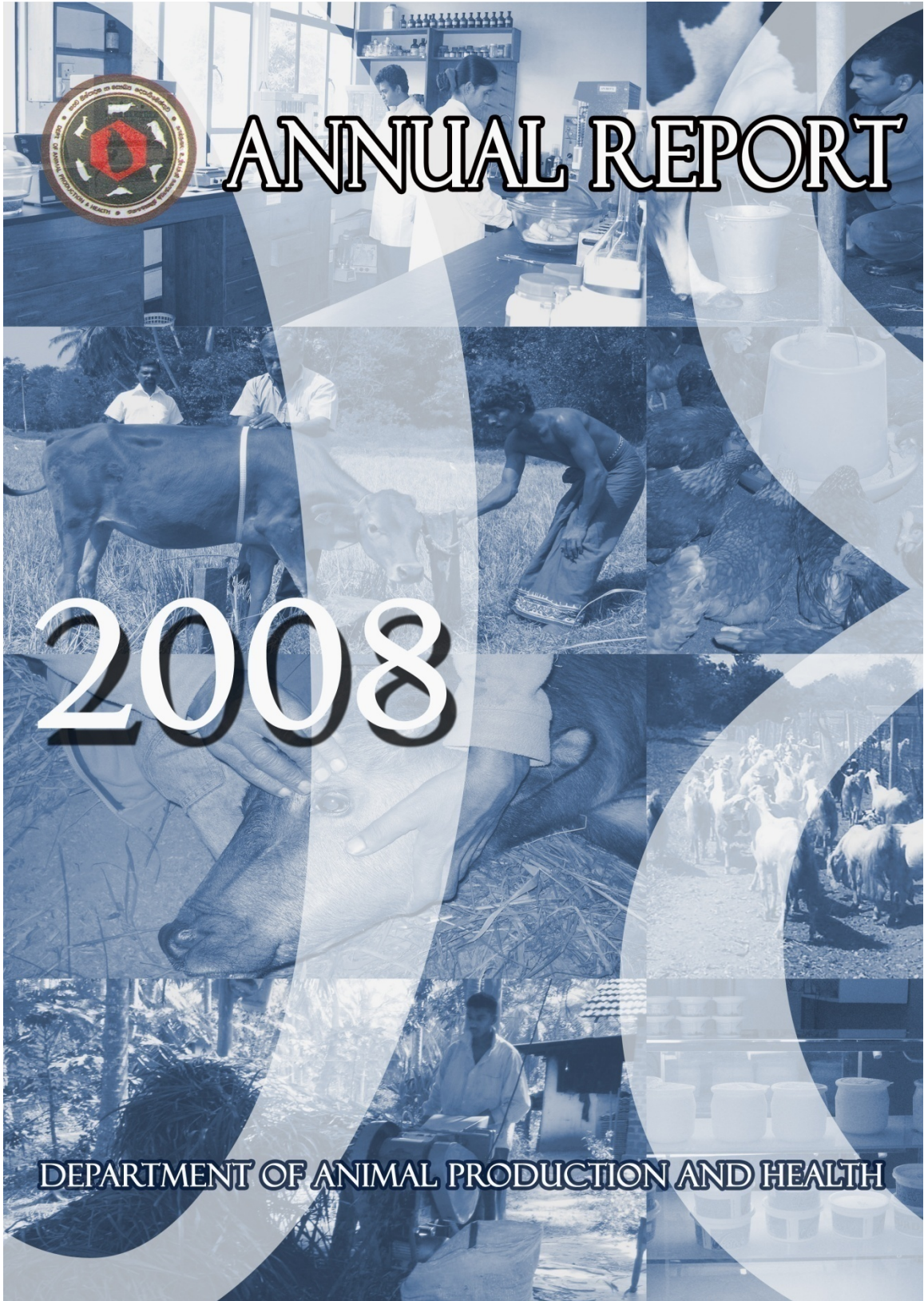




# ANNUAL REPORT

# 2008

DEPARTMENT OF ANIMAL PRODUCTION AND HEALTH



# **ANNUAL REPORT 2008**

**Department of Animal Production and Health  
Peradeniya  
Sri Lanka  
Tel : 94 - 081 - 2388337 / 2388462  
Fax : 94 - 081 - 2388619  
Web Site: [www.daph.gov.lk](http://www.daph.gov.lk)**

# ANNUAL REPORT - 2008

## Contents

	Page No.
<b>PREFACE</b> -----	<b>V</b>
<b>ABBREVIATIONS</b> -----	<b>VI</b>
<b>VISION, MISSION</b> -----	<b>VII</b>
<b>1. Introduction</b> -----	<b>1</b>
<b>2. Livestock Sector Review</b> -----	<b>3</b>
2.1. Dairy Sector -----	3
2.2. Poultry Sector -----	4
2.3. Swine Sector -----	5
2.4. Goat Sector -----	6
2.5. Policy Decision Taken by the Government-----	7
<b>3. Animal Health</b> -----	<b>8</b>
3.1 Introduction-----	8
3.2. Functions of the division-----	8
3.3. Main Activities in the Division -----	8
3.4. Animal Disease Situation -----	9
3.5. Disease Control and Vaccination Programs-----	13
3.6 Veterinary Investigation Services -----	15
3.7. Special Animal Health Programs -----	16
3.8. Administration and Capacity Building-----	17
3.9. Financial Plan and Progress -----	17
3.10. General Comments and forecasted future development-----	18
<b>4. Animal Breeding</b> -----	<b>19</b>
4.1 Maintenance of Semen Production Centers -----	19
4.2 Artificial Insemination Service -----	22
4.3 Heifer Calf Rearing Program -----	23
4.4 Distribution of UMMB -----	24
4.5 Infertility Investigation -----	24
4.6 Training of AI Technicians -----	24
4.7. Milk Recording and Selection of High Yeilding Cows -----	25
4.8. Natural Breeding Program -----	25
4.9. Promotion of Fodder and Pasture Utilisation -----	25
4.10. Goat Development Program -----	25
4.11. Financial Progress-----	26

<b>5.</b>	<b>Veterinary Research Institute -----</b>	<b>27</b>
5.1	Products and Services -----	27
5.2	Research Projects -----	29
5.3.	Research Publicatiobns -----	33
<b>6.</b>	<b>Human Resource Development -----</b>	<b>34</b>
6.1 .	Staff and Units -----	34
6.2.	Training and Transfer of Technology -----	34
6.3.	Educational Programmes -----	40
6.4	Examinations -----	41
6.5.	Information and Publicity -----	41
6.6.	Other Activities -----	45
6.7	The Department Library -----	46
6.8.	Finance and Expenditure-----	47
<b>7.</b>	<b>Livestock Planning and Economics Division-----</b>	<b>48</b>
7.1.	Identification and Designing of Livestock Development Programmes and projects-----	48
7.2.	Monitoring, Evaluation and Economic Analysis of Livestock Development Programmes and Projects of the Department-----	49
7.3.	Economic Studies, Surveys , Pilot Projects-----	50
7.4..	Review of Livestock Industries and Management of Livestock Database at National Level -----	52
7.5.	Coordination of Development Programmes with Provincial DAPH--	54
7.6.	Publications-----	55
7.7.	Management of the Division -----	56
7.8.	capacity Building of Staff -----	56
7.9.	Other Activities-----	56
<b>8.</b>	<b>Laws and Regulations Implementation Unit -----</b>	<b>57</b>
8.1.	Animal Quarantine and Inspection Service -----	57
8.2.	Regulatory Activities - Poultry Industry -----	62
8.3.	Regulatory Activities - Other Livestock and Livestock Products----	63
8.4.	Veterinary Drug Control Authority -----	64
8.5.	Implementation of Animal Feed Act-2008 -----	66
<b>9.</b>	<b>Administration -----</b>	<b>70</b>
9.1	Present Cadre Position of the Department -----	70
9.2.	Approval from the Management Service-----	70
9.3.	Appointments -----	70
9.4	Promotions -----	70
9.5	Transfers -----	70
9.6	Retirements and Resignations -----	71
9.7.	Loans -----	71
9.8.	Insurance Payments -----	71

<b>10. Finance</b>	<b>72</b>
10.1 Allocations -2008	72
10.2 Public Servants' Advance Account "B"	73
10.3 General Deposit Account	73
10.4 Allocations Received for Special Research Projects in the VRI	73
10.5 Departmental Income	74
<b>11. Foreign Funded Projects</b>	<b>75</b>
11.1. Avian Influenza Preparedness and Response Project	75

<b>ANNEXURES</b>	<b>i - xvii</b>
------------------	-----------------

## **PREFACE**

Livestock Sector makes a significant contribution towards socio-economic development in Sri Lanka. Stakeholders of the livestock sector vary from small scale rural farmers to large-scale entrepreneurs and service providers. At present, country spends a large sum of money on the importation of dairy products, powdered milk in particular. Therefore, the present government policy is to encourage domestic milk production. On the other hand, the poultry sector has developed tremendously over the recent past and, is self sufficient in chicken meat and eggs at current purchasing power levels. Similarly Swine and Goat sectors are at different stages of development. State support is greatly needed at different levels in different capacity for further development of this Livestock Sector.

The Department of Animal Production and Health (DAPH), which is functioning under the purview of Ministry of Livestock Development, is the National organization responsible in providing technical leadership for livestock development in the country. The DAPH located at Peradeniya provides technical expertise, support services for livestock development in the country. Furthermore, this National department is also responsible for the implementation of statutory provisions pertaining to the livestock sector.

The DAPH has five (05) technical divisions and two (02) support service divisions. This Annual Report highlights status of livestock sub-sector and progress of all programmes implemented and activities carried out by the DAPH during the year 2008.

Most of livestock sector support services/programmes are jointly executed by the National DAPH and divisional veterinary offices functioning under the purview of Provincial Departments of Animal Production and Health (PDAPH). Therefore province-wise performance and the progress appear in this report wherever necessary.

I am thankful to staff of all divisions/units for extending their fullest cooperation in successfully accomplishing programmes planned for the year 2008.

My special thanks are due to officers who made contributions and for their unstinted efforts to complete this report within a short period.

**Dr. HMSP Herath**  
**Director General**  
**Department of Animal Production and Health**  
**31 March 2009**

## ABBREVIATIONS

Addl. DG	-	Additional Director General
AQO	-	Animal Quarantine Officer
AQS	-	Animal Quarantine Station
CAIS	-	Central Artificial Insemination Station
CAQO	-	Chief Animal Quarantine Officer
DAPH	-	Department of Animal Production and Health
DG	-	Director General
ICEAPH	-	Institute of Continuing Education for animal Production and Health
D/AB	-	Director, Animal Breeding
D/Ad	-	Director, Administration
D/AH	-	Director, Animal Health
D/Fn	-	Director, Finance
D/HRD	-	Director, Human Resource Development
D/LPE	-	Director, Livestock Planning and Economics
D/VRI	-	Director, Veterinary Research Institute
LRIU	-	Laws and Regulations Implementing Unit
PDAPH	-	Provincial Departments of Animal Production and Health
VIC	-	Veterinary Investigation Centre
VIO	-	Veterinary Investigation Officer
VRI	-	Veterinary Research Institute

## DEPARTMENT OF ANIMAL PRODUCTION OF 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) is the main National Institution responsible for prevention and control of Livestock diseases, implementation of Animal breeding policies, Livestock research and development, Human resources development in the livestock sector, designing and economic evaluation of livestock projects and programs for developing the livestock industry and implementing special development programs covering the entire island. The Department implements a range of statutes pertaining to the livestock sector also and provides technical expertise, inputs and backup services to the Provincial Departments of Animal Production and Health (PDAPH).

The goals and objectives of the DAPH are as follows:

To assure an efficient preventive and curative animal health service for maintaining a healthy animal population conducive to the livestock industry and public health.

To promote optimal utilization of animal genetic resources.

To enhance utilization of quality animal feeds and feed resources.

To promote and facilitate good animal husbandry practices.

Conduct research and development towards a sustainable livestock industry.

To develop human resources and ensure efficient and effective information dissemination and technology transfer.

To formulate, monitor and evaluate projects and programmes with sector participation.

To assure quality of inputs, products, services and practices in the livestock sector by enforcement of regulatory provisions.

To ensure efficient management of departmental activities.

The DAPH headed by the Director General, has the following technical and supportive divisions each managed by a Director to carry out its activities:

Animal Health  
Animal Breeding  
Veterinary Research  
Human Resource Development  
Livestock Planning and Economics  
Administration  
Finance

The Organization structure of the DAPH is shown in *Annex 1*.

Members of the Directorate were

Dr. (Ms) H.M.S.P Herath , Director General,

Dr. A.D.N Chandrasiri, Acting Additional Director General (from July 2008),

Dr. J. Dharmawardene , Director, Veterinary Research,

Dr. A. Chandrasoma, Director, Animal Health ,

Dr K. M. T Kendaragama, Director, Human Resource Development,

Dr. (Ms) P. Wijewantha, Director, Livestock Planning and Economics,

Dr. A.D.N Chandrasiri , Acting Director,  
Animal breeding ( from January to July  
2008)

Dr. B. Sivayoganathan , Acting Director,  
Animal breeding ( from July onwards),  
(Ms) Swarna Obeysekara, Director,  
Administration ,

Mr. U. Attanayake, Director, Finance  
( up to October 2008) and,

Mr. R.M.R.B.Rathnayaka, Director,  
Finance ( from October onwards )

Mr. U. Attanayake, Director, Finance  
retired from the government service in  
October 2008.

## 2. LIVESTOCK SECTOR REVIEW

### 2.1. Dairy Sector

There had been much focus on dairy farming and production in 2008 due to several initiatives taken by the government. There were signs of investing on commercial dairy farming and increase in consumption of liquid milk through *Milk Sales Outlets* established recently throughout the country. Contribution of the Agriculture sector to the national GDP had been 13.3% in 2008 and the livestock sector contribution to the Agriculture component recorded as 7.17%. The total contribution of the livestock sector to the national GDP in 2008 was around (01) one percent. The amount of milk collected by the ten (10) main milk processors in the formal milk market in the year 2008 amounted to 117.1 million liters and from this almost 56% was collected by two (02) leading milk collecting organizations. Around 33.6 % and 21.2% of milk collected in the country came from the Central Province and the North-Western Province respectively.

Average farm-gate price of milk in 2008 was around Rs 32.00. Average cost of production of one litre of milk in the country in 2008 recorded as Rs 27.80, Rs 23.92 and Rs 11.26, in intensive, semi-intensive and extensive systems respectively (*Source: LPE Division, DAPH*).

During 2008 import of dairy products amounted to 65,376.12 MT which is an increase of 6.7 percent over the corresponding figure of 61,241.78 MT in 2007. Total import bill on dairy products reached Rs. 30.8 billion in 2008. Out of total import of dairy products, import of full cream milk powder and non-fat milk powder in 2008 amounted to 56,136.32 MT and 5,516.39 MT respectively, which was an increase of 7.35 % and 22.4 % from the corresponding figures of 52,302.8 MT and 4,508.18 MT in the year 2007.

The average CIF prices (LKR) of imported dairy products in 2008 were as follows:

Whole milk powder	486,418.40 LKR/MT
Skim milk powder	422,676.80 LKR/MT
Cheese	586,901.16 LKR/MT
Butter	239,506.47 LKR/MT
Whey powder	120,516.49 LKR/MT

Commencing from August 2008, international market prices of dairy products showed a sharp decline towards end of the year. Prices of dairy products in January and December 2008 were as follows:

Product	Price USD/MT	
	January (Av)	December (Av)
Whole milk powder	4387.50	2725.00
Skim milk powder	3500.00	2156.25
Cheese	5400.00	3150.00
Butter	4106.25	2862.50

---

Increasing milk products availability in the global market, appreciation of the US dollar and in particular, the general decline of the global economy would have contributed to this low prices.

The total consumption of milk and dairy products (domestic production and imports) had been 680.6 million liters of LME. The availability of milk and dairy products per caput per annum in the year 2008 was around 100 ml per day per person. The active primary dairy cooperatives in 2008 were 252 in number and 06 cooperative unions were active. The total collection of the dairy cooperatives for the year amounted to around 16.0 million liters of milk, beside these there were 2,065 Farmer Managed Societies (FMS) which supplied milk to MILCO.

## **2.2. Poultry Sector**

### **2.2.1. General**

Both broiler and the layer industry showed a gradual decline towards end of the year 2008. Production of Broiler chicks recorded only a marginal growth of 1.0 percent from that of 79.9 million chicks in 2007 to 80.7 million in 2008. Layer chick production recorded only 5.87 million in 2008, a drop of 11.6% from the 2007 level of 6.64 million. Import of broiler grand parents and procurement of broiler parents (imports and local purchase) dropped by 16% and 2.1% during the year 2008. Import of layer parents showed a sharp decline of 36% from 82,387 in 2007 to 52,772 in 2008.

Farm-gate prices of table eggs fetched reasonably good figures during the year and showed declining trends towards the end of 2008. High live broiler prices of

Rs 206.00 to Rs 216.00 were recorded in June to August 2008. However, these prices were on the declining trend towards the later part of the year. Though the quantity is negligible, export of poultry products recorded 1161.7 MT, an increase of 925% from the corresponding figure of 113.4 MT in 2007.

### **2.2.2 Broiler Industry**

Procurement of broiler parents recorded 812,250 during the year. Out of which, 530,051 (65.3%) were locally purchased and the balance 34.7% was imported. Procurement of broiler grand parents declined in 2008 from 16,938 in 2007 to 14,231 in 2008. A total of 80.7 million broiler chicks were produced in the year, a slight increase of one (01) percent from the corresponding number of 79.9 in 2007.

Only 34 broiler farms were in operation during the year and main broiler breeder strains chosen by them were Hybro (36.5%) Indian River (30.9%), Hubbard (27.3%), Vencobb (3.2%) and Cobb (2.2%). In 2008, Broiler parents were imported from France (23.7%), Netherlands (11.1%) and purchased from local GP farms (65.3%).

Average price of a day-old broiler chick had been Rs.46.38 in 2008 ranging from Rs.40.00 in April to Rs.53.75 (August, December). Average farm-gate price of live broiler recorded Rs 165/Kg with the minimum price of Rs 157.00/Kg (January) to the maximum price of Rs 216.00/kg (July).

### **2.2.3. Layer Industry**

A sharp decline of 36% on the import of layer parents was seen in 2008; from

---

82,387 in the previous year to 52,772. Pullet chick production too dropped during the year by 11.6% from 6.64 in 2007 to 5.87 in 2008. Ten (10) layer breeder farms were in operation during the year and Hyline (40.4%), Bovans Brown (28.6%) Shaver 579 (21.8%), Bovans White (9.2%), were the main layer breeder strains imported by these farms. Majority of these imports were from France (59%), USA (24%), The Netherlands (9%), and Germany (8%).

Farm gate price of table eggs (brown) remained at reasonably high levels in most parts of the year, ranging from Rs 6.25 (March) to Rs 9.26 (October). Average farm-gate price for the whole year recorded as Rs 7.88/egg.

#### 2.2.4. Poultry Feed Industry.

Fourteen (14) Large, medium and small-scale registered Poultry feed manufacturers were in operation during the year and the total feed production in the country estimated as 464,000 Metric Tons (*Source : Registrar, Animal Feeds*). Compound poultry feed prices have been increased by 20% in 2008.

#### 2.2.5. Poultry Processing Sector

Three (03) large scale, 10 medium scale poultry processing establishments and seven (07) further processing establishments were in operation during the year 2008. Estimated chicken meat production in 2008 at 102,520 MT recorded only a marginal growth of two (02) percent over the 2007 volume of 100,600 MT.

#### 2.2.6. Exports

Export of chicken meat and chicken meat products reached 1161.65 MT in the year; a growth of 925% from the previous years' volume of 113.86 MT. Bulk of these chicken meat and chicken meat products were exported to Maldives, UAE, Azerbaijan, Armenia, Iraq, Angola, Oman, Kuwait, Doha Qatar, Ghana and India. Export of table eggs at 640,071 million recorded a further decline by 16% from the corresponding figure of 758,753 million in 2007. A total of 34,279 day-old chicks were exported to Maldives during 2008.

#### 2.2.7. Imports

Import of chicken meat and meat products recorded 2665.14 MT, a remarkable increase of 120% from the corresponding 2007 figure of 1200.37 MT. However, these quantities represented just 2.5 % of the estimated domestic chicken meat production for the year. Moreover, bulk of these imports (93%) consisted of chicken meat products such as MDM, which is used for the preparation of value added products. The balance volume (7%) was imported by the Hotel Industry in the form of Turkey, Duck and specialized products.

*(Key data pertaining to the Industry in 2008 is found in Annex II)*

#### 2.3. Swine Sector

Pig farming is mainly concentrated in four (04) districts in Sri Lanka. These districts include Colombo, Gampaha, Kalutara and Puttlam; the so called *pig belt* in Sri Lanka. Apart from this identified area, to some extent, it is distributed in other parts of the country as well, in the Central region and the North-Central region.

---

According to *Department of Census and Statistics*, the total pig population in Sri Lanka is recorded to be 89,420 in 2008. Swine farms could be categorized as small scale (60 %) medium scale (25%) and large scale (15%). Estimated pork production had been 11,100 MT during the year 2008.

Live weight price of a pigling in 2008 remained between Rs 4500 (male) to Rs 5000 (female) for *Large White* and *Duroc* breeds. Average retail price of a Kg of pork during the year recorded as Rs. 332.48, ranging from Rs. 290.67 (January) to Rs 394.63(December) (*Source: HARTI*). Average cost of production of pork on live weight basis (*fed on swill plus agricultural by products*) ranged from Rs 70.16/Kg to Rs 139.98/Kg with the average cost of Rs 113.06/Kg (*Source: LPE division, DAPH*)

A total of 209 Kg of pork and related products have been imported into the country and 77 Kg of pork and pork products were exported during the year (*Source: Department of Customs*).

Chilled semen production by Swine Artificial Insemination Centre at Kotadeniyawa was further expanded during the year, facilitating upgrading of swine population in Sri Lanka.

A survey was conducted by the DAPH in 2008 to assess the feasibility of expanding this service further, into the North -Western Province.

Environmental related problems continued to be the major constraint in further expansion of the industry causing closing down of several farms in the country. Therefore information on the environment related problems faced by swine farms were collected during

the year 2008 with the intention of recommending policy initiatives.

#### **2.4. Goat sector**

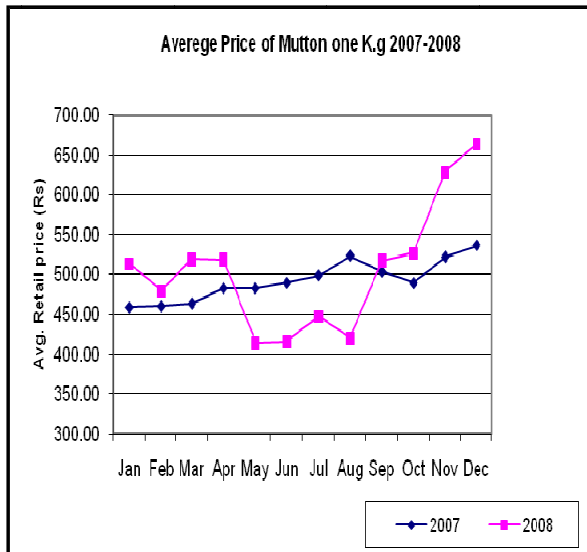
Goat farming is concentrated mainly in dry and intermediate zones of the country where about 75% of goat population is distributed. Extensive management system is practiced in the dry zone and semi intensive and intensive systems are practiced in coconut triangle, hill country and in urban areas of the country. Goat farming is mostly linked to socio-cultural patterns and the availability of land and fodder.

*Sannan, Jamnapari, kottukachchiya, Sri Lankan Boer* are the available breeds in Sri Lanka. Endogenous and cross breeds are also distributed all over the country. Two goat breeding farms located at Thelahera and Imbulandanda, operated under the DAPH contribute in upgrading of goats by distribution of breedable animals. Artificial inseminations were done using deep frozen semen imported in year 2006 and chilled semen produced at Central Artificial Insemination Centre, Kundasale.

Total number of 3932 male goats and 11,241 female goats has been distributed by provincial department under different programmes carried out during the year 2008.

Goat and sheep population in 2008 recorded as 387,240 (*Source: Department of Census and statistics*) and mutton production estimated to be 1,680 MT. Average retail price of mutton in the country reported as Rs 505.63/Kg in year 2008 ranging from Rs 414.60/Kg in May to Rs 664.50/Kg in December (*Source: HARTI*). A total of 293,085 kg of mutton has been imported into the

country (Source: Department of Customs) during the year 2008. Average retail prices of mutton have shown fluctuations throughout the year when compared with the previous year. Price increase in the latter part of the year 2008. (Figure 2.1)



**Figure 2.1: Retail price changes of Mutton 2007-2008**

## 2.5 Policy decisions taken by the government

In order to support further development of the livestock industry and facilitate

availability of livestock products to consumers at affordable prices, following policy decisions were taken by the government in 2008;

**Budget Proposals 2009** (implemented immediately after the budget in November)

A bumper harvest of Maize was expected in Maha season 2008/2009. In order to encourage local maize usage by poultry feed manufacturers, CESS on imported Maize was increased to 25 % from that of 20%.

