#### Rubber Research Institute of Sri Lanka

#### Dartonfield, Agalawatta



#### Vision

The Institute's vision is to emerge as the centre of excellence in providing high quality scientific technologies to the rubber industry.

#### Mission

The Institute's mission is to revitalize the rubber sector by developing economically and environmentally sustainable innovations and transferring the latest technologies to the stakeholders through training and advisory services.

#### **Objectives**

- Increase productivity to international standards
- Increase national production of NR to meet the increasing demand
- Optimal and sustainable utilization of land, labour and other resources
- Maximize domestic value addition to rubber
- Encourage individual competency and self development of RRI personnel and in the process, improve the organizational effectiveness of the institute

#### **Policies**

- Continuation of the research and extension activities on all aspects of rubber production and processing
- Continue to promote environmentally friendly and sustainable agricultural industry
- Transfer the developed technologies through training and advisory services

## RUBBER RESEARCH BOARD

## **ANNUAL REPORT - 2015**

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#### Report of the Chairman Rubber Research Board

With the changes of Government and associated changes of the Ministerial portfolio, the Chairmanship and the members of the Rubber Research Board (RRB) were changed in two occasions. Hence, RRB functioned under the guidance of three Chairmen during 2015. As the third Chairman of the year, my tenure began with effect from 15<sup>th</sup> October, 2015.

In general, RRB continued to take part in the management of the Rubber Research Institute of Sri Lanka (RRISL) in view of enhancing quality research outputs, regularizing administration and financial matters and improving services to the stakeholders. During 2015, eight Board Meetings were held, of which last two Board Meetings were conducted under my Chairmanship and appropriate actions were taken to scrutinize the above mentioned activities.

RRISL through its interactive mechanisms with the industry stakeholders, mainly the rubber smallholder and plantation sectors, assisted to resolve various issues in the industry such as; reducing cost of production, increasing fertilizer use efficiency *etc*. Moreover, the collaborative research studies were focused to assist the expansion of rubber cultivation in non-traditional areas.

During this year, RRISL was able to secure a Merit award from the Plastics and Rubber Institute of Sri Lanka for the significant contribution made towards the development and growth of the polymer industry in Sri Lanka. Another invention in rubber processing, a pilot scale ultra-dryer was fabricated with the financial assistance of the National Science Foundation. Having in mind, the importance of value addition, the researchers were able to develop natural rubber latex foam and cast films mixed with *Aloe vera* for ayurvedic applications.

The trend of the declining of natural rubber price in the world was continuing throughout the year 2015. This situation has been affected adversely on the Sri Lankan rubber industry in general and resulted abandoning of rubber lands and some have moved away from rubber cultivation to other crops. The best ways to cope up with this situation is to introduce low cost methods and short-term strategies for productivity improvement, which were among the research strategies of Agronomy and Technology departments of RRISL.

It needs to place a record that, RRISL has achieved a considerable success during 2015 on both administrative and research aspects despite the drawbacks, mainly lack of administrative and research staff and research facilities, especially the availability of scientific equipment and laboratory space. As a consequence, actions were taken to fill some of the vacancies in the technical cadre during 2015. Moreover, proposals were underway to develop state of art laboratories to cater to the needs of stakeholders.

I extend my thanks to the Director and the staff for their assistance and cooperation extended in achieving the intentions, expected by the rubber industry of the country.

Mr N.V.T.A. Weragoda Chairman Rubber Research Board

#### RUBBER RESEARCH INSTITUTE OF SRI LANKA DIRECTOR'S REPORT

This review consists of Research and Development activities conducted by six Agronomy departments and four units at Head Office, Dartonfield, Agalawatta and four Technology departments at Ratmalana along with the progress reviews of Library and Publication unit, the two estates; Dartonfield Group and Kuruwita and the two substations at Moneragala and Polgahawela.

Research and Development activities of each Department/Unit of RRISL are given under the title of "Activities of Research Departments - 2015". Details of each research and development activity are given in the Annual Review for 2015 which is published simultaneously. Overview of the local and global rubber industry is given here.

# Rubber industry of Sri Lanka Rubber production

The natural rubber production in the country in 2015 has decreased further by 10% from the previous year from 98,573 tonnes to 88,600 tonnes. Poor rubber prices prevailed in the market and continuous decline of rubber price since year 2011 would have resulted in reduction of tapping days, and thus low production.

Two largest contributors to the total rubber production in the country, RSS and Crepe rubber reduced further from 48,500 tonnes to 44,400 tonnes, a reduction of 8.5% and from 15,200 tonnes to 11,100 tonnes which accounted for a reduction of a 27%, respectively. Concentrated latex production in the country was estimated to be 25,500 tonnes in the year 2015. Average price of RSS1 was around Rs.285.76 per kg at the end of 2014 reduced further to Rs.248.55 per kg at the end of 2015, which is a 13% decrease. Latex Crepe 1X price dropped by 3% from Rs.309.90 in 2014 to Rs.301.15 in 2015 (Source: RDD, Sri Lanka).

#### Rubber extent

Total rubber extent in the country at the end of 2015 was around 134.8 thousand hectares against at the end of 2014 while the tapping area was around 119 thousand hectares. The increase in rubber extent was due to the extent of new planting which accounted for 800 ha and replanting of 1000 ha of lands.

#### NR consumption, exports and imports

NR consumption in the country in 2015 reduced to 73,200 tonnes from 85,600 tonnes in 2014. Sri Lanka has exported around 15,800 tonnes of natural raw rubber in 2015 which was a decline of 44% against the year 2014.

#### Rubber manufacturing sector

Earnings through raw rubber exports was Rs.3548 million in year 2015 against the Rs.5915 million in year 2014. The total CESS collection from the rubber sector was Rs.2355 million in 2015, an increase of about 6% against the previous year. Export earnings from finished products was recorded as Rs. billion 102 in 2015 (Sri Lanka Customs), a decrease of about 9% against the previous year. This was mainly due to unexpected economic slump faced by most of the major consumers in the world.

# Global Rubber Industry Review Natural Rubber Supply

Total world NR production increased to 12,267 thousand tonnes in 2015 against the year 2014 NR production which was around 12,111 thousand tonnes. World NR production has increased by 1.3% according to IRSG statistics. Nevertheless, the provisional data received from the member countries of ANRPC indicated a drop of 0.6% year-on-year. This is mainly due to the impact of El Nino condition on the rubber growing areas in the Asia Pacific region. Table1 gives the annual natural rubber production of major producers in the world and their year-on year growth against the previous year.

**Table 1.** Trends in NR supply in major producing countries

	Quantity	(000 tonnes)	Annual growth (%)
	2014	2015	
Thailand	4324.0	4473.4	3.5
Indonesia	3153.2	3175.4	0.7
Malaysia	668.1	695.4	4.1
India	704.5	575.0	-18.4
Vietnam	953.7	1017.0	6.6
China	840.1	794.0	-5.5
Cote d Ivoire	317.3	337.6	6.4
Brazil	193.3	194.4	0.6
Sri Lanka	98.7	91.3	-7.5
Myanmar	198.0	227.5	14.9
Philippine	113.2	111.1	-1.9
Guatemala	96.4	90.7	-5.9
Cambodia	97.1	126.8	30.6
Liberia	59.9	60.0	0.2
Others	293.5	297.2	1.3
World total	12,111.0	12,266.8	1.3

(Source: IRSG, 2016)

Table 2 gives the annual average yield and mature area in the ANRPC group in years 2014 and 2015. While the average yield declines, the mature area expands in all the countries during 2015. The expansion in mature area reflects the large scale planting undertaken during the period from year 2005 to 2012. Average annual yield figures reflect the achievements made by producing countries in clone improvements, crop management and adoption of harvesting technologies have not been translated into improvement in average yield. The sharp fall in rubber prices especially during the year 2015 has aggravated the yield performance further.

**Table 2.** The annual average yield per hectare in ANRPC member countries and extents under tapping

Country	Total area ('000 ha)		Ta	Tapped area ('000ha)		Yield (kg/ha/year)	
	2014	2015	2014	2015	2014	2015	
Cambodia	357.8	388.9	90.5	111.2	1072	1140	
China	1161	1159	695	711	1209	1117	
India	795	811	447	391	1576	1513	
Indonesia	3606	3621	2995	3016	1053	1058	
Malaysia	1065.6	1078.6	600	650	1370	1410	
Philippines	217.7	-	120.2	-	942	-	
Sri Lanka	134.1	134.8	110.9	119	889	744	
Thailand	2816.6	-	2775	-	1566	-	
Vietnam	981	972	563.6	600	1692	1695	

(ANRPC, 2016)

#### Total rubber demand

Total rubber consumption was 26,779 thousand tonnes in 2015 compared to 26,404 thousand tonnes, in the previous year. This increase accounted for an increase of 1.4% year-on-year growth. World NR consumption is being dominated by China with 4820 thousand tonnes followed by India with 991.6 thousand tonnes and USA with 936.5 thousand tonnes. China was the highest SR consumer in 2015 followed by USA and European Union countries. China consumed 4067.2 thousand tonnes of SR and USA consumed 1963.3 thousand tonnes in 2015 (IRSG, 2016).

#### **Natural Rubber demand**

Apart from economy's dominant role, the demand for NR is greatly influenced by geographical shifting of manufacturing base, capacity expansion in auto tyre industry, substitution between natural and synthetic rubber and change in consumption basket. Table 3 shows the trends in NR consumption and their annual growth of demand for major consumers in the world.

**Table 3.** Trends in NR demand by major consumers

	Consumption ('000 tonnes)			Annual growth (%)	
	2013	2014	2015	2014	2015
China	4210	4760	4820	7.1	1.3
Total EU-28	1060	1139	1174	5.5	3
India	962	1012	991	5.3	-2
U.S.A.	913	932	936	2.1	0.4
Japan	710	709	721	-0.1	1.7
Thailand	521	541	606	3.3	0.1
Indonesia	509	540	568	3.3	5.1
Malaysia	434	447	475	3.0	6.2
Other Countries	2067	2054	2057	-1	0.1
World	11,386	12,134	12,348	4.1	1.8

(Source: IRSG, 2016)

China consumed 39% of the total consumption of natural rubber globally during 2015. Other major consuming countries or regions are the European Union (9.5%), India (8%), the US (7.6%), Japan (5.8%), Indonesia (4.6%), Thailand (4.9%) and Malaysia (3.8%). In all these countries, the annual growth rate of demand for NR has increased except for India. The unsatisfactory performance reflected through continued growth deceleration in emerging and developing economies is seen including China.

#### NR demand and supply gap

Global demand experienced a growth of 1.8% in 2015 while the supply has headed for a 1.3% increase. The resultant demand supply position for 2015 is shown in Table 4 in comparison with the previous two years. Global market at the end of year 2015 was in a deficit of 81,000 tonnes.

**Table 4.** Outlook for the demand supply gap

	Quantity ('000 tonnes)			Annual Growth (%)		
	2013	2014	2015	2014	2015	
Production	12281	12111	12267	-1.4	1.3	
Consumption	11430	12134	12348	6.2	1.8	
Gap	851 Surplus	-23 Deficit	-81 Deficit			

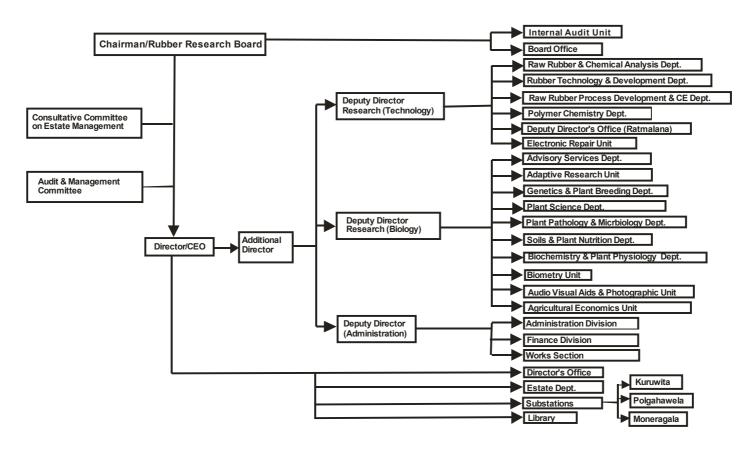
(Source: IRSG, 2016)

#### World NR price movement

Natural rubber prices follow a decline in world market over the last two years. Sri Lankan annual average RSS3 price was US\$ 1.78 per kg in year 2015. At the end of year 2015, the average price of RSS3 dropped to US\$ 1.59 in Bangkok, well below the sustainable level of US\$ 2.00 per kg. SMR20 also declined to US\$ 1.37 and latex 60% to US\$ 1.08 per kg in Kuala Lumpur. By the end of the year, average Indian RSS4 has decreased to US\$1.91 from US\$ 2.24 per kg against the previous year. It was a drastic fall of about 15% in the Kottayam market. According to many Economic Experts, China's economic slowdown, weak downstream demand and the slow pace of economic recovery in Europe with their consequent impacts on the automobile and tyre markets are adding to the dampening sentiments of the NR market. Demand for natural rubber continues its declining state with no obvious signs of improvement with prices, which are also falling accordingly.

Dr W M G Seneviratne Director Rubber Research Institute of Sri Lanka

#### **ORGANIZATIONAL STRUCTURE**



# MAJOR ACHIEVEMENTS 2015

#### **Major Achievements during 2015**

- A Merit Award was received by Dr (Mrs) Dilhara Edirisinghe from the Plastics and Rubber Institute of Sri Lanka for the significant contribution made towards the development and growth of the polymer industry of Sri Lanka.
- Introduction of economical, environmental friendly bio film bio fertilizers for rubber nursery plants and immature field plants for improved growth



# Production of cost effective environmental friendly biofertilizer by using rubber rhizosphere microbes at Soils & Plant Nutrition Dept. Dartonfield, Agalawatta

- Introduction of slow release fertilizers for rubber nursery plants to address the problems, such as excessive leaching losses of nutrients, possible pilferage and adulteration of fertilizers and labour costs associated with repeated application.
- New weedicide "Glyfosinate ammonium" was identified instead of "Glyphosate".
- Development of temperature and impact resistant tire paint for inner heal compound in solid tires.
- Development of abrasion resistant, crack resistant and wear resistant screen printing ink for natural rubber gloves and slippers.
- Natural rubber latex foam and cast films for ayurvedic applications were successfully produced by mixing *Aloe vera* with rubber.

