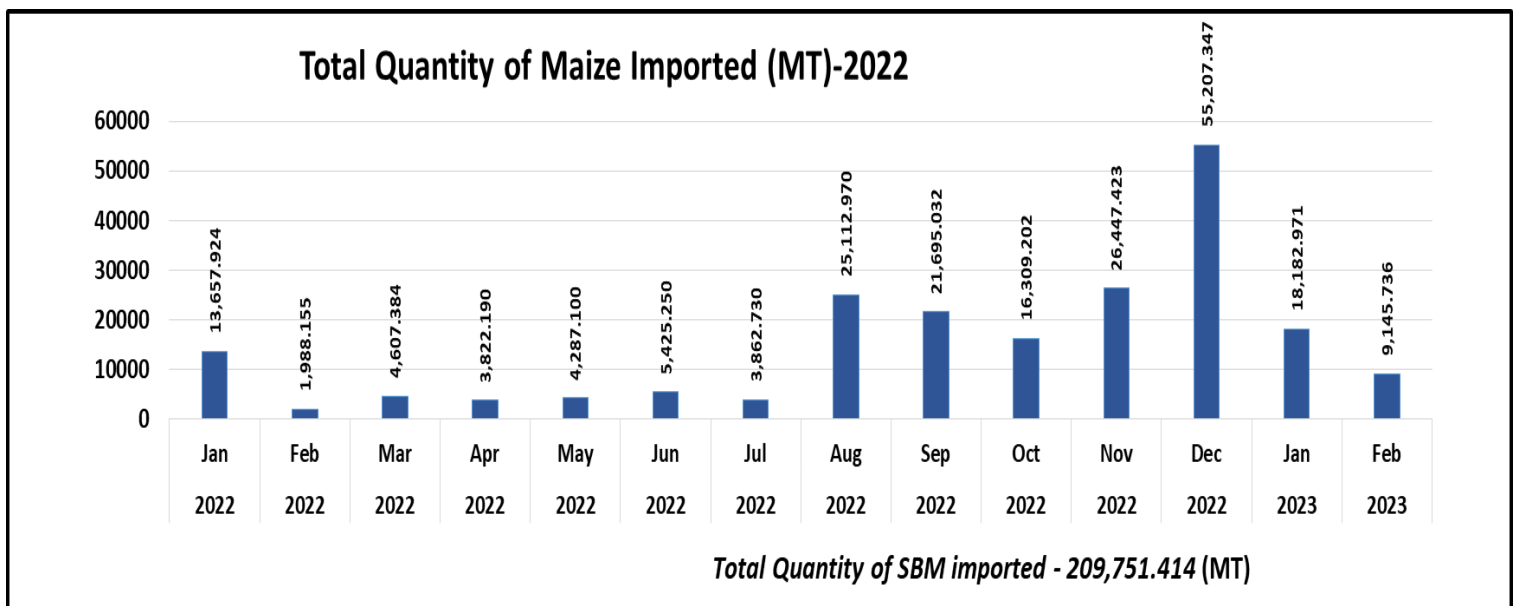
Category		Number/ Quantity (MT) in 2021	Number/ Quantity (MT) in 2022
	Item		
01	Ornamental fish	9,166,671 (nos)	35,379,666 (nos)
02	Dogs (Travelled with owners)	58-nos	355- nos
03	Cats (Travelled with owners)	28-nos	156-nos
04	Poultry -DOC	99,722- nos	92,477-nos
05	Pet birds	11,711- nos	10,714-nos
06	Zoo animals	--	01-nos(Guinea Pig)
07	Animal products-meat and meat products	1,421.077- mt	2,091.8729-mt
08	Table eggs	4,139,339- nos	17,916,455-nos
09	Hatching eggs	313,200- nos	27,960-nos
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/gelatin/dried milk sludge/seasoning cubes/Nakla	3,252,605- pieces -- 62.437 Mt	2,236,263-Pieces 72.956-mt
11	Leather	0.29- mt	--