The special commodity levy on imported milk powder was increased from Rs. 5/- to Rs. 15/- per kg. to further encourage domestic milk production.

### Selling Price of Chicken Meat

Chicken meat was gazetted as an essential food item in 2007. Accordingly, approval should be obtained from the Trade Ministry for any increase in retail prices of chicken meat. A request from the poultry industry for a price revision from Rs. 290 to Rs. 320/Kg was accommodated by the Trade Ministry in early 2008, in consultation with the Ministry of Livestock Development/DAPH.

### 3. ANIMAL HEALTH DIVISION

#### 3.1. Introduction

The Division of Animal Health is one of the five technical divisions in the Department of Animal Production and Health (DAPH) responsible for ensuring required animal health status for development of the livestock industry in the country. Animal Health division has the national unit located at Head Quarters of DAPH with its component namely Vaccine Bank and Veterinary Store located at Getambe. Its peripheral units namely Veterinary Investigation Centres are established at district or provincial level.

#### 3.2. Functions of the Division

The mission of Animal Health Division has been identified as provision of technical leadership and back-up services to prevent entry of exotic diseases and to control and eradicate existing economically important and zoonotic diseases while maintaining animal welfare and ensuring food safety of animal origin.

In order to accomplish the said mission the following major tasks were earmarked to be carried out during the year 2008.

- Establishment and maintenance of GIS based disease surveillance and animal disease database ;
- Design, support, monitor and evaluate mass-scale preventive vaccination programme ;
- Maintenance of Vaccine Bank and Veterinary-Store;
- Provision of laboratory back-up service for disease diagnosis;

- Establishment and maintenance of district based Veterinary Investigation network;
- Formulation and implementation of Special Programmes against identified exotic, emerging and re-emerging animal diseases;
- Compilation and dissemination of animal health related information locally and internationally; and
- Functioning as the focal point to World Animal Health Organization.

#### 3.3. Main Activities in the Division

The major activities performed during the year under review could be listed as follows:

- 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.



### 3.4 . Animal Disease Situation

#### a. Bovine Diseases

##### *Foot and Mouth Disease*

Foot and mouth disease broke out in eight (08) Veterinary ranges namely Galnewa, Thirappane, Padaviya, Rambewa, Kahatagasdigiya, Horowapothana, Galenbindunuwewa and Medawachchiya at Anuradhapura district in the North-Central Province during the period under review. Disease control measures failed to control the disease effectively and thereby clinical cases were observed for about six (06) months in the district since January. The disease re-appeared in December at Thirappane Veterinary range affecting 25 cattle and death of a calf. Outbreaks were also reported from Meerigama at Gampaha district, Udubaddawa at Kurunegala district, Wanathavillu at Puttalam district, Gampola at Kandy district and Weligepola at Ratnapura district during the year under review.

Three (03) Veterinary ranges namely Thunukkai (Mullaitivu district), Karachchi (Kilinochchi district) and Vavuniya South (Vavuniya district) reported the disease from the Northern Province. The only outbreak reported from the Eastern Province was detected at Padiyatalawa Veterinary range at Ampara district. The appearance of clinical cases in an extensive manner in North-Central Province at the border areas of Eastern Province suggest that there had been outbreaks in areas where the cases could have not been reported due to little or no accessibility and very little attention by the farmers because of prevailed situation.

Overall 1934 cases were recorded in the country with 89 reported deaths of which 65 were reported from Kilinochchi district. Further, the active infection was noticed and the clinical cases reported for an extensive period excluding only three (03) months namely August, September and November during the year 2008 as shown in *Figure 3.1*.

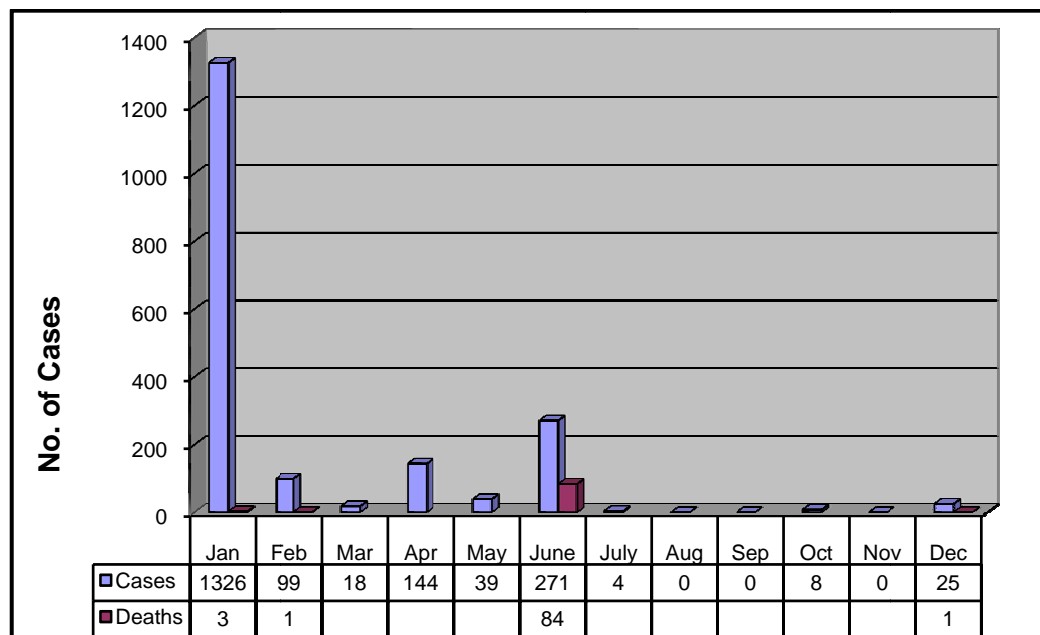


Figure 3.1. Monthly Distribution of FMD Occurrences in 2008

### ***Haemorrhagic Septicaemia***

Clinical cases of Haemorrhagic Septicaemia (HS) has not been detected in the country during the year 2008. As such, the country remains free of clinical cases of HS for four (04) consecutive years since the last outbreak was found at Kalutara District in October 2004.

#### ***Black Quarter***

Ninety seven (97) cases and 39 deaths were recorded in the country during the period under review. This indicates 71% deduction in the total cases when

compared with the previous year. The case-fatality rate at the 2008 occurrence was found to be 44%. The cases were confined mainly to North-Central Province and bordering districts namely Vavuniya and Trincomalee in the northern and eastern provinces respectively. The Black Quarter(BQ) distribution of cases at different Veterinary range level is shown in *Table 3.1*

**Table 3.1: Spatial and Temporal Distribution of BQ in 2008**

District	Veterinary Range	No. of		Month(s) of Occurrence
		<i>cases</i>	<i>deaths</i>	
Anuradhapura	Horowpothana	51	04	April, September, October, November
	Talawa	04	02	August
	Nochchiyagama	10	10	September
	Kekirawa	01	01	September
Polonnaruwa	Bakamuna	02	02	February
Vavuniya	Vavuniya	07	05	July
Trincomalee	Kantale	12	10	June, July
<b><i>All Island</i></b>		<b>97</b>	<b>43</b>	

### ***Brucellosis***

Abortions due to brucellosis have been recorded at Anuradhapura district in North-Central Province affecting three (03) Veterinary ranges namely Nachchadhuwa, Nuwaragampaltha Central and Thirappane. Vaccination against brucellosis is practiced only at livestock farms managed by National Livestock Development Board (NLDB) and in selected areas especially in Anuradhapura District where high incidence of brucellosis has been established and the farmers have obliged

to make an agreement with the DAPH. Since the vaccination requires special attention, it is carried out only by the Veterinary Investigation Officers and 1,117 vaccinations using the S-19 vaccine manufactured locally were carried during the year 2008.

### ***Bovine Babesiosis***

One thousand six hundred and sixty eight (1668) cases of bovine babesiosis were reported during the year and the cases were found in all the provinces with an overall case-fatality rate of 3.48%. There

had been an increase of 16.2% in the incidence when compared with the previous year. It has also been noticed that there is a trend in continuous increase in annual incidence and in spite of this phenomena, the pre-immunisation is neither popular nor requested by the field Veterinary Surgeons. Monthly distribution of cases varied from 105 to 166. No seasonal pattern was observed.

### *Leptospirosis*

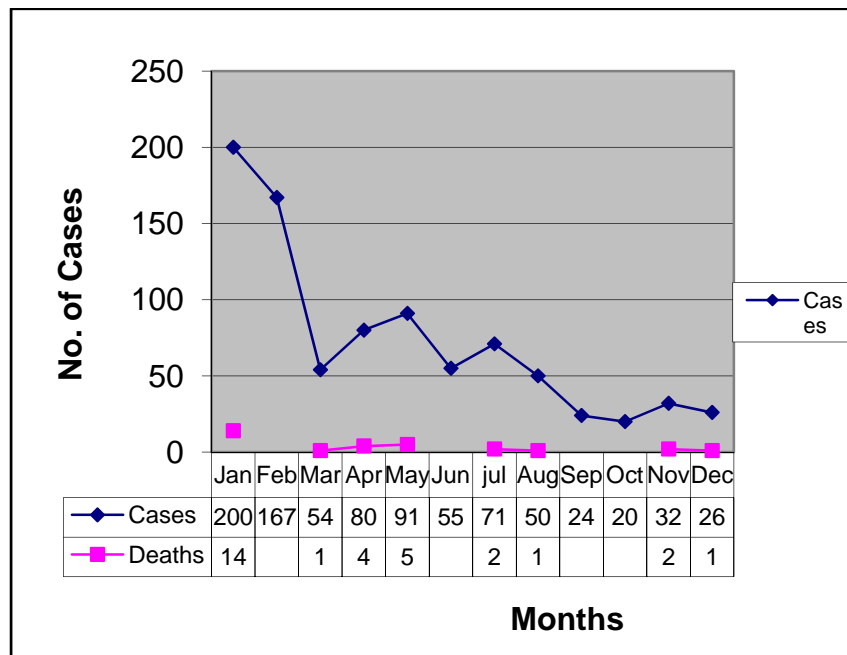
Nine (09) cases of leptospirosis were recorded during the period under review. These were recorded at three (03) locations namely Galnewa at Anuradhapura district, Bibile at Moneragala district and Bulathsinhala at Kalutara district. There had been increased number of human cases of leptospirosis in the country during the

year under review, a similar trend was detected among the livestock population.

### **b. Small Ruminant Diseases**

#### *Contagious Pustular Dermatitis*

A total of eight hundred and seventy cases of Contagious Pustular Dermatitis(CPD) were detected among goats in the country during the year 2008. The disease was detected in all the Provinces. There is an increase in the total number of cases by 29% when compared to the previous year. The monthly distribution of cases indicates a shift in the peak of the incidence from December in the past years to January in 2008 (*Figure 3.2*). Auto vaccines were prepared at Veterinary Investigation Centres and thus contributed to the control of spread of infection.



**Figure3.2: Monthly distribution of CPD cases - 2008**

### c. Poultry Diseases

#### *Newcastle Disease*

Four hundred and seventeen (417) cases of Newcastle disease were reported with an overall case-fatality rate of 53.5%. There is 85% reduction in the reported cases when compared with the previous year probably due to improved preventive vaccination against Newcastle

disease due to awareness programmes against avian influenza. It is important to control Newcastle disease as a mean of establishing early warning system against Highly Pathogenic Avian Influenza. The spatio-temporal distribution of occurrence of Newcastle disease has been tabulated as below( Table 3.2):

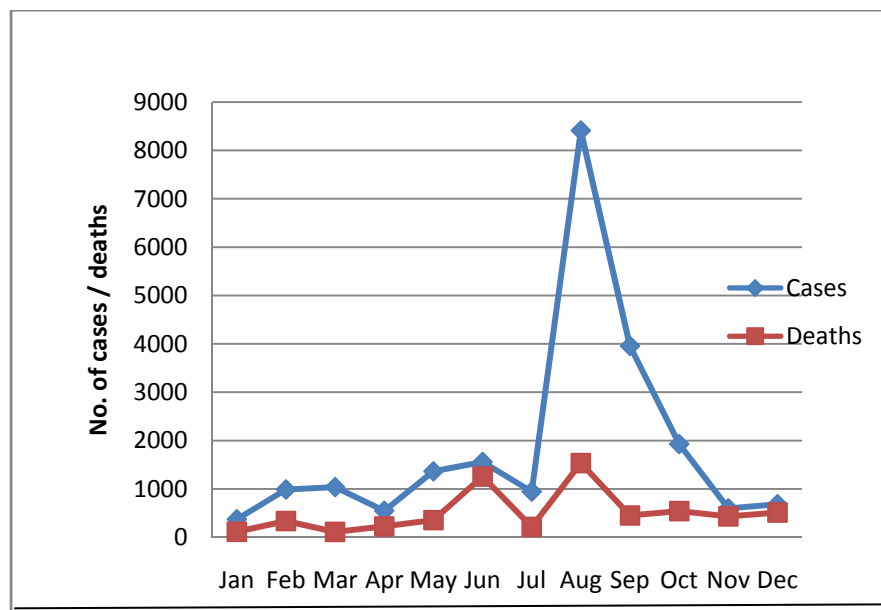
**Table 3.2: Spatial-Temporal distribution of occurrence of Newcastle disease - 2008**

Province	District	VS Range	Cases	Deaths	Month(s) of Occurrence
Northern	Jaffna	Chankanai	05	02	July
		Jaffna	38	25	January- March, May & July
		Kopai	36	06	May, August - November & December
		Nallur	05	04	April & September
	Kilinochchi	Kandavalai	90	05	June
	Mullaitivu	Tunukkai	04	01	October
	Vavuniya	Vavuniya	13	10	March, August & September
Eastern	Ampara	Sammanturai	15	05	April, September & October
North - Central	Anuradhapura	Nochchiyagama	01	01	January
		Galnewa	41	33	January - March & May-July
Central	Polonnaruwa	Bakamuna	24	21	Jan., March-May & July
	Kandy	Harispattuwa	01	01	August
	Matale	Raththota	01	01	July
Western	Gampaha	Kadawatha	135	104	January-March & May-October
		Negombo	02	01	January & March
		Wattala	01	01	January
Uva	Monaragala	Monaragala	05	02	May

### Infectious Bursal Disease

Infectious Bursal Disease (IBD, Gumboro disease) remained as the single poultry disease affecting the highest avian population in the country. Spatial distribution of the disease indicates its presence in all the districts in the country. Monthly incidence of the disease has been shown in *Figure 3.3*

In overall 22,382 cases were recorded during the year with 27.2% case-fatality rate. There was 33% reduction in the number of reported cases from the previous year whereas the case-fatality rate was increased by 8%. The epidemic curve indicates the seasonal pattern with the highest incidence in August to September.



**Figure 3.3.: Monthly distribution of IBD cases -2008**

### 3.5. Disease Control and Vaccination Programmes

Preventive vaccination programmes have been carried out against economically important major livestock diseases such as Haemorrhagic Septicaemia (HS) , Foot and mouth disease (FMD) and Black Quarter (BQ) in ear marked locations in the country. Vaccines for these programmes have been maintained at the Vaccine Bank and supplied to the Provinces as per the vaccination schedule. A total of 1.02 million doses of HS

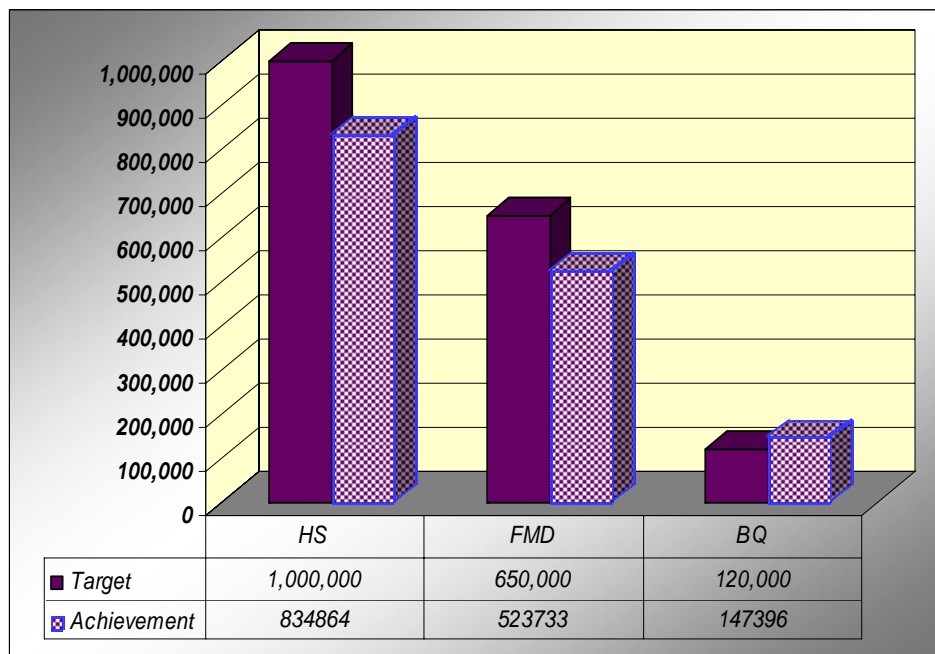
vaccine, 498,100 doses of FMD vaccine and 195,822 doses of BQ vaccine have been supplied during the period under review as per shown in *Table 3.3*.

**Table .3. 3: Issue of Livestock Vaccines to the Field in 2008**

Province	HS	FMD	BQ
NWP	244,270	123,350	83,523
EP	266,160	42,000	23,232
NCP	129,450	101,200	34,848
NP	139,790	65,000	19,074
Southern	83,330	24,850	-
Uva	72,240	69,500	35,112
Western	45,040	54,250	-
Central	22,570	1,550	33
Sabaragamuwa	15,840	16,400	-
<b>Total</b>	<b>1,018,690</b>	<b>498,100</b>	<b>195,822</b>

Annual vaccination achievement has been found to be 834,864 vaccinations against HS, 523,733 vaccinations against FMD and 147,396 vaccinations against BQ which

indicate 83%, 81% and 122% achievements against set targets respectively as depicted in *Figure 3.4*.



**Figure3.4 : Performance in Vaccination against major livestock diseases in 2008**

The implementation cost for the field vaccination programme varied from Rs.2.32 (Northern Province) to Rs.13.14

(Central) with the island average of Rs.4.28 as shown below (Figure 3.5).

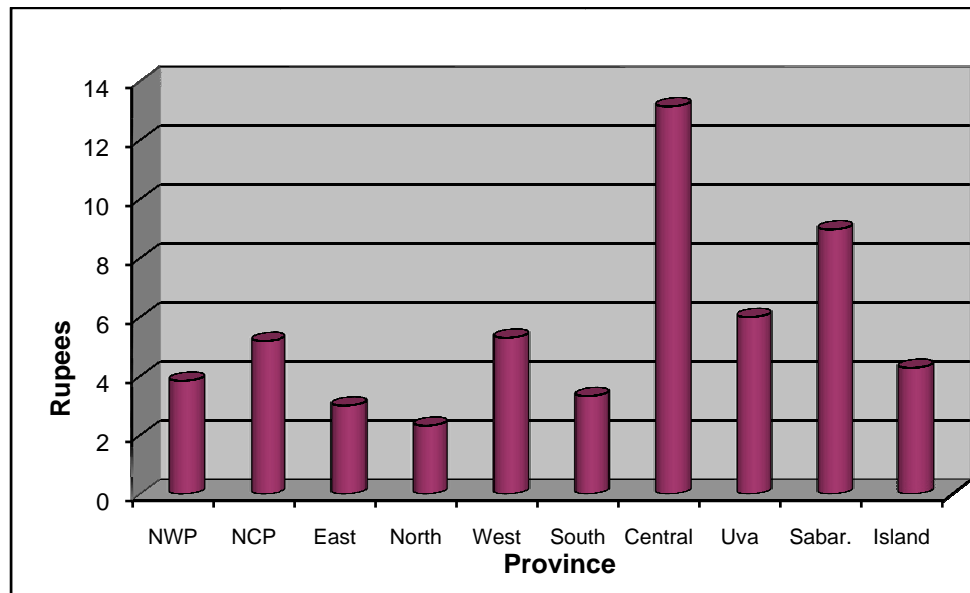


Figure3.5: Implementation cost for field vaccination (Rs. per vaccination)

### 3.6. Veterinary Investigation Services

The concept of strengthening the laboratory back up for Veterinary services by providing Veterinary Investigation facilities at District level by District Veterinary Investigation Centres was recognised in Year 2006. Accordingly, two new Veterinary Investigation Centres (VIC's) have been declared open at Kegalle and Hambantota districts during the year 2008. Furthermore, work has been nearly completed to declare open the VIC's at Nuwara-Eliya and Matale Districts while activities have been initiated to establish the same at Trincomalee, Colombo and Ampara Districts.

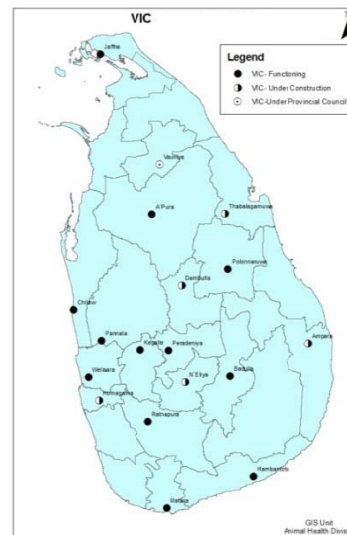


Figure 3.6: Veterinary Investigation network - 2008

The locations of VIC's are shown in (Figure 3.6).

---

The activities performed at the functional VIC's at Matara, Welisara, Pannala, Polonnaruwa, Peradeniya, Badulla, Chilaw, Rathnapura, Anuradhapura, Kegalle, Hambantota and Jaffna has been given in *Annex III*

### **3.7. Special Animal Health Programmes**

#### ***a. Livestock Health Improvement Project***

A special project had been initiated in year 2007 in selected dairy farms at districts where functional VIC's are located in order to monitor the disease status closely and to assist to improve the health and production in these farms. The field level implementation was carried out through the respective VIC's in these districts. The Project envisaged at fulfilling the long term need of establishing active focal points for disease monitoring and surveillance at district level.

One thousand three hundred and forty six (1346) milking cows have been subjected to California Mastitis Test (CMT) for early detection of sub clinical mastitis. Furthermore, 547 litres of teat dip solution prepared at VICC have been distributed among these farmers in order to improve the hygienic practices in these farms. Samples which have shown high positive reactions to CMT have been further subjected to laboratory investigation. Bacterial cultures indicated the presence of *Staphylococci*, *Streptococci*, and *E.coli* species.

Antibiotic sensitivity tests (ABST) identified the antibiotics namely Neomycin, Enrofloxacin, Doxycycline and Cephalexin as the drugs of choice at

different instances. Hence, it was recommended to use these drugs using the locally produced udder base as the vehicle for incorporating these antibiotics for preparation of more appropriate and economically beneficial udder infusions to be used at farm level.

Furthermore, the calves in these selected farms have been tested for helminthiasis by laboratory testing.

#### ***b. Avian Influenza Surveillance Programme***

The national surveillance programme against Avian Influenza initiated in 2007 continued in year 2008 as well. Field level implementation was carried out mainly by the Veterinary Investigation Officers (VIO). The sero surveillance Programme for the entire country was prepared, coordinated and monitored for its efficiency and effectiveness. A total of 4,667 serum samples were collected during the year under review and 2,064 samples were tested by the Division of Virology using Enzyme Linked Immuno-sorbant Assay (ELISA). The sero-reactors have been further tested against H5, H7 and H9 subtypes and found to be negative. The testing programme continues to the following year too. In addition to the sero-surveillance programme, the risk-focused targeted surveillance programmes were carried out during the year 2008 too. 1529 pooled cloacal swabs were collected from Wild birds, Back-yard poultry in the vicinity of 'Hot spots', Wet markets, Poultry Processing establishments, Birds in quarantine and Ducks and subjected to virus isolation and found to be negative for Avian Influenza Virus Isolation..

Details of the surveillance activities are tabulated in *Annex IV*



### **c. Salmonella Control Programme**

All Poultry Breeder farms having either parent birds or grandparent birds have to be in salmonella-free status in order to ensure the production and supply of salmonella-free chicks from their farms. Accordingly these farms have been instructed to carry out regular screening programmes to be followed by official verification by the relevant VIC the Veterinary Research Institute.

Thirty six (36) Poultry Breeder Farms with parent stock were in operation during the year 2008. Twenty one (21) of these farms achieved the status of less than 1% sero-reactor rates and verifications were carried out by VIO's. The two Grandparent farms namely 'Pioneer GP Farm' and 'Fortune GP Farm' were subjected to verification by the Veterinary Research Institute and found to be free of salmonella by the screening test.

### **3.8. Administration and Capacity building.**

Many significant developments have taken place in strengthening the human resource with capacity development in the division since year 2007. Technical and management capacity of the officers have been improved by providing them the opportunity to participate in training programmes and workshops locally as well as abroad. The most significant programme in 2008 was the training provided for five (05) VIO's as a team to update their knowledge and get the experience in working in an Avian Influenza infected country, Pakistan. Veterinarians at Head Quarters also attended short programmes in Japan and Philippines. Several local training programmes were

arranged for the staff mainly on 'Geographical Information System' and 'Good Laboratory Management Practice'. Detail information on human resource development within the division has been shown in the annexure 1.