- A light weight rubber ball with low resilience, high abrasion resistance and high hardness was produced using styrene-butadiene rubber for cricket training purpose.
- A natural rubber latex foam backing was developed for door mats manufactured out of coconut fibre.
- A rubber compound for oil seals was developed using nitrile latex compound waste.
- A hard, abrasion resistant coating for textile rollers was developed using a natural rubber based compound.
- Natural rubber latex based moulds suitable for producing different shapes and sizes of natural material based soap pieces were developed.
- Natural rubber based composites were produced using coconut shell powder for solid tyre treads.
- A paving material was developed with ground rubber tyre and bitumen.
- A floor tile was produced with a blend of natural rubber, low density polyethylene and recycled low density polyethylene.



- Single drying system for different raw rubber types was developed.
- Novel high performance light weight prosthetic foot based on hybrid nanomaterial filled natural rubber compound was developed.



- Value added novel sole crepe rubber material with a higher hardness, improved abrasion resistance and with a smoother surface characteristics was developed as an alternative for the present coloured sole crepe rubber.
- Carbon foot print of rubber sugarcane intercropping system was established.

# ACTIVITIES OF RESEARCH DEPARTMENTS 2015

#### **Activities of Research Departments 2015**

#### GENETICS AND PLANT BREEDING



Selections from Small Scale clonal evaluation

The annual hand pollination program was carried out with RRISL 203, RRISL 208 and RRISL 211 as female parents at Neuchatel estate and seventy new genotypes were raised.

Twenty selections were made from 97 hand pollination progeny which had been evaluated for fifteen years at Clyde state under small scale level.

Thirteen new smallholder trials were established in Uva, Central, North Western and North Central Provinces under the project "Evaluation of new clones for sub optimal conditions". The trials already established in Eastern Province are performing well, but a few trials were abundant due to poor support received from the smallholders. Existing smallholder RRI collaborative trials in traditional rubber growing areas are performing well and the growth of clone RRISL 203 is significantly higher in Matara district.

Multiplication, establishment and scientific evaluation of the *Hevea* germplasm collection was started with the aim of enhancement of productivity through genetic improvement and management of genetic resources of *Hevea*. Around 1400 accessions were planted at Nivitigalakele substation and some accessions are ready to establish in bud wood nurseries at Neuchatle estate.

#### PLANT SCIENCE

Out of 21 clones selected for seed production survey, RRISL 201 and BPM 24 showed a satisfactory seed production followed by RRISL 217, RRISL 220 and RRISL 226. Seed production in clones recommended for smallholders *viz.*, RRIC 121, RRISL 203 and RRISL 2001 was not satisfactory. Seeds treated with nitric oxide (NO) donor sodium nitroprusside accelerated the germination and improved

germination percentage. Budded plants treated with the same chemical under drought condition enhanced physiological parameters.

Seedlings derived from illegitimate seeds of seven clones (PB 86, RRIC 100, RRISL 201, RRISL 217, RRISL 220, BPM 24 and PB 260) showed no significant difference in growth attributes. Seedlings irrigated with sprinkler system (every other day), followed by drip system (every other day) showed improved growth characteristics as compared to those irrigated with drip system at two day intervals and manual watering on every other day.

An experimental trial was established at Vishwamadu and Akkarayankulam in Kilinochchi district to study the growth performance of rubber clones. Plants of RRIC 121 were established at low density at Kandakaduwa, Polonnaruwa. The highest yield per hectare (YPH) was recorded in the highest density (800 trees/ha) due to higher number of trees in tapping. However, the girth and g/t/t of trees in higher densities were significantly low as compared to those in other densities. Yield measurements of crop estimation experiment at Pitiakande revealed that there was no significant difference in yield (g/t/t) under S/4 d3 and S/3 d3 system with ethrel application at 5% and 2% respectively, as compared to the standard system (S/2 d3 + 2.5% E).

Intercropping rubber with perennial crops revealed that mango, guava and pomegranate have a rapid growth rate than rambutan when intercropped with rubber. An intercropping trial of Rubber with Agarwood was established at Dartonfield Estate. All nurseries were inspected for quality assurance and reports were submitted. Issuing authentic plants to establish budwood nurseries, issuing technically specified tapping knives and marking plates, testing polythene and conducting programmes sponsored by various institutions were attended/done by the department staff.

#### PLANT PATHOLOGY AND MICROBIOLOGY

Incidence of secondary leaf fall diseases, Powdery mildew Colletotrichum leaf disease was mild to moderate during the refoliation period except for a few disease vulnerable sites. Application of sulphur [liquid & dust] was successfully carried out against the secondary leaf fall disease at the experimental sites. The incidence of abnormal leaf fall caused by Phytophthora spp. was also reported to be mild except for some severely infected sites. Corynespora leaf fall disease (CLFD) was reported on the field plants of RRIC 121 during the year 2015 for the second time. The screening of clones against CLFD revealed that Centennial 3 is susceptible to the disease at moderate level. A series of experiments on the biology of White Root Disease was completed focusing rubber and alternative hosts. Studies on cell wall degrading enzymes secreted by Rigidoporus were also completed. Projects on the new application technology, tree injection, rehabilitation of WRD patches and effect of antagonistic plants to control the disease were also in progress. Report on the incidence of WRD in Kuruwita sub-station was completed. Around 17% of lands at Kuruwita Substation was found to be infected with WRD. Several alternative plant types which can tolerate white root disease infection have

been identified to be used in Fomes patches. During the recent past, incidence of Brown root disease became increasingly destructive in the non-traditional rubber growing areas. Collection of pathogen isolates of brown root disease was completed. The studies on morphology, pathogenicity, bio-chemical nature of pathogenesis were progressed. Possibilities to improve the adhesive properties of the repellant were also sought. Three alternative chemicals for mancozeb were tested for the management of Patch canker, the bark cracking disorder. Four new chemicals were tested against cockchafer grub attack under field conditions to introduce a substitutes for Chlorphyrifos. The clone screening programmes against the foliar diseases for the year 2015 was only partially completed due to the lack of transport facilities. Occurrence of Ustulina stem rot has become more and the investigations were initiated. Studies were continued to isolate and identify the beneficial soil micro-flora from the main rubber growing areas and also from non-traditional rubber growing areas. The study revealed that the bacterial colonies were the most abundant followed by the fungal organisms. The largest fungal and bacteria CFUs were observed in Dartonfiled, Kalutara under Pueraria compared to the Mucuna cover crop and the bare lands. Evaluation of eleven native antagonistic fungi strains Trichoderma, Penicillium and Aspergilllus as bio control agents for White Root Disease was undertaken. Compost based medium was formulated to produce Trichoderma inoculum. Large scale production of the inocula is in progress. A serum based liquid medium was also tested for Trichoderma spp. with the collaboration of the Department of Biochemistry & Physiology. An Economical medium was identified to skeletonize rubber leaves.

#### SOILS AND PLANT NUTRITION

Ten research and development activities in relation to improvement of soil fertility, increasing fertilizer use efficiency, soil, water and nutrient conservation and weed control were planned and promoted. The biofim solubilized significantly high amount of phosphorus in liquid medium containing CaHPO4 compared to their alone cultures and was observed synergistic effect for Acetylene reduction assay (ARA). Production of IAA of biofilm was higher than that of bacteria alone cultures and synergistic effect was observed for Acetylene reduction assay (ARA). Production of biofilm formation was higher than that of bacteria alone cultures. Thus the biofilm formation of rhizosphere microbes seems to be very important for improved soil fertility. The field experiment results seems to suggest that it may have a possibility of improving soil fertility and plant growth of immature Hevea by combined use of biofilm biofertilizers (BFBF) with inorganic fertilizers. Studies on weed control suggested that combination of new weedicide Gluphosinate ammonium with Diuron was more effective than their alone applications. Application of slow release fertilizers gave comparable growth assessments compared to conventional fertilizer application for rubber nursery plants dealing with a number of management problems associated with repeated application.

Site specific fertilizer recommendation programme provided data for 2215 hectares of mature rubber in the estate sector and 30 fertilizer recommendation reports were issued. Six land suitability reports were issued and approximately 300 ha were surveyed for suitability of planting rubber under land selection programme. The department also analyzed approximately 1000 samples (7500 parameters) for outside organizations including 80 fertilizer samples for rubber growers to assure application of good quality fertilizers to their rubber lands.

#### BIOCHEMISTRY AND PHYSIOLOGY

Commercial scale testing of S/2 d4 and S/4 d3 systems in the Wet Zone was continued in Kuruwita Substation of RRISL. A new tapping field from Galewatta division of Dartonfield estate was also selected to investigate the adaptability of S/2 d4 and S/4 d3 systems at commercial level. In addition a weekend harvesting system is also being tested in commercial plantations of Kuruwita RRISL substation. Testing of S/2 d4 harvesting system in the Intermediate Zone was continued with smallholdings in Padiyathalawa and RRISL Substation, Polgahawela.

Experiments were conducted to investigate the changes in biochemical and physiological parameters in rubber plants of three *Hevea* genotypes under drier climatic conditions in Northern and Eastern Provinces. In order to identify best genotypes for the suboptimal climatic conditions in non-traditional rubber growing areas, new experiments were established at Vauniya, and Kandakaduwa with two control plots in the Wet zone (Pasyala and Dartonfield). Five different genotypes i.e. RRIC 100, RRIC 121, RRISL 203, RRISL 2001 and PB 260 were planted to investigate their sustainability in different agro climates.

Investigations on different commercial ethephon mixtures on latex physiology and yield of trees harvested with different harvesting systems have been continued. Testing of physical properties and biochemical composition of rubber wood of RRIC 100 and PB 86 genotypes was done.

Postgraduate research work conducted by Dr (Mrs) K V V S Kudaligama leading to her PhD degree has won the GRC Postgraduate award 2015 awarded by the Sri Lanka Association for the Advancement of Science.

#### **ADVISORY SERVICES**

Nineteen Group extension programmes called "Vihidum Sathkara" were conducted effectively providing advisory and extension services for 931 rubber smallholdings. 72 medium scale rubber lands were inspected and advised for improvements needed under this programme. In total, 5019 advisory visits were carried out to solve problems in technology adoption in the rubber smallholder sector. Two thousand three hundred and one (2301) rubber smallholdings were inspected in the Monaragala district by REOo and necessary advice were given for improvements under the Smallholders Plantation Entrepreneurship Development Programme (SPEnDP). Under this 60 awareness programmes were also conducted for the benefit of 2346 rubber farmers in Monaragala district. Special awareness programmes were

conducted in Ampara and Baticoloa districts (Nuwaragalatenna, Warapitiya and Mangalagama) for the benefit of new rubber cultivators. The research study funded by the National Research council (NRC) on the feasibility of expanding rubber cultivation into non-traditional areas was conducted successfully. Eight on farm trials set up in Uva, Eastern, North - Central and Northern provinces were maintained and farmers were educated on recommendations of immature up keep.

The extension strategy focused on farmer participatory development of selected rubber units in each REO divisions was continued with the upgrading of 249 rubber lands as model rubber holdings. Status of 245 immature substandard rubber holdings and 233 mature substandard rubber holdings were rehabilitated successfully. Sixty four rubber processing centers were developed as models and construction of 33 new RSS processing centers and rehabilitation of 21 substandard centres were attended. Sixty four and twenty eight model holdings were set up to demonstrate the value of using rainguards and intercropping systems respectively. Conducted 25 training programmes on quality improvement of RSS production for the benefit of 371 RSS producers. As a solution to the tapper shortage, 317 new harvesting assistants were introduced through 18 Tapping Training Schools (TTS) and 734 semi skilled harvesting assistants were trained on tapping quality improvement in 55 skill development programmes. Under the special programme called, "Nipunatha Saviya", 17 training programmes were conducted for the benefit of 659 selected rubber harvesting assistants. Forty six training programmes on the adoption of control measures of the white root disease were conducted for the benefit of 690 rubber farmers.

Forty four farmer training programmes were conducted to educate 1054 rubber growers on general cultivation and processing aspects of rubber. Data collection and GIS based mapping was carried-out in relation to all field training and advisory programmes for effective planning of extension programme.

#### RUBBER TECHNOLOGY AND DEVELOPMENT

Properties such as micro-organism growth in the low ammonia centrifuged latex prepared with a readily available, non-toxic, low cost chemical was evaluated. Also, ageing resistance, protein content and release of nitrosamines from cast films produced with this newly developed latex were assessed and all these properties were in accordance with the requirements for infant items and toys. Cast films were produced with compounded natural rubber latex containing citronella oil, with the aim of manufacturing rubberized-coir based fenders to protect immature plants against animal attack and properties of the films were tested. NR latex foam with antioxidant as well as antimicrobial effects was produced successfully at laboratory scale as well as factory scale using *Aloe vera*.

Calcium carbonate filled NR/LDPE/waste PE composites were produced using a titanate coupling agent and a peroxide. Pyrogenic carbon filled 80:20 NR/SBR composites suitable for tyre treads were developed. NR/SBR composites were prepared with palmyra fibres coated with different latices or chemical

substances and physico-mechanical properties were evaluated. Compounded nitrile rubber (NBR) latex waste based reclaimed rubber was produced mechanochemically using an amino based chemical with the aim of partially replacing virgin NBR with modified waste in oil seal compounds. Carbon black as well as calcium carbonate filled NR/LDPE/recycled PE composites were produced and properties were evaluated. A paving material was developed with ground rubber tyre (GRT) and bitumen. Experiments were conducted to develop NR based solid tyre compounds with coconut shell powder at the request of a coir processing company.