Annexure XIII

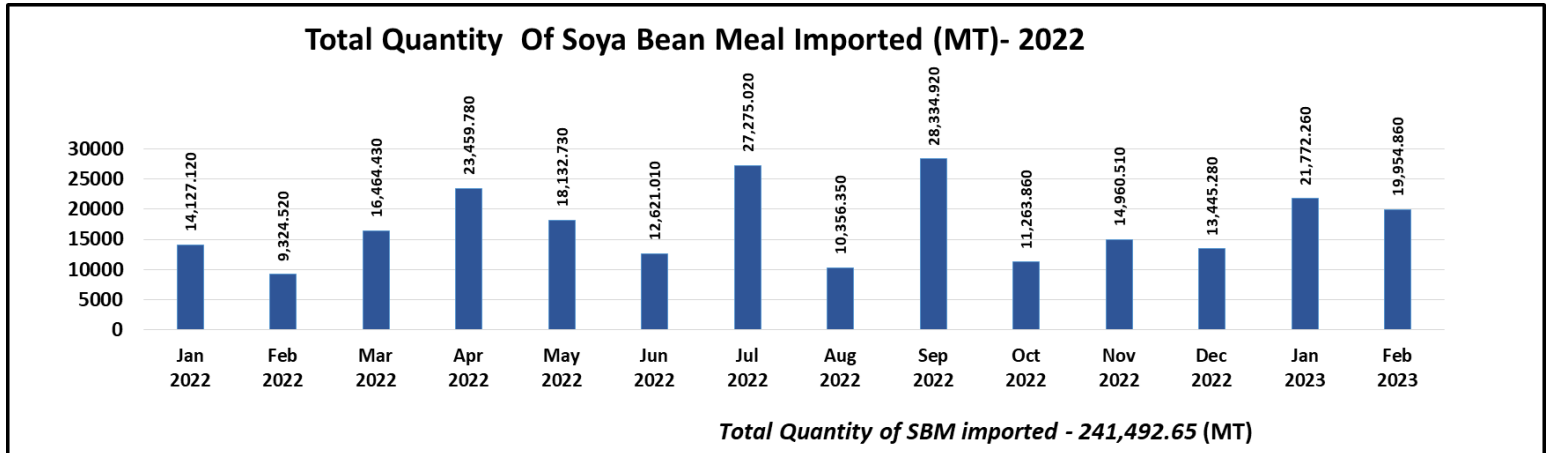
Compound animal feed production- 2022



Total quantity of Maize imported (MT) in 2022



Total quantity of Soya Bean Meal imported (MT) in 2022



Annexure XIV

Raw Material Usage -2022

	Raw Material	Locally Purchased Quantity (MT)	Imported Quantity (MT)
A	Cereals		
	<i>Maize</i>	79,701.14	208,649.92
	<i>Broken Rice</i>	27,485.31	-
	<i>Wheat</i>	-	90,524.06
	<i>Others</i>	17,396.02	59.8
	Total Cereals	124,582.47	299,233.78
B	Cereal by Products		
	<i>Rice Polish/Rice Bran</i>	48,278.64	-
	<i>Wheat Bran</i>	24,364.67	-
	<i>Wheat Feed Flour</i>	-	-
	<i>DDGS</i>	2,330	8,650.65
	<i>Other</i>	37,722.85	445.9
	Total Cereal by Products	112,696.16	9,096.55
C	Plant Protein Supplement		
	<i>Coconut Meal</i>	9,444.21	-
	<i>Soya Bean Meal</i>	-	165,206.6
	<i>Other</i>	1,191.4	15,807.61
	Total Plant Protein Supplement	10,635.61	181,511.96
D	Animal by Products		
	<i>Fish Meal</i>	2,167.19	2,447.47
	<i>Meat & Bone Meal</i>	-	28,600.98
	<i>Other</i>	2,321.27	5
	Total Animal by Products	4,488.46	31,053.45
E	Feed Grade Oil		
	<i>Vegetable Oil</i>	1,050	3,628.27
	<i>Palm Oil</i>	491	646.69
	Gro fat	300	2,052
	Other	1,438.49	883
	Total Feed Grade Oil	3,279.49	7,209.96
F	Vitamin/Mineral Supplements		
	<i>Di Calcium Phosphate</i>	847.91	2,818.275
	<i>Calcium Carbonate</i>	3,088.81	-
	<i>Salt</i>	734.14	-
	<i>Shell grit</i>	4,426.61	-
	<i>Others</i>	1,550	599.36
	<i>Vitamins & Minerals</i>	275.34	5,740.061
	Total Vitamins & Minerals Supplement	10,922.81	9,157.70

	Raw Material	Locally Purchased Quantity (MT)	Imported Quantity (MT)
G	Urea	63	-
	Urea	63	-
H	Amino Acids		
	<i>DL- Methionine</i>	341.64	1,540.489
	<i>L-Lysine</i>	285.49	2,540.39
	<i>L- Threonine</i>	67.63	937.825
	Total Amino Acids	694.76	5,018.70
I	Additives		
	<i>Probiotic</i>	25.1	29.98
	<i>Prebiotic</i>	22	18.5
	<i>Acidifiers</i>	45.86	155.89
	<i>Toxin Binders</i>	119.20	358.67
	<i>Mold Inhibitors</i>	-	276.59
	<i>Growth Promoters</i>	10.6	110.43
	<i>Anticoccidial agents</i>	36.73	110.04
	<i>Exogenous Enzymes</i>	86.95	239.62
	<i>Antioxidant</i>	24.14	50.65
	<i>Emulsifier</i>	25.04	2
	<i>Preservatives</i>	-	-
	<i>Others</i>	28.41	8.53
	Total Additives	424.03	1,360.9