The peripheral units of the division, VICC were supported by the Technical supportive staff during this year. Research Assistants were recruited and posted to eleven (11) identified VIC's during this year.

A long term need of publishing 'Veterinary Epidemiological Bulletin' in Sri Lanka was fulfilled successfully during the year 2008. The first volume of this bi-annual publication covered the first half of the year 2008. The Bulletin which carries the official information on animal health related issues was distributed to all the Field Veterinary Surgeons, Provincial Directors and all other related officers as well as institutions. The electronic version and the hard copy of the bulletin (ISSN: 1800-4881) were made available to identified officers too.

The 'Performance of Veterinary Service in Sri Lanka' was evaluated by an Expert Team using the OIE tools during the year 2008. Two officers from this division acted as the counter-part officers for this mission which evaluated the entire Veterinary service in the country based on international standards.

### **3.9. Financial Plan and Progress**

The financial allocation for capital expenditure during the year 2008 was initially 94.4 million. However, due to the financial limitation in the country

---

this was brought down to 88.9 million. The financial crisis towards the end of the year curtailed the utilization of this too and thereby only 74.9% of this was made available during the year. Out of this allocation of 88.9 million 66.5 million (74.5%) has been utilized during the year.

### **3.10.General comments and forecasted future development**

Even though Animal Health function is scattered and handled by several units under different heads every possible effort has been taken to put them under a common command. The following areas have been identified for future development in order to achieve animal health improvement towards the vision

of 'Disease free livestock for better tomorrow in Sri Lanka'.

- Animal quarantine is a key area of animal disease management especially in island countries like Sri Lanka in preventing the entry of exotic diseases into the country. However, facilities pertaining to quarantine activities need to be upgraded including the basic facilities for officers engaged in quarantine inspection as well as animals under quarantine.
- Special man power development programme for capacity building of VIOO to qualify at Master level in Pathology, Bacteriology, Public health, Food hygiene and Epidemiology.

## 4. ANIMAL BREEDING DIVISION

Animal Breeding is a major component of the DAPH as well as in the livestock sector which determines its development. Animal Breeding division is mainly responsible for the production of high quality animals through improved technologies (such as Artificial Insemination and Embryo Transfer) to meet the country's demand. Genetic materials are produced at Kundasale, Pollonnaruwa and Thinnaveli semen production stations to breed cattle, buffalo and goats artificially. Kundasale and Pollonnaruwa stations are well equipped with facilities for the production and processing of deep frozen semen and Thinnaveli station for chilled semen production. Further, Central Artificial Insemination Station (CAIS), Kundasale has been developed up to the level of International Standards with high tech equipment. Semen thus produced is distributed island-wide to artificial insemination units at divisional Veterinary offices through the distribution network. Two (02) Goat breeding units located at Thelahera and Imbulandanda maintain goat nucleus herds and provide genetic material for natural

breeding of goats. The following section describes all the activities related to Animal Breeding division during the year 2008.

### 4.1 Maintenance of Semen Production Centers

Animal Breeding division manages two Artificial Insemination (AI) centers at Kundasale and Polonnaruwa that are involved in the collection, processing, storage and distribution of genetic material (deep frozen semen) throughout the island.

#### 4.1.1 Importation of Equipment to Strengthen the Central Artificial Insemination Station, Kundasale

A new Bulk Semen Storage Tank was purchased to the CAIS, Kundasale in 2008 to meet the increased demand for deep frozen semen. Some details of equipment purchased in 2008 to strengthen the field service and the CAIS to improve the quality of services provided, are given in *Table 4.1*.

**Table 4.1: Details of equipment purchased to CAIS in 2008**

Sr No	Equipment/Item	Quantity	Value (Rs)
1	Liquid Nitrogen Cans 1.6 L	50	5,606,250.00
	10 L	25	
	25L	25	
2	AI Sheath	250,000	6,023,000.00
	Gloves	225,000	
3	Semen Straws	500,000	19,051,600.00
4	Thawing Flask	200	1,460,000.00
5	Wash Solution and Straw Printer ink	-	43,230.00
<b>Total</b>			<b>32,184,080.00</b>

#### 4.1.2. Local Deep Frozen (DF) Semen Production

Production details of DF semen at AI centers Kundasale and Polonnaruwa are given in Table 4.2.

**Table 4.2: Production of DF Semen -2008**

Species	Breed	No. of Males	Production	
			Kundasale	Polonnaruwa
Cattle	Friesian	08	25,635	-
	Jersey	08	106,967	-
	Sahiwal	02	-	10,160
	AFS	03	-	-
	Friesian x Sahiwal	01	19,630	-
	Jersey x Sahiwal	01	8,595	-
Buffalo	Nili Ravi	02	570	-
	Murrah	04	1,560	10,595
Goat	Jamnapari	-	-	-
<b>Total</b>			<b>162,957</b>	<b>20,755</b>

#### 4.1.3. Imported DF Semen

A total of 14,835 doses of imported DF semen (*Cattle : Jersey 38, Sahiwal 4087, Buffalo : Murrah 5362, Nili Ravi 778, Goat : Jamnapari 3046, Sanan 612*) were available at the end of year 2008.

Doses of DF semen issued and its distribution is as follows (Table 4.3 and 4.4)

**Table 4.3: Issue of DF Semen (Species and Breed wise)-2008**

Species	Breed	Source	No. of doses
Cattle	Friesian	Imported	609
	Friesian IM Bulls	Local	600
	Friesian	Local	34313
	Jersey	Imported	463
	Jersey IM Bulls	Local	14692
	Jersey	Local	79025
	Sahiwal	Imported	310
	Sahiwal	Local	15585
	AFS	Imported	85
	AFS	Local	520
	Friesian x Sahiwal	Local	19676
	Jersey x Sahiwal	Local	17011
	Buffalo	Murrah	Imported
Murrah		Local	2469
Nili Ravi		Imported	42
Nili Ravi		Local	4041
Goat	Jamnapari	Local	3578
	Jamnapari	Imported	39
	Sanan	Imported	77
<b>Total</b>			<b>193,153</b>

**Table 4.4: Issue of Local Semen From AI Center Kundasale (Province and breed wise) 2008**

Province	Fr	Jy	JxS	AFS	FrXS	Sahiwal	Murrah	Niliravi	Jamnepari
CP	21920	22184	5		5277	603	58	231	1081
WP	1173	13495			5344	2582	263	2696	824
NWP	4751	28085	8512	520	6040	4564	60	766	357
NCP	1354	7143	3898			1480	28	239	190
UP	1920	10774	40		2134	1398		35	39
Sab.P	1051	4157	592		846	506	40	314	214
SP	1349	4252	2106			2508	321	1302	332
EP	991	2642	1543		20	1394	15	137	221
NP	405	985	315		15	550		5	320
<b>Total</b>	<b>34914</b>	<b>93717</b>	<b>17011</b>	<b>520</b>	<b>19676</b>	<b>15585</b>	<b>785</b>	<b>5725</b>	<b>3578</b>

#### 4.1.4. Issue of Liquid Nitrogen

The amount of liquid nitrogen purchased during the year totaled 182,354 liters with the cost of Rs. 10,779,527.23 and, at the rate of Rs. 53.87/lit.

#### 4.1.5. Issue of Inputs for AI

The necessary Inputs for the AI service have been issued from AI centre, Kundasale in order to assure its' continuity. These inputs include following items (*Table 4.5*)

**Table 4.5: Issue of Inputs from AI Centre, Kundasale-2008**

Item	Total issued
Cryo LN <sub>2</sub> Cans TA 26	10
Cryo LN <sub>2</sub> Cans (Cryo lab 25)	12
Semen storage cans (IR 10)	24
Field Cans 1.6 Lit	90
Field Cans 1.5 Lit	01
AI Mini gun	72
Shoulder length AI gloves	31,155
AI sheaths	207,000

#### 4.1.6. Cost analysis of semen production.

Cost of production per dose of DF semen at the AI centre Kundasale amounted to Rs 39.24.

	Item	Cost (Rs.)
a	Expenditure for Semen Processing - Straws, Diluents, Liquid Nitrogen, Consumables, Electricity, Water, Machinery	2,290,725.36
b	B). Expenditure for Administration and Labour - VS, AVS, R.A., LDI Salary, Payment for Semen collectors, KKS salary, 06 Laborers	2,700,026.00
c	C). Cattle feed and mineral mixture	1,404,755.00
d	Total Cost	6,395,506.36
e	Total No. of Semen Produced	162,957
	<b>Cost per dose</b>	<b>39.24</b>

## 4.2. Artificial Insemination Service

#### 4.2.1. Artificial Inseminations

The AI achievement for the year 2008 was 165,853 in cattle, buffalo, goat and swine, which is 3.5%, increase over the year 2007. The highest number of AI has been performed in the North Western Province. Province-wise AI targets, performance and achievement of the

country for the year 2008 are given in Table 4.7.

A total of 3,585 inseminations in goats and a total of 614 inseminations in swine have also been reported during the same year. Demand for goat AI was mainly from North and East Provinces. Swine AI was carried out in the Western Province.

**Table 4.7: Province- wise AI targets, performance and achievement- 2008**

Province	Target	Performance	Achievement (%)
NWP	47,601	44,667	93.84%
CP	42,960	43,473	101.00%
WP	23,075	20,855	90.38%
UP	15,799	14,288	90.44%
NCP	15,108	11,935	79.00%
SP	11,316	9,884	87.35%
NP	11,728	9,781	83.40%
Sab.P	7,341	5,942	80.94%
EP	6,121	5,028	82.14%
<b>Total</b>	<b>181,049</b>	<b>165,853</b>	<b>91.61%</b>

#### 4.2.2. Pregnancy Diagnoses

A total of 44,813 pregnancy diagnoses were done by the field veterinarians. The

province-wise target, performance and achievement details are as follows. (Table 4.8):

**Table 4.8: Province- wise target, performance and achievement of pregnancy diagnosis**

Province	Target	Performance	Achievement (%)
NWP	25,000	8,355	33.42%
CP	9,870	7,741	78.43%
WP	9,362	7,184	76.74%
UP	6,215	5,111	82.24%
NCP	7,765	4,819	62.06%
SP	5,185	4,107	79.20%
NP	5,858	2,324	39.67%
EP	2,978	2,803	94.12%
Sab.P	4,891	2,369	48.43%
<b>Total</b>	<b>77,124</b>	<b>44,813</b>	<b>58.10%</b>

#### 4.2.3. Calvings

A Total of 40,659 calvings have been reported by field veterinarians. From the reported calvings, it could be assumed that average calving rate is 24.52 % out of inseminations performed in 2008. It is rather a poor reportage in comparison

with the AI performances. In future, attention should be focused to increase reporting of calving. The province-wise target, performance and achievement details are given in *Table 4.9*.

**Table 4.9: Province wise target, performance and achievement of calvings-2008**

Province	Target	Performance	Achievement (%)
NWP	20,300	10,329	50.88%
CP	13,475	8,787	65.21%
WP	8,632	6,815	78.95%
UP	5,105	2,782	54.50%
NCP	5,880	2,383	40.53%
SP	4,405	3,238	73.51%
NP	4,164	2,941	70.63%
EP	1,379	1,522	110.37%
Sab. P	2,987	1,862	62.34%
<b>Total</b>	<b>66,327</b>	<b>40,659</b>	<b>67.43%</b>

### 4.3 Heifer Calf Rearing(HCR) Program

This program was launched in May 2008 to increase the high quality breedable heifer calves born out of AI that would be bred within a shorter time frame. All registered heifer calves were identified by ear tagging

and were supported with a feed and health package under this program. A total of 4389 heifer calves have been registered during the eight (08) months in the year 2008 (*Table 4.10*).

**Table 4.10: Achievements in the HCR Programme - 2008**

Activity	Target	Performance	Achievement (%)
Registration of Heifer Calves and Cows	13,000	8,778	67.52%
Insurance of Heifer Calves (HCR)	6,500	4,389	67.52%
Insurance of Heifer Calves (General)	1,800	821	45.61%
Supply of Cattle Feed (MT)	756	505	66.79%
Control of Endo and Ecto Parasites of Calves	6,500	3,900	60.00%
Supply of Minerals (Kg)	52,000	15,000	28.85%
Conservation of Roughages (MT)	200	162	81.00%
Establishment of Fodder Units (20 Perch)	650	100	15.38%
Training of Farmers ( Man Days)	22,000	1,730	7.86%



Figure 4.1: Measuring body weight of heifers - Heifer calf rearing Program

#### 4.4. Distribution of UMMB.

Cows which were enrolled under the Milk Recording Program were provided with *Urea-Minerals-Molasses Blocks* (UMMB) to improve the breeding efficiency. 35,524 mineral blocks were issued to field Veterinary offices in 2008. However, its achievement has not been analyzed in a scientific manner.

#### 4.5. Infertility Investigations

Infertile cows and heifers were examined and treated in view of improving the success rate and farmers confidence in AI. The target group of animals under this program had been cows that had not conceived after

repeated inseminations and with prolonged post partum anoestrous period. This programme has been carried out in Central, Western, Sabaragamuwa and North Central Provinces. A total of 233 animals were treated during the year 2008.

#### 4.6 Training of AI Technicians

Private and government AI technicians, and technicians in the National Livestock Board (NLDB) were trained on AI in order to strengthen the field AI program. A total of 10 such programs were conducted in the year 2008 at the Artificial Insemination training centre, Polonnaruwa (Table 4.11)

Table 4.11: Training of AI Technicians -2008

Technician Category	No. trained
Private	79
VSs	17
Government LDOs	08
NLDB	12
<b>Total</b>	<b>116</b>

#### 4.7. Milk Recording and



### Selection of High Yielding Cows for Progeny Testing

Continuation of the Milk Recording Program was carried out in the year 2008. A total of 2131 cows spread over the Provinces namely Central, Uva, North Western and Western (Table 4.12).

**Table 4.12: Milk Recording Program -2008**

Province	Annual Target	Performance	Achievement (%)
CP	146	431	331.33%
Sab.	175	174	94.50%
UP	129	86	72.00%
WP	150	43	27.33%
<b>Total</b>	<b>600</b>	<b>734</b>	<b>131.29%</b>

### 4.8. Natural Breeding Program

The natural service program was started in 2004 with the aim of providing quality bull calves to farmers who do not have access to the AI service. Objective of this program is gradual dissemination of exotic inheritance into the local cattle and buffalo gene pool which is not covered by the AI Program through the organized natural breeding program. At present the coverage of the AI service in different agro climatic zones remains at 18 % of the breedable cattle population with a range of 5% to 80 %. The remaining 82% of animals are not covered with artificial breeding program.

Bull calves selected from both NLDB farms and farms registered under milk recording program were distributed among selected farmers at a concession rate in selected areas. Achievement of the program in 2008 was 75.33% (Table 4.13).

**Table 4.13: Issue of Buffaloes and Neat Cattle for Natural Breeding**

VS Range	Buffaloes	Neat Cattle
CP		16
EP	22	16
NCP	31	4
NP		9
NWP	6	9
UP		
<b>Total</b>	<b>59</b>	<b>54</b>

### 4.9. Promotion of Fodder and Pasture Utilization

This programme was carried out with the assistance of Government Veterinary Offices and MILCO staff. A total of 776 fodder / grass demonstration plots (each of 500 m<sup>2</sup> area) were established during the year 2008. Further, 61 fodder plots (each of 1 Ac area) were established, in private breeder farms.. A program was implemented for the utilization of Natural pasture/fodder in 50 farms in selected Veterinary ranges. 28 Acres of land in Kundasale and Polonnaruwa AI centers were improved with fodder varieties of CO<sub>3</sub> and Bracharia grass.

Training programs were conducted by the Animal Breeding Division to educate the dairy farmers, Livestock Development Officers of DAPH and Extension Officers of MILCO on cultivation, maintenance, and utilization of fodder/pasture. A total of 1591 individuals were trained under this program in 2008.

### 4.10. Goat Development Program

Under the Goat Breeding Program of the DAPH, Jamnapari nucleus herd was maintained in two goat breeding farms at Thelahera and Imbulandanda.

These two farms provide their male offsprings for up grading local herd as well as

Jamnapari cross bred herds in Sri Lanka. In year 2008 a sum of Rs. 6.0 million was allocated for the maintenance of these two Goat Breeding Farms. Total expenditure incurred during the year was Rs. 5,513,941.53 and income of both breeding farms was Rs. 1,446,271.00. These breeding farms were service oriented and 26.23 % of income was

earned against expenditure from farm produce

#### 4.10.1. Maintenance of Goat Nucleus Herd and Issue of Animals for Breeding

Under Jamnapari nucleus herd maintenance, the closing stock of goats in 2008 in Thelahera and Imbulandanda Goat Breeding Farms was as follows (Table 4.14).

**Table 4.14: Closing Stock Position on 31<sup>st</sup> December 2008**

Farm	Adults (>12mths)		Young stock (4-12mths)		Kids (0-4mths)		Total
	Male	Female	Male	Female	Male	Female	
Thelahera	03	180	12	58	63	47	363
Imbulandanda	04	92	01	31	06	22	156
<b>Total</b>	<b>07</b>	<b>272</b>	<b>13</b>	<b>89</b>	<b>69</b>	<b>69</b>	<b>519</b>

#### 4.10.2. Farm Infrastructure and Land Development

During the year, further emphasis was given to strengthen infrastructure development in both Goat Breeding farms. Additional funds had been allocated under the capital votes apart from 6.0 million rupees allocated for maintenance of Goat Breeding farms.

Continuation of constructing a new farm office, over head water tank, 20'x50' Goat shed and gravelling inner roads of Thelahera farm were completed in 2008. In this year it was possible to acquire Electricity to Thelehera Farm after a long spell following negotiations with relevant authorities at Ceylon Electricity Board. 03 acres of *Bracharia brizantha* pasture and 05 acres of CO-03

fodder grass were planted in Thelahera Farm. By using newly recruited contract labour force, 150 Jack plants (*Artocarpus heterophyllus*) were planted in order to prevent encroachment of the land in Imbulandanda farm. Further, 600 pots of Sesbenia (*Sesbenia Sesben*) and 2000 nos. of *Glyricidia* were planted in the Upper block of Imbulandanda farm as a legume supplement.

#### 4.11. Financial progress

The total financial allocation for the Animal Breeding Division for the year 2008 was

Rs. 175.56 million, from which Rs.54.0 million was allocated for the Livestock Breeding project. Overall achievement of fund utilization in Livestock Breeding project had been 74.4%.

## 5. VETERINARY RESEARCH INSTITUTE

The Veterinary Research Institute which is located at Gannoruwa is responsible for conducting research and development pertaining to animal production and health. The VRI has nine (09) technical divisions, Veterinary Investigation Centre and the Central Poultry Research Station. The Institute headed by a Director and supported by three (03) Deputy Directors who are responsible for Health Research (*currently a vacant post*), Production Research and Technical Services. VRI is also the reference laboratory for various livestock diseases and assist in prevention and control of animal diseases through manufacture of biologicals, reagents and through its services.



**Figure 5.1: Carrying out research work at VRI**

### 5.1. Products and Services

#### 5.1.1. Products issued

**Table: 5.1 Vaccines Issued by VRI**

a	Local Vaccines	Annual Target	Production	Issues
	HS( Oil/ Alum ) vaccine	1,203,300	1,204,260	1,204,260
	BQ vaccine	200,000	205,293	181,566
	Newcastle disease (ND) vaccine		97,800	97,800
	Tick Fever vaccine	800	443	443
	Wart vaccine	75	6,616	6,616
	Fowl Cholera		239,250	239,250
	FMD pilot vaccine	5,000	5,000	
	ND- Komarov			358,600

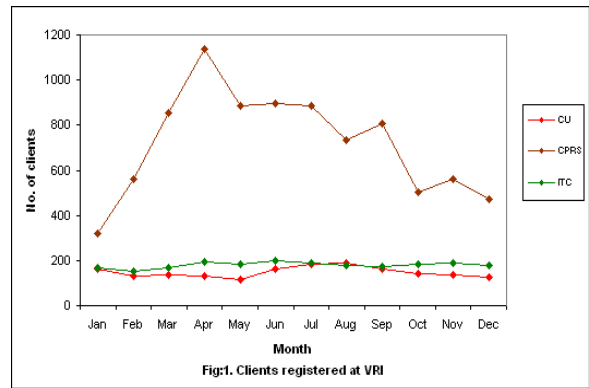


**Table 5.2. Products Issued by VRI**

<b>b</b>	<b>Diagnostic Reagents</b>	<b>Issues</b>
	CMT Reagent (L)	56.5
	Pullorum Antigen (Doses)	593,000
<b>c.</b>	<b>Therapeutic Reagents</b>	
	Teat dip solution (L)	35
	Udder infusion base (vials)	276
<b>d.</b>	<b>Dairy Products</b>	
	Yoghurt Culture	765
	Curd Culture	105
<b>e.</b>	<b>Other Products</b>	
	Day Old Chicks (Nos)	93,627
	Month old chicks (Nos)	276
	Parent chicks (Nos)	61
	Poultry meat (Kg)	731.8
	Poultry litter (Kg)	13,790
	Education (Nos)	160
	Establishment (Nos)	1,607
	Seeds (g)	520
	Green forages for feeding purposes (Kg)	3,000

**f. Clients Registered at VRI**  
*Clients registered at different units*

<b>Place of Registration</b>	<b>No. of Clients</b>
Coordinating Unit (CU) ( Room 21)	1,727
Central Poultry Research Station (CPRS)	8,623
Information Technology Centre (ITC)	2,156
<b>Total</b>	<b>12,506</b>



**Figure 5.2 : Clients registered at the VRI**

*Sector based Client Registration at the Coordinating Unit*

<b>Commodity</b>	<b>No. of Clients</b>
Cattle & Buffalo	96
Goat & Sheep	19
Pig	6
Poultry	421
Aqua culture	15
Laboratory Animals	22
Canine	106
Flesh	24
Feed	477
Dairy Products	230
Milk	64
Other	247
<b>Total</b>	<b>1,727</b>

**5.1.2. Type of services provided**

Service type	No. of Clients
Disease Diagnosis	625
Feed formulation	116
Feed analysis	390
Soil analysis	14
Quality testing	65
Meat identification	22
Advisory	
Disease control	29
Dairy technology	7
Livestock management	16
<b>Total</b>	<b>1,284</b>

**5.2. Research Projects**

Twenty six (26) research projects were carried out by the VRI in 2008. The details are given below:

**DIVISION OF ANIMAL BREEDING****1. Strategic Approach to Minimize Losses due To Infertility in Artificially Bred Cattle population in selected areas.**

**Research Team :**  
D r.W.M.S.P.Weerasinghe  
( Chief Grantee )

**Objectives:**

To asses prevalence of infertility in artificially bred cattle populations.

To asses the reasons for infertility in different breeds of cattle.

To asses losses due to infertility.

**2. Incorporating Genes from Indigenous Poultry into a CPRS Brown line to produce a suitable bird for Family Poultry Keeping.**

**Research Team :** D.V. de S. Gamage  
( Chief Grantee )

**Objectives:**

Breeding suitable egg and meat strains to realize maximum potential in the family poultry sector (scavenging sector), by utilizing indigenous chicken and CPRS brown egg lines.

Sustainable conservation of indigenous chicken of Sri Lanka

**DIVISION OF ANIMAL NUTRITION****1.Low milk fat syndrome: Prevention and control**

**Research Team:** Dr.U.L.P.Mangalika  
( Chief Grantee )

**Objectives:**

Asses extent of low fat problem in Mid Country area and to identify the common causes for the low fat content of milk and prevention of the problem.

**2. Comparative study in the determination of solid non fat content of milk in different species by calculation**

**Research Team:** Dr.U.L.P.Mangalika  
( Chief Grantee )

**Objectives:**

Determination of SNF content in milk by different lactometers available in field and to find out the extent of variation in the SNF obtained by gravimetric method

**3. Study of the effect of supplementation of *Amaranthine spp.* on the lactation performance and fatty acid profile of milk of different dairy spp. with economic evaluation.**

**Research Team:** I.K.Leukebandara  
( Chief Grantee )

**Objectives:**

To collect and conserve *Amaranth* germ plasma available in Sri Lanka, Analysis of forage nutritive value of different varieties of *Amaranth*

**3. Study the potentialities of NIR (Near Infrared Spectroscopy) to assess the nutrient status of local forage species**

**Research Team :** G.G.C.Premalal (Chief Grantee), U.R.P. Mangalika , K.K.J.S. De Alwis

**Objectives:**

To calibrate the NIR system for quick determination of crude protein and fiber in green forage samples

**DIVISION OF FARMING SYSTEMS AND ECONOMICS**

**1. Characterizing and economic evaluation of Cattle and Buffalo Farming Systems in the Uva province, in view of obtaining optimum potential from milk production.**

**Research Team:** R.M.Chandrasena  
( Chief Grantee )

**Objectives:**

Characterization of existing dairy farming systems distributed in the Uva province.

Economic evaluation of each dairy farming system in relation to production and marketing.