NR/EPDM stopper band compound, required for an agricultural purpose was developed at the request of a rubber band producing company. Trials were conducted to produce low resilient and high abrasion resistant rubber balls for cricket practicing purpose, at the request of a cricket coach. Initial trials on the development of a NR based all-purpose basket were conducted. Work on development of NR latex based moulds suitable to produce herbal soap pieces was initiated. A NR latex compound was developed using a combination of non-toxic fungicides to eliminate mould growth in infant items.

Conducted twenty six training programs/workshops on rubber based products manufacture. Also, the staff was actively involved in transferring the technology of rubber based products manufacture to SME's via five "Krushi FM" live, web radio programs. Further, the staff was involved in transferring knowledge on rubber based products manufacture to the public at five exhibitions and to postgraduate students by conducting practical classes. 238 tests on dry rubber compounds and 166 tests on products were conducted. 207 crepe rubber samples were also tested for hardness.



Preparation of rubber and rubber-plastic composites using the newly purchased computerized laboratory scale internal mixer



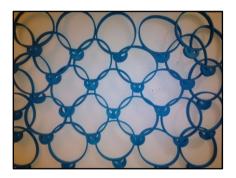
Compression moulding of natural rubber (NR)-low density polyethylene (LDPE) composites using a press machine



Preparation of the low resilient and high abrasion resistant rubber ball compound using a two-roll mill



Surface treatment of palmyra fibres with latex to produce palmyra fibre-natural rubber (NR)-styrene-butadiene rubber (SBR) composites



Stopper bands developed out of NR/EPDM composites for agricultural purpose

#### POLYMER CHEMISTRY

A tyre paint was developed for inner heal of the solid tyre using synthetic resins and natural rubber. Several thermal and mechanical properties were achieved such as heat resistance, crack resistance, and high peel strength to tolerate pressure developed during rim mounting process. Technology was transferred to the industry and patent was applied for this new product. Introduction of plant based preservative system to eliminate TMTD from latex preservation was continued. New screen printing inks were developed for Natural rubber and Nitrile rubber surfaces. Industrial trails with newly developed inks are being in progress. More than thousand samples of polymer materials and compounding ingredients were tested to analyze of their constituents using FTIR. Analysis of thermal properties of polymers using DSC and material properties using DMA was carried out throughout the year. One workshop on manufacture of natural and synthetic rubber based adhesives was conducted for 15 numbers of SME's in collaboration with Industrial Development Board.

#### RAW RUBBER AND CHEMICAL ANALYSIS

The department mainly offered the testing, analytical and certification services on raw natural rubber and rubber chemicals to all sectors of the rubber industry including raw rubber processing industries. These services were also extended to rubber traders, researchers from fellow departments of the institute and various local institutions such as Universities, other research institutes as well as individuals including postgraduate students, consultants and inventors *etc*. A total number of thousand one hundred and eighteen samples of natural rubber latex, dry rubber, rubber processing chemicals and polythene samples were tested for their quality during the year. This included five hundred and eighty three dry rubber samples, three hundred and sixty five natural rubber latex samples, thirty eight rubber processing chemicals, thirty three bleaching agent samples, thirty eight polythene samples and twenty one glove samples. Forty raw rubber analysis certificates for Technically Specified Rubber (TSR) were also issued on requests received from the respective parties for their quality assessment and marketing purposes. In addition,

the department carried out miscellaneous analytical tests, trouble shooting activities and four research projects during the year.

Effect of ethephon stimulation on rubber yield, physiological and natural rubber latex quality parameters was studied. Serum sucrose level and magnesium concentration were the main concerned parameters. Visco-elastic properties of yellow fraction crepe rubber and fractioned bleached crepe rubber were investigated under accelerated storage conditions with respect to four parameters namely un-aged plasticity, Mooney Viscosity, Mooney relaxation time and Gel content. Two short term projects on 'Effect of processing conditions on storage hardening and Gel content of raw natural rubber' and 'Raw rubber property variation of RRISL 200 series' were completed during the year.

The department staff continued to provide training on raw rubber and natural rubber latex testing for laboratory personnel, industrialists, research students and university undergraduates.

# RAW RUBBER PROCESS DEVELOPMENT AND CHEMICAL ENGINEERING

Construction of pilot scale Ultra fast dryer developed for drying different types of rubber with the financial assistance from National Science Foundation (NSF) was completed. Trials carried out showed that drying time of crepe rubber, skim rubber and brown crepe could be reduced by approximately 33%, 80% and 60% against the conventional drying periods respectively.

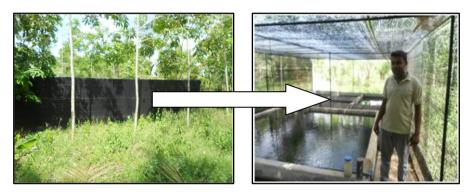
Development of rubber compound suitable for High Performance Lighter Weight Prosthetic Foot based on Hybrid Nanomaterial Filled Natural Rubber Nanocomposite was completed again with financial assistance from the NSF and in collaboration with Ranaviru Sevena army rehabilitation program. The performance of the foot was tested and the results yield that performance were satisfactory. Few discussions were held for the commercial production.

Natural rubber compound containing functionalized filler derived from modification of NR latex sludge which is generated as a by-product form latex centrifuging process was developed. A novel rubber nanocomposite based on hybrid filler (nanomaterials) with enhanced properties was developed for the use of value added rubber product manufacture. Studies on value addition to different raw rubbers through nanotechnology applications were carried out. A nanotechnology enabled raw rubber with improved/unique properties for different applications was developed.

The staff of the department continued to provide trouble shooting, routine technical assistance, analytical services and training to large scale raw rubber producers, small and medium scale sheet rubber producers and various government institutions and non-government organizations.

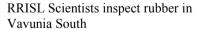
#### ADAPTIVE RESEARCH UNIT

A study was conducted in Padiyathalawa area to assess asses the microclimatic conditions in a mature rubber field with compared to natural forest and chena cultivated land. Data of this study revealed that conditions in mature rubber fields are more or less similar to the natural forest. In the Eastern province a study was conducted to assess the benefits of anti-transpirant application in sustaining leaf physiology of rubber plant under dry climatic condition. Results of the study showed that the application of anti-transpirant with a concentration of 0.6 ml/l at 2 weeks interval contributes better results in growth and physiological parameters of rubber plants. Annual girth increment rate of 8.0 cm was achieved in adaptive research plots established in the Northern Province.



Rubber with ornamental fish cultivation in Vavunia south







Livelihood change with rubber in East



Rubber in Oddusuddan (Initial establishment)

#### **BIOMETRY**

Biometry section conducts research and development activities based on three aspects; *viz*. statistical methods, research support and meteorology and climatology. On statistical methods, the Biometry section was involved in research, focusing on Biometrical aspects especially on development, modification and application of statistical methodologies to suit the needs of the rubber sector. Applications on using logit models for binary responses and spatial modeling were among the areas focused during this year. The research studies carried on climatology were mainly focused on drought analysis and rainfall anomalies. These include application of Standardized Precipitation Index (SPI) and Markov chain models to identify rainfall anomalies in the Low Country Wet Zone of Sri Lanka.

During the year under review, research support provided to other departments included data analysis, interpretation of results and database management. Databases on meteorological data collected in the stations at Dartonfield, Moneragala and and Kuruwita and rainfall data collected in stations at Nivitigalakele, Galewatta, Polgahawela, and Kuruwita were updated and provided the data for scientific purposes on request.

#### AGRICULTURAL ECONOMICS

Agricultural Economics Unit is mainly involved in various economic analyses on economic viability of rubber planting during the year. The studies conducted during the year were focused on Survey and Analysis cost of production of Natural Rubber (NR) in the estate sector and smallholder sector in Sri Lanka. Analysis of productivity in the Kalutara district was conducted using Geographic Information System (GIS) based on survey data. Databases on Local and International rubber prices, growth performance indicators of NR and Rubber finished products were updated. Agricultural Economics unit was engaged in a variety of outreach activities during this year in collaboration with the Biometry Section and Advisory Services Department. Agricultural Economics Unit conducted a research on multi

criteria decision approach on land suitability evaluation in the Vavuniya district using GIS in collaboration with the Biometry Section.

#### LIBRARY AND PUBLICATIONS

One hundred and two (102) books were added to the reference section of the library bringing the total collection up to 6034. For the benefit of Administration and Accounts Departments, the library purchased the entire set of Legislative Enactments of Democratic Socialist Republic of Sri Lanka, Establishment Code: Vol.1 & 2 and Financial Regulations. While, eight journals were purchased, thirty titles were received on exchange basis.

During the year, the current contents page service was changed to on-line system using e-mail facilities to make this service more effectively and efficiently. Meanwhile, the initial stage of the library automation project at Ratmalana Library was completed.

#### DARTONFIELD GROUP

A total crop of 161,670 kg has been harvested during this year which is only 81% of the estimated crop. When comparing with the previous year 9% crop decrease is recorded. The crop harvested from the rainguarded area was 27,852 kg which amount to 17% of total harvested crop. The YPH for the year was 892 kg, 72 kg less than the YPH for last year.

The average intake per tapper recorded during the year was 6.9 kg from an average tapping task of 242 trees. Highest intake per tapper (IPT) of 8.01 kg was recorded from the 1998 field with a tapping of 298 trees of clone RRIC 121 tapped at 1/2 S d3 without etheral in Gallewatta division.

The total number of Normal, Late, Rainguard and No tapping days recorded during the year were 204, 12, 70 and 79 days respectively.

Rainfall recorded in three divisions were Dartonfield 4,168 mm, Gallewatta 4,224 mm, Nivitigalakale 3,651 mm, and the number of wet days were 248, 224 and 159 respectively.

The COP and NSA achieved for the year were Rs.270.57 and Rs.255.26 respectively giving a loss margin of Rs.15.31 per kg and a total loss of Rs. 2.4 million. Loss per hectare recorded for the year was Rs.13,653.84.

Out of total Latex crepe manufactured during the year 73% was graded as No. 01.

#### **KURUWITA SUB - STATION**

The mature and immature extent of the Kuruwita Sub Station were 73.26 and 8.9 hectares respectively for the year under review.

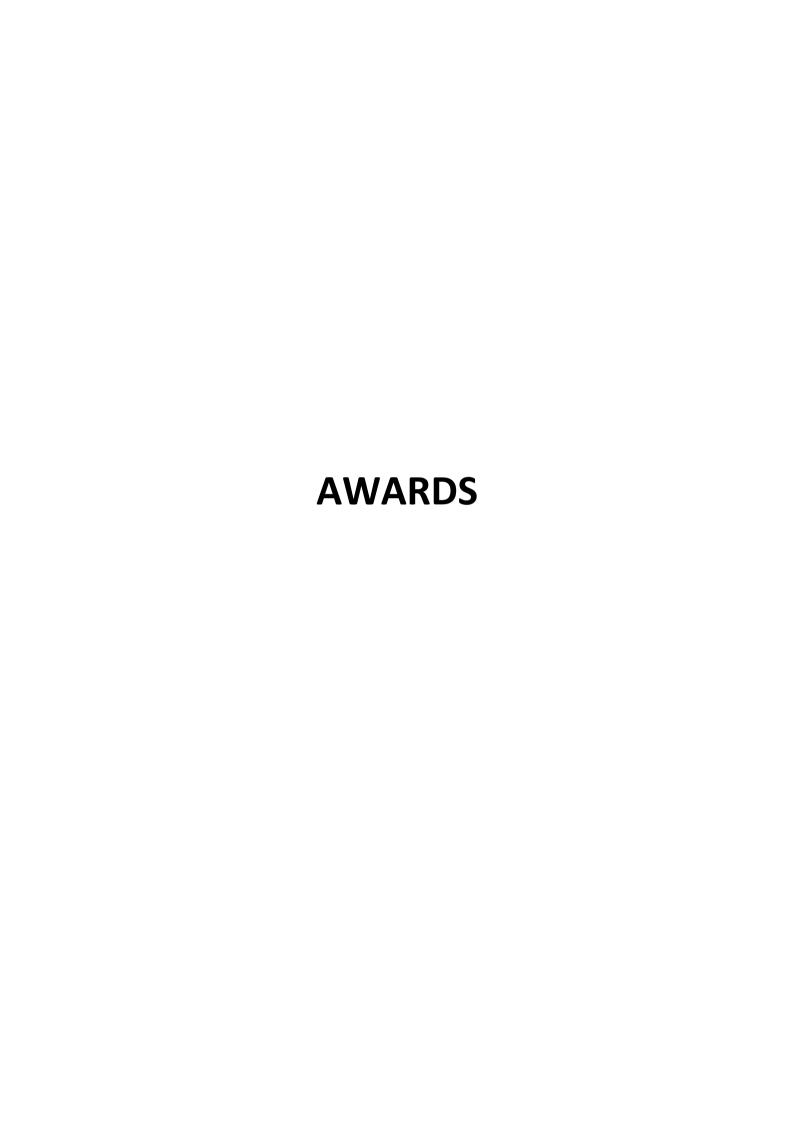
A total crop of 100,170 kg has been harvested during the year. The actual crop harvested was 99% of the estimated crop. When comparing with the previous year 1% crop increase is recorded.

The actual yield per hectare (YPH) and the average intake per tapper were 1,367 kg and 8.9 kg respectively.

The total number of Normal, Late, Rainguard, Rain interfered and No tapping days recorded for the year were 174, 32, 140, 02 and 17 days respectively.

Total rain fall recorded for the year was 4,002.14 mm with 251 wet days. When compared with the same period last year rainfall is less by 1,090.9 mm but wet days is more by 12 days.

The cost of production (C.O.P.) and the net sale average (N.S.A) for the year were Rs.191.21 and Rs.207.86 respectively, giving a profit margin of Rs.16.65 per kg and a total profit of Rs.1.6 million. Profit per hectare recorded for the year was Rs. 22,765.91 of nearly 17%, 2% and 10% in annual rainfall compared to the previous year, respectively. The annual rainfall in Moneragala recorded an increase of 42% over the last year.