Annexure XV

Present Cadre Position of the Department & Staff Strength as at 2022.12.31

S. No	Designation	Approved Cadre	Current			Vacancies
			Project I	Project II	Project III	
1	Director General	1	1	0	0	0
2	Addl. Director General	4	3	0	0	1
3	Addl. Director General (Admin)	1	1	0	0	0
4	Director (Admin)	1	1	0	0	0
5	Chief Accountant	1	1	0	0	0
6	Director	6	0	0	0	6
7	Registrar (Animal Feed)	1	1	0	0	0
8	Registrar (Veterinary Drugs)	1	0	0	0	1
9	Chief Animal Quarantine Officer	1	0	0	0	1
10	Chief Livestock Economics Specialist	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	Vet. 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	Chief Internal Auditor	1	1	0	0	0
22	Accountant	3	3	0	0	0
23	Deputy/Assistant Director (Admin)	2	1	0	0	1
24	Deputy Directors	8	0	0	0	8
25	Vaccine Production Superintendent	1	0	0	0	1
26	Animal Quarantine Officer	10	9	0	0	1
27	Veterinary Research Officer	24	0	22	0	2
28	Veterinary Investigating officer	26	0	19	0	7
29	Research Officer	5	0	2	0	3
30	Livestock Economist	1	0	0	0	1
31	Livestock Officer	16	1	1	6	8
32	Veterinary Surgeon	61	18	31	17	-5

Present Cadre Position of the Department & Staff Strength as at 2022.12.31

S. No	Designation	Approved Cadre	Current			Vacancies
			Project I	Project II	Project III	
33	Civil Engineer	1	0	0	0	1
34	Legal Officer	1	0	0	0	1
35	Laboratory Scientist	1	0	0	0	1
36	Administrative Officer	3	1	1	0	1
37	Research Assistant/Special Grade	7	0	2	0	5
38	Livestock Promotion Officer	8	0	1	3	4
39	Translator	2	2	0	0	0
40	ICT Officer	1	1	1	0	-1
41	Statistical Officer	1	1	0	0	0
42	Development Officer	120	43	39	28	10
43	Development Assistant	1	1	0	1	-1
44	Legal Assistant	1	1	0	0	0
45	Programing Assistant	1	0	1	1	-1
46	Technical Officer	6	3	0	0	3
47	Draftsman	1	1	0	0	0
48	Research Assistant	70	3	60	5	2
49	Librarian	3	0	0	1	2
50	Livestock Development Officer	62	16	9	22	15
51	Management Service Officer	72	39	13	12	8
52	Livestock Development Officer	3	1	0	2	0
53	Warden -female	1	0	0	0	1
54	Warden- male	1	0	0	0	1
55	Driver	76	16	34	17	9
56	Tractor Operator	3	0	1	0	2
57	Laboratory Aide	47	1	29	6	11
58	Mechanic	2	1	1	0	0
59	Boiler Operator	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	1	0
63	KKS	32	14	7	10	1
64	Garden Laborer	1	0	0	0	1

Present Cadre Position of the Department & Staff Strength as at 2022.12.31

S. No	Designation	Approved Cadre	Current			Vacancies
			Project I	Project II	Project III	
65	Sanitary Laborer	1	0	1	0	0
66	Watcher	3	1	0	2	0
67	Bast Bullock Care-taker	5	0	0	0	5
68	Milk Man	4	0	0	0	4
69	Goat Care-taker	4	0	0	0	4
70	Animal Guardian	12	0	0	0	12
71	Lawn Mower	15	0	0	0	15
72	Animal Control Aide	23	2	6	11	4
73	Field Assistant	161	11	47	73	30
	Total	953	200	329	218	206

Annexure XVI

Financial Allocations and the Expenditure Summary - 2022

	Allocation (Rs. Mn.)	Expenditure (Rs. Mn.)	Balance at 31.12.2022 (Rs. Mn.)	Expenditure as a % of Allocation
Project 1				
Capital Expenditure	84,000,000	48,274,022	35,725,978	57.47%
Recurrent expenditure				
Personal Emoluments	558,500,000	539,071,500	19,428,500	97%
Other	140,100,000	139,922,143	177,857	99.87%
Total	782,600,000	727,267,665	55,332,335	93%
Project 11				
Capital Expenditure	241,000,000	230,102,205	108,977,795	95%
Total	241,000,000	230,102,205	108,977,795	95%
Project 111				
Capital Expenditure	164,000,000	151,921,815	12,078,185	92%
Total	164,000,000	151,921,815	12,078,185	92%
Total Capital Expenditure	489,000,000	430,298,042	58,701,958	88%
Total Recurrent Expenditure	698,600,000	678,993,643	19,606,357	97%
Total Capital & Recurrent Expenditure	1,187,600,000	1,109,291,685	176,388,315	93%

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