To assist in identifying support need to be given to farmers in view of reaching production potential of individual farmers thus increasing contribution to Gross domestic Production.

**2. On-farm participatory research on achieving successful forage technologies**

**Research Team :** G.G.C.Premalal (Chief Grantee), Sujatha Premaratne, Charika Bandara

**Objectives:**

Study the feasibility and economy of most appropriate forage technologies

VETERINARY INVESTIGATION  
CENTER

**1. Assessment of Lead and Cadmium in Food Fish, Tilapia sp and Carps in selected Reservoirs.**

**Research Team:** Dr.K.H.D.T.Kasagala  
( Chief Grantee )

**Objectives:**

To measure quantitatively the amount of Lead and Cadmium present in water, aquatic vegetation and tissues of tilapia and carps spp. (using Atomic Absorption Spectroscopic Method)

**2. A Study on Environmental and health Aspects leading to fry mortality of shrimp hatcheries in Sri Lanka.**

**Research Team:** Dr.J.K.H.Uberathna  
( Chief Grantee )

**Objectives:**

To diagnose the hatchery borne bacterial diseases commonly encountered in Sri Lankan shrimp hatcheries.

To assess environmental conditions that could lead to diseases in the shrimp hatchery industry.

To adopt specific methods to control above diseases.

To find out the effective antibiotics in case of medication

DIVISION OF PARASITOLOGY

**1. Selection and Preparation of local strain of *B. bovis* and *B.bigemina* to be used as the Tick Fever Vaccine**

**Research Team:** Dr.M.B.Nawarathna  
( Chief Grantee )

**Objective :** To produce a local vaccine for *Babesiosis* in order to control the disease.

**2. A Study on bovine Theileriosis in Sri Lanka**

**Research Team:** Dr.N.D.Senasinghe  
( Chief Grantee )

**Objectives:**

To identify the clinical picture of *Theileriosis* in Sri Lanka

To determine the prevalence of *Theileriosis* in the country

To identify the species of *Theileria* present

To identify the prevalence of tick infestation in the country

To determine the distribution of tick species in various parts of Sri Lanka

**2. Identifying *Paramphistomum* spp. prevalent in Sri Lanka in order to develop a control measure**

**Research Team:** Dr.S.S.Iddamaldeniya  
( Chief Grantee )

**Objectives:**

To morphologically identify *paramphistomum* spp. present in Sri Lanka

To complete the life cycle in the laboratory and obtain metacercaria for clinical trails..

To design primers to identify *paramphistomum* spp. by a PCR method.

To develop an ELISA method to detect *Paramphistomum* infection in the field.

**DIVISION OF VIROLOGY**

**1. Assessment of bursal damage in IBD affected chicks to formulate an index to diagnose sub clinical IBD in commercial poultry.**

**Research Team:** Dr.H.Kothalawala ( Chief Grantee )

**Objective**

To minimize the chick mortality in pre-brooder stage.

**2. Topo typing of Foot and Mouth Disease in Sri Lanka**

**Research Team:** Dr. B.D.R Wijewardana, ( Chief Grantee ), Dr. M. Somarathna, H.A Wijithasiri RA

**Objectives :**

To establish Topo typing technology for typing isolates of FMD virus

**3.Accreditation with ISO Quality management system for diagnostic and analytical laboratories of the Veterinary**

**Research Institute**

**Research Team:** Dr. B.D.R Wijewardana ( Chief Grantee )

**4.Isolation of Avian Influenza virus from wild and migratory birds of Sri Lanka**

**Research Team:** Dr. S.Ralapanawa ( Chief Grantee )

**Objectives:**

Surveillance of wild and migratory birds with special emphasis to *Anseriformes* (ducks and geese) and *Charidriiformes* (Gulls and Turns) for 3 years.

In the presence of AI, subtyping of the virus using haemagglutination inhibition tests

Development of a PCR technique in AVL to diagnose avian influenza type A and AI subtypes

**5. Isolation of field IBD virus and compare the compatibility to available vaccines**

**Research Team:** Dr.J.M.K.G.K.Jayasundara ( Chief Grantee)

**Objectives :**

Isolation of field IBD virus Establishment of primary cell cultures at virology lab.

To find out the capability of field virus strain to available vaccine strain



**DIVISION OF BACTERIOLOGY**

**1. Effect of Salmonella vaccine on whole blood agglutination test**

**Research Team:** Dr.G.A.Gunawardana  
( Chief Grantee)

**Objective:**

To measure effect of *S. pullorum* and *S. gallinarum* on vaccinated birds

**2. Control of Salmonellosis in poultry breeder farms**

**Research Team:** Dr.G.A.Gunawardana  
( Chief Grantee)

**Objective:**

Production of salmonella pullorum antigen

**3. Study about Salmonella in Broiler breeder flock**

**Research Team:** Dr.M.A.R.Priyantha  
( Chief Grantee)

**Objective:**

To study the effect of antibiotic treatment against WBAT reading and measure pullorum antigen and commercial products

**4. Evaluation of Three different HS vaccines**

**Research Team:** Dr. M.A.R.Priyantha  
( Chief Grantee)

**Objective:**

To improve the shelf life of the vaccine

**5. Evaluation for TB status in cattle in Sri Lanka**

**Research Team** Dr.G.A.Gunawardana  
( Chief Grantee)

**Objective:**

To evaluate TB in cattle

**2. Improvement of grassland through community participation in Lunugamvehera veterinary range**

**Research Team :** Mr. G.G.C.Premalal  
(Chief Grantee), W.A.K.Karunatilake,  
Charika Bandara

**Objectives:**

Bringing together of all the possible technologies for grassland development under local conditions in one of a selected grassland at Lunugamvehera region.

**5.3 . Research Publications -2008**

Details of research publications are stated in *Annex V*

## 6. HUMAN RESOURCE DEVELOPMENT DIVISION

The Human Resource Development Division (HRD) is one of the major divisions of the Department. The main functions entrusted to the division are Educational and Manpower Development, Training and Technology Transfer, and Information and Publicity activities for which the National Department of Animal Production Health (DAPH) is responsible. The activities of the division of the HRD could be broadly classified into four (04) programs as follows:

- Training and Technology Transfer
- Education and Manpower Development
- Information and Publicity
- Entrepreneur Development and Self-Employment Support Service

### 6.1. Staff and Units

The HRD division consisted of 93 staff in the year 2008. Apart from the Head Quarters at Peradeniya, the HRD Division administers following four (04) units.

- Institute of Continuing Education (ICEAPH), Gannoruwa
- Sri Lanka School of Animal Husbandry (SLSAH), Karandagolla
- Animal Husbandry Training Centre (AHTC), Seppukulama
- The Department Library, Gannoruwa

### 6.2. Training and Transfer of Technology

Training programs have been used as the main tool for transfer of technology. Most of the training was conducted at the ICEAPH and some were conducted at other institutes. During the year a total of 2,499 personnel have been trained.

#### a. Key Training Areas

In the case of Department officers, training programs were planned in consultation with the relevant target groups and their supervising officials in both National and Provincial DAPH. Following subjects have been emphasized mainly through these training courses.

- a) Update on the Livestock Industry and Animal Husbandry
- b) Development of Managerial Capabilities of officers
- c) Motivation training for clerical and minor staff
- d) Training of Trainers
- e) Computer application
- f) HPAI Preparedness

#### 6.2.1. Training Conducted at ICEAPH

The Institute of Continuing Education (ICEAPH) strives to conduct year round training programs, workshops, seminars to upgrade the knowledge and improve the skills of officers of this Department

and other personnel who are involved in the livestock sector activities.

#### a. Training Programs

Physical achievement on the programme conducted at the ICEAPH during the year 2008 is as follows,:

Item	Target	Achievement
Number of Training Programs	63	59
Number of Trainee participants	1545	1370
Number of training man days	1795	2499

Training programs conducted can be classified according to disciplines and are given in *Table 6.1* with number of programs conducted under each category

**Tables 6.1 Classification and training Programme Conducted at ICEAPH**

Discipline	No.of Programs	No.of Participants	No. of Man days
Dairy Sector	26	708	1074
Poultry Sector*	37	1160	1160
Development of Managerial Capabilities	15	534	746
Computer Skills Development**	10	149	320
General Animal Husbandry	17	541	839
Internship Training Programmes	1	36	36
Induction Training Programmes for Newly Recruited LDOO and RAA	2	48	240
Other Programs	42	1086	1118
<b>Total</b>	<b>150</b>	<b>4262</b>	<b>5530</b>

\*This includes training programmes conducted on Highly Pathogenic Avian Influenza (HPAI), 35 training programmes on HPAI and related fields were conducted for 1160 officers and poultry entrepreneurs.

\*\* Resources of E - Learning was Centrally utilized for the computer training programmes conducted by the ICEAPH.

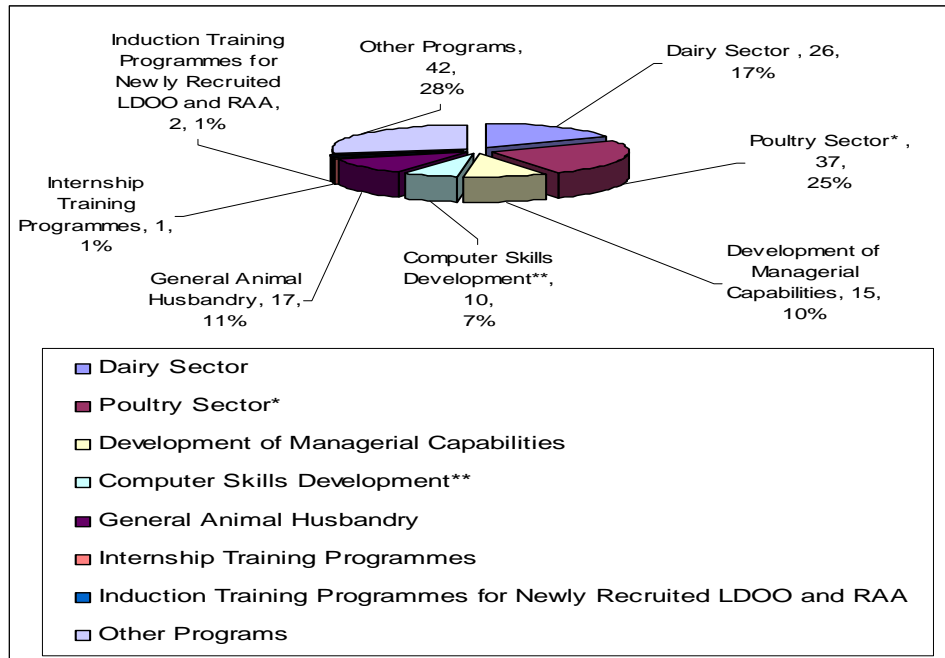


Figure 6.1. Discipline-wise Classification of Training Programs -2008

**b. Awareness Programme on HPAI**

Thirty (30) training/awareness programmes on HPAI were carried out for Veterinary Surgeons, Livestock Development Officers/Livestock Development Instructors, Supporting staff of the DAPH, and farmers as follows.

Programme Category	No of Programmes
Refresher Training Programme on HPAI	2
HPAI Table Top Exercise	1
HPAI Awareness Programme on Avian Influenza for LDII	2
Awareness Programme on Avian Influenza for VSS	1
Awareness Programme on Avian Influenza for Farmers	1
HPAI Field Training	7
Awareness Programme on HPAI for Poultry Industry Stake Holders	15
<b>Total</b>	<b>30</b>

A Total of 880 participants (APH Officers 172, Farmers 814, Livestock Development Instructors 31, others 33) were taken part in the training programmes.

**c. Trainee Composition**

Composition of trainees participated from National Department, Provincial Departments and other institutions are shown below:

Category	Number
AP&H Officers	1,400
LDOO & RAA	468
Development Officers	118
Management Assistants & Other Staff	336
Agricultural Teachers	22
Veterinary Undergraduates	36
Farmers	978
Others	904
<b>Total</b>	<b>4262</b>

**d. IT and Computer Applications Training**

A special Information Technology Training Programme was conducted in

collaboration of Korean Internet Volunteers in order to improve the IT skills of the AP&H officers. Four (4) Programs were conducted and 51 officers participated in this.

**e. Collaboration work with Project Wari Pubuduwa - NCP & NWP**

Several Programs were designed to fulfill the requirement of officer's work with Wari Pubuduwa activities in NCP, NWP, and conducted as following:

Two days practical program on Herd fertility for Veterinary Surgeons in NWP in collaboration with NLDB.

Two days program on Animal Feed milling for Veterinarians and Extension Officers.

**f. Dairy Management Program with Israel Expertise**

Two (02) training programs were conducted in collaboration with NLDB. Managers, Assistant managers of the NLDB farms and DAPH officers were participated. Altogether 51 officers were participated in these 2 programmes

**g. Induction Training for newly recruited Livestock Development Officers and Research Assistants.**

Two (02) weeks training programs designed to introduce new recruits into a new working environment and its requirements. 13 Livestock Development Officers and 18 Research Assistants were participated the programme

### h. Training Programs for Small Scale Processors.

Several training programs were designed to strengthen the capacity of the small scale processors.

Two (02) Programs for Small scale feed processors were conducted. A total of 29 were trained.

### i. Awareness Program on Dairy Development for Agriculture Research and Development Assistants.

Three (03) days special program on Dairy Development was designed and conducted for the Agriculture Research and Development Assistants in order to strengthen the involvement of Dairy Development activities. Two (02) such programs were conducted and 60 officers participated

### 6.2.2. Training at Other Institutes

Apart from ICEAPH, facilities at AHTC Seppukulama, has also been used for training. 25 training programs have been conducted at AHTC, Seppukulama, during the year and 646 trainees have participated in these courses.

Category of Participants	No of programs	No of Trainees
Farmers	08	106
Government Officers	06	309
Unemployed youths	08	169
Others	03	62
<b>Total</b>	<b>25</b>	<b>646</b>

### a. Training Farm

The Training Farm at Seppukulama continued functioning during the year. With curtailing of funds, development work of the farm had to restrict. However routine production activities were continued. The total value of sales From the Farm amounted to Rs. 1,103,203.00 (Table 6.2)

During the year, 02 acres of CO<sub>3</sub> and 1.5 acres of *Brachiaria brizantha* pasture lands were newly established.

Table 6.2. Sale of Animals and Animal Products -Seeppukulama

Product	Quantity	Revenue (Rs.)
Milk	10281liters	298,149.00
Eggs	13005	88,214.50
Breedable animals		
Cattle and Buffaloes	07	67,800.00
Goats	06	30,630.00
Pigs		187,080.00
Sheep	16	87,635.00
Rabbits	01	525.00
Day old chicks	600	90,386.00
Culled animals		
Cattle and Buffaloes	03	54,320.00
Pigs	04	184,616.00
Chicken		13,847.50
<b>Total Revenue</b>		<b>1,103,203.00</b>

### 6.2.3. Co ordination with other training Institutes

ICEAPH coordinated training programmes for department officers in other government institutes mainly at Sri Lanka Institute of Development Administration (SLIDA) and Public Service Training Institute (PSTI). 32 DAPH officers of various categories had undergone such training programmes.

### 6. 2.4. Veterinary Internship Training

This Division is responsible for implementing the Internship Training for Veterinary Graduates. Two (02) internship programs Commenced during the year 2008. The details of the Internship Training Programs conducted are as follows.

The first program Commenced on 15<sup>th</sup> July 2008 with 53 Veterinary graduates and the

training is expected to complete on 14<sup>th</sup> January 2009.

The second program Commenced on 20<sup>th</sup> October 2008 with 38 Veterinary graduates and the training will be completed on 19<sup>th</sup> April 2009.

### 6.2.5. Foreign Training opportunities

Division continued procuring foreign fellowships. During the year, 45 officers have undergone foreign training on various disciplines and detailed information on these fellowships is given in *Annex VI*.

### 6.2.6. Support for Post Graduate Training

Division continued to support post graduate fellowships in local universities. During the year 17 AP&H Officers have undergone MVSc training and 07 officers have undergone MSc training on various

disciplines. Further to this 21 officers of the Department have been supported to follow short term training programmes in local higher education institutes.

**6.3. Educational Programmes**

**6.3.1. Sri Lanka School of Animal Husbandry, Karandgolla**

Sri Lanka School of Animal Husbandry, Karandgolla continued conducting Diploma programme in animal Husbandry.

**Academic Activities**

There were 68 students in 2007/09 academic year. They continued to follow the Animal Husbandry Diploma course in three mediums. Composition of Diploma students of 2007/09 academic year according to medium is as follows

<b>Medium</b>	<b>Number</b>
Sinhala	47
Tamil	07
English	14

Twenty Five (25) Livestock Development Instructors recruited in North and East Provinces were registered to follow the Diploma in Animal Husbandry during 2008/10 academic year. However out of this number, only 17 Students remained / continued by end 2008.

**a. Academic activities of SLSAH, Karandagolla were held as follows.**

First Year Examination in Diploma in Animal Husbandry (academic year 2007/09)

Commencement of 1<sup>st</sup> term of the second year (academic year 2007/09)

Commencement of 1<sup>st</sup> term of the first year (academic year 2008/10)

**b. Infrastructure Development**

Construction work on cattle shed, Bio Gas unit, and Garage was completed during the year 2008. Construction work on new administrative building was continued during the year and would be ready to use in 2009.

**c. Training Farm**

The Training Farm at Karandagolla continued function with following units: Dairy, Buffalo, Goat, Rabbit, Quail, Poultry, Horticulture and Export Agricultural Crop Unit

Production and revenue of above units were as follows for the year 2008.

<b>Product</b>	<b>Revenue (Rs)</b>
Milk	120831.65
Eggs (Quils)	22690.00
Breedable and culled animals	51350.00
Chicken	62592.48
Vegetables & Fruits	13567.50
Grass cuttings	1000.00
<b>Total Revenue</b>	<b>272031.63</b>



#### 6.4. Examinations

The HRD division is responsible for conducting examinations on behalf of the

Department. Details of examinations conducted during the year 2008 are as follows. (Table 6.3)

**Table 6.3 Details of examinations conducted in 2008**

Examination	No. of Candidates
Final Examination (Repeat) in Diploma in Animal Husbandry	04
Recruitment examination for Livestock Development Officers	56
Recruitment examination for Research Assistants	51
Recruitment examination (Internal) for Research Assistants	01
National Language Oral Exam for AP&H Officers (July)	130
First Year Repeat Examination in Diploma in Animal Husbandry	53
National Language Oral Exam for AP&H Officers (December)	62

Results of Departmental exams have been released in 2008 as follows

Examination	No. of Candidates
National Language Oral Exam for AP&H Officers (December-2007)	42
Final Examination (Repeat) in Diploma in Animal Husbandry	04
Recruitment examination for Livestock Development Officers	55
Recruitment examination for Research Assistants	55
Recruitment examination (Internal) for Research Assistants	01
First Efficiency Bar Examination (2006) for the AP&H Officers	182
Second Efficiency Bar Examination (2006) for the AP&H Officers	148
National Language Oral Exam for AP&H Officers (July)	130

#### 6.5. Information and Publicity

Information unit of the division carried out Information, Publicity and Propaganda and Mass Media activities. This unit gave priority for promotion of income generating activities with the intention of assisting farmers and potential farmers engaged in small-scale animal husbandry and related activities. Print Media and Mass Media were used mainly for above purposes.

Printed material was mainly used to transfer technological information to users. There was a continued demand for leaflets and booklets published by the Department.

##### 6.5.1 Print Media Activities

**a. Publications**

According to the users need, the division continued printing material for dissemination of information. Materials printed during the year are given in (*Annex VII*)

Information unit undertook the responsibility of printing urgently needed documents such as reports, printed forms, and letters of the Department. New publications released and free issues under this local print during the year are as follows. (*Table 6.4*)

**b. Printing of Other Documents****Table 6.4 Printing (Local) of Documents -2008**

<i>Title</i>	<i>Type</i>	<i>Medium</i>	<i>Total No. of copies</i>
New Publications	Leaflet	Sinhala	2000
Guideline to Dairy Management	Leaflet	Sinhala	2000
Suitable Grasses and Legumes for Cattle	Invitation Cards	Sinhala/Tamil	250
Invitation Cards (“ <i>Kiri Ithiruma</i> ”)	Invitation Cards	Sinhala/Tamil	250
Invitation Cards (Opening of VIC at Hambanthota)	Invitation Cards	Sinhala/Tamil	250
Certificates (for Animal Husbandry Training Course)	Certificates	Sinhala	100
Invitation Cards (Opening of VIC at Kegalle)	Invitation Cards	Sinhala/Tamil	250
Invitation Cards (Opening of VIC at Trincomalee)	Invitation Cards	Sinhala/Tamil	250
Questionnaires on Farm Registration Programme	Questionnaire	Sinhala	88000
Questionnaires on Farm Registration Programme	Questionnaire	Tamil	15000
HCR 01 (Heifer Calf Scheme)	Leaflet	Sinhala	15000
HCR 02 (Heifer Calf Scheme)	Questionnaire	Sinhala	16000
HCR 03(Heifer Calf Scheme)	Booklet	Sinhala	5000
Invitation Cards (Opening of Feed Mill)	Invitation Cards	Sinhala/Tamil	130
Artificial Insemination of Pigs	Leaflet	Sinhala	1000
Services rendered by the DAPH	Leaflet	Sinhala	10000

Contd....

		<b>Medium</b>	<b>Total No of Copies</b>
Invitation Cards (Opening of Vet Hospital)	Invitation Cards	Sinhala/Tamil	250
Invitation Cards (Opening of Livestock Exhibition)	Invitation Cards	Sinhala/Tamil	300
Livestock Exhibition	Leaflet	Sinhala	2500
Livestock Exhibition	Leaflet	Tamil	2500
Diary Survey Forms	Questionnaire	Sinhala	150
<b>Total</b>			<b>161,100</b>

**Reprints**

Application forms for self employment training courses	Form	Sinhala	4000
Self Employment Training Courses	Leaflet	Sinhala	4500
	Letter Heads	Sinhala/Tamil	1600
Department Letter Heads			
Suitable Grasses for Cattle	Leaflet	Sinhala	1000
Avian Influenza	Circular	English	250

**c. Sale of Publications**

Sales Centre of the Department has sold 33,651 booklets / Leaflets, 286 Photographs (10x12 size), 328 post card size Photographs and 63 CD's during the year and has earned a revenue of Rs.5,03,688.00.

During the year, 55 radio programmes were broadcasted in various radio stations as follows:

**6.5.2. Electronic Media Activities**

The two major programs carried out under the Electronic Media Activities were Radio Broadcasting and TV telecasting

**a. Radio Broadcasting Programmes**

The division continued broadcasting number of programs in various channels.

<b>Programme</b>	<b>Radio Stations</b>	<b>Number</b>
"Sathwarawaya"	National Service (SLBC)	46
Others	Regional Services	09

<b>Programme</b>	<b>Channel</b>	<b>Number</b>
Arunella	ITN	24
Nugasewana	Rupavahini	12

**b. TV Programmes**

As TV plays a dominant role in mass media nowadays, the division continued telecasting TV programmes. During the year, 36 TV programmes were telecasted in channels of Independent Television Network (ITN) and National Rupavahini.

**c. News Releases**

Altogether 44 news items (target-20) written on Animal Husbandry related subjects have been broadcasted or telecasted.

**d. Production of Audio Visual Material**

This unit provides video production and duplication services on request. During the year 49 video films (target- 60) and 60 VCD's were duplicated and issued. The

demand was mainly from NGOs involved in Livestock Development activities and from Schools.

**e. Production of VCD'S**

Documentary programme on Avian Influenza in both DVD and VCD format have been produced and the production of DVD and VCD on milk products was continued during the year and would be ready to use in 2009.

**6.5.3. Exhibitions**

The HRD Division conducts exhibitions at National and Regional level. Information about exhibitions conducted during the year 2008 is given in. *Table 6.5*

**Table 6.5 Exhibitions conducted in 2008**

Category	Venue	No. of programs	No of Days
National Level	Colombo	01	03
	Colombo	01	06
	Kuliyapitiya	01	05
	Puttlum	01	03
	Peradeniya	01	05
	Galle	01	05
Total		06	27

The division supports Provincial Departments of Animal Production and Health as well to conduct exhibitions by providing exhibits and department publications. During the year 04 exhibitions arranged by the provincial departments were supported.

**6.6. Other Activities****6.6.1 Supply of Internet Facility**

Forty (40) computers in the head office, ICEAPH and Library and 14 computers in the E - Learning centre were continued to provide with Internet facility during the year to obtain latest information on animal husbandry and related fields.

**6.6.2 Entrepreneurship Development and Self- Employment support Service**

The Self Employment Support Training Scheme is one of the important programmes carried out by the Division. Farmers and unemployed youth who wish to be engaged in Animal Husbandry on Self-employment basis, directly benefits through this programme. For unemployed youth 12 new self-employment programs and for Entrepreneurs 08 follow-up programs were targeted. There were 350 trainees targeted for the year under this. Details of the training conducted during the year are given below.