#### **Awards**

- Dr (Mrs) D G Edirisinghe, Head of the Rubber Technology and Development Department, RRISL received the Merit Award from the Plastics and Rubber Institute of Sri Lanka for the significant contribution made towards the development and growth of the polymer industry of Sri Lanka.
- Research work conducted for developing low frequency harvesting systems to
  address the tapper shortage, high bark consumption rate and to reduce cost of
  production in the rubber industry in Sri Lanka by Dr (Mrs) K V V S Kudaligama
  leading to her PhD degree has won the GRC Postgraduate award 2015 awarded
  by the Sri Lanka Association for Advancement of Science.
- Dr Upul N Ratnayake was awarded National Research Council (NRC) Merit Award for Scientific Publications - 2013 organized by National Research Council (NRC) in 2015
- Dr N M C Nayanakantha, Principal Research Officer attached to the Plant Science Department of RRISL, received the Award for the "Best Oral Presenter" for his paper entitled "Differential Expression of Defense-Related Genes in Sinapis alba and Brassica juncea upon the infection of Alternaria brassicae" under the category of "Biotechnology" at the Twenty Seventh Annual Congress of Postgraduate Institute of Agriculture (PGIA), Peradeniya, held from 19<sup>th</sup> to 20<sup>th</sup> November 2015 at Plant Genetic Resources Centre (PGRC), Gannoruwa.
- Dr N M C Nayanakantha also received a Merit Certificate for his paper entitled "Identification of differentially expressed genes in *Brassica juncea* and *Camelina sativa* upon challenge inoculation with *Alternaria brassicae*" under the category of Biotechnology, Molecular Biology and Microbiology at 4<sup>th</sup> Young Scientists Forum Symposium held on 23<sup>rd</sup> January 2015, at Hector Kobbekaduwa Agrarian Research and Training Institute (HARTI), Colombo.

# BOARD OF MANAGEMENT & THE STAFF 2015

#### RUBBER RESEARCH BOARD OF SRI LANKA

#### **BOARD OF MANAGEMENT**

#### Members appointed by the Hon Minister of Plantation Industries

Mr N V T A Weragoda, Chairman, Rubber Research Board (w.e.f. 15.10.2015)\*

Ms M K D N Madampe, Treasury Representative (w.e.f. 13.03.2015)

Mr S S Poholiyadda, Director Operations, Kegalle Plantations Ltd.

Mr R C Peiris, Chief Executive Officer, Kotagala Plantation Ltd.

Mr R A D S Ranatunge, Representative of Ministry of Plantation Industries (up to 19.02.2015)

Mr D M L Bandaranavake, Ministry Representative (w.e.f. 20.02.2015)

Mr U K S Mihindukulasooriya, Ministry Representative (w.e.f. 26.11.2015)

Mr M S Rahim, Representative, Colombo Rubber Traders Association (up to October 2015)

Mr Justin Seneviratne, Director, Lalan Rubbers (Pvt.) Ltd.

Mr P K Karunaratne, Member, RRB (w.e.f. 06.03.2015)

Dr (Ms) T U Thilakawardane, CARP Representative (w.e.f. 25.02.2015)

\* Mr J Y Peries (up to 20.01.2015)

Mr P B Goonawardane (from 12.02.2015 to 14.10.2015)

#### **Ex-Officio Members**

Dr W M G Seneviratne, Director, Rubber Research Institute

Mr R B Premadasa, Director General, Rubber Development Department

Mr P G Rajadurai, Chairman, Planters Association of Ceylon

#### STANDING COMMITTEES

#### Estates Committee

Mr N V T A Weragoda, Chairman, Rubber Research Board (from 15.10.2015)

Dr W M G Seneviratne, Director, Rubber Research Institute

Dr V H L Rodrigo, Additional Director, RRI

Dr (Mrs) P Seneviratne, Deputy Director (Biology)

Mr Nissanka Seneviratne, Deputy General Manager, Eladuwa estate, Matugama

Mr Jagath Hettiarachchi, Senior Manager, Delkieth estate, Baduraliya

Mr Tony Bertus, General Manager (Rubber), Agalawatta Plantations Ltd., No.10, Gnanartha Pradeep Mawatha, Colombo 8

Mr Sanjaya Doranegama, Manager, Pallegoda estate, Dharga Town

Mr P A Lukshaman, Senior Manager - Estate, Dartonfield estate

Mr S A R Samarasekera, Manager - Estate, Kuruwita Sub-station

Mr A M Lasanthi, Accountant, RRI (In attendance)

#### Audit and Management Committee

Ms M K D N Madampe, Treasury Representative (w.e.f. 13.03.2015)

Dr W M G Seneviratne, Director, Rubber Research Institute

Mr R B Premadasa, Director General, Rubber Development Department

Mr R A D S Ranatunge, Representative of Ministry of Plantation Industries (up to 19.02.2015)

Mr D M L Bandaranayake, Ministry Representative of Plantation Industries (w.e.f. 20.02.2015)

Mr U K S Mihindukulasooriya, Ministry Representative of Plantation Industries (w.e.f. 26.11.2015)

#### In attendance

Mr K Kandage, Audit Superintendent, MPI

Ms Lasanthi Munasinghe, Accountant, RRI

Ms S Senadheera, Internal Auditor, RRB

Ms B H P Balasooriya, Acting Secretary to the Board (up to July 2015)

#### Scientific Committee

#### Members of RRISL

Mr N V T A Weragoda, Chairman, Rubber Research Board (w.e.f. 15.10.2015)\*

Dr W M G Seneviratne, Director, RRI

Dr V H L Rodrigo, Additional Director, RRI

Dr (Mrs) G P W P P Seneviratne, Deputy Director Research (Biology), RRI

Dr S Siriwardena, Deputy Director Research (Technology), RRI

Dr D M A P Dissanayake, Head, Advisory Services, Dept., RRI

Dr (Mrs) D G Edirisinghe, Head, Rubber Technology & Development Dept., RRI

Dr A M W K Senevirante, Principal Research Officer, Plant Science Dept., RRI

Dr R M U N Ratnayaka, Principal Research Officer, Raw Rubber Process Development & Chemical Engineering Dept., RRI

Dr (Mrs) A H L R Nilmini, Principal Research Officer, Polymer Chemistry Dept., RRI

Dr (Mrs) S P Withanage, Senior Research Officer, Genetics & Plant Breeding Dept;

Dr (Mrs) B W Wijesooriya, Principal Research Officer, Biometry Section, RRI

Dr S M M Iqbal, Principal Research Officer, Adaptive Research Unit, RRI

Dr N M C Nayanakantha, Principal Research Officer, Plant Science Dept., RRI

Dr (Mrs) T H P S Fernando, Senior Research Officer, Plant Pathology & Microbiology Dept, RRI

Dr (Mrs) E S Munasinghe, Senior Research Officer, Adaptive Research Unit, RRI

Dr (Mrs) K V V S Kudaligama, Senior Research Officer, Biochemistry & Physiology Dept., RRI

Mrs R P Hettiarachchi, Senior Research Officer, Soils & Plant Nutrition Dept., RRI

Mr A H Kularathne, Advisory Officer, Advisory Services Dept., RRI

Mr K K Liyanage, Senior Research Officer, Genetics & Plant Breeding Dept., RRI

Mrs G D D Seneviratne, Senior Research Officer, Rubber Technology & Deve. Dept., RRI

Dr Senerath Bandara, Senior Research Officer, Genetics & Plant Breeding Dept., RRI

Mrs B M D C Balasuriya, Research Officer, Adaptive Research Unit, RRI

Mrs A P Attanayake, Research Officer, Raw Rubber & Chemical Analysis Dept., RRI

Mrs D S A Nakandala, Research Officer, Plant Science Dept., RRI

Mr K A G B Amaratunga, Research Officer, Plant Science Dept., RRI

Mr T U K Silva, Research Officer, Plant Science Dept., RRI

Mrs M K R Silva, Research Officer, Plant Pathology & Microbiology Dept., RRI

Mrs P V A Anushka, Research Officer, Genetics & Plant Breeding Dept., RRI

Mr W D M Sampath, Research Officer, Rubber Technology & Dept., RRI

Mr P K K S Gunaratne, Advisory Officer, Advisory Services Dept., RRI

Mr R A D Ranawake, Advisory Officer, Advisory Services Dept., RRI

Mr J K S Sankalpa, Research Officer, Agricultural Economics Unit, RRI

Mr K Adikari, Research Officer, Polymer Chemistry Dept., RRI

Mrs I H K Samarasinghe, Research Officer, Raw Rubber & Chemical Analysis Dept., RRI

Mr P A Lukshaman, Estate Superintendent, Dartonfield, RRI

Mr S A R Samarasekara, Estate Superintendent, Kuruwita Substation

\* Mr J Y Peries (up to 20.01.2015)

Mr P B Goonawardane (from 12.02.2015 to 14.10.2015)

#### Members representing the Industry and other Institutions

Mr A C Bertus, Agalawatta Plantations PLC, General Manager, No.10, Gnanarthapredeepa Mawatha, Colombo 8

Mr D P A Perera, DGM, Balangoda Plantations PLC, P.O. Box 6, Palmgarden, Ratnapura

Mr A I B Rajasingha, Superintendent, Balangoda Plantations PLC, Palmgarden estate, Ratnapura

Mr R M D T J Ratnayake, Superintendent, Balangoda Plantations PLC, Mahawela estate, Ratnapura

Mr D K Wijeratne, Superintendent, Balangoda Plantations PLC, Rambukkande estate. Ratnapura

Mr B L L Premathilake, Superintendent, Balangoda Plantations PLC, Mutwagalla estate, Ratnapura

Mr Bathiya Bulumulla, CEO, Elpitiya Plantations PLC, Aitken Spence Tower 1, 19<sup>th</sup> Floor, No. 305 Vauxhall Street, Colombo 2

Mr A G Geeth Kumara General Manager - Low Country, Elpitiya Plantations PLC, Talgaswala estate, Talgaswala

Mr U A Karunanayake, Manager, Elpitiya Plantations PLC, Divitura estate, Athkandura

Mr Pradeep Vithanage, Senior Manager, Elpitiya Plantations PLC, Lelwala estate, Wanduramba

Mr N T Dandeniya, Manager, Elpitiya Plantations PLC, Ketandola estate, Elpitiya

Mr W R S Weerasinghe, Manager, Elpitiya Plantations PLC, Bentota estate, Elpitiya

- Mr Rolly Dougles, Manager, Elpitiya Plantations PLC, Elpitiya estate, Elpitiya
- Mr E N Gunawardane, Manager, Elpitiya Plantations PLC, Madampe estate, Rakwana
- Mr H Madiwaka, Acting Superintendent, Elpitiya Plantations PLC, Bibile estate, Bibile
- Mr S T M Perera, Manager, Hapugastenna Plantations PLC, Hatherleigh estate, Rakwana
- Mr Manuja Kariapperuma, Director/CEO, Horana Plantations PLC, No. 20, R A de Mel Mawatha, Colombo 3
- Mr Nishantha Wijenayake, Manager, Horana Plantations PLC, Frocester Estate, Ingiriya
- Mr B H Weerakoon, Deputy General Manager, Horana Plantations PLC, Neuchatel estate, Neboda
- Mr R C Peiris, CEO, Kotagala Plantations PLC, 53 1/1. Sir Baron Jayathilaka Colombo 1
- Mr J N Hettiarachchi, Senior Manager, Kotagala Plantations PLC, Delkith estate, Baduraliya
- Mr C S Amarathunga, Senior Manager, Kotagala Plantations PLC, Rayigam estate, Ingiriya
- Mr R Tennakoon, Senior Manager, Kotagala Plantations PLC, Padukka estate, Padukka
- Mr W H R K Jayakody, Manager, Kotagala Plantations PLC, Uskvalley estate, Baduraliya
- Mr D Samarasinghe, Manager, Kotagala Plantations PLC, Sorana estate, Horana
- Mr Nalin Wijerathne, Manager, Kotagala Plantations PLC, Eduragala estate, Ingiriya
- Mr R A Alahakoon, Manager, Kotagala Plantations PLC, Delkeith estate, Baduraliya
- Mr Udara Premathilake, General Manager Low Country, Kelanivally Plantations PLC, No.400, Deans Road, Colombo 10
- Mr Ranil Fernando, DGM, Kelanivelly Plantations PLC, No.400, Deans Road, Colombo 10
- Mr Buddhi Gunasekera, DGM, Kelanivelly Plantations PLC, Panawatte estate, Yatiyantota
- Mr Senaka Fernando, DGM, Kelanivelly Plantations PLC, Dewalakande estate, Dehiowita
- Mr Ravi Madawala, Estate Manager, Kelanivelly Plantations PLC, Urumiwella estate, Bulathkohupitiya
- Mr Vajira Hewage, Estate Manager, Kelanivelly Plantations PLC, We-Oya estate, Yatiyantota
- Mr Sunil Poholiyadda, Kegalle Plantations PLC, Director/CEO, 310, High Level Road, Nawinna, Maharagama
- Mr B M J A Moonemalle, Group Manager, Kegalle Plantations PLC, Pallegama estate, Niyadurupola
- Mr S A A P Jayathilake, Superintendent, Kegalle Plantations PLC, Parambe estate, Undugoda