**a. Basic Training for Self Employment**

Topic	Venue	No. of Programmes	No. of Participants
Small Scale Milk Processing	Seppukulama	07	169
Dairy Cattle Management	Seppukulama	01	10
Compost Biogas Production	Seppukulama	01	28
Total		09	207

**b. Follow up Technical Training Programmes**

Topic	Venue	No. of Programmes	No. of Participants
Milk Processing	ICEAPH/Gannoruwa	02	99
Poultry Management	ICEAPH/Gannoruwa	01	26
Small Scale Business Management	ICEAPH/Gannoruwa	02	50
Total		05	175

Under the Entrepreneur Development and Self- Employment support Service, Visits were organized 74 farms and processing centers during the year to strengthen their capabilities as

entrepreneurs. 11 business promotion programmes were undertaken to motivate the young entrepreneurs to enter into the business ventures of animal husbandry and related fields during the year 2008.

To catering the needs of young entrepreneurs, the division participated in nine (09) job markets and exhibitions organized by various organizations and

institutes during the year. 1395 individuals were also provided with technical advice and information through letters and telephone calls.



**Figure 6.2. Self Employment Training**

### 6.7. The Department Library

The Department Library continued functioning under this division. Following members served as the members of the library management and development Committee during the year 2008.

Dr. K. M. T. Kendaragama (Chairman)  
 Mr. G. G. C. Premalal (RO)  
 Dr. Susil de Silva (VRO)  
 Dr. K. P. G. K Badralatha (VS)  
 Ms. V. S. Wijsekara (Librarian)  
 Mr. L. Kumarasiri (Assistant Librarian)

#### Membership

The Library issues membership only to the DAPH officers and there were altogether 230 members during the year.

#### Accession

During the year library received journals and books from voted funds. (Allocation Rs. 3,000,000.00).

The following foreign journal titles were purchased through the agent SWETS.

- Animal science
- Asian Australian journal of Animal Science
- Veterinary Record and In Practice
- Research in Veterinary Science
- Tropical Animal Health and Production
- Buffalo Journal
- Indian Journal of Poultry Science
- News Week
- Times
- National Geography

In addition to the foreign journals 200 books and Central Bank Reports were also purchased during the year

### **Literature searches**

Computer based Literature searches were carried out by the library on user request using vet CD and beast CDs and other CDs related to the Animal Science. During the year a large number of literature searches were done at user request through Internets. The librarian was appointed again as a member of AGRINET advisory committee in 2008. During the year she has participated in several AGRINET meetings, user seminars which were conducted by the CARP and the national science foundation. Several awareness programmes were also conducted to educate farmers on the way of collecting information from Institute library

During the year 30 content pages of Journal titles and 100 articles were received by the library through AGRINET Libraries. Number of reprints from books and Journals from universities and Institutional Libraries were also requested for our readers.

### **E - Learning Center**

The E - Learning Center is attached to the library. There are 14 computers available at this centre. During the year number of computer training programmes were conducted by the ICEAPH by using the resources of E - Learning Centre for the staff of the department. (Particulars of computer training programmes were conducted in E - Learning Center were reported under the ICEAPH training) During the year 200 officers have visited the E - Learning Center to use internet facilities.

### **6.8. Finance and Expenditure.**

The Division functions on the funds provided from the consolidated fund, through 292 - 02 - 03 vote. The total allocation for the year was Rs 63,615,000.00 out of which Rs 11,040,000.00 was for recurrent expenses and the balance Rs 52,575,000.00 was for development work under capital expenditure.

Though the total allocated amount Capital budget is of Rs 52,575,000.00, the actual expenditure recorded had been 51.77% of the allocation.

## 7. LIVESTOCK PLANNING AND ECONOMICS DIVISION

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 maintains the *Databank* of the DAPH to collect and compile livestock statistics and the *Data Processing Unit* for data entry and analysis.

Main responsibilities of the division are as follows:

- Identification and formulation of livestock development programmes and projects;
- Monitoring , evaluation and economic analysis of livestock development programmes and projects of the department
- Conduct economics studies to assess feasibility and viability of livestock development programmes and projects;
- Periodic review of livestock industry and identify issues that need to be addressed for policy formulation;
- Management of livestock data base at national level;
- Co-ordinate livestock development programmes with provincial DAPH and other state institutions and organizations;
- Human resource development of the division; and
- Staff management, financial management and general maintenance of the division.

### 7.1. Identification and Designing of Livestock Development Programmes and projects.

One of the main responsibilities of the LPE division is identification and formulation of livestock development projects and forwarding to funding agencies. Funding could either be through the National Budget or Foreign Donor Agencies.

#### 7.1.1. Projects for the National Budget-2009

Four (04) new projects were formulated and cabinet papers prepared in consultation with respective divisions/officers. These projects have been furnished to the Department of National Planning for consideration and, to be forwarded to the Treasury.

Details of those projects are as follows:

- Establishment of a National Bio-safety Laboratory
- Promotion of local production of animal feeds.
- Strengthening of quality assurance of locally produced vaccines and biological products.
- Rural economic development through organized backyard poultry production systems.

However, new project proposals for the year 2009 were not accommodated by the Treasury. Furthermore, project proposals for 15 on-going projects of the DAPH for continuation for coming years were reviewed; forwarded and necessary



approvals have been obtained. Details are in *Annex VIII*

## 7.2. Monitoring, Evaluation and Economic Analysis of Livestock Development Programmes and Projects of the Department.

### 7.2.1 Physical and financial progress review of Departmental programs

#### a. Action plan and the progress

Action plan for physical and financial progress review of the DAPH was prepared for the year 2009. The physical and financial progress was monitored monthly on the thrust area basis and reports were submitted to the Ministry at monthly progress review meetings.

Progress of capital expenditure utilization of the DAPH had been 50% in 2008. This shows somewhat a lower figure when compared with the previous year's progress of 57%. The progress of utilization of recurrent funds was 88 % in 2008, which is similar to the corresponding figure in the year 2007. The details are given in *Section 10*, under the Finance division.

It should be noted that there had been a severe restriction of funds from the Treasury from mid August 2008, which hampered smooth implementation of capital projects in the year.

#### b. DAPH Progress Review Meetings

Physical and financial progresses of departmental programmes are reviewed at progress review meetings represented by respective Directors and relevant officers of divisions. Four (04) such meetings were coordinated by the LPE division during the year.

## c. Mahinda Chinthana Programme

Dairy Sector has been identified as the priority area for development in the livestock sector under the present government policy; *Mahinda Chinthana*. Programmes and activities Implemented by the DAPH pertaining to dairy sector has been included under this and progresses of these programmes were reported to the Ministry to be forwarded to the Ministry of Plan Implementation.

### 7.2.2. Monitoring of Animal Production, Health and Extension activities in Provincial DAPH

Activities carried out by divisional veterinary offices which are functioning under the Provincial DAPH were monitored through the monthly *Master Return* submitted by them. Following information were processed and monitored:

- Dispensary and Field Cases
- Artificial inseminations, Pregnancy
- Diagnosis and calving
- Health Certificates issued
- Distribution of Breeding Material
- Pasture and Fodder establishment
- Immunizations
- Training/field days conducted

Analyses of selected data are given in **Annexe IX**. Data on immunizations and Animal Breeding activities are given under Sections on *Animal Health* and *Animal Breeding* respectively.

The master return was revised in 2008 through series of workshops/discussions, to facilitate efficient and effective data collection and progress monitoring. The revised format will be used from January 2009 onwards.

### 7.3. Economic Studies, Surveys, Pilot Projects.

One of the main functions of the division is to conduct economic studies, surveys, pilot projects to support policy formulation and for future planning pertaining to livestock sector.

#### 7.3.1. Pilot Projects

##### a. Back yard poultry development programme.

The main objective of backyard poultry development project is to support backyard poultry development programmes implemented by the Provincial DAPH through establishment of small-scale hatcheries and Breeder Units at Regional Animal Husbandry Training Centres and provision of necessary inputs. Three (03) hatcheries established during the year 2006 at Borlanda (Uva Province), Undugoda (Sabaragamuwa Province) and Seppukulama (North central Province) were commissioned in 2007. Grower Units were constructed in Undugoda and Borlanda during the year 2008. Production of day-old chicks from three (03) hatcheries was low compared to the previous year due to delay in supply of parent stock from the Central Poultry Research Station, Kundasale.

#### 7.3.2. Surveys/studies

##### a. Survey on breedable cow population and its contribution to the formal milk market in Sri Lanka

Dairying is the priority area for development in the livestock sector. Lack of proper information on the breedable cow population in the country is one of the main constraints for dairy

development. Therefore, a survey was carried out during the period of June to August 2007 with the objective of studying the distribution of breedable cows (milking, none milking, heifers and heifer calves) and their contribution to the formal milk market in different districts of the country. Data collected through seven (07) main (medium to large scale) local milk collecting and processing agencies (*MILCO Pvt. Ltd*, *Nestle Lanka Ltd*, *Kothmale Swiss Cheese Co. Pvt. Ltd*, *Noorani Estates Pvt. Ltd*, *Rich Life Ltd*, *Mahaweli Authority* and *NLDB*) contributing to 90% of the formal milk market in the country.

The survey data was analyzed in 2008. Results revealed that there were 32,568 (nearly 81% of the total number of registered farmers in surveyed companies) and 186,375 female animals in the sample during the period of June-August in year 2007. The average percentage of milch (once calved and having potential of producing milk) animals to total female animals was 68 percent. It was over 70% for the districts of *Nuwara Eliya*, *Kandy*, *Colombo*, *Gampaha*, *Matale*, *Badulla* and *Kegalle*, which is an acceptable value of milch animals in a productive herd. Out of the total female population, around 20% (range: 15% to 26%) of animals were heifer calves and 12% were heifers. Out of the total milch animals, 62% were in milk at that time. This was highest (72%) in *Nuwara Eliya* district and lowest (52%) in *Batticaloa* district. Average marketable surplus per one milking animal per day ranged from 0.5 liters (*Batticaloa*) to 6.3 liters (*Nuwara Eliya*) in June 2007.

##### b. Survey of cost of production in milk

Availability of updated data on the cost of production (COP) of milk is very essential for policy formulation and future planning

pertaining to the dairy sector. Therefore, a survey was conducted by the division in 2008 to estimate the COP of milk under different management systems in the country. A total of 634 farming households were interviewed and data on herd structure, milk production, expenditure, income etc were collected through a structured questionnaire. Data were categorized and analyzed based on management systems such as intensive, semi intensive and extensive.

The results revealed that average herd size was smallest (4.9) in intensive management system and largest (43.4) in extensive system. On an average over 50 % animals were Milch (having potential of milking) out of total herd in all three systems. The ratio of animals in milk to the milch animal population was highest (80%) in intensive system and, lowest (59%) in extensive system. Average milk production per farm per day was 14.2 litres, 12.4 litres, and 13.9 litres in intensive, semi intensive and extensive systems respectively. Cost of production of one litre of milk was Rs.27.80, Rs. 23.92 and Rs 10.86, in intensive, semi

intensive and extensive systems respectively. The labour cost was the largest component in the total cost of production of a litre of milk and that was Rs 17.22 (61 %), Rs 11.13 (46 %) and Rs 6.85 (60 %) for intensive, semi intensive and extensive systems respectively.

### c. Calculation of cost of production of pork under different production systems

A Survey on cost of production of pork was carried out in Central, North- Western and Western provinces during the year. A total of 52 randomly selected swine farms were visited and surveyed during the period of October to November 2008 using a structured questionnaire.

This survey results revealed that the existence of two production types based on feeding systems such as feeding with mixture of swill and agricultural by products and with agricultural by products only. In 99% of surveyed farms feeding system was based on the first category and cost of production of pork for the same category on live weight basis ranged from RS 70.16 /Kg to Rs 139.98/Kg with the average of Rs 113.06/kg.



Figure 7.1: Interviewing a pig farmer to collect data

**d. Feasibility study on the introduction of Swine Artificial insemination in the North Western Province (Puttalam) in Sri Lanka.**

In order to upgrade swine population in Sri Lanka through artificial breeding, the *Swine Semen Production Centre* was established in 2006 at Animal Husbandry Training Centre, Kotadeniyawa through the financial assistance and technical back-up service of the DAPH. This centre, which is managed by the Provincial DAPH, commenced collection of semen and field implementation of the Artificial Insemination (AI) service in 2007. Initially the AI service was confined to the Western Province.

In order to assess the feasibility of its further expansion, a survey was conducted in 2008 in the Puttalam District of the North Western Province (NWP) covering all veterinary divisions (12) in the District. A total of 37 farms were selected to represent each veterinary division and, Information was collected from each farm using a pre-tested questionnaire

The survey results revealed that swine farms in the Puttalam District presently upgrade their stocks through natural service and, there had been no proper upgrading system. Production potential of the existing pig population could be enhanced through a well planned breeding programme. Introduction of artificial insemination using chilled semen would be an ideal choice for such a situation.

Further, swine farmers in the area were well prepared to accept an uninterrupted quality artificial insemination service. Basic infrastructure facilities are available in the

District for introduction of the swine AI programme and the required man power is available in government veterinary offices to perform AI services. However, cold storage facilities for transport of semen should be provided and officers and the farmers in the province need to be trained before introducing the programme.

**7.4. Review of Livestock Industries and Management of Livestock Database at National Level**

Availability of reliable statistics is one of the main prerequisite for any planning, reviewing pertaining to the livestock sector.

**7.4.1. Data Collection, Compilation and Management**

Data collection system has further strengthened during the year 2008. Data on livestock population, production, prices, imports and exports etc were collected and compiled on *Industry-basis* for the last ten (10) years in the form of publications. Initiatives were taken by the division to convert this as an electronic database on livestock statistics. This task would be completed in 2009.

**a. Milk Collection**

Data on the milk collection by leading organizations contributing to formal milk market was collected for the year 2008. Milk collection by 10 key organizations in the year 2008 totalled 117.1 million litres and from this 33.6 % and 21.2 % collected from the Central Province and the North-Western Province respectively. District -wise milk collection for the year 2008 is given in *Annex X*

### b. Import and export of animals/animal products.

Quantities and the value of import of animals, animal products and feed ingredients in 2008 were obtained from Sri Lanka Customs on quarterly basis and analysed. Quantities of Dairy products , Meat / Meat products imported into the country in 2008 totalled 65,376 MT and 2,992 MT costing Rs 30.8 billion and Rs 370.1 million respectively.

### c. Market information

Market information on purchasing price, wholesale price, and retail prices of livestock products were continued to collect for analysis and dissemination of information. Eggs and chicken meat prices were collected weekly from Kandy and Colombo town to study market fluctuation of prices (*Table 7.1*).

**Table 7.1: Average Retail Prices of Eggs and Chicken Meat - Kandy and All-island**

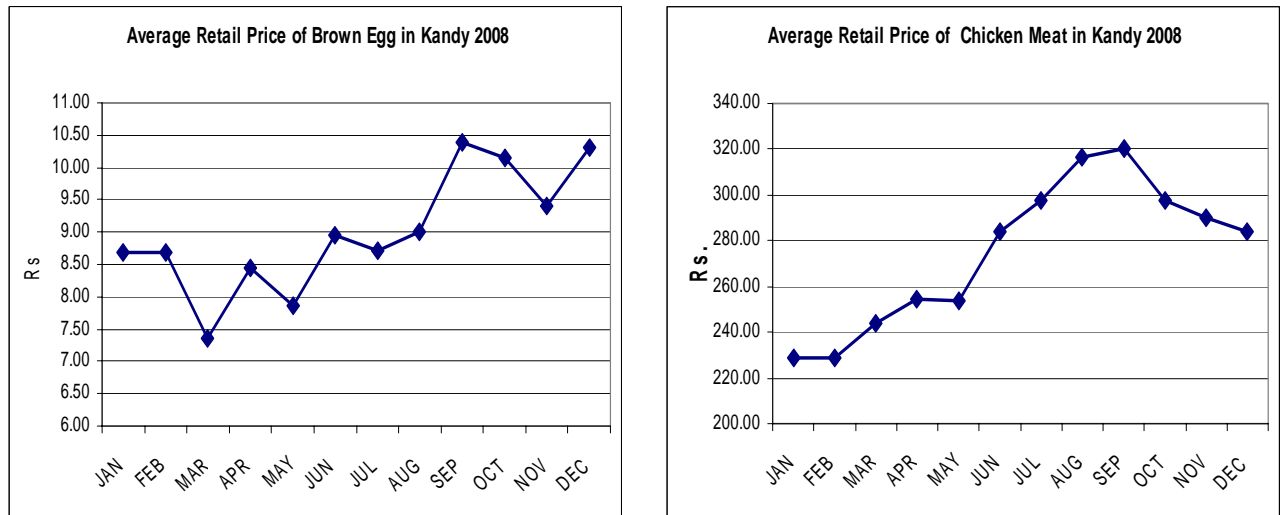
Month	Avg. Retail Prices ( Rs ) Kandy *			Avg. Retail Price (Rs.) All island **		
	Br.Egg	Wh.Egg	Chicken meat	Br.Egg	Wh.Egg	Chicken meat
JAN	8.68	8.41	228.75	8.72	7.94	254.51
FEB	8.68	8.41	228.75	8.45	8.04	257.94
MAR	7.36	7.10	243.75	8.39	8.04	268.39
APR	8.44	7.99	254.38	9.63	9.23	289.21
MAY	7.86	6.94	253.75	9.28	8.00	200.00
JUN	8.95	8.68	283.75	9.62	9.21	321.43
JUL	8.73	8.53	297.50	9.33	8.94	308.13
AUG	9.01	8.69	316.88	9.70	8.69	332.28
SEP	10.40	9.98	320.00	9.78	9.16	299.41
OCT	10.15	9.84	297.50	11.31	10.88	338.79
NOV	9.40	9.10	290.00	10.85	10.31	277.39
DEC	10.30	9.80	284.38	10.85	10.31	316.40
<b>Avg.</b>	<b>9.00</b>	<b>8.62</b>	<b>274.95</b>	<b>9.66</b>	<b>9.06</b>	<b>288.66</b>

Source: \* LPE Division, \*\*HARTI

Initiatives were taken in 2008 to collect prices of meat products/portions and dairy products from leading Super Markets in Kandy Town.

Average retail price of a brown egg in Kandy town (farm shops ) ranged from Rs

7.36 (March) to Rs 10.40 (September) during the year and chicken meat prices varied from Rs 228.75/Kg in January and February to Rs 338.79 /Kg in October (*Figure 7.1*).



**Figure 7.1: Average retail price of brown eggs and chicken meat in Kandy town -2008**

#### d. Data Bank

LPE division maintains the DAPH databank containing all livestock data, statistics and related documents, reports and bulletins which can be used by DAPH and other state officers, University/Diploma students and private entrepreneurs.

The data bank has been utilized by 138 users in 2008 and, 30 new reports, 75 journals and bulletins were received during the year.

#### e. Dissemination of data/statistics

Important livestock statistics and findings of surveys, studies conducted by the division need to be communicated to relevant officers/organizations and stakeholders of the livestock sector. In view of this, a new publication, *Livestock Statistics Bulletin* was compiled and published by the division in 2008. The first issue of this bulletin was released in June, 2008.

#### 7.5. Coordination of Development Programmes with Provincial DAPH and special development projects

A majority of livestock development programmes are jointly implemented by the National and Provincial DAPH and technical back-up services and inputs are mostly provided by the National DAPH.

##### 7.5.1. Provincial Director's Meetings

LPE division organizes and coordinates Provincial Director's meetings to review on-going livestock development programmes and to discuss on administrative and financial matters. Two (02) such meetings were held during the year 2008.

## 7.5.2. Special Livestock Development Projects

### a. Livestock Farm Registration Program

Lack of proper data on the distribution and composition of livestock farms had been a continuous problem in the past.

The livestock farm registration programme was implemented in 2008 to collect statistics on livestock farms maintain at each Divisional Veterinary Range and register livestock farms with respective divisional veterinary offices. This programme was coordinated by the LPE division and implemented by divisional veterinary offices in the Provincial DAPH.

A total of 199, 217 livestock farms (excluding poultry) were registered in 2008 and registration certificates were issued and basic data were collected by government veterinary surgeons. District veterinary surgeons were provided with computer units for data entry/analysis and, collected data were computerized using the user friendly ACCESS data base, which was developed by the LPE division. This task was commenced in late August, 2008.

A comprehensive data base , National/Provincial level on the herd structure, milk production, milk sales, consumption, number of pigs, goat, sheep, etc. is expected to prepare in the year 2009 to facilitate future planning, pertaining to Livestock sector.

### b. Veterinary Service Improvement Program

At present, a majority of livestock development programs planned by the National DAPH are implemented by Provincial DAPH through regional functional units, namely the government veterinary offices. Therefore these offices should have basic facilities to render efficient and effective services to implement development programmes/activities. As an initiative, project to improve services of provincial veterinary offices was commenced in year 2008 as an eight (08) year development plan aiming at improvement of infrastructure facilities of veterinary offices ( *i.e. refurbishment of veterinary offices and quarters, supply of furniture and equipment and improvement of mobility facilities*)

On the recommendation of Provincial Directors, identified needs of 269 veterinary offices in the country were prioritized according to availability of funds. Accordingly, in 2008, it was able to repair 38 veterinary offices in eight (08) provinces and to commence construction of a new veterinary office in the Central province at Pallepola. Further, 110 veterinary offices have been equipped with facilities during the year

## 7.6. Publications

The division compiled following publications/reports during the year 2008.

- Corporate Plan (2008 to 2010)
- Physical and Financial Action Plan 2008- DAPH
- Action Plan 2008- LPE Division

- Annual Report -2007
- Monthly physical and financial Progress Reports of DAPH
- Quarterly Progress Reports for *Mahinda Chinthana Programme*.
- Budget Report DAPH; Progress for 2008 and Plans for 2009
- Action Plan DAPH -2009
- Livestock Development Projects-2009
- Livestock Statistics Bulletin: *Volume I, Issue I*
- Report: Feasibility Study on Swine AI

#### **DAPH Website.**

Official website of the DAPH, [www.daph.gov.lk](http://www.daph.gov.lk) was regularly updated by the division during the year 2008

### **7.7. Management of the Division**

#### **7.7.1. Progress review of divisional programmes/ activities**

Progress of the performance of the division and officers were reviewed regularly at monthly meetings of the LPE division. Eight (08) such meetings were held during the year 2008. Accordingly, programmes were improved and officers actively participated in implementing programmes and activities identified for the year 2008.

#### **7.7.2. Financial Progress**

Total allocation of capital budget for the LPE division was Rs 88.27 million and 56.52 % of this budget was utilized during the year. Payments for services/procurement under development programmes (capital vote) could not be made completely, towards the later part of the year, due to non-availability of funds / budgetary Restrictions. From the allocated amount of Rs 8.25 million of the recurrent budget 84.07 % was utilized during the year.

### **7.8. Capacity Building of Staff**

#### **Training of LPE Staff**

Training needs of the LPE staff were identified at the beginning of the year and facilitated training on the various fields according to their field of working. One officer (LDO) in the LPE division attended a foreign training programme and nine (09) officers were trained locally on various subjects in relation to duties they have been assigned.

### **7.9. Other Activities**

#### **Elephant Tranquilization**

The Elephant Tranquillisation Unit of the DAPH, coordinated by this division, continued to provide services in giving protection for elephants used in religious and other kinds of processions. Veterinarians attached to the DAPH participated in this activity and, during the year 2008, protection was given to 15 processions held in various regions island wide.



## 8. LAWS AND REGULATIONS IMPLEMENTING UNIT

Implementation of statutes made under the provisions of Animal Diseases Act and Animal Feeds Act are handled by the Laws and Regulations Implementing Unit (LRIU), functioning directly under the Director General, DAPH.

Functions of this unit are handled by the staff attached to the Head Office, Peradeniya and, the Animal Quarantine Station (AQS) Colombo.

### 8.1 Animal Quarantine and Inspection Service

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. The Director General, DAPH is empowered to authorize import of live animals, animal products, animal by-products, and therein procedures under the provisions of Animal Diseases Act No. 59 of 1992. In order to facilitate imports, a system of obtaining approval prior to importation is in place. The export of live animals, animal products, and animal by-products has been delegated to the Chief Animal Quarantine Officer (CAQO). The Animal Quarantine Station (AQS) is located at Morgan Road, Colombo

and a sub unit has been established at the Bandaranaike International Airport (BIA), Katunayake.

#### 8.1.1. Quarantine Facilities available at Ports

Quarantine facilities available at AQS, Colombo are as follows:

Type of Animal	No. of Animals that can be quarantined.
Cattle	50
Buffalo	
Goat /Sheep	200
Horses	10
Birds	Large -30 - 50 Small -75 - 100

As limited space is available at the quarantine station, timely reservation of the quarantine space is required by the importers.

#### 8.1.2 Import of Animals, Animal Products and By Products

Due to the global threat of HPAI, import of Aviary birds were temporarily banned in 2004 and the ban continued in 2008 as well. Restriction on import of Day old chicks (DOC) and chicken feathers were lifted during the year from HPAI free countries.

## Poultry

Consignments of DOC are released to importers under the quarantine surveillance agreement and monitored by the weekly reports sent by the importer. As part of the active surveillance programme (HPAI preparedness programme) imports were closely monitored clinically and laboratory testing was done twice within the period of surveillance. (First week from AQS / Katunayake, and fourth week from AQS/Colombo).

Serum samples and cloacal swabs were taken at the point of entry and during the farm inspections. When mortality is above four (04) percent, the relevant farm/s were visited by AQO's immediately to investigate and to rule out the possibility of HPAI infections.

HPAI surveillance programme was carried out on the imported DOC by the AQS, Colombo and Katunayake, and all samples were found to be negative. Details are given below. (Table 8:1)

**Table 8.1: HPAI Surveillance Programme 2008-laboratory test results**

No of farm visits	Total no of samples sent to the laboratory	Test results for HPAI
17 - (AQS,Colombo )	Cloacal swabs-340 Blood samples-340	Negative
35- (AQS,BIA Katunayake)	Cloacal swabs-2000 Blood samples-680	Negative

## Trial batches of parent chicks under quarantine surveillance:

Day old birds imported from a new source flock are treated as a *trial batch* and monitored closely. These batches are kept under quarantine till 16 to 18 weeks. Three (03) new poultry breeder farms registered in year 2008; Newagala Breeder Farm Pvt Ltd (*Broiler Parents*), Air force Farm, Dambulla (*Broiler Parents*) and Southern breeder farm Akuressa (*Broiler Parents*). tested for HPAI, Pullorum disease, Fowl typhoid and Mycoplasmosis. The batch is

monitored for flock performance, vaccine response and to check the freedom from prescribed diseases.

### *Salmonella surveillance program*

Salmonella surveillance programme was carried out on the imported DOC by the AQS, Katunayake, during the year.

A total of 126 samples (dead birds and beddings) taken from 65 consignments of DOC were dispatched for laboratory tests and found to be negative.

## Ornamental Fish

Obtaining approval prior to import of fresh water ornamental live fish was strictly adhered in 2008. Imports were inspected at the port of entry and fish and water samples were sent to VIC,

Welisara to check for parasites and bacterial diseases.

Freedom from OIE listed 06 viral diseases is required for import of fresh water fish into Sri Lanka. Similarly, EU countries required certification in the

accompanied International Veterinary Health Certificate (IVHC) that the Sri Lanka is free from those 06 viral diseases, for export of ornamental fish.

In 2008 steps were taken to develop laboratory facilities at the Veterinary Research Institute (VRI), Gannoruwa to detect viral diseases of fish.

Quarantine of imported live fish consignments at a separate isolated Quarantine area was practiced in 2008. Fresh water Ornamental fish imports from Singapore were restricted due to our import requirement of the HPAI zone/area free certification. Following importation, packing water was safely disposed in the presence of an AQO at the importers premises

#### ***Pet Animals***

Though airlines and embassies were reminded repeatedly not to accept the pets without the import approval from DG/DAPH there were instances in 2008 as well, where pets were imported without the prior approval.

Due to reported occurrence of *Rabies* during quarantine period in UK following importation of a consignment from Sri Lanka, strict measures were taken regarding Anti Rabies vaccination when issuing the export certificate for pets

### **8.1.3 Post import quarantine Activities**

#### **a. Quarantine Holdings:**

Quarantine holdings (other than the AQS) and the period of quarantine

The imported products, by products were fumigated / treated before they enter into the country to minimize the HPAI risk. 73 consignments containing *Bristles, Leather, Feather, Horse hair, Nails, Leather, hide, Fur felt hat bodies* were fumigated with formaldehyde gas.

#### ***Frozen Fish***

The necessity of obtaining prior import approval of DG/DAPH for food fish was introduced in the year 2005 and continued thereafter. Documents were screened, consignments inspected and released to the owner following inspection. Samples were sent to MRI for laboratory testing.

#### ***BSE Clearance***

The ban on import of BSE risk items from BSE positive countries were in force in 2008 as well. Albuminoids, gland and organ secretions, heparin related substances, pharmaceuticals, diagnostic substances, surgical items, blood grouping reagents, food related items, feed related items were screened for BSE. High and medium risk items require prior import approval from DG/DAPH and other items were screened by the CAQO.

for large/zoo animals in 2008 were given in *Annex XI*.

#### **b. Import and quarantine surveillance**

Details of consignments that were under quarantine surveillance in 2008 are in *Annex XII*

### Measures taken at ports of entries to prevent entry of HPAI into Sri Lanka -

- All import of poultry, poultry products were either temporarily suspended / carefully scrutinized before imports;
- A special counter was maintained at BIA/Katunayake, requesting the passengers who have visited the poultry farms to register their names and addresses at the counter;
- All DOC consignments were closely monitored (farms inspected at least twice within the surveillance period apart from the weekly reports); and
- Samples collected and screened for HPAI (at the port, during on-farm quarantine inspections).

### Consignments Detained or / and Destroyed /re-exported in the Year 2008

Consignments of Animals, Animal Products and Animal By-Products that were not allowed to enter into the country due to non-conformity with our import health requirements were either re-exported, detained or destroyed. *Annex XIII* provides details of consignments which were not allowed to enter into the country in 2008.

### 8.1.4. Inspection of Animal Feed Mills:

Under the Animal Feeds Act provisions are made to facilitate import, export, processing, and local sales of animal feeds. As Authorized Officers appointed under the same Act, AQO's participated in inspecting two (02) feed mills for renewal of annual registration and to make one (01) visit following a complaint. Shortcomings in the mills were discussed and advised feed millers and communicated to Registrar - Animal Feeds for future improvement and further action.

### 8.1.5 Exports

International Veterinary Health certificates are issued for export of ornamental fish, meat, etc by the CAQO, following inspection.

#### a. International Veterinary Health Certificates for Meat

Health certificates are issued for export of meat of domestic animal origin such as Bovine, Bubaline, Equine, Ovine, Caprine, Porcine and Avian species. It is mandatory that the processing establishments should at least have the provisional registration (DAPH registration) in order to export meat from Sri Lanka. The said establishments should get the International Standards Certification Hazard Analysis and Critical Control System (HACCP certification) within three (03) years after obtaining the provisional registration.

Meat processing establishments namely, *Keels foods, Ekala, Ceylon Agro Industries, Seeduwa, Bairaha farms Ltd, Pasyala, Maxies and*

Company (Pvt.) Ltd, Wennapuwa , Norfolk Foods, Homagama , New Anthonys Food Products, Hanwella and Cargills Food Products Pvt Ltd have already obtained HACCP certification . Certification for Good Management practices (GMP) has been obtained by Gills Food Products Pvt Ltd Wattala in year 2008. Surveillance audits were carried out twice a year for these establishments

and registrations renewed. D and W foods (Pvt.) Ltd, Pannala has obtained ISO-22000 certification in year 2008.

Details of Health Certificates issued by the CAQO in 2008 for export of Animals and Animal Products and Animal By-Products, are given in Table 8.2

**Table 8.2. : Health Certificates issued for export- 2008**

Item	No. of Health certificates issued
Ornamental fish	2734
Dogs	206
Cats	61
Poultry	11
Zoo animals	02
Goats	02
Rabbit/Rat/Hamsters/G.Pig	31
Animal Products(Meat)	2411
Table eggs	200
Fish & Fish products	248
Animal by-products	207
Prawn/Crabs/Lobsters	368

**b. Exports during Year 2008**

Details of export of Animals, Animal Products and Animal By-Products are given in *Annex XIV*

**Export certification of hide/skin-**

Determination of the stage of process of hide/skin by ITI (Industrial Technology Institute) laboratory was initiated in 2008. Results are given below :

No of samples sent	Stage of process	Remarks
13	Cow crust leather-12 Wet blue-01	Exported Not Exported

## 8.2. Regulatory Activities - Poultry

The Laws and Regulations Implementing Unit (LRIU) of the Department handles regulatory and related activities pertaining to Poultry and Aviary industries.

### Poultry Industry

#### 8.2.1. Establishment of New Poultry Breeding Farms

During the year 2008, three (03) applications were received by the Department to establish new poultry breeding farms.

#### 8.2.2 Registration of Existing Breeding Farms

Registration of 34 poultry breeder farms was renewed during the year and renewal certificates were issued.

#### 8.2.3 Monitoring of Hatcheries / Poultry Breeding Farms

Data pertaining to production and the performance of poultry breeder farms were regularly collected and analyzed. Twenty (20) breeder farms were visited during the year.

Two (02 ) discussions/ meetings were held with them on the control of *Pullorum disease/ Fowl typhoid* in poultry breeding farms. Three (03) progress review meetings were also held at the DAPH, Peradeniya with department officers who are involved in this programme. Accordingly, it was made compulsory for all poultry breeding farms to get their flocks tested against these two diseases. Implementation of the control programme (testing , monitoring and verification of breeder flocks) was entrusted to Veterinary Investigation Officers attached to the

Animal Health division and it was commenced in 2008.

Testing in Grand parent farms was done by the Bacteriology division of the Veterinary Research Institute.

#### 8.2.4 Import of Live Poultry

Grand Parent/ Parent birds are currently being imported from four (04) hatcheries/ breeding farms located in four( 04) countries. During the year, 83 applications received by the Department to import broiler and layer Grand Parent / Parent birds were reviewed and approved.

#### 8.2.5 Import of Poultry and Poultry Products

Two hundred and ninety four (294) applications received by the DAPH were reviewed and recommended for approval to import poultry and poultry products.

#### 8.2.6 Registration of Export Processing Centres.

All processing establishments intending to export meat products are required to register with the DAPH. Application of HACCP is considered as a requirement for such registration. The DAPH has signed a MoU with the Sri Lanka Standards Institution (SLSI) for certification of processing establishment under the HACCP certification scheme.

Officers from the Animal Quarantine Office and the LRIU/HQ have participated in five (05) surveillance audits carried out by the SLSI during 2008.

### 8.2.7 Monitoring Industry Status

Vital statistics on the poultry industry such as, production and prices of poultry and poultry products, import and export, production costs etc. were collected, collated and the computer database was regularly updated during the year. Relevant information was disseminated to private and state sector organizations/ individuals. During the year production forecast for 2008, and twelve (12) monthly bulletins were compiled and disseminated. On the request made by poultry industrialists, all these bulletins/ reports were published in English language. Private sector organizations/ individuals and institutions/ individuals received these bulletins/ reports regularly, in 2008.

### 8.3 Regulatory Activities - Other Livestock and Livestock Products

International trade in animals and animal products may create a certain risk of introducing animal diseases into the country. The Animal Disease Act, No 59, of 1992 stipulates provisions to authorize importation of animals and animal products into the Sri Lanka.

Review and recommendation of requests to import animals and animal products based on the animal disease status of the exporting country, assessment of the disease situation, carrying out risk assessment and preparation of health requirements are the activities carried out in this regard.

#### 8.3.1. Import of animals:

##### a. *Large Animals/other animals*

Eight (08) applications for importation of horses, one (01) application for importation of a buffalo and two (02)

applications for importation of rabbits were received in 2008. The veterinary health requirements for these have been prepared and, 11 permits were issued.

##### b. *Zoo Animals*

During the year 2008, nine (09) permits were issued to the Department of Zoological Gardens for importation of zoo animals.

##### c. *Dogs and Cats*

Three hundred and fourteen (314) permits were issued for the importation of dogs and cats from various countries.

##### d. *Live Fish*

Twenty two (22) permits were issued for the import of live fish from various countries during the year 2008.

### 8.3.2. Import license and BSE control

In order to prevent entry of BSE into Sri Lanka, all animals and animal products excluding poultry and poultry products were brought under the import license in 1996. Global BSE status was continuously studied/ reviewed for this purpose. Under this section 125 no objection letters and permission letters were issued.

### 8.3.3. Import of animal products:

#### a. *Import of meat and meat products*

Seventy four (74) applications were received for importation of beef, lamb, pork, mutton and processed products during the year. These applications were reviewed and permits were issued.

#### b. *Import of other animal products*

During the year, 275 applications were received for importation of other processed products that are come under the Import license. These applications were reviewed and permits were issued.

*c. Import of animal by-products*

Two hundred (200) applications were received and reviewed for importation of fur, bristles, hair, animal skins/hides and finished leather.

*d. Semen/embryo*

Three (03) permits were issued for importation of semen.

#### 8.4. Veterinary Drug Control Authority

Import and use of Veterinary Pharmaceuticals and biological products are controlled by Animal Diseases Act and its regulations in order to safeguard Animal owners and the Livestock Industry. Therefore, Establishment of an effective system is vital to implement the regulations of the pertinent Act.

During the year 2008, six (06) committee meetings of the Veterinary Drug Control Authority (VDCA) were held. 33 new drugs/products were registered during the year. Details are given overleaf:

Product Category	No. Registered
Antimicrobials	09
Anthelmintics	08
Immunobiologicals	07
General medicaments	01
Anti Coccidials	01
Udder infusions	03
Anti Bloat	01
Reagents	01
Disinfectants	02
<b>Total</b>	<b>33</b>

Manufacturing /Re-packing License were issued for eight(08) products such as *C-Tetra, Helmosol, Tylo 200, CanCan Shampoo, Zymer CTC, Square CTC, Coxitril and Spectro ENF* in 2008.

Registrations were renewed by the VDCA during 2008 for 23 registered drugs due to reasons such as change of importer, change of manufacturing country or site.

Fifteen (15) inspections were made to effective and safe use of Veterinary Pharmaceutical and Biological products.

##### 8.4.1. Invoice Approvals

Five hundred and thirty seven (537) invoices were approved by VDCA to import pharmaceuticals and biological products into Sri Lanka during 2008.

##### 8.4.2. User Permit Approvals

Two hundred and six (206) user permits were approved during the year. Details are given as follows:



Product Category	No.
1. Poultry Vaccines (Bacterial & Viral)	: 68
2. Poultry Coccidial vaccines	: 39
3. Hormones	: 11
4. Antimicrobials	: 23
5. Testing Reagents	: 37
6. General Medicaments	: 04
7. Anti Trematodes	: 04
8. Larvicidals	: 02
9. External Paraciticidals	: 02
10. Udder Infusions	: 02
11. Vitamin/Minerals Inj.,	: 10
12. Anti Protozoans	: 04
<b>Total</b>	<b>206</b>

#### 8.4.3. Committee of VDCA

The Honorable Minister of Livestock Development has appointed a New Committee for the VDCA for a period of three (03) years with effective from 01 March 2007.

Members of the VDCA were as follows:

Dr.Saliya Samarakoon  
 Dr.S.N.Kodithuwakku  
 Dr.S.Arulkanthan  
 Dr.S.P.Gunarathna  
 Dr.D.D.N.Silva  
 Mr.W.Pathirana  
 Dr.A.D.N.Chandrasiri

Dr.Mrs.S.N.Kodithuwakku and, Dr.A.D.N.Chandrasiri resigned from their posts and subsequently Dr.R.Wickramasinghe and Dr.Basil Alexander were appointed as Committee Members to VDCA.

#### 8.5. Implementation of Animal Feed Act-2008

Year 2008 was the 10<sup>th</sup> successive year of implementing the Animal Feed Act No.15 of 1986. During the year the activities were mainly concentrated on quality control of registered Approved Animal Feeds through implementation of the provisions of the Animal Feed Act.

Dr. (Mrs.) HMSP Herath DG/DAPH functioned as the Chairman of the Animal Feed Advisory Committee (AFAC).

A new committee consisting of following members was appointed to the AFAC.

1. Mr.WAJ Perera, Managing Director, New Bernard Animal Feeds (Pvt) Ltd
2. Dr.SSE Ranawana, Professor of Livestock and Avian Sciences,
3. Dr.K.Samarasinghe, Senior Lecturer in Animal Science, Faculty of Agriculture
4. Dr.S.S.P.Silva, Veterinary Research officer, VRI

5. Dr.TAC Tiskumara, Registrar Animal Feed functioned as the secretary of the AFAC

### 8.5.1. Regular activities

Sixteen (16) Large, medium and small-scale registered Animal feed manufacturing establishments were in operation during the year.

Two (02) export establishments for manufacture and export feed additives, supplements and premixes were issued Licenses.

#### *a. Renewals*

In accordance with the *Section 5.3* of the Animal Feed Act, renewals of animal feeds registered during the period 1998 to 2007 were carried out in 2008. A total of 772 renewals were made during the year (Imports -515, Manufacture -207).

#### *b. Issue of new licenses*

In continuation of issuing new licenses, six (06) new licenses were issued to animal feed importers and another two (02) licenses were issued to importers of shrimp feed. Accordingly, following AAF numbers were assigned

Import of animal feed 2008 F 001 - 191  
Manufactured feed 2008 M 001-051

#### *e. Collection of Turn over Returns*

One of the main features of 2008 is that there had been a comparative decrease in compound animal feed production and increase in self mixing

In accordance with the *Regulation 11* of the Animal feed Act, turnover returns

were collected from all registered animal feed importers and manufactures. Based on these turn over returns total animal feed production by registered animal feed manufacturers for the year 2008 is given below:

### Production of Animal Feeds-2008

Type of feed	Quantity(MT)
Poultry Feed	357,264.71
Cattle Feed	5,659.36
Pig Feed	1,207.26
Shrimp feed	367.73
Horse feed	131.41
Goat Feed	86.20
Feed Premix	484.20
<b>Total</b>	<b>365,200.87</b>

\* Based on Raw material imports it is estimated that about 30 % of Poultry feed is produced by self mixers who are mainly concentrated in North Western Province and attribute their production mainly to Poultry (layer) feed.

**Breakdown of Poultry Feed Production**

<b>Feed</b>	<b>Quantity (MT)</b>
Chick Starter	8,573.465
Layer Grower	8,101.13
Layer	65,392.05
<b>Total Layer Feed</b>	<b>82,066.65</b>
Broiler Starter	95,823.64
Broiler Finisher	130,745.10
<b>Total Broiler Feed</b>	<b>226,568.74</b>
Broiler Breeder	34,590.12
Layer Breeder	4,366.25
<b>Total Breeder Feed</b>	<b>38,956.36</b>
Total Layer Feed	82,066.65
Total Broiler Feed	226,568.74
Total Breeder Feed	38,956.36
Others	9,672.96
<b>Total Poultry Feed</b>	<b>357,264.71</b>

**d. Usage of raw materials**

Data related to usage of raw materials for the Animal Feed industry were collected from all feed manufacturers and raw material importers; Usage of main raw materials is given in *Annex XV*

**e. Implementation of BSE regulations on Animal feed imports**

As a measure to prevent entry of BSE causative agent to the country all imports of feed ingredients were screened prior to importation:

Bovine origin-112 permits were issued to Meat and Bone Meal

Non bovine origin -1407 invoices for different products were screened.

**f. Prevention of introduction of Highly Pathogenic Avian Influenza (HPAI) virus through imported feed ingredients**

All imports of feed raw materials were screened and monitored and the details are stated below:

Soya Bean Meal	243
Fish Meal	156
Maize	47
Prawn & Fish feed	211
Other	750

**g. Export of Animal feed**

No. of Export establishments 03  
 No. of export certificates issued 191  
 Quantity exported 6512 MT and 10,000  
 Liter

**8.5.2. Other Matters****a. Technology Improvements of animal feed milling**

During the year, a new demonstration feed mill was established and three (03) programs were held to improve the technology of feed milling

**b. Amendments to the Animal Feed Act No.15 of 1986**

Final draft was submitted to the Ministry of Livestock Development and to the Legal draftsman.

**8.5.3. Maize development program**

National Maize Development Program was coordinated during the year. Local maize usage has been doubled in 2008.

From July to October 2008 there was an export ban of maize from India and as a result local maize price in the local market rose up to Rs 36 to Rs 42/Kg. This has

encouraged farmers to cultivate more maize during 2008.

**8.5.4. Melamine contamination in fish meal**

With the rising concerns over melamine contamination in milk foods, fish meal samples imported from China was tested for melamine on suspicion and found to contain unacceptable levels...

**8.5.5. Export Market**

Government policy is to encourage exports. Two (02) new export establishments were registered during the year. A total of 4353 MT of poultry premixes were exported to India

**8.5.6 Quality assurance of Shrimp feeds**

A special program to adopt GMP standard for Shrimp feed was operated jointly with NAQDA officers

**8.5.7 Other**

A serious complain was received during the year in regard to the presence of unacceptable levels of *Mycotoxin* in poultry feed and as an outcome of the investigation, AFAC has decided to fix standards for *Mycotoxins* in Animal Feed.

## 9. ADMINISTRATION DIVISION

### 9.1. Present Cadre Positions of the Department

The present approved cadre positions of divisions (i.e. General Administration, Finance, Human Resource Development, Animal Breeding, Animal Health, Veterinary Research and Livestock Planning and Economics) of the DAPH amounted to 730 and actual cadre position was 586 (*Project I: 159, Project II: 221 and Project III: 206*). Details of cadre positions are given in the *Annex XVI*

### 9.2. Approval from the Management Service

Approval has not been granted by the Management Service Department to create new posts and to fill existing vacancies during the year. The details are as follows:

Two (02) posts of Livestock Officers

Five (05) posts of Veterinary Research Officers

### 9.3. Appointments

Following appointments were made during the year 2008.

- Dr. A.D.N. Chandrasiri as the Acting Director General.
- Dr. B. Sivayoganadan as the Acting Director (Animal Breeding).
- Four (04) Animal Quarantine Officers.
- Appointment letters have been issued to 13 Livestock Development Officers and 15 Research Assistants.
- Five (05) Laboratory Sub Assistants.
- One (01) Sanitary Labourer.
- Two (02) Garden Labourers

- Twenty Four (24) Laboruers on contract basis.

### 9.4. Promotions

Promotions given during the year are as follows:

- Eleven (11) Officers of Class II Grade I of the Sri Lanka Animal Production and Health Service were promoted to Class I.
- Three (03) Officers of Class II/II of the Sri Lanka Animal Production and Health Service were promoted to Class II/I.
- One (01) Officer in the Sri Lanka Animal Production and Health Service was promoted to Class I on supernumerary basis.
- Two (02) Officers in the Management Assistant Service were promoted to Supra Grade and resumed appointment at other institutes.
- Two (02) KKS were promoted.
- Two (02) special Labourers were promoted as Laboratory Assistants.

### 9.5 Transfers (from and to the DAPH)

Details of transfers made to and from the DAPH are given below:

#### *Transfers to the DAPH*

Director (Finance) - Mr.R.M.R.B.Rathnayaka	
Assistant Director (Administration)	
Mr. T.G.Jayasena -	
Assistant Director (Finance)	
Mr. L.A.P.Chithraranjan -	
State Management Assistants	- 08
KKS	- 03
Drivers	- 02

*Transfers from DAPH*

Management Assistants -	06
KKS	- 02
Drivers	- 01

**9.6. Retirements and Resignations**

Details of Staff Members who have retired from the Service in 2008 are as follows:

**Retirements**

Addl. Director General	- 01
Director (Finance)	- 01
Veterinary Surgeon	- 01
Livestock Dev. Officers	- 03
State Mag. Service	- 05
Research Assistant	- 02
Translator	- 01
KKS	- 01
Drivers	- 02
Laboratory Sub Assistant	- 01
Special Labourer	- 01
Labourer	- 07

**Resignations**

Research Assistants	04
---------------------	----

**9.7. Loans**

Loans granted from the Advance Account for Public Officers:

*Receipts*

Allocations for 2008	-Rs. 15,510,000.00
Additional Allocations made by Director (Finance)	-Rs. 1,696,230.00

**Total Received -Rs. 17,206,230.00**

*Payments*

Type of Loan	Amount Paid (Rs)
Distress loans	- 17,170,582.00
Bicycle Loans	- 30,000.00
<b>Total Payments</b>	<b>- 17,200,582.00</b>

**9.8 Insurance Payments**

Sri Lanka Insurance Corporation has paid Rs. 345,929.00 as insurance claims for 35 officers of the Finance Division Insurance Scheme.

## 10. FINANCE DIVISION

The Departmental Head pertaining to the financial activities for the year 2008 was 292. The activities of the department were performed under the program No. 01 Development Program No. 01 and under three (03) projects. Financial allocations and the expenditure summary for the year 2008 is given in *Annex XVII*.

A sum of Rs 270 million for the recurrent expenditure and Rs 485 million for the capital expenditure was received by the Department for the year 2008, totaling Rs. 755 million.

### 10.1. Allocations

#### 10.1.1. 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.)	570,070,000	_____	270,070,000	237,303,263	88
Capital (Rs.)	485,225,000	_____	485,225,000	243,389,783	50
<b>Total (Rs.)</b>	<b>755,295,000</b>	<b>_____</b>	<b>755,295,000</b>	<b>480,693,046</b>	<b>64</b>

#### 10.1.2. Allocations received from other Ministries and Departments

Vote	Allocation (Rs)	Expenditure (Rs)	Percentage of the expenditure
140-2-3-11-2502	50,000,000	31,050	0.06
140-02-03-04-2502	70,000	70,000	100
140-1-1-0-2102	99,000	99,000	100
121-1-3-2401	74,755	40,858	55

### 10.2. Public Servants' Advance Account "B"

	<b>Limits of the Annual Estimates</b>		<b>Actual Value</b>
Balance carried forward			72,246,374.01
Maximum debit limit	27,000,000	Debits affecting the limits	26,338,359.01
Minimum credit limit	9,500,000	Debits not affecting the Limits	1,930,874.00
Maximum limit of the debit balance	90,000,000	Credits affecting the limits	17,741,386.34
		Credits not affecting the Limits	3,783,821.00
		Balance brought down	77,990,699.68

### 10.3. General Deposit Account

The balance of the General deposit account of the Department as at 31.12.2008 was Rs.6,759,329.52/=.