- Mr Viren Ruberu, Director/CEO, Kahawatta Plantations PLC, 52, Maligawatta Road, Colombo 10
- Mr Sujiva Godage, DGM, Kahawatte Plantations PLC, DGM Office, Godellawatte, Sannasgama, Pelmadulla
- Mr T V Jayaseekara, Agronomist, Kahawatte Plantations PLC, DGM Office, Godellawatte, Sannasgama, Lellopitiya
- Mr Jeewantha Senaratne, Senior Manager, Kahawatta Plantations PLC, Rilhena estate. Pelmadulla
- Mr Damith Mohottige, Estate Manager, Kahawatte Plantations PLC, Hunuwella estate. Openavake
- Mr Madushanka Dunusinghe, Estate Manager, Kahawatte Plantations PLC, Pelmadulla estate, Kahawatte
- Mr Lakkhana Perera, Estate Manager, Kahawatta Plantations PLC, Houpe estate, Kahawatta
- Mr D O H Hettiarachchi, Manager, Kahawatta Plantations PLC, Wellandura estate, Kahawatta
- Mr Indrajith Rukmal, Estate Manager, Kahawatta Plantations PLC, Ekkerella estate, Openayake
- Mr R Viduranga, Manager, Kahawatta Plantations PLC, Poronuwa estate, Kahawatta
- Mr Gaya Weerasekara, Manager, Kahawatta Plantations PLC, Opatha estate, Kahawatta
- Mr Albert Peries, General Manager Estates, Lalan Rubbers (Pvt.) Ltd., No.54, Kirulapana Avenue, Colombo 6
- Mr Nishantha Seneviratne, Group General Manager, Lalan Rubbers (Pvt.) Ltd., Sapumalkanda estate, Deranivagala
- Mr Indika Wakkumbura, Manager, Lalan Rubbers (Pvt) Ltd., Mahaoya Group, Deraniyagala
- Mr D U H Bulugahapitiya, General Manager Rubber, Malwatte Valley Plantations PLC, Vincit estate, Waharaka
- Mr K M Wilson, DGM, Maturata Plantations Ltd., Diddenipotha estate, Mulatiyana Junction, Matara
- Mr N V Samarasekera, Superintendent, Maturata Plantations Ltd., Andapana estate, Kamburupitiya
- Mr Buddika Madagama, Superintendent, Maturata Plantations Ltd, Wilpita estate, Akuressa
- Mr P de S A Gunasekera, DGM, Namunukula Plantations PLC, Baddegama estate, Baddegama
- Mr N B Seneviratne, DGM, Namunukula Plantations PLC, Eladuwa estate, Matugama
- Mr S M Doranegama, Superintendent, Namunukula Plantations PLC, Pallegoda estate, Dharga Town
- Mr S B Dissanayake, Superintendent, Namunukula Plantations PLC, Yatadola estate, Matugama
- Mr Anusha Perera, Chief Operating Officer Rubber, Pussellawa Plantations Ltd., Level 11, FLC Tower, No.19, Dudley Senanayaka Mawatha, Colombo 8

- Mr D D G N Dodangoda, Senior Manager, Pussellawa Plantations Ltd, Siriniwasa estate. Waga
- Mr R Seneviratne, DGM, Pussellawa Plantations Ltd., Halpe estate, Tummodera
- Mr J A D C Jayalath, Superintendent, Pussellawa Plantations Ltd, Pussella estate, Parakaduwa
- Mr A M A S Dhanasekara, DGM, Pussellawa Plantations Ltd, Pambegama estate, Parakaduwa
- Mr M P K Udugampola, DGM, Pusellawa Plantations Ltd., Elston estate, Puwakpitiya
- Mr A D Perera, Senior Manager, Pusellawa Plantations Ltd., Penrith estate, Avissawella
- Mr C M Hettiarachchi, Superintendent, Pussellawa Plantations Ltd, Bope, Padukka
- Mr Yajith de Silva, General Manager South, Watawala Plantations PLC, No.60, Dharmapala Mawatha, Colombo 3
- Mr Danushka Daswatte, Manager, Watawala Plantations PLC, Nakiyadeniya Estate, Nakiyadeniya
- Mr Gava Nakandala, Consultant, 375/26, Rathnam Road, 4th Lane, Hokandara North
- Mr Asoka Jayasekera, Project Consultant, Wellassa Rubber Co., C/O Tissa Jinasena Group, 57, Lake Crescent, Colombo 2
- Dr N Yogaratnam, Consultant, No.14, Hildon Place, Colombo 4 (up to 14.08.2015)
- Mr S W Karunarathne, Consultant, Mallikarama Road, Ratmalana
- Mr N M Amarasekera, Consultant, 37/9, Terrance Avenue, Mt Lavinia
- Mr Sarath Seneviratne, Seneviratne Group, 2/4B, D R Wijewardane Road, Mt. Lavinia

#### **Provident Fund Committee**

Mr N V T A Weragoda, Chairman, Rubber Research Board (w.e.f. 15.10.2015)\*

Dr W M G Seneviratne, Director, Rubber Research Institute

Mr A H Kularatne, Acting Deputy Director Administration, Rubber Research Institute

Mr T B Dissanayake, Elected Committee Member

Mr R A D Ranawaka, Elected Committee Member

Mrs Lasanthi Munasinghe, Accountant, RRI (In-attendance)

\* Mr J Y Peries (up to 20.01.2015)

Mr P B Goonawardane (from 12.02.2015 to 14.10.2015)

#### Chairman's Office & Board Secretariat

Chairman - Mr N V T A Weragoda (w.e.f. 15.10.2015)\*

\* Mr J Y Peries (up to 20.01.2015)

Mr P B Goonawardane (from 12.02.2015 to 14.10.2015)

Acting Secretary to the Board (Personal Assistant to the Chairman) Acting DDA & Secretary, RRB Management Assistants

- Mrs B H P Balasooriya (up to July 2015)
- Mr A H Kularatne (w.e.f. 19.06.2015)
- S A T Senaratne
- K V D H S Kalutharawithana, BSc (SL)
- Mrs K Y G M P Kumari, BA (SL),

#### Lawyers

Attorney General Attorney General's Department (Government Institutions) P O Box 502 Colombo 12

#### **Bankers**

Bank of Ceylon Corporate Branch 75, Janadhipathi Mawatha Colombo 1

Bank of Ceylon Agalawatta

#### **Auditors**

Auditor General Auditor General's Department Independence Square Colombo 7

#### **Head Office and Laboratories**

Dartonfield, Agalawatta

Telephones:

relephones.	
Director	034 - 2248457
Additional Director	034 - 2248458
Deputy Director Research (Biology)	034 - 3346118
General	034 - 2247426
	034 - 2247383
	034 - 3349999
	034 - 2248459
Fax:	034 - 2247427
e-mail	dirrri@sltnet.lk
Website	www.rrisl.lk

#### **Board Office and Rubber Chemistry & Technology Laboratories**

Telewela Road, Ratmalana

Telephones:

Chairman	011 - 2635019
Fax	011 - 2633353
Board Office	011 - 2635142
Fax	011 - 2605171

 Director
 011 - 2633351

 Fax
 011 - 2633351

 Deputy Director Research (Technology)
 011 - 2633352

 General
 011 - 2635851

 011 - 2635852
 011 - 2605171

 e-mail
 dirrub@sltnet.lk,

rubberreseach@gmail.com

#### Sub stations

#### Nivitigalakele - Substation, Matugama

Genetics and Plant Breeding Department Telephone: 034 - 2247368, 034 - 2247199

e-mail: rrigpb@sltnet.lk

#### Kuruwita - Substation, Ratnapura

Telephone: 045 - 2262115, 045 - 3460537

e-mail: rrikuruwita@sltnet.lk

#### Polgahawela - Substation, Polgahawela

Telephone: 037 - 3378191

#### Monaragala - Substation, Monaragala

Telephone: 055 - 3600707

Website: www.rrisl.lk

#### RUBBER RESEARCH INSTITUTE OF SRI LANKA

#### **STAFF**

#### DIRECTORATE

Director W M G Seneviratne, BSc (SL), PhD (Sussex) Additional Director V H L Rodrigo, BSc Agric (SL), MSc (Essex)

PhD (Wales)

Deputy Director – Research (Bio.) G P W P P Seneviratne, BSc (SL), PhD (Bath) Deputy Director – Research (Tech.) S Siriwardene, BSc (SL), MSc (Australia)

PhD (Malaysia)

Acting Deputy Director A H Kularatne, BSc (SL), MSc (Reading),

(Administration) MSc (SL) (from 19.06.2015)

#### RESEARCH DEPARTMENTS

(at Nivithigalakele Substation, Matugama) **Genetics and Plant Breeding** 

Head of Department Mrs S P Withanage, BSc Agric (SL),

MSc (India), PhD (Malaysia) (w.e.f. 20.03.2015) Senior Research Officers \*K K Liyanage, BSc Agric (SL) MPhil (SL)

PKSG Senarath Bandara, BSc (SL),

PhD (Japan)

Miss P V A Anushka, BSc Agric (SL) Research Officer

Experimental Officers I D M J Sarath Kumara

L S Kariyawasam T B Dissanayake T M S K Gunasekera

H P Peries, Dip. Agric (Kundasale) Mrs A K Gamage, BSc (SL)

B W A N Baddewithana, BSc Agric. (SL) Technical Officers (Research & Development)

Miss W D A R Tharanga, BSc (SL)

(w.e.f. 24.04.2015) Management Assistants (Clerical) Mrs S D P K L Peiris

Miss K D Piyumi Hasara

**Plant Science** (at Dartonfield, Agalawatta)

A M W K Senevirathna, BSc (SL), MSc (SL), Head of Department

PhD (Wales) (from 20.03.2015 to 31.12.2015)

Principal Research Officer N M C Nayanakantha, BSc (SL), MSc (India),

PhD (India)

Research Officers Mrs D S A Nakandala, BSc Agric (SL)

K A G B Amaratunga (up to 03.09.2015) T U K Silva, BSc Agric (SL), MPhil (SL)

Experimental Officers Mrs G A S Wijesekera

Mrs R K Samarasekera W D M N de Alwis, BSc (SL)

D L N de Zoysa

P D Pathirana, BSc (SL)

P K W Karunathilake, Dip. Agric (Ratnapura)

Technical Officers R Handapangoda, BSc Agric (SL)

(Research & Development) Mrs U Dissanayake, Dip. in Agric. (Naiwala)

Mrs B V Hasangi Madushani, BSc (SL) Miss L A R Amaratunga, BSc (SL)

(w.e.f. 24.04.2015)

Miss N C Jayawanthi, BSc (SL)

(from 24.04.2015)

H A U Deshappriya, BSc (SL) (w.e.f. 24.04.2015)

Management Assistants (Clerical) Mrs H D D E Jayawardena

Mrs Aruni de Almeida

Plant Pathology and Microbiology (at Dartonfield, Agalawatta)

Senior Research Officer Mrs T H P S Fernando, BSc (SL), MPhil (SL),

PhD (SL)

Research Officer Mrs M K R Silva, BSc Agric (SL), MSc (SL)

Experimental Officers E B Fernando (up to 19.04.2015)

Mrs B I Tennakoon, Dip. Agric (Kundasale) Mrs E A D D Siriwardene, BSc (SL) S C P Wijayaratne, NDT Agric (Hardy)

S R D P C Peiris, BSc (SL)

E A D N Nishantha, Dip. Agric. (Ratnapura),

BIS (Agric) (SL)

Technical Officers Miss S P Wijekoon, BSc (SL) (w.e.f. 05.05.2015)

(Research & Development) Miss A N Wijewardena, BSc (SL) (from

24.04.2015)

Management Assistant (Clerical) Mrs K A D Y Madushani Lanka

**Soils and Plant Nutrition** (at Dartonfield, Agalawatta)

Senior Research Officer Mrs R P Hettiarachchi, BSc (SL), MPhil (SL)

Experimental Officers Mrs S D C K Maheepala S N Silva (up to 07.08.2015)

A H U Mitrasena

Miss V U Edirimanne, BSc (SL)

Experimental Officers

Technical Officers

Miss A P Thewarapperuma P D T C Gunatilleke, NDT (Agric)

J A Sarath Chandrasiri Mrs Eranga de Silva, NDT

(at Dartonfield, Agalawatta)

C G Mallawaarachchi, Dip. in Agric. (Hardy) Mrs M Kulathunga, BSc (SL) (w.e.f. 24.04.2015) Mrs R H N S Alwis, BSc (SL) (w.e.f. 24.04.2015)

Management Assistant

(Research & Development)

Mrs K A D L Rupasinghe Perera

Mrs K V V S Kudaligama, BSc (SL),

**Biochemistry and Physiology** 

Senior Research Officer

Experimental Officers Technical Officers (Research &

Development)

(Stenography)

MPhil (SL), PhD (SL) M K P Perera, BSc (SL) R P S Randunu, BSc (SL)

Miss P A D T L Madushani, Diploma in Agric.

(w.e.f. 24.04.2015)

Miss A A Amila Nadeeshani, BSc (SL)

(w.e.f. 24.04.2015)

Management Assistant (Clerical)

Mrs H A Manoji Erandika

**Advisory Services** Head of Department

Advisory Officers

Assistant Training Officer Divisional Rubber Extension Officer Rubber Extension Officers (at Telewela Road, Ratmalana)

D M A P Dissanayake, BSc Agric (SL)

PhD (Aberdeen)

P K K S Gunaratne, BSc Agric (SL)

R A D Ranawaka

Miss K G P Manahari, BSc (SL) M G N Gunaratne (up to 03.06.2015)

D Weerasekera

W D T C Muniratne, Dip. Plant Ex. Mangt.

D R A M G Abeydissanayake

R M S Ratnayake, NDT Agric (Hardy)

DEPM Nanayakkara, Dip. Agric. (Aquinas)

W D Chandrasiri

M Dharmadasa, BSc (SL), MSc (SL)

J A J Perera

E G U Dhanawardena

Nihal Gamage, Dip. Agric. (Angunakolapelessa)

U N Jayasuriya G D N Seneviratne

W C Siriwardena, Dip. Plant Ex. Mangt.

(up to 01.08.2015)

Rubber Extension Officers S G G Wijesinghe

> N G Yasaratne I P L Kithsiri

W M A S L Wanigasuriya, Dip. Agric (Aquinas)

N L Dharmasena

W P G D C P K Senanavake, NDT Agric

(Hardy)

T L Ramanayake, BSc (SL)

A R Kulathunga, BSc (SL) (w.e.f. 18.02.2015) S M A Samarakoon, Dip. Agric. (Kundasale)

Experimental Officer Management Assistants (Clerical) Mrs M K Wijetilleke

Miss SV Shirani Madurika, BA (SL)

Mrs C Gunatilleke Mrs J N R Jayasinghe Mrs S M Kaluarachchi

TRC Silva

Miss P Sachini Ishara

(at Telewela Road, Ratmalana) **Polymer Chemistry Department** 

Head of Department Mrs A H L R Nilmini, BSc (SL), PhD (Cardiff)

(w.e.f. 15.03.2015)

Research Officer A M K S P Adikari, BSc (SL), MPhil (SL) Experimental Officer Mrs N Jayawardane, Dip. Agric. (Bibile) Technical Officers (Research & Mrs H M H Dhanukamalee, BSc (SL) Development)

Miss E A K E Edirisinghe, BSc (SL)

(w.e.f. 24.04.2015)

M T D C Perera, BSc (SL) (w.e.f. 24.04.2015)

M A W K Tillekeratne Management Assistant

(Clerical)

Raw Rubber and Chemical Analysis (at Telewela Road, Ratmalana)

Research Officers Mrs A P Attanayake, BSc (SL)

Mrs I H K Samarasinghe, BSc (SL)

Experimental Officers Mrs L Wanigatunga

> Mrs H V K Gamage Mrs C S Lokuge

Miss D M S Wijesekera, Dip. Rubber Tech.