It was prepared as follows :

6000/0000/00/0003/0208/000 - 6,759,329.52

### 10.4 Allocations received for special research projects in the VRI

#### CARP Project:

<b>Amount Received (Rs)</b>	<b>Expenditure (Rs)</b>	<b>Balance (Rs)</b>
515,000.00	270,000.00	224,700.00



## 10.5 Departmental Income

The income received by the Department for the year 2008 is given in *Table 10.1*:

**Table10.1: Departmental income -2008**

Income Subject No.	Particulars of the Income	Total income Received (Rs)
2002.10.01	House Rent	3,682,738.86
2003.20.02	Interest for Loans	3,362,308.72
2003.10.00	Sales (Departmental)	22,772,887.10
2003.90.00	Income (Misc.)	2,298,814.99
2004.10.00	W & O.P. Contributions	8,631,989.74
2006.20.00	Sale of Capital Assests	20,790.50

Rs. 447,166,000 million was obtained from the Treasury for the activities of the department and Rs.41,599.444.36 million received as income , miscellaneous revenue and, there was no balance.

## 11. FOREIGN FUNDED PROJECTS

### AVIAN INFLUENZA PREPAREDNESS AND RESPONSE PROJECT

#### 11.1. Introduction.

Sri Lanka Avian Influenza Preparedness and Response Project (AIPRP) was designed with the broader objective to strengthen animal health sector in order to minimize the global threat posed by Highly Pathogenic Avian Influenza (HPAI) and similar communicable diseases.

The animal health component was specifically designed to prepare the "Animal Health Sector" of the country for immediate and rapid response against an animal diseases posing high public health risk such as HPAI. The project had been approved in March 2007 by the World Bank. However, the project was delayed in getting implemented and finally agreement was signed on March 7, 2008 between Democratic Socialist Republic of Sri Lanka and International Development Association (IDA-World Bank) identified as AHITF Grant No TF 091200 CE.

The animal health component of the project comprises five major subcomponents and they are as follows,

1. Strengthening prevention and preparedness planning capacity.
2. Strengthening disease surveillance, diagnostic capacity and virus research.
3. Strengthening control programs and outbreak containment plans.
4. Compensation fund.

5. Surveillance of migratory birds.

The overall responsibility of the project lies with the Ministry of Livestock Development and the project is implemented by the Department of Animal Production and Health through its divisions namely Animal Health, Veterinary Research, Human Resource Development and Provincial Departments while financial activities are performed by the Finance Division. DG/DAPH is the Project Director and a Project Support Cell has been established to assist the Project Director to implement the project.

Dr.T.P.Wijayathilaka was appointed as Project Manager by the Secretary to the Ministry of Livestock Development on April 09, 2008 to assist the Project Director in implementing the project. The project support cell which is headed by the Project Manager composed of five officers including a Project Accountant, Veterinary Surgeon (Technical Coordinator Extension and Training), Office Manager, Development Officer and a Procurement Assistant. All officers attached to the cell including the Manager were discharged duties in addition to their assigned duties by their respective Divisions of the DAPH. The Directorate of the Department serves as the working committee of this project. A technical Committee comprising of Veterinarians and Research officers assist in implementation of this project. Periodical assessment is made by the

steering committee headed by the Secretary of MLD.

### 11.2. Major events occurred after establishing the Project cell:

1. Within the 3<sup>rd</sup> quarter of the year 2008 a series of meetings and workshops were held to develop and finalize action plan and procurement plan pertaining to the implantation of the AIPRP.
2. The action plans and the procurement plans were submitted to the IDA following approval of the Project Steering Committee in the 3<sup>rd</sup> quarter of 2008.
3. On acceptance of plans a sub-ledger account at the Government Treasury was created on June 02, 2008.
4. Funds from IDA received on September 09, 2008 to the Central

Bank of Sri Lanka in lieu of the AIPRP.

The financial progress of the project implementation based on categories as follows:

Goods	Rs 10,563,316.74
Training	Rs 9,610,731.00
Operational	Rs 3,629,356.02
Consultancy services	Rs 57,935.00
Total of	Rs 23,861,339.35

### 11.3. Implementation of Activities.

Progress of implementing of training by the Human Resources Development Division of DAPH as well as Provincial DAPH through the financial support of the project could be indicated as follows.

Stakeholder Category	No of programs	No of man days
Members of Divisional Agriculture Committees	278	7650
Poultry Farmers	737	22110
School Teachers (Agriculture & Science)	240	7200
School children	834	76500

**By the HRD/DAPH**

<b>Stakeholder Category</b>	<b>No of Man Days</b>
Provincial Technical Staff (VS, MOH) of Southern, Western, North Western, North Central, Uva, Central, Sabaragamuwa, Eastern	652
Provincial Technical Staff (LDI, PHI, PHN, HEO) of Southern, Western, North Western, North Central, Uva, Central, Sabaragamuwa, Eastern provinces	1618
DAPH HQ Staff	256
DAPH AP&H Service Staff	24
Buy Back Operators	8
Journalists	30
Sri Lankan Catering Service	37
Members of All Island Poultry Association	35
Members of SLVA	209
<b>Total</b>	<b>2869</b>

Training programs were conducted all the provinces except North and East and the performances reported by the North Central Province by end of 2008 are as follows.

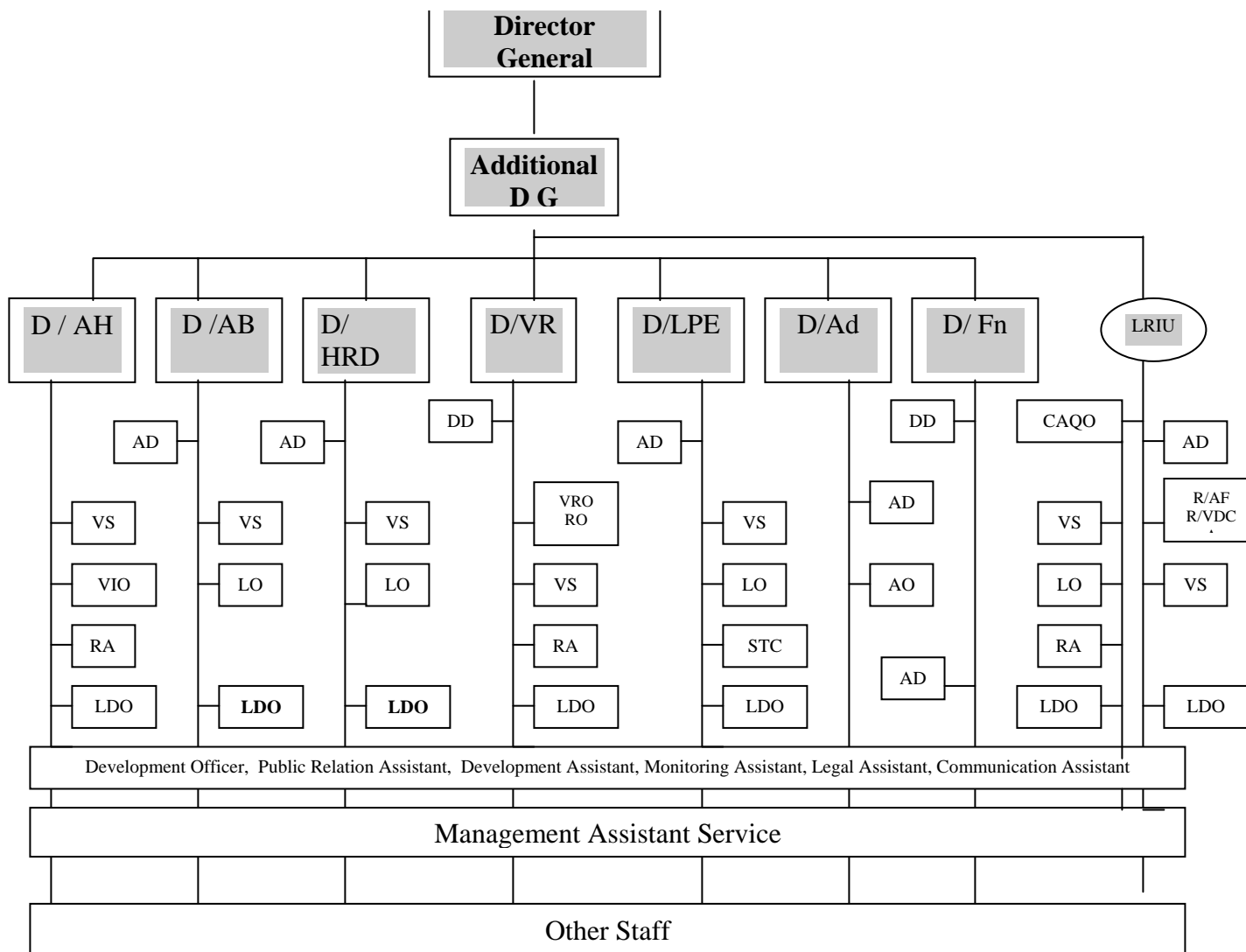
**By Provincial DAPH North Central**

<b>Stakeholder Category</b>	<b>No of Man Days</b>
Officer Training (Divisional Agriculture Committees & parallel)	2276
Farmer Training	793
School Teachers	333
School Children	3049
<b>Total</b>	<b>6451</b>

## ANNEXURES

- Annex I Organization Structure of the DAPH
- Annex II Key data on the Poultry Industry- (2006 - 2007)
- Annex III Activities Performed at Veterinary Investigation Centres
- Annex IV Data on HPAI Surveillance Programme in 2008
- Annex V Research Publications -2008
- Annex VI Names of Officers Attended Overseas Programmes
- Annex VI Details of Booklets and Leaflets Published-2008
- Annex VIII Special Development Projects Continued 2009
- Annex IX Provincial Activities
- Annex X Milk Collection Data
- Annex XI Quarantine Holdings and the Period of Quarantine- 2008
- Annex XII Details of Consignments under Quarantine Surveillance in 2008
- Annex XIII Details of Consignments Detained in 2008
- Annex XIV Export of Animals, Animal Products and Animal By-Products
- Annex- XV Raw Material Usage for the Animal Feeds -2007
- Annex- XVI Present Cadre Position of the Department.
- Annex- XVII Financial Allocations and the Expenditure Summary 2008

Organizational Structure of Department of Animal Production and Health



- |       |  |        |   |
|-------|--|--------|---|
| AD    | : Assistant Director                         | RA     | : Research Assistant                          |
| CAQO  | : Chief Animal Quarantine Officer            | R/AF   | : Registrar Animal Feed                       |
| D/AH  | : Director Animal Health                     | R/VDCA | : Registrar Veterinary Drug Control Authority |
| D/AB  | : Director Animal Breeding                   | RO     | : Research Officer                            |
| D/HRD | : Director Human Resource Development        | STC    | : Statistician                                |
| D/VR  | : Director Veterinary Research               | VIO    | : Veterinary Investigation Officer            |
| D/LPE | : Director Livestock Planning and Economics. | VRO    | : Veterinary Research Officer                 |
| D/ Ad | : Director Administration                    | VS     | : Veterinary Surgeon                          |
| D/ Fn | : Director Finance                           |        |   |
| DD    | : Deputy Director                            |        |   |
| LDO   | : Livestock Development Officer              |        |   |
| LO    | : Livestock Officer                          |        |   |
| LRIU  | : Lows and Regulations Implementation Unit   |        |   |

## Key Data on the Poultry Industry (2007 - 2008)

Annex II

Activity	2007	2008	Growth (%)
1. Procurement of Grand Parent and Parent stock.			
Grand Parent Stock (Broiler)	16,938	14,231	-15.98
Parent Stock			
Broiler	829,967	812,250	-2.13
Layer	82,387	52,772	-35.94
2. Production of Day - Old Chicks(m)			
Broiler	79.91	80.71	1.0
Layer	6.64	5.87	-11.6
3. Production of Poultry Feed (MT)	380,771	464,000	21.85
4. Export of Poultry Products			
Day-old chicks	61,415	34,279	-44.18
Chicken and Chicken Products (MT)	113.36	1161.65	924.7
Table Eggs	758,753	640,071	-15.64
5. Import of Poultry Products			
Chicken and Chicken products (MT)	1,210.37	2,665.14	120.19
Table Eggs	-	-	-
Egg Products (MT)	87.28	202.00	131.43

## Activities Performed at Veterinary Investigation Centres - 2008

Activity	Veterinary Investigation Centres												TOTAL
	Matara	Welisara	Pannala	Polonnaruwa	Peradeniya	Badulla	Chilaw	Ratnapura	Anuradapura	Kegalle	Hambantota	Jaffna	
<b>1. Disease Investigation in the field</b>													
1.1 Field Investigation	17	14	31	27	19	34	18	24	31	6	9	31	261
1.2 Sample collection	144	250	415	133	166	300	42	112	48	35	30	105	1780
1.3 Reporting	13	13	31	38	27	70	8	15	10	13	4	26	268
1.4 Follow-up / further investigation	-	22	3	-	25	10	10	12	13	2	1	23	121
<b>2. Laboratory back up service</b>													
2.1 Post-mortem examinations	-	22	-	-	-	-	29	-	-	-	-	-	51
- Poultry	138	222	1451	96	22	260	279	5	50	18	4	9	2554
- Others	5	15	2	9	4	14	21	1	6	12	4	-	93
2.2 Testing of samples	-	3	374	-	-	113	7	-	-	39	-	10	546
- Bacteriological	55	916	916	39	25	162	-	-	17	19	-	-	2149
- ABST	-	168	132	25	49	39	-	-	-	10	-	2	425
- Parasitological - Blood	42	1573	463	37	12	71	160	192	74	191	13	6	2834
- Dung	452	485	460	707	87	121	171	51	89	59	28	45	2755
- Skin	-	18	0	-	-	-	-	-	-	-	-	-	18
2.3 Testing of milk samples	-	25	-	-	-	65	3	4	-	-	-	-	97
- Animal testing	-	-	268	17	69	-	88	-	33	20	14	36	545
- Samples for testing (CMT)	27	233	830	73	364	169	232	51	117	80	-	32	2208
- ABST	-	68	133	12	86	29	-	-	-	23	-	-	351
- Alcohol test	-	-	7	7	-	-	-	-	-	-	-	-	14
- Milk Analysis (SG/Fat/SNF/TS)	-	-	10	-	-	-	-	-	-	-	-	-	10
2.4 Urine analysis	-	70	11	-	11	3	-	-	-	-	-	-	95
2.5 Laboratory reporting	-	1650	1397	22	170	133	45	33	42	117	-	-	3609
2.6 Forwarding samples to VRI	5	59	27	-	105	18	34	9	37	18	-	-	312
<b>3. Supply of Lab. Inputs to Vet. Office</b>													
3.1 Distilled water (Litter)	18	-	-	6	104	131.5	-	-	1004	14	-	43	1320.5
3.2 CMT reagent (Litter)	3.25	2	500	5	26.5	37.4	-	-	-	19	-	-	593.15
3.3 Udder base	101	-	53	-	60	-	-	10	20	68	-	-	312
3.4 Slides	10	-	96	-	131	10	13	60	7	169	-	-	496
3.5 Teat dip solution (Litter)	34	233.25	1791	91	279.5	38.5	-	-	-	10	-	9.5	2486.25
<b>4. Vaccine production</b>													
4.1 CPD Vaccine (No. of doses)	-	-	-	25	-	2	-	-	6	2	-	300	335
4.2 Wart Vaccine (No. of doses)	32	29	41	28	46	15	3	6	1002	-	-	-	1202
<b>5. Animal Feed Analysis</b>													
5.1 Testing of Field samples	-	-	-	-	-	-	21	-	-	-	-	-	21
5.2 Forwarding to VRI	-	-	-	-	-	-	-	-	4	-	-	-	4
5.3 Feed formulation (poultry)	-	14	-	-	-	-	5	-	-	-	-	-	19
<b>6. Revenue (Rs.)</b>	<b>22,775</b>	<b>171,265</b>	<b>57,147</b>	<b>20,454</b>	<b>20,340</b>	<b>3,665</b>	<b>7,610</b>	<b>5,945</b>	<b>1,150</b>	<b>10,075</b>	<b>1,550</b>	<b>2,000</b>	<b>323,976</b>



## Annex IV

## Details on HPAI Surveillance Programme in 2008

District	Number of Serum Samples			No. of cloacal swabs/ fresh droppings	
	Collected	Tested for AI	Reactors for H5/H7/H9	Collected and Tested	Results for AI
Colombo	120	120	-	150	(--) ve
Gampaha	540	180	-	240	(--) ve
Kalutara	-	-	-		
Kandy	240	60	-	125	(--) ve
Matale	60	60	-	45	(--) ve
Nuwaraeliya	75	30	-		
Galle	180	180	-	26	(--) ve
Matara	120	120	-	50	(--) ve
Hambantota	90	90	-	215	(--) ve
Jaffna	-	-	-	-	-
Kilinochchi	-	-	-	-	-
Mannar	-	-	-	-	-
Vavuniya	-	-	-	-	-
Mullativu	-	-	-	-	-
Batticaloa	180	180	-	78	(--) ve
Ampara	90	90	-	78	(--) ve
Trincomalee	-	-	-	38	(--) ve
Kurunegala	1080	390	-	107	(--) ve
Puttalam	849	96	-	245	(--) ve
Anuradhapura	294	93	-	125	(--) ve
Polonnaruwa	135	120	-	90	(--) ve
Badulla	59	45	-	22	(--) ve
Monaragala	60	-	-	24	(--) ve
Ratnapura	300	105	-	50	(--) ve
Kegalle	195	105	-	21	(--) ve
<b>Sri Lanka</b>	<b>4667</b>	<b>2064</b>	<b>-</b>	<b>1529</b>	<b>(--) ve</b>

## Annex V

### Research Publications (2008)

01. Altangerel, K., Andy, D., Iseki, H., Sivakumar, T., Damdinsuren, B., Yokayama, N., and Igarashi, I., 2007 Evaluation of *Babesia bigemina* 200k Da recombinant antigen in Enzyme-Linked Immunosorbent Assay. *Journal of International Health. Volume 23, Supplement.*
02. De Alwis, K.K.J.S., Wimalasiri, K.M.S., Mangalika, U.L.P., (2008) Comparative study of chemical analysis and near infra red spectrometric data of proximate composition of rice bran. *SLLAS 64<sup>th</sup> Scientific sessions*
03. Dharmasena, M.K.S.I., Mangalika, U.L.P., Piyadigama, B., Serasinghe, R.T., (2008) Reliability of lactometers in the determination of specific gravity of milk. *SLLAS 64<sup>th</sup> Scientific sessions*
04. Fernando, P.S., Rose, S. P., Mackenzie, A.M., & Silva, S.S.P., (2008) Relationship between different indicators of subclinical necrotic enteritis in male and female broiler chickens fed two diets. *Proceedings of the World's Poultry Science Association, Sri Lanka*
05. Gamage, D.V.S., De S. Padmasiri, R.C.P., Weerasinghe, W.M.S.P., Fernando, W.P.D.K., (2008) Increasing Livestock Production through Low-Input Intervention A Paradigm shift in the Milk Production system in Sri Lanka. *Second Annual Research Forum. SAEA 10*
06. Hemamala, G.I.K., Gunawardana, G.A., Weerasooriya, W.M.S.G., Priyantha, M.A.R., Vipulasiri, A.A., Rathakrishnan, S., and de Alwis, M.C.L., The use of new adjuvants in an autogenous vaccine against fowl cholera in Sri Lanka. (2008) *60<sup>th</sup> annual convention and scientific session of Sri Lanka veterinary association, Kandy pp.21.*
07. Kasagala, K.H.D.T., Small holder aquaculture sector in Sri Lanka (*Socio economic review*)
08. Kothalawala, H., Kothalawala, K.A.C.H.A., Gruys, E., An overview of porcine reproductive and respiratory syndrome (2008) *Published in Sri Lanka Veterinary Journal, 53(2A);1-6*
09. Kothalawala, H., Ralapanawa S., Jayasundara J.M.K.G.K. and Wijewardana G. (2008) Laboratory and field studies on stability, potency and efficacy of locally produced vaccine against Newcastle disease. *Published in Sri Lanka Veterinary Journal, 55 Supplement, 22*
10. Kothalawala, K.A.C.H.A.K., Kothalawala H., (2008). Economics of broiler production in closed house compared to open house a case study. *Published on proceedings of Scientific sessions of 10<sup>th</sup> World Poultry Science Association, Sri Lanka Branch, Kurunegala, Sri Lanka.*
11. Premalal, G.G.C., and Sujatha Premaratne, On-farm evaluation of hybrid Napier (*Pennisetum purpureum P.americanum*) var.CO-3 as a fodder grass under small dairy holdings of Kurunegala district *SLAAP 2008*
12. Premalal, G.G.C., Sujatha Premaratne and Jayawardena, A., Use of Intensive Fodder Banks Under Smallholder Dairy Production Systems in the Dry Zone of Sri Lanka. In print: *Proceedings. XXI International Grassland Congress, Hohhot, China. 2008*
13. Premalal, G.G.C., Green forages and their uses (In Sinhala language) 2008 Multimedia CD,

Audio Visual Center, Department of Agriculture, Peradeniya.

14. Premalal, . G.G.C., Identification of Forage species (In Sinhala language) 2008 Multimedia CD,  
Information Technology Center, Veterinary Research Institute, Peradeniya.
15. Priyankarage, N., Rose, S.P., Silva, S.S.P., Pirgozliev, V.R., (2008). The effect of dietary lysine and methionine on the efficiency of energy retention in broiler chickens. In: *Proceedings of the 60<sup>th</sup> Annual Convention and Scientific Sessions of the Sri Lanka Veterinary Association, Peradeniya, May 2008, pp 20*
16. Priyankarage, N., Rose, S.P., Silva, S.S.P., Pirgozliev, V.R., (2008) The effects of diets formulated with different protein sources containing balanced and excess lysine concentrations on the efficiency of energy retention of broiler chickens. *Proceedings of the World's poultry Science Association, Sri Lanka*
17. Priyankarage, N., Rose, S.P., Silva, S.S.P., Pirgozliev, V.R., (2008). The effects of diets formulated with different protein sources containing balanced and excess lysine concentrations on the efficiency of energy retention of broiler chickens. *Proceedings of the World's Poultry Science Association, Sri Lanka.*
18. Priyantha, M.A.R., Deepal Chandana, G.A., Puvanendran, S., Wijemuni, M.I., Gunawardana, G.A., Appuhamy G.S., Fernando, P.S., Special distribution of *Brucella abortus* stereotyping cases in cattle during 2001- 2007: A case study of using GIS in improving the recommended control strategies in Sri Lanka. (2008) *Fifth National Symposium on Geo-Informatics for sustainable Development, Colombo, , pp.*
19. Priyantha, M.A.R., Vipulasiri, A.A., Rathakrishnan S., and Gunawardana, G.A., Evaluation of three new adjuvant to develop an improved vaccine for Haemorrhagic septicemia in Sri Lanka. (2008) *60<sup>th</sup> Annual Convention and Scientific Session of Sri Lanka Veterinary Association, Kandy pp.29.*
20. Senasighe, N.D., Dematawewa, C.M.B., Iddamaldeniya, S.S., Navaratne, M.B., Dissanayake, D.M.M.B., Kappagoda, K.D.M.N., Abeyrathne, S.K., Attanayake, A.I., Preliminary observations on the distribution of bovine hard ticks (Ixodidae) in five provinces of Sri Lanka. *Proceedings of the Sri Lanka Veterinary Association 2008*
21. Senasighe, N.D., Navarathne, M.B., Rajapakse, R.P.V.J., Dematawewa, C.M.B., Faizal, A.C.M., Rajapaksha, W.R.A.K.J.S., Wijyathilleke, H.V.S.S., Silva, W.M.J., Factors affecting Cryptosporidium infection of pigs in five districts of Sri Lanka. *Proceedings of the Sri Lanka Veterinary Association 2008.*
22. Sivakumar, T., Aboulaila, R.A.M., Altangerel, Kh., Iseki, H., Alhassan, A., Uokoyama, N., and Igarashi, I., 2008. *In vitro* inhibitory effect of fosmidomycin on the asexual growth of *Babesia bovis* and *Babesia bigemina*. J. Protozool. *Res in press.*