(PRI)

L P P Vitharana

Technical Officers (Research &

Development)

Miss S P Wijewardena, BSc (SL) Miss W M I Nuwangi, Dip. in Chem.

(up to 27.10.2015)

Technical Officers (Research & Miss A C C Jayasinghe, BSc (SL) (from

Development) 24.04.2014 - 02.12.2015)

Miss J A Jayamuthu, BSc (w.e.f. 13.05.2015)

Management Assistants (Clerical) Miss W D D Samanmali

G N K Gunasena

Rubber Technology and Development (at Telewela Road, Ratmalana)

Head of Department Mrs D G Edirisinghe, BSc (SL), MSc (SL)

MPhil (UK), PhD (SL) (w.e.f. 20.03.2015)

Senior Research Officers \*Mrs G D D Seneviratne, BSc (SL),

MSc (Malaysia)

Research Officer W D M Sampath, BSc (SL)

Experimental Officers Mrs M K Mahanama, Dip. Rubber Tech. (PRI)

Mrs S I Yapa, Dip. Rubber Tech. (PRI) Mrs P C Wettasinghe, Dip. in Science

S L G Ranjith, Dip. Rubber Tech. (PRI), BSc (SL)

P L Perera

Mrs G M Priyanthi Perera, BSc (SL), MSc (SL)

Technical Officers (Research &

Development)

V G M J Abeywardena, NDT Miss S G P Bhagayawedha, NDT

K I D P Perera, BSc (SL) (w.e.f. 27.05.2015)

Management Assistant (Clerical) Miss SMDSR de A Wijeratne

**Raw Rubber Process Development and Chemical Engineering** 

(at Telewela Road, Ratmalana)

Head of Department R M U N Ratnayake, BSc (SL),

PhD (Loughborugh) (w.e.f. 20.03.2015)

Experimental Officers Mrs W K C Nalinie, Dip. Rubber Tech. (PRI)

Mrs U M S Priyanka, BSc (SL), MSc (SL)

Mrs V C Rohanadeepa

A K D W Prasad

Technical Officer (Research &

Development)

Miss K G P M Dharmatilleke, BSc (SL)

A S Ghouse, Graduate Chemist

(w.e.f. 24.04.2015)

Miss B P Kannangara, BSc (SL)

(w.e.f. 24.04.2015)

B D J H Perera, BSc (SL) (w.e.f. 24.04.2015) Dinesh Balasooriya, BSc (SL) (w.e.f. 24.04.2015)

Management Assistants (Clerical) Miss H A Janani Lakshika, BA (SL)

Mrs U K Akila Tharinduni, BSc (SL)

Miss A R M de Alwis Mrs K K Geetha BA (SL) Miss P D S Dilhani

WIISST D S DIIII

**Biometry Section** 

Principal Research Officer

Experimental Officers

(at Dartonfield, Agalawatta)

Mrs B W Wijesuriya, BSc Agric (SL),

MPhil (SL), PhD (SL)

Mrs H K D C S Munasinghe, NCT Polymer

(Moratuwa), Dip. Rubber Tech. (PRI),

Dip. Computer Science (IDM)

O V Abeyawardene, Dip. Agric. (Kundasale)

**Adaptive Research Unit** 

Principal Research Officer

Senior Research Officer Research Officer

Technical Officer (Research &

Development)

Management Assistants (Clerical)

(at Dartonfield, Agalawatta)

S M M Igbal, BSc Agric. (SL), MPhil (SL)

PhD (Essex)

Mrs E S Munasinghe, BSc Agric (SL), PhD (SL)

Mrs B M D C Balasooriya, BSc Agric (SL)

P M M Jayatilleke, NDT (Agric.) T B K H Neranajan, HND (Agric.)

(up to 31.10.2015)

cal) Mrs M A Randima Srimalee

**Agricultural Economics Unit** 

Research Officer

Management Assistants (Clerical)

(at Dartonfield, Agalawatta)

J K S Sankalpa, BSc (SL), MSc (SL) Miss W W L S Shashikala, BA (SL)

**Library and Publications Unit** 

Librarian

Library Assistant & Assistant

Publications Officer

Management Assistants (Clerical)

(at Dartonfield, Agalawatta)

S U Amarasinghe, BSc (SL), MA (SL), ASLLA

Mrs R M Amaratunga, Intermediate; Lib. Sci.

Doc. & Info. (SLLA)

P M P Jayantha

N W E C Maduranga

**Administration Department** 

Administrative Officers

(at Dartonfield, Agalawatta)

L P K W Weliwatta, BA (SL), Dip. in HRM

Mrs P Mandalawatta, (Dip. in HRM)

Management Assistants (Clerical) Mrs P W Neelamanie

Mrs S K Handunge (up to 26.10.2015)

Mrs J A D Wijayanthi

Mrs B D Niranjala

Mrs O W D Namali Udayanthi

Mrs P C Athukorala

Mrs Thamosha Munasinghe Mrs O W D Nilusha Udayanthi

Miss H N Kanchana

Mrs B Chandralatha, BA (SL)

Management Assistants (Clerical) Mrs W V A S Ariyawansha (up to 30.12.2015)

Miss M G L Niroshani

Management Assistant Mrs J A H S Kumarie

(Stenography)

Translator Mrs D N Senevirathna, Dip. Agric. (Kundasale),

BSc (SL)

Telephone Operator Mrs J A D C Preethika

**Medical Center** 

Assistant Medical Practitioner M Subasinghe Pharmacist S Lankeshwara

Administration Unit (Ratmalana) (at Telewela Road, Ratmalana)

Management Assistant (Clerical) DPNP Dissanayke

Internal Audit Unit (at Dartonfield, Agalawatta)

Internal Auditor Mrs M S I Senadeera, AFA, IIPF, IRCA, LICA

Internal Audit Officer K C Fernando

Management Assistants (Clerical) Mrs S N Munasinghe

R G A S Dharmaratne

Udaya Samantha Munindradasa, BA (SL)

Works Section (at Dartonfield, Agalawatta)
Technological Officer (Civil) MADK Jayasumana, NCT

Transport Officer ULDRL Gunasinghe
Technological Officer (Mech.)

Management Assistants (Clerical)

ULDRL Gunasinghe
HJP Fernando, HNDE
Mrs KCS Wickremasinghe

Mrs J A S Dharshanie (Dip. in Management)

Mrs K K D K P Ranaweera Mrs M S W H Kumari, BSc (SL)

Work Supervisor (Electrical) T M R P Tennakoon

Accounts Section(at Dartonfield, Agalawatta)AccountantMrs A M Lasanthi, BSc (SL)

Accounting Assistant D D R Lankatilaka, BCom (SL)

Management AssistantsMrs Irene Perera(Accounting)Mrs M GunawardeneMrs R Handungoda

Mrs G P Kukulewithana

Management Assistants (Clerical) A V Nandasena

Mrs K J M C R Fernando Mrs C Dissanayake A K D A Wickremasinghe Management Assistants (Clerical) Mrs S I K Pathirage

Miss K T D Jayawathi Mrs S A Niluka Harshani Mrs K K D Y L Ranaweera Miss K K T L Jayasekera J A J R Lakmal, BA (SL)

Miss R P Thilini Mrs M N D Perera K A Dilan Sampath

Mrs Erandi Kanchana Jayasinghe, BA (SL)

Miss S R Sinhabahu

Cashier Mrs G A D D Jayawardena

#### DARTONFIELD GROUP

Senior Manager - Estate P A Lakshman, BSc (SL)

Experimental Officer S S Warnapura (up to 31.03.2015)

Management Assistants K K P Gunawardena

H D D Achinda

M A N Sachith Pawinda

T D Harsha

Field Officer (Nivitigalakele) B M Siriwardena

Field Officer (Gallewatta) A B Nakandala (up to 29.06.2015)

Kuruwita Sub-Station (at Kuruwita)

Manager S A R Samarasekera
Management Assistants (Clerical) D S Jayasinghe
K D P Senaratne

Polgahawela Sub-Station (at Narampola Estate, Nungamuwa, Yatigaloluwa)

Management Assistant (Accounting) Mrs W A C Weeramanthree

Moneragala Sub-Station (at Kumbukkana, Monaragala)

Research Officer H D S P Perera, BSc (SL), MSc (SL)

(up to 24.11.2015)

Field Officers V G D Nishantha Gunaseela

N V U S Vijitha Kumara Mrs D M P Sandun Kumari

Management Assistant (Clerical) Mrs DMP Sandun Kumari

M M Chamath Kumara

<sup>\*</sup> On study leave overseas

# LIST OF PUBLICATIONS 2015

#### LIST OF PUBLICATIONS

#### Scientific Journals (Bold type - Employees of Rubber Research Institute of Sri Lanka)

- Kuruppu, I.V., Edirisinghe, J.C., Herath, H.M.L.K., Jayasinghe-Mudalige, U.K., **Wijesuriya**, **W.**, Udugama, J.M.M. and Fernando, A.P.S. (2015). Farmers' valuation of agro-biodiversity in Home Gardens: Case study in the Kurunegala District. *Journal of Environmental Professionals Sri Lanka* **4**, 72-83.
- Nayanakantha, N.M.C., Rawat, S., Ali, S. and Grover, A. (2015). Differential expression of defense-related genes in *Sinapis alba* and *Brassica juncea* upon the infection of *Alternaria brassicae*. *Tropical Agricultural Research* 27, 123-136.
- **Ratnayake, U.N.,** Prematunga, D.E., Peiris, C., Karunaratne, V. and Amaratunga, Gihan A.J. (2015). Effect of polyethylene glycol intercalated organoclay on vulcanization characteristics and reinforcement of natural rubber nanocomposites. *Journal of Elastomer and Plastics* (Online publication).

#### Bulletin/Conferences/Seminars/Workshops/Reports

- **Adhikari, A.M.K.S.P.** and **Nilmini, A.H.L.R.** (2014). Compatibilization effect of CPE with NBR/EPDM blend. *World Science Echo*, India **2**, 1-4.
- Adhikari, A.M.K.S.P., Nilmini, A.H.L.R. and Siriwardena, S. (2014). Physical and chemical characterization of foam rubber rejects. *World Science Echo*, India 1, 149-151.
- Alwis, G.M.C., **Ratnayake**, **U.N.**, Kottegoda, N.S. (2015). Effect of Prevulcanization inhibitors on quaternary alkyl ammonium modified clay filled natural rubber nanocomposites. *Proceedings of 2<sup>nd</sup> International Symposium on Polymer Science and Technology*, University of Sri Jayewardenepura, Sri Lanka. P.27.
- **Attanayake**, **A.P.**, Karunanayake, L. and **Nilmini**, **A.H.R.L.** (2015). Effect of ethephon concentration on rubber yield through magnesium ion and sucrose regulation in *Hevea brasiliensis*. *YSF Symposium 2015*, p.11.
- **Attanayake**, **A.P.**, Karunanayake, L. and **Nilmini**, **A.H.R.L.** (2015). Viscoelastic properties of stimulated rubber. *International Symposium in Polymer Science*, University of Sri Jayawardenepura, p.12.

- **Attanayake, A.P.**, **Lokuge, C.** and Dharmawardana, G.T.S. (2015). Appropriate strategy to overcome potential problems in NR latex processing. *RISTCON International Conference 2015*, University of Ruhuna, p.20.
- De Silva, C.N., **Edirisinghe, D.G.** and Dharmakeerthi, R.S. (2015). Effect of partial replacement of carbon black with pyrogenic carbon on properties of tyre tread compounds. *Proceedings of the IIUPST 2015*, University of Sri Jayewardenepura, p.19.
- Dharmathilake, K.G.P.M. and **Ratnayake**, **U.N.** (2015). Synergistic effect of pristine clay and organoclay on elasticity and reinforcement natural rubber nanocomposites. *Proceedings of 2<sup>nd</sup> International Symposium on Polymer Science and Technology*, University of Sri Jayewardenepura, Sri Lanka, P.28.
- Fernando, T.H.P.S., Seneviratne, P., Nishantha, N. and Siriwardena, D. (2015). Screening of *Hevea* clones against Corynespora leaf fall disease: The most destructive foliar disease of rubber. *Proceeding of International Conference on Multidisciplinary Approaches*. University of Sri Jayawardanepura, Sri Lanka. p.216.
- **Fernando, T.H.P.S., Seneviratne, P., Wijeratna, C.** and Mirando, J. (2015). Recent research findings on tree injection: an advanced application technology against disease management giving special emphasis to white root disease. *Proceedings of the International Rubber Conference 2015.* IRRDB, Ho Chi Minh City, Vietnam. 252-258.
- Hettiarachchi, R.P., Dharmakeerthi, R.S., Seneviratne, G., Jayakody, A.N., De Silva, E., Gunathilaka, T. and Thewarapperuma, A. (2015). Biofilmed biofertilizers as key player in improving soil fertility and plant growth of Rubber (Hevea brasiliensis) seedlings. Proceedings of the Twentieth International Forestry and Environmental Symposium. Department of Forestry and Environmental Science, University of Sri Jayawardenepura. P.85.
- Iddamalgoda, I.D.H.C., **Attanayaka, A.P.**, Withanage, N.S. and Weerawansa, N.R. (2015). Property variation of centrifuged latex at different maturity stages in glove manufacturing. *Research Symposium of Uva Wellassa University*, 5-9.
- Iqbal, S.M.M., Rodrigo, V.H.L., Wettasinghe, W.A.D.D.S. and Jayathilake, P.M. M. (2015). Identification of suitable species and genotypes for cut foliage cultivation on rubber lands. *Proceedings of the International Rubber Conference* 2015. IRRDB. Ho Chi Minh City, Vietnam. 141-142.

- Jayawarna, J.C. and Edirisinghe, D.G. (2015). Reclaiming of natural rubber latex product waste by a mechanochemical process for production of solid tyre treads. *Proceedings of the IIUPST 2015*, University of Sri Jayewardenepura, p.20.
- Jeewanthi. P.W., **Wijesuriya**, **W.** and **Sankalpa**, **J.K.S.** (2015). Use of information on rainfall behavior to assist timely management of agronomic operations in rubber plantations in the Agro Ecological Region WL1a. *YSF Symposium 2014*, HARTI, Colombo, 100-103.
- Karunathilaka, S.N., Nugawela, A., **Senevirathna, A.M.W.K.**, **Nayanakantha, N.M.C., Bandara, P.K.G.S.S.** and **Samarasekara, R.K.** (2015). Effectiveness of DRC+3, ascorbic acid and sodium nitroprusside as a treatment for tapping panel dryness of rubber (*Hevea brasiliensis*). *Proceedings of 14<sup>th</sup> Agricultural Research Symposium*. Wayamba University of Sri Lanka, 278-282.
- **Kudaligama, K.V.V.S., Rodrigo, V.H.L.** and **Randunu, R.P.S**. (2015). Commercial application of S/2 d4 harvesting system to address current issues in rubber plantations in Sri Lanka. *Proceedings of the International Rubber Conference* 2015. IRRDB. Ho Chi Minh City, Vietnam. 386-396.
- Kumara, P.R., **Munasinghe, E.S., Rodrigo, V.H.L**. and Karunaratna, A.S. (2015). Carbon footprint of rubber/sugarcane intercropping system in Sri Lanka; a case study. *Fifth International Conference of Sabaragamuwa University of Sri Lanka*. Belihuloya. 50-51.
- Kumari, L.D.A.N., **Ratnayake**, **U.N.** and **Prasad**, **A.K.D.W.** (2015). Value added Natural Rubber/Skim Rubber blend with incorporating pristine montmorillonite clay. *Proceedings of 2<sup>nd</sup> International Symposium on Polymer Science and Technology*, University of Sri Jayewardenepura, Sri Lanka. P.31.
- Liyanaarachchi, L.A.T.S., Karunaratne, S.B., Sankalpa, J.K.S., Wijesuriya, B.W., Gajanayake, B. and Abeysinghe, D.C. (2015). Can we cultivate rubber in Northern Dry Zone of Sri Lanka: A case study from Vavuniya district using GIS approach. *Proceedings Wayamba International Conference 2015*, Wayamba University of Sri Lanka. 337-341.
- Liyanaarachchi, L.A.T.S., Karunaratne, S.B., Sankalpa, J.K.S., Wijesuriya, B.W., Gajanayake, B. and Abeysinghe, D.C. (2015). Development of a land suitability map to expand rubber in Northern Dry Zone of Sri Lanka: A case study from Vavuniya District. *Proceedings of the Peradeniya University International Research Sessions*, Sri Lanka, Vol.19, p.4.

- Madushani, H.K.I., **Fernando, T.H.P.S.**, Wijesundara, R.L.C. and **Senaviratne, P.** (2015). Genetic variation of *Rigidoporus microporus* isolates from different host plants in vicinity of rubber plantation. 5<sup>th</sup> YSF Symposium, 52-54.
- Madushani H.K.I., **Fernando, T.H.P.S.**, Wijesundera, R.L.C. and **Seneviratne, P.** (2015). Physiological effect of laccase secreted by *Rigidoporus microporus* on the host pathogen interactions. *Twentieth International Forestry and Environment Symposium 2015*. University of Sri Jayawardenepura, Sri Lanka. p.122.
- Madushani, H.K.I., **Fernando, T.H.P.S.**, Wijesundera, R.L.C. and **Siriwardena, D.** (2015). Significance of laccase by *Rigidoporus microporus*, the cause of WRD of rubber. *Proceeding of International Conference on Multidisciplinary Approaches*. University of Sri Jayawardanepura, Sri Lanka. p.175.
- Madushani, H.K.I., Sumanasinghe, V.A. and **Liyanage, K.K.** (2012). RAPD in assessment of genetic diversity of *Hevea* breeding population in 2012. *Proceeding of Peradeniya University International Research* **18**, p.57.
- Mirihana, M.K.U.L., Nugawela, A. and **Nayanakantha, N.M.C.** (2015). The effect of nitric oxide pretreatment on growth and root architecture of polybagged rubber (*Hevea brasiliensis*) seedlings. *Proceedings of 14<sup>th</sup> Agricultural Research Symposium*, Wayamba University of Sri Lanka, Sri Lanka. 273-277.
- Montoro, P., Tang, C., Saha, T., Annamalainathn, K., Ismawanto, S., Nayanakantha, N.M.C. and Phumichi, T. (2015). Contribution of molecular biology and physiology to climate-smart natural rubber production. *Proceedings of the International Rubber Conference 2015*. IRRDB. Ho Chi Minh City, Vietnam. 101-107.
- **Munasinghe, E.S., Rodrigo, V.H.L.** and Gunawardena, U.A.D.P. (2015). Biomass from rubber trees for renewable energy: a review of Sri Lankan scenario. *Proceedings of the Twentieth International Forestry and Environmental Symposium 2015*. Department of Forestry and Environmental Science, University of Sri Jayawardenepura, Sri Lanka, p.81.
- Nayanakantha, N.M.C., Hettiarachchi, N.N., Senevirathna, A.M.W.K. and Seneviratne, P. (2015). Nitric oxide pre-treatment enhanced growth attributes of polybagged rubber (*Hevea brasiliensis*) seedlings. *Proceedings of the International Rubber Conference 2015*. IRRDB. Ho Chi Minh City, Vietnam. 49-58.

- **Nayanakantha, N.M.C.,** Rawat, S. and Grover, A. (2015). Identification of differentially expressed genes in *Brassica juncea* and *Camelina sativa* upon challenge inoculation with *Alternaria brassicae*. 4<sup>th</sup> YSF Symposium, HARTI, Colombo, p.65.
- **Nilmini, A.H.L.R.** and **Adhikari, A.M.K.S.P.** (2014). Studying the effect of a compatibilizer system on thermal properties of NBR/EPDM blend. *3<sup>rd</sup> YSF Symposium*, Sri Lanka, 1-4.
- Nilmini, A.H.L.R., Seneviratne, W.M.G. and Adhikari, A.M.K.S.P. (2013). Nitrosoamine free preservative system for natural rubber latex. *Rubber Con*. Thailand, 137-141.
- Peiris, M.M.K., Fernando, T.H.P.S., Gunawardana, D., Nishantha, E.A.D.N. and Seneviratne, G.P.W.P.P. (2015). Cultural reproductive variability of *Corynespora cassiicola* from different host plants. *Twentieth International Forestry and Environment Symposium 2015*. University of Sri Jayawardenepura, Sri Lanka p.2.
- **Priyanka, U.M.S., Ratnayake, U.N.** and Kottegoda, N.S. (2015). Surface treated natural rubber latex sludge as a potential filler for rubber compounds. *Proceedings of 2<sup>nd</sup> International Symposium on Polymer Science and Technology*, University of Sri Jayewardenepura, Sri Lanka
- **Ratnayake, U.N.** Kumari, L.D.A.N., **Prasad, A.K.W.** and Wijesinghe, D.R. (2015). Montmorillonite clay filled skim natural rubber nanocomposite as a value added raw rubber. *Proceedings of the International Rubber Conference 2015*. IRRDB. Ho Chi Minh City, Vietnam. 483-487.
- Ratnayake, U.N. (2015). Nano materials add value to rubber. *Rubber Asia*, 30. 74-78
- Samarasinghe, I.H.K., Ratnayake, U.N., Attanayake, A.P., Seneviratne, W.M.G. and Wanigatunga, L. (2015). Effect of storage conditions on viscoelastic properties of different grades of natural latex crepe rubber. *International Rubber Conference*. IRRDB, Ho Chi Minch, Vietnam, 406-409.
- **Sampath, W.D.M.**, Egodage, S.M. and **Edirisinghe, D.G.** (2015). Effect of a titanate coupling agent on chemical and ageing properties of calcium carbonate filled natural rubber and low density polyethylene composites. *IIUPST 2015*, University of Sri Jayewardenepura, Sri Lanka, p.10.

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#### **Patents**

Patent Application titled "Novel high performance lighter weight prosthetic foot based on nanomaterial filled natural rubber compounds" was filled at Sri Lanka Patent Office in 2015, Patent Application No. LK/P/1/18468.

#### **Abbreviations**

HARTI - Hector Kobekaduwa Agrarian Research & Training Institute

IEEE - Institute of Electrical and Electronics Engineers

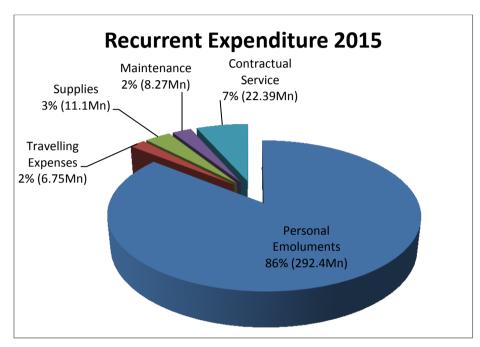
IIUPST - Institutes, Industries and Universities Polymer Science and Technology

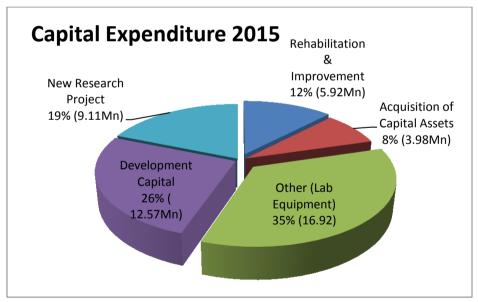
IRRDB - International Rubber Research & Development Board RISTCON - Ruhuna International Science & Technology Conference

YSF - Young Scientists' Forum

# FINANCIAL STATEMENTS 2015

#### **RECURRENT & CAPITAL EXPENDITURE 2015**





#### RUBBER RESEARCH BOARD OF SRI LANKA FINANCIAL STATEMENTS - 2015 CONTENTS

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### RUBBER RESEARCH BOARD OF SRI LANKA - STATEMENT OF FINANCIAL POSITION AS AT DECEMBER 31, 2015

		20	15	2014			
ASSETS	Note	R	s	Rs			
Non-Current Assets							
Land and Buildings	]	97,781,215.71		105,165,497.33			
Infrastructure, Plant and Equipment	-01	195,909,689.67		190,292,936.93			
Intangible Assets	J	855,000.00					
			294,545,905.38		295,458,434.26		
Current Assets		1005.504.11		2 250 515 20			
Other Financial Assets	02	1,965,524.11		2,378,717.28			
Other Current Assets	03	38,880,015.31		48,311,088.28			
Inventories	04	15,587,720.72		12,150,205.28			
Working Progress	04-A	8,828,902.15		4,988,147.47			
Receivables	05	13,717,213.22		12,353,976.50			
Investments in Associates	06	505,499.67		490,607.46			
Cash and cash Equivalents	07	31,957,488.12		11,420,000.63			
			111,442,363.30		92,092,742.90		
Total Assets			405,988,268.68		387,551,177.16		
LIABILITIES							
Current Liabilities							
Payables	08	(52,189,613.41)		(54,479,787.66)			
Short -Term Provisions	09	(1,399,460.99)		(2,900,375.99)			
			(53,589,074.40)		(57,380,163.65)		
Non-Current liabilities							
Employee Benefits	10	(106,373,055.25)		(109,237,033.00)			
			(106,373,055.25)		(109,237,033.00)		
Total Liabilities							
Total Net Assets			(159,962,129.65)		(166,617,196.65)		
NET ASSETS/EQUITY			246,026,139.03		220,933,980.51		
Accumulated Fund	11	665,957,027.16		604,202,382.25			
Accumulated Surpluses/(Deficits)	12	(419,930,888.13)		(383,268,401.74)			
TOTAL NET ASSETS/EQUI	$_{ extbf{TV}}^{ }$		246,026,139.03	-	220,933,980.51		
TOTAL NET ASSETS/EQUI	11		240,020,139.03		440,933,960.31		

The governing body of an entity is responsible for the preparation and presentation of its financial statements and which should also contain a statement of responsibility.

The Board of Governors is responsible for the preparation and presentation of these financial statements. These financial statements were approved by the Board of Governors and signed on their behalf.