23. Sivakumar, T., Altangere, K., Alhassan, A., Aboulaila, M.R.A., Iseki, H., Ota, N., Ljia, Z., Yokoyama, N., and Igarashi. Expression analysis of Babesia bovis BboP67 gene homologous to the Theileria parva p67 gene. I. J. Protozool. *Accepted for publication in 2009.*
24. Sososidou, E.N., Rose, S.P., Silva, S.S.P., Hall, N.W., Tserveni-Goussi, A., and Christodoulou, V., (2008). Different soil media for free-range laying hens. *British Poultry Science* 49 Issue 4 pages 390-395
25. Ubeyrathne, J.K.H., Somaratne, M., Isolation of *Arcobacter* spp. (aerotolerant *Campylobacter*) from *Chaetoceros* algae culture in a shrimp hatchery in Chilwa, Sri Lanka. (2008) *Sri Lanka Veterinary Association 60<sup>th</sup> Annual Scientific Sessions.*
26. Weerasinghe, W.M.P.B., Huntington, J.A., Wilkinson, R.G., and Sinclair, L.A., (2008) Effects of oil source, feed and PH on biohydrogenation of linoleic acid and production of *trans*-10, *cis*-12 conjugated linoleic acid (CLA) *in-vitro*. *Proceedings of the British Society of Animal Science*, p-27
27. Weerasinghe, W.M.P.B., Wilkinson, R.G., and Sinclair, L.A., (2008). Effects of starch level and forage particle length on the performance, milk fatty acid profile and production of *trans*-10, *cis*-12 conjugated linoleic acid in dairy ewes. *Proceedings of the British Society of Animal Science*, p-122
28. Weerasinghe, W.M.P.B., Wilkinson, R.G., de Veth, M.J Bauman, D.E., and Sinclair, L.A., (2008). The dose effect of rumen protected *trans* - 10, *cis* -12 CLA on milk fat synthesis in dairy ewes. *Proceedings of the British Society of Animal Science*, p-123
29. Weerasinghe, W.M.S.P., Dematawewa, C.M.B., Gamage, D.V.S de S., Malkanthi, R.M.S., Fernando, W.P.D.K., and Chandrasiri, A.D.N., (2008) Factors affecting reproductive efficiency of Friesian and Jersey cattle in up country, Sri Lanka. *Sri Lanka Journal of Animal Production* 4,1:10-22
30. Weerasinghe, W.M.S.P., Gamage, D.V.S De. S., Chandrasiri, A.D.N., Dematawewa, C.M.B., and Malkanthi, R.M.S., (2008) Age at first calving of zebu and crossbred dairy cattle in large scale state owned farms. *Sri Lanka Veterinary Journal* 55.1
31. Weerasinghe, W.M.S.P D., Gamage, D.V.S De. S., Chandrasiri, A.D.N., Dematawewa, C.M.B., and Malkanthi, R.M.S., (2008), Factors affecting birth weight of European breeds kept under up country farms in semi intensive management system. *Sri Lanka Veterinary journal* 55.33
32. Weerasinghe, W.M.S.P., Dematawewa, C.M.B., Gamage, D.V.S de S., Malkanthi, R.M.S.W.P.D.K., (2008). Estimation of Genetic parameters of the Reproductive Traits of Large Scale Friesian and Jersey Dairy Herds in Upcountry, Sri Lanka. *Second international Symposium Sabaragamuwa university Sri Lanka* 41

## Annex - VI

## Names of Officers Underwent Overseas Training

No.	Name of the Officer	Course	Country
1.	Dr. W. Bandara	Regional Workshop on Smallholder Dairy Development	Thailand
2	Ms. Lakmini Yamuna Kumari	The Third Country Training Programme of AI on Dairy	Indonesia
3	Dr. D. M. R. B. Dissanayake	FAO/APHCA/EAHMI Workshop on Geographical	Philippines
4.	Dr. P. M. Ratnayake	Training Programme on Cattle Artificial Insemination	Japan
6.	Dr. P. P. I. P. Perera	Training Programme on Hazardous Analysis Critical	Malaysia
7.	Dr. (Ms.) R. Hettiarachchi	Inception Meeting for the OIE/Japan Trust Fund Project	Japan
8.	Dr. J. Dharmawardhane	Inception Meeting for the OIE/Japan Trust Fund Project	Japan
9	Dr. W. W. Abeygunawardhana	Training for the Usage of Semen Analyzer	France
10.	Dr. T. P. Wijayathilaka	Training Programme on Prevention and Control Measures	Thailand
11.	Dr. P. G. Senevirathne	Seminar on Management of Animal Husbandry	China
12.	Dr. K. H. D. Kasaga	Training Programme for Laboratory Experts	France
13.	Dr. J. Darmawardhana	Annual Work Plan for 2008 Between CARD & NARC	India, Nepal
14.	Ms. A. I. Attanayake	International Training Programme on Dairy Farm	Netherlands
15.	Ms. K. K. Rajapaksha	International Training Programme on Dairy Farm	Netherlands
16.	Ms. S. K. Gunathilake	International Diploma on Poultry Husbandry	Netherlands
17.	Dr. M. S. B. Hegodaarachchi	International Diploma on Poultry Husbandry and Animal	Netherlands
18.	Dr. H. R. D. S. Karunaratne	GTC Sustainable Livestock Production System	Japan
19.	Dr. G. C. S. Kurugala	GTC Poultry Production, Management and Disease	Japan
20.	Dr. (Ms.) J. K. H. Ubeyrathne	Seminar and FAVA/OIE Symposium	Thailand
21.	Dr. (Ms.) S. Weerasinghe	Introductory Course in Bioinformatic	Thailand
22.	Ms. K. R. S. Weerasinghe	Dairy Husbandry and Milk Processing ( Refresher Course)	India
23.	Ms. M. N. M. Marliya	Dairy Husbandry and Milk Processing( Refresher Course)	India
24.	Ms. U. K. M. Wickramasinghe	Dairy Husbandry and Milk Processing ( Refresher Course)	India
25.	Dr. G. G. I. A. Jayawickrama	OIE Regional Meeting on Strengthening Animal Health	India
26.	Dr. D. M. R. B. Dissanayake	TAD Information Workshop	Japan
27.	Mr. N. M. S. T. Bandara	Livestock Management (Goat)	Thailand
29.	Dr. (Ms.) H. Kothalawala	Lab Diagnosis on HPAI	Nepal/India
30.	Dr. S. Relapanawa	Lab Diagnosis on HPAI	Nepal/India
31.	Dr. J. K. H. Ubeyrathne	Lab Diagnosis on HPAI	Nepal/India
32.	Dr. M. O. S. E. E. Senarathne	Lab Diagnosis on HPAI	Nepal/India
33.	Dr. U. K. S. P. Alexander	Lab Diagnosis on HPAI	Nepal/India
34.	Dr. G. R. Rajapaksha	Lab Diagnosis on HPAI	Nepal/India
35.	Dr. C. P. Wickramasinghe	Lab Diagnosis on HPAI	Nepal/India
36.	Dr. L. M. P. Wijemanna	Lab Diagnosis on HPAI	Nepal/India
37.	Dr. G. M. C. R. Kurunaratne	Lab Diagnosis on HPAI	Nepal/India
38.	Dr. L. W. B. Epakanda	Lab Diagnosis on HPAI	Nepal/India

## Annex VII

## Details of Booklets and Leaflets Published-2008

Category	Target	Achieve-ment	Subject	Type	Medium	No.of copies
New prints	20	10	Guiding to Trainers	Booklet	Sinhala	1000
			Different Methods of Weighing Cattle & its importance	Booklet	Sinhala	3000
			Production of Compost from Broiler Litter	Booklet	Sinhala	3000
			Quarantine Management	Booklet	English	100
			Suitable Pasture & Legumes for Cattle	Leaflet	Sinhala	3000
			Artificial Insemination of Swine	Leaflet	Sinhala	1000
			Services being Rendered by the Department	Leaflet	Sinhala	12500
			"Pashu Kirana"	News Letter	Sinhala/Tamil	10000
			Animal Husbandry Exhibition	Poster	Sinhala/Tamil	5000/
			Eggs	Poster		3500
Revised prints		10	Tasty & Nutritious Cow Milk	Booklet	Sinhala	40000
				Booklet	Tamil	40000
				Leaflet	Tamil	10000
				Leaflet	Sinhala	10000
			Recycling for a Profitable Poultry Industry	Booklet	Sinhala	2000
			Poultry Diseases	Booklet	Sinhala	3000
			Integrated Crop Livestock Farm	Booklet	Sinhala	3000
			Curd Production	Booklet	Sinhala	3000
			Ice Cream Production	Leaflet	Sinhala	3000
			Feeding of Cattle	Leaflet	Sinhala	3000
Crud Production	Booklet	Sinhala	2000			
Ice Cream Production	Leaflet	Tamil	3000			
Broiler Production	Leaflet	Tamil	3000			

*Annex VIII***Special Development Projects (continued) 2009**

1. Socio economics development project( swine and poultry)
2. Quality assurance progarmme
3. Implementation of livestock statues ( Farm Registration Program )
4. Strengthening of animal quarantine and inspection services.
5. Control of contagious diseases
6. Livestock Health improvement
7. Livestock Research
8. Establishment of veterinary hospitals
9. Livestock breeding project
10. Goat development project
11. Exhibition and propaganda
12. Books and periodicals
13. Self employments
14. Increase availability of heifer calves
15. Improvement of service delivery system of field veterinary offices

## Annex IX

## Provincial Activities

<b>PROVINCIAL ACTIVITIES</b>										
<b>PROGRESS OF SERVICES/ACTIVITIES OF PROVINCIAL DAPH - 2008</b>										
<b>PROVINCE</b>										
	<b>WP</b>	<b>CP</b>	<b>SP</b>	<b>NWP</b>	<b>NCP</b>	<b>NP</b>	<b>EP</b>	<b>SAB</b>	<b>UVA</b>	<b>TOTAL</b>
<b>DISPENSARY CASES</b>										
Cattle/Buffalo	5115	4754	2849	9030	7111	6435	6564	4298	2685	<b>48841</b>
Goat/Sheep	1924	2205	730	2968	2145	11845	4884	1939	325	<b>28965</b>
Pigs	3844	219	122	1573	430	61	91	397	93	<b>6830</b>
Poultry	1663	2796	2231	3116	1909	8418	4711	3393	692	<b>28929</b>
Dogs	5994	4167	2699	1969	1421	5633	198	4434	1760	<b>28275</b>
Other	337	211	123	90	67	467	1053	559	130	<b>3037</b>
<b>SUB TOTAL</b>	<b>18877</b>	<b>14352</b>	<b>8754</b>	<b>18746</b>	<b>13083</b>	<b>32859</b>	<b>17501</b>	<b>15020</b>	<b>5685</b>	
<b>FIELD CASES</b>										
Cattle/Buffalo	4946	7122	2503	8549	6870	3527	5372	4609	4960	<b>48458</b>
Goat/Sheep	1540	2022	654	2022	1527	2468	3753	1700	322	<b>16008</b>
Pigs	806	202	95	1017	302	8	179	476	114	<b>3199</b>
Poultry	482	4290	3332	196	621	1698	2762	1289	277	<b>14947</b>
Dogs	740	415	27	6	4	205	91	35	22	<b>1545</b>
Other	67	27	5	4	0	439	130	205	2	<b>879</b>
<b>SUB TOTAL</b>	<b>8581</b>	<b>14078</b>	<b>6616</b>	<b>11794</b>	<b>9324</b>	<b>8345</b>	<b>12287</b>	<b>8314</b>	<b>5697</b>	
<b>ISSUE of HELTH CERTIFICATES</b>										
Cattle	493	527	147	532	760	383	564	76	187	<b>3669</b>
Buffalo	24	21	60	34	31	1	2	10	3	<b>186</b>
Goat	3	208	14	126	169	376	72	23	44	<b>1035</b>
Sheep	0	1	0	2	0	0	0	0	0	<b>3</b>
Poultry	0	3	0	1	0	0	0	0	40	<b>44</b>
Pigs -Breeding	2	2	1	8	9	0	0	0	3	<b>25</b>
Pigs - Fatterners	93	93	1	21	6	0	2	0	0	<b>216</b>
Pigs -Slaughter	15	15	1	13	8	5	2	0	0	<b>59</b>
Other	0	0	0	1	0	0	0	0	0	<b>1</b>
<b>SUB TOTAL</b>	<b>630</b>	<b>870</b>	<b>224</b>	<b>738</b>	<b>983</b>	<b>765</b>	<b>642</b>	<b>109</b>	<b>277</b>	



## Annex X

## Milk Collection by Main Milk Collecting Organizations – 2008

<u>Province</u>	<u>District</u>	<u>Milk Collection (L)</u>
<b>Western</b>	Colombo	782,558
	Gampaha	6,436,489
	Kalutara	1,042,650
Sub Total		<b>8,261,697</b>
<b>Central</b>	Kandy	10,862,581
	Matale	4,849,884
	Nuwara-Eliya	23,640,420
Sub Total		<b>39,352,885</b>
<b>Southern</b>	Galle	399,425
	Hambantota	100,487
	Matara	602,755
Sub Total		<b>1,102,667</b>
<b>North Central</b>	Anuradhapura	16,573,429
	Polonnaruwa	723,648
Sub Total		<b>17,297,077</b>
<b>North western</b>	Kurunegala	16,046,963
	Puttlam	8,797,768
Sub Total		<b>24,844,731</b>
<b>Northern</b>	Jaffna	-
	Kilinochchi	-
	Mannar	-
	Mullativu	-
	Vauniya	-
Sub Total		-
<b>Eastern</b>	Ampara	4,242,977
	Batticaloa	3,813,461
	Trincomalee	2,200,970
Sub Total		<b>10,257,408</b>
<b>Uva</b>	Badulla	10,134,207
	Monaragala	2,162,448
Sub Total		<b>12,296,655</b>
Sabaragamuwa	Kegalle	217,780
	Rathnapura	766,809
Sub Total		<b>984,589</b>
Other		<b>2,685,283</b>
<b>Island Total</b>		<b>117,082,992</b>

Note: Data Collection from Cargills Dairies, Fonterra Brands Lanka Ltd., Kotmale Swiss Cheese Company Ltd. Lanka Dairies Ltd, Milco Pvt Ltd, Mahaweli Livestock and Agro Enterprises Ltd., Nestle Lanka Ltd, Noorani Estates Ltd, Pattipola Livestock Company Ltd., and Richlife Ltd.

## Annex XI

## Quarantine Holdings and the Period of Quarantine- 2008

Station	Type of Animals	Strain/breed	No. of animals	Country of Origin	Period of Quarantine
AQS Colombo	Horses	Thoroughbred	03	India	19.03.08-19.04.08
AQS Colombo	Horses	Thoroughbred	03	India	23.04.08-23.05.08
On farm quarantine	Zoo animals	Red Giant Kangaroo-Zoo bred	02	Czech Republic	06.03.08-06.04.08
On farm quarantine	Zoo animals	Bengal Tiger- Captive bred Zebra- Captive bred Greater Kudu- Captive bred	01 02 01	China	12.06.08-12.07.08
On farm quarantine	Zoo animals	Ring Tailed Coati- Captive bred Patagonium Cavy- Captive bred	02 06	Czech Republic	19.06.08-19.07.08
On farm quarantine	Rabbit	Netherland Dwarf	01	USA	25.07.08-25.08.08
AQS Colombo	Horses	Thoroughbred	06	India	21.08.08-21.09.08
AQS Colombo	Horses	Thoroughbred	03	India	26.11.08-26.12.08
On farm quarantine	Rabbit	Netherland Dwarf	01	USA	03.12.08-18.01.09

## Annex XII

## Details of Consignments under Quarantine Surveillance in 2008

Type of Animal/Animal-product/Animal By-product		No. of consignments arrived	No. of consignments inspected.
1.	DOC - Grand Parents - Layer Parents - Broiler parents	05 13 47	05 13 47
2.	Meat - Poultry - Beef - Veal - Mutton - Lamb - Pork - Duck - Turkey - Venison - Casings	54 33 02 20 20 01 04 02 01 08	54 33 02 20 20 01 04 02 01 08
3.	Meat and Bone Meal	121	121
4.	Ornamental fish	202 (Marine-181, Fresh water-21)	202 (Marine-181, Fresh water-21)
5.	Zoo animals/Horses	07	07
6.	Dogs/Cats	217	217
7.	Rabbits	02	02
8.	Prawn feed	171	171
9.	Tallow	67	67
10.	Gelatine	20	20
11.	Egg powder	22	22
12.	Egg Albumin	04	04
13.	Feather /Skins/Bristles - Other Products	77	77
14.	Frozen fish	186	186
15.	Fish Food	16	16
16.	Leather	58	58
17.	Feed Ingredients	618	618
18.	Chicken products	22	22
19.	Fish meal	188	188
20.	Dried sea leach	01	01
21.	Vaccines	21	21
22.	Hormone	02	02

**Note:** BSE clearance: Screened the applications and released 380 consignments under BSE Clearance.

**Animal Feed Ingredients of Agricultural Origin:** for HPAI Clearance - 618 Nos.

**Fumigation:** Number of by- products and feed ingredients fumigated before release - 73

## Annex XIII

## Details of Consignments Detained in 2008

No	Type of Consignment	Country of origin	Reason for destruction/detention	Quantity kg/No	Action taken
1	Goat Leather	Singapore	Illegal import	04 sheets	Destroyed
2	Peacock feathers	India	No import permit and IVHC *	05 No	Destroyed
3	Peacock feathers	India	No Import permit and IVHC *	200 No	Destroyed
4	Peacock feathers	India	-do-	10 No	Destroyed
5	Fresh water fish	Thailand	-do-	12 No Angles 36 No Gold fish	Destroyed
6	Peacock feathers	India	-do-	27 No	Destroyed
7	Chicken meat	Kuwait	-do-	5.4 kg	Incinerated
8	Peacock feathers	India	-do-	150 No	Destroyed
9	Peacock feathers	India	- do -	100 No	Destroyed
10	Chicken meat	Baharain	- do -	08 kg	Incinerated
11	Meat	Australia	- do -	100 KG	Incinerated
12	Prawn Feed	Thaiwan	Forged import approval	20 MT	Inquiry going on
13	Fish meal	China	High levels of Melamine	100 MT	Desrtuction process going on

\*I VHC-International Veterinary Health Certificate

## Annex XIV

## Export of Animals, Animal Products and Animal By-Products -2008

Category		Number/ Quantity	
	<b>Animals</b>		
01	Dogs	206	
02	Cats	61	
03	Aviary	-	
04	Day Old Chicks		34,279
05	Live Fish	(cons.2734)	18,097,634
06	Zoo animals	04	
07	Rabbit/Rat/Hamster/Guinea pigs	315	
08	Goats	08	
	<b>Animal Products</b>	<b>Number/Quantity (MT)</b>	
08	Beef and Beef Products	(cons.741)	36.478
09	Whole Chicken		11.259
10	Chicken Products		1150.410
11	Pork products	(cons.693)	175.119
12	Mutton	(cons.61)	1.677
13	Fish and Fish Products	(cons.93)	6.900
14	Prawn/Crabs/Lobster	(cons.358)	1.250
15	Table eggs Numbers		623,270
	<b>Animal By-Products</b>	<b>Quantity (MT)</b>	
16	Inedible tallow	2687,00	
17	Artist Brushes (paces)	542,046	
18	Bone Grist MT	18,423	
19	Dog Chew -Nos	360,506	
20	Leather MT	12,253	
21	Hide and Skin/MT	5,939	
22	Other Products, No-(head bars/Caps, bags/drums)	31,498	
23	Hats	959	

## Annex XV

## Raw Material Usage in Animal Feed

	Material	Local (MT)	Imports (MT)
Cereals	Maize	56220.31	90682
	Sorghum	100	10780.07
	Wheat	1024	6942.9
Cereal by products	Rice Polish	36874.53	
	Rice Bran	1412	
	Rice (Broken)	440	
	Wheat pollard	8134	
	Wheat Bran	20360.92	
	Wheat Flour	99	
	Dhal Bran	590	1716.9
	Dhal husk		
Oil Meals	Coconut Meal	2311.96	
	Soya Bean Meal	347	78188.19
	Hypro Soya & Full fat soya		2187
	Rape Seed Meal		1584
	Ground Nut Meal		922.18
	Gingerly poonac	30	
Animal by Products	Fish Meal	146.9	5900.07
	Meat & Bone Meal	100	11217.86
Mineral Supplement	Shell Grit	3384.15	
	Di Calcium Phosphate	3848.7	1085.13
	Pre-Mixes	22.683	0.75
	Calcium Carbonate	3775	
	Salt	304.5	83
Additives	Vitamins	0.266	806.807
	Minerals & Trace Elements	4.714	125.525
	Binders	3.03	55.209
	Growth promoters	3.502	68.471
	Anticoccidial agents	1.63	31.12
	Enzymes	25.02	39.145
	Mineral mixture		128.93
	Other	120.689	625.533
Amino Acids	L-Lysine		296.13
	DI-Methionine		134.64
	DI-Methionine Liquid		390.07
	L-Therionine		50.13
	Amino acids		211.79
Others(Specify)	Crude Palm Oil	170	16.5
	Bakery Products	1211.94	
	Biscuits	54	
	Dhal Husks	758.84	
	Vegetable fat		11.87
	Wast Milk powder	116.07	758.8

## Annex- XVI

## Present Cadre Position of the Department

	Post	Approved Cadre	Actual Cadre		
			292-1-01	292-1-02	292-1-03
01	Director General	01	01	-	-
02	Additional Director General	01	01	-	-
03	Director (Administration)	01	01	-	-
04	Director (Finance)	01	01	-	-
05	Director (AP&H Service)	05	01	02	02
06	Deputy Director (Finance)	02	02	-	-
07	Deputy Director (AP&H Service)	03	-	03	-
08	Assistant Director (Administration)	01	01	-	-
09	Assistant Director (Finance)	01	01	-	-
10	Assistant Director (AP&H Service)	05	-	-	01
11	Superintendent of Vaccine Production	01	-	01	-
12	Registrar (Veterinary Drugs)	01	01	-	-
13	Registrar (Animal Feed)	01	01	-	-
14	Chief Animal Quarantine Officer	01	01	-	-
15	Animal Quarantine Officer	04	04	-	-
16	Veterinary Research Officer	24	-	16	-
17	Veterinary Investigation Officer	17	-	-	-
18	Veterinary Surgeon	34	11	31	18
19	Research Officer	05	-	04	-
20	Agriculture Economist	01	-	-	-
21	Livestock Officer	12	-	01	07
22	Administrative Officer	02	01	01	-
23	Statistician	01	01	-	-
24	Translator	02	01	-	-
25	Livestock Development Officer	65	12	11	32
26	Research Assistant	64	02	41	02
27	Technical Assistant (Machinery)	01	-	-	-
28	Budget Assistant	02	01	-	-
29	Librarian	01	-	-	01
30	Development Officer	05	04	01	-

	Post	Approved Cadre	Actual Cadre		
			292-1-01	292-1-02	292-1-03
33	Law Assistant	02	01	-	-
34	Program Assistant ( document )	02	01	01	-
35	Program Assistant (Public Relations)	02	01	01	-
36	Monitoring Assistant	20	01	02	04
37	Program Assistant	19	01	04	04
38	Program Assistant (Communication)	02	-	01	01
39	Program Assistant (Media)	05	-	01	-
40	Program Assistant (Audio Visual)	10	-	-	02
41	Management Assistant Service	67	40	14	10
42	Assistant Librarian	01	-	-	01
43	Management Assistant Service		38	13	13
44	Driver	47	10	13	13
45	Watcher	21	02	-	06
46	Laboratory Sub Assistant	12	12	08	04
47	K.K.S. I and II	08	10	01	03
48	Office Labourer	24	03	04	11
49	Special Labourer	19	01	03	04
50	Skilled Labourer	08	-	-	-
51	Workshop Technician	02	-	-	-
52	Storemen	01	-	01	-
53	Mechanic	03	-	01	01
54	Boilarman	01	-	01	-
55	Carpenter	03	-	02	01
56	Electrician	02	-	01	-
57	Tractor Operator	03	-	-	02
58	Lorry Cleaner	01	-	-	-
59	Bungalow Keeper	01	-	-	-
60	Garden Labourer	02	-	-	-
61	Sanitary Labourer	03	01	-	01
62	Unskilled Labourer	124	07	43	49
63	Contract Labourer	17	-	02	15
	<b>Total</b>	<b>730</b>	<b>159</b>	<b>221</b>	<b>206</b>



*Annex XVII*  
**Financial Allocations and the Expenditure Summary 2008**

Project 1	Allocation (Mn.)	Expenditure (Mn.)	Balance at 31.12.2008 (Mn.)	Expenditure as % of Allocation
<b>Project 1</b>				
Capital Expenditure	23.409	12.803	10.606	54.69
Recurrent expenditure	85.511	64.274	21.237	75.16
<b>Total</b>	<b>108.920</b>	<b>77.077</b>	<b>31.843</b>	<b>70.76</b>
<b>Project 11</b>				
Capital Expenditure	224.900	101.941	122.959	45.32
Recurrent expenditure	98.074	91.937	6.137	93.74
<b>Total</b>	<b>322.974</b>	<b>151.678</b>	<b>120.392</b>	<b>46.96</b>
<b>Project 111</b>				
Capital Expenditure	209.950	125.406	84.544	59.73
Recurrent expenditure	85.134	81.092	4.582	93.92
<b>Total</b>	<b>192.781</b>	<b>151.678</b>	<b>4.042</b>	<b>78.68</b>
<b>Total Capital Expenditure</b>	<b>458.259</b>	<b>240.150</b>	<b>218.109</b>	<b>52.40</b>
<b>Total Recurrent expenditure</b>	<b>268.719</b>	<b>237.303</b>	<b>29.267</b>	<b>31.416</b>
<b>Total Capital &amp; Recurrent expenditure</b>	<b>726.978</b>	<b>477.454</b>	<b>249.524</b>	<b>65.67</b>