Mr.N.V.T.A.Weeragoda Chairman - RRB Dr. W.M.G.Senevirathn Director - RRI Board Member

Mrs. A.M.Lasanthi Accountant - RRI

#### RUBBER RESEARCH BOARD OF SRI LANKA STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED DECEMBER 31, 2015

Revenue	Note	RR	lI.	Df. E	state	K'wita E	state	Kumarawat	ta Estate	Narampo	ola Estate	Tot	al
		2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014
		Rs	3	R	s	Rs		Rs		J.	Rs	Rs	
Taxes													
Fees, fines, penalties and licenses													
Revenue from exchange transactions													
Transfers from other government entities		342,296,800.00	252,500,000.00									342,296,800.00	252,500,000.00
Other revenue	13	9,783,662.41	11,642,479.29									9,783,662.41	11,642,479.29
Gross Profit Df. Estate & K'wita Estate	22,23			43,010,241.62	42,858,588.83	15,466,455.43	24,973,418.34					58,476,697.05	67,832,007.17
Other Income Estate (Projects)	22,23,24,25			6,316,552.12	4,135,729.03	658,685.88	1,596,696.47	286,020.19	15,522.00	2,589,847.21	2,804,486.43	9,851,105.40	8,552,433.93
													-
Total Revenue		352,080,462.41	264,142,479.29	49,326,793.74	46,994,317.86	16,125,141.31	26,570,114.81	286,020.19	15,522.00	2,589,847.21	2,804,486.43	420,408,264.86	340,526,920.39
Less:													
Expenses													
Wages, Salaries and employee benefits	14,15,14A,14B,14C	281,297,027.38	202,337,586.34	37,181,922.85	35,449,307.62	17,798,108.24	17,605,366.61	3,836,499.20	4,579,765.18	2,830,478.18	2,625,334.60	342,944,035.85	262,597,360.35
Grants and other transfer payments												-	-
Supplies and consumables used	16,14A,14B,14C	12,837,905.83	12,622,497.04	1,364,325.88	1,728,932.08	446,671.56	370,330.84	552,626.89	930,895.51	124,687.00	327,934.40	15,326,217.16	15,980,589.87
Depreciation and amortization expenses	17,14A,14B,14C	21,300,607.92	23,857,832.20	1,137,437.46	867,569.36	378,156.55	309,373.52					22,816,201.93	25,034,775.08
Maintenance of property, plant and equipment	14A			3,008,888.42	3,191,129.67							3,008,888.42	3,191,129.67
Other expenses	18,19,20,21,14A,14B,14C	69,980,638.58	73,924,979.54	519,877.56	450,256.81	417,931.09	1,189,465.93	204,743.50	316,253.98	403,941.98	176,433.32	71,527,132.71	76,057,389.58
Finance Costs	14A,14B	127,093.51	121,799.16	530,861.99	673,212.81	112,600.97	131,814.05					770,556.47	926,826.02
Other Expenditure Estate (Projects)	22,23			677,718.71	710,417.59							677,718.71	710,417.59
													-
Total Expenses		385,543,273.22	312,864,694.28	44,421,032.87	43,070,825.94	19,153,468.41	19,606,350.95	4,593,869.59	5,826,914.67	3,359,107.16	3,129,702.32	457,070,751.25	384,498,488.16
Surplus/(Deficit) for the Period		(33,462,810.81)	(48,722,214.99)	4,905,760.87	3,923,491.92	(3,028,327.10)	6,963,763.86	(4,307,849.40)	(5,811,392.67)	(769,259.95)	(325,215.89)	(36,662,486.39)	(43,971,567.77)

(36,662,486.39) (43,971,567.77)

#### RUBBER RESEARCH BOARD OF SRI LANKA CONSOLIDATED CASH FLOW STATEMENT FOR THE YEAR ENDED 31 DECEMBER 2015

Operating Activities Surplus/Deficit	2015 Rs	(36,662,486.39)
Non Cash Movements		
Add: Depreciations	26,207,885.21	
Less: Amortization)	(3,117,077.49)	
Add :Provision for Gratuity	5,203,205.00	
Less: Interest on Investment	(28,748.97)	28,265,263.75
Net Cash Flow before working Capital Changes		(8,397,222.64)
Working Capital Changes		
Increase in Receivables	(1,363,236.72)	
Increase in Inventories	(3,437,515.44)	
Decrease other current Assets	9,431,072.97	
Decrease Payables	(2,290,174.25)	
Decrease Short-term provision	(1,500,915.00)	
Gratuity paid	(10,692,175.00)	(9,852,943.44)
Net Cash Flow form Operating Activity		(18,250,166.08)
Investing Activities		
Investments in associates	(14,892.21)	
Other financial Assets	413,193.17	
Purchase of Property ,Plant and Equipment	(34,222,861.64)	
Working Progress	(3,840,754.68)	
Interest Income on Investment	28,748.97	
Net Cash Flow from Investing Activity		(37,636,566.39)
Finance Activities		
Fund Received	63,600,000.00	
Other Capital Grant	12,826,234.96	
Net Cash Flow from Financing Activity		76,426,234.96
Net Cash Flow for the Year		20,539,502.49
Cash and Cash Equivalents at Beginning of the Year		11,420,000.63
Cash and Cash Equivalents at End of the Year	_	31,959,503.12

#### RUBBER RESEARCH BOARD OF SRI LANKA STATEMENT OF CHANGES IN NET ASSETS/EQUITY ENDED DECEMBER 31, 2015

ATTRIBUTAE	BLE TO OWNE	RS OF TH	E CONTROI	LING ENTITY			
	Contributed Capital	Other Reserves	Translation Reserves	Accumulated Surpluses/(Deficits)	Total	Minority Interest	Total net Assets/equity
		!	!	Rs.		!	
Balance at December 31, 2014							
Changes in accounting policy	604,202,382.25			(383,268,401.74)	220,933,980.51		220,933,980.51
Restated balance							
Change in net asset/equity for 2015							
Gain on property revaluation							
Loss on revaluation of investments							
Exchange differences on translating							
Funds Received	61,754,644.91				61,754,644.91		61,754,644.91
foreign operations							
Net revenue recognized directly in net							
asset/equity							
Surplus for the period				(36,662,486.39)	(36,662,486.39)		(36,662,486.39)
Total recognized revenue and							
expenses for the period							
Balance at December 31, 2015							
Carried forward	665,957,027.16	-	_	(419,930,888.13)	246,026,139.03	-	246,026,139.03

#### RUBBER RESEARCH BOARD OF SRI LANKA

#### **ANY OTHER DISCLOSURES**

#### 1. ACCOUNTING POLICIES

#### 1.1 General Accounting Policies:

1.1.1 The accounts for the year end 31 December 2015 has been prepared in accordance Sri Lanka Public Sector Accounting Standards 2009.

#### 1.2 Conversion of foreign exchange:

Foreign currency has been converted at prevailing rates

#### 1.3 Government and other grants and subsidies:

- 1.3.1 Government and other grants and subsidies related to income have been taken in to the income statement considering the periods and with related costs
- 1.3.2 Government and other grants related to assets, have been presented in the balance sheet at their costs and non monitory grants presented at a fair value.
- 1.3.3 Replanting subsidies have been set off against replanting expenditure and net amount has been represented in the balance sheet under fixed assets.

#### 1.4 Consolidation Policies:

- 1.4.1 The Rubber Research Board accounts comprise the consolidation of the activities of the R.R.I. plantations (Estates) managed by the Rubber Research Institute. *i.e.* Dartonfield Group & Kuruwita Estate.
- 1.4.2 The Rubber Research Institute and estates have a common financial year which ends on 31 December.

- 1.4.3 The profits and losses of the plantations have been taken in to the Rubber Research Institute surplus/deficit account and reflected in the balance sheet.
- 1.4.4 The project Accounts have not been consolidated with the Rubber Research Institute Accounts, since they are separate entities. However, the balance of the relevant control Accounts have been incorporated.

#### 2. Non Current Assets:

#### 2.1 Lands

The Institute is the sole owner of all the lands except Kumarawatta Monaragala and Narampola, Alawwa.

#### 2.1.1 Substation at Narampola (Alawwa) Kumarawatta (Monaragala)

#### 2.1.1 (a) Narampola (Alawwa)

The extent of this land is 106 Acres 02 Roods & 31 perches. This land was taken over on 14.12.2004 under MOU on a Rental agreement. When preparing MOU agreement between RRI and JEDB the Narampola Lands has been monitory valued as Rs. 16,000,000/-

2.1.1 (b) The extent of the land is 50 acres and this was taken over form the JEDB on 19 September 2006 under MOU on 30 years Lease agreement. Assessment value is Rs. 10,000,000/for this Land.

Development cost for those lands is reflected in RRI Assets as additions during the year. The approval of the relevant authorities have been given to acquire these lands and action is been taken accordingly.

2.1.1 (c) In accordance with MOU agreement RRI has to pay Rs. 640,000- annually as rental for Narampola Estate, Alawwa. Rs. 400,000/- annually as and rental for Kumarawatta Estate, Monaragala.

The rentals have not been paid as the RRI was trying to acquire these Lands since 2004 and 2015 respectively by communicating with relevant authorities.

#### 2.1.1 (d) **Profit Loss Narampola & Kumarawatta Substations**

- (i) Lands of Narampola is still in developing stage. The income generated by the estate is not sufficient to bear its expenditure.
- (ii) Kumarawatta (Monaragala) Substation has been established for Research and extension activities related to nontraditional Rubber growing areas including Northern and Eastern Provisions. RRI cannot be expected a profit from the substation as it is a small Land for research activities and cultivation cannot be established in commercial basis.

#### 3. Depreciation Policy

- Fixed Asset will not be depreciated in the year of purchasing and the depreciation will be commence as from the following year.
- In depreciation the Reducing balance method is applied by the Institute
- Value of the Noncurrent Assets have been reflected in the balance sheet on written down value basis.
- 3.1 Non Current Assets have been stated at written down value basis and the rates of the depreciation are as follows:-

Item	Percentage
Buildings	3.5 %
Furniture, Fixtures & Fittings	20.0%
Power and Water supply	10.0%
Laboratory apparatus	20.0%
Motor Vehicles	20.0%
Documentary films	20.0%
Periodicals and Journals	20.0%
Earth slip project	3.5%
Rubber in bearing	5.0%
Machinery & Tools	10.0%
Tea in bearing	5.0%
Cinnamon	5.0%
Computer Software	10.0%

#### 4. Work in Progress

#### 4.1 Nursery - Monaragala

The Nursery has been initially established out of the Cess Fund. Now it has been developing by Treasury Capital allocation. The management has decided to commence the depreciation after completion of the Nursery work and amortize the fund proportionately.

#### 5. Current Assets

#### 5.1 Debtors & Other Receipts

- 5.1.1 The amount of Rs. 6,915,540.14 was shown as Surety Bond Debtors in the balance sheet of 2012 were the balances due from Bond defaulters. Contingency liability a/c is a Parallel A/c to the Surety Bond Debtors A/C. As per the Audit report 2011 the contingency liability accounts was closed from 31.12.2013 and the balance as at and 2013 is 5,845,856.64. The similar amount was ejected from debtors and the contingency liabilities will be shown in para 7.1.1
- **5.1.2** Other debtors amounting to Rs.**1,286,278.99** is also generated out of the Bond defaulters. The legal action has not been taken by the Institute against them as yet due to some documentary lapses. The above amount is built up as follows.

Thurul Warnapura - 936,278.34 D.E.D.E.I.N. Perera - 350,000.65

## 5.1.3 <u>Bad & doubtful debts. of Rs. 830,936.88 and Provision for Bad & Doubtful Debts. Rs. 1,074,162.13</u>

Approval of the Ministry has been sought in 2009 for writing off the above, but the approval has not yet been given by the Ministry so far.

#### 6. Stock Valuation

- 6.1.1 Rubber Stock has been valued on Market Price
- 6.1.2 Other Stock Items

Those are valued on cost basis

- (1) Rubber Stock amounting to 3,883,699.00/- has been physically verified.
- (2) Stationery stock amounting to 444,943.60 as been physically verified.
- (3) The general stock amounting to 8,269,860.00 has been physically verified.
- (4) Stock in obsolete amounting to Rs. 480,635.81 has been verified.
- (5) Rathmalana Stock amounting to Rs. 255,185.41 has been physically verified
- (6) Non Moving Stock (Main Store) amounting to Rs. 378,385.86 has been physically verified.
- (7) Stocks of Kuruwita and Dartonfield which were shown under note 5 II and 5 III has been physically verified.

#### 7. Liabilities

#### 7.1 Contingency Liability

This accounts has been closed from 31.12.2015 as per the details referred in Para 5.1.1. The contingency liabilities balance as at 31.12.2014 is Rs. 5,845,856.64 which has made up as follows.

Mr. H.H. Talgaswatta	-	38,402.56
Mr. G.V.L. Nilmini	-	1,884,612.81
Mr. S.M.C.E. Silva	-	1,635,005.85
Mrs. Samanthi P. Herath	-	444,289.87
Mr. N.A.A.D. Wickramasing	he -	7,245.46
Mr. Nalinda P Wickramasing	he -	10,643.54
Mr. B.P.Weerarathna	-	1,825,654.55
Mr. M.D.J.R.Gunathilaka	_	2.00
		5,845,856.64

This amount will be keeping as a note to the balance sheet as from year 2013. If some defaulters will settle the bonded amount in the future it will be taken as sundry income and deducted from the amount shown in the Note.

#### 7.2 Gratuity

Gratuity Provision have been calculated as per the gratuity Act No. 12 of 1983 in respect of all eligible employees for the period of service under the Institute. Gratuity Provisions includes the provisions for newly absorbed Rubber Development Department staff to the New Advisory Services Dept of the Rubber Research Institute.

#### 8. Writing off long outstanding balance

This matter has been discussed in COPE meeting held in 2013 and the COPE instructed to appoint a committee to investigate the long outstanding Debtors and creditors balances to take a decision to write off the balances which can't be settled.

#### 9. Research & Development Expenditure

Research and development expenditure have been charged to departmental expenditure for the period which they are incurred, including the RRI New Advisory Services Department.

#### 10. New planting /replanting /crop diversification expenditure

The above categories of expenditure have been capitalized in the accounts with effect from 1993. Depreciation will be made on maturity.

#### 11. Categorizing Expenditure against Budget Format

Laboratory Working expenses and Field Working expenses have been shown under Research and Development Expenditure in the Statement of Financial Performance. In the Budget Format, Laboratory working expenses have been shown under Supplies and Field working expenses have been shown under services (Note 20)

Other Operating Expenses are the value of services rendered from the estates (Dartonfield and Kuruwita) to the Rubber Research Institute except Rent for Narampola and Kumarawatta. These expenses are charged to the Rubber Research Institute from the Monthly accounts of Dartonfield and Kuruwita Estates (Note -22). Labour charges born related to Institute activities have been charged to the relevant department expenditure votes.

Dartonfield Agalawatta.

#### RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2015

NOTE 01 - LAND & BUILDINGS									
ASSETS	Cost as at 01.01.2015	Additional during the year 2015	Vehicles Sales Rubber Came into Tapping	Total as at 31/12/2015	Accumulative Depreciation as at 31.12.2015	Depreciation for the year 2015	Accumulated Depreciation as at 31/12/2015	Written down value as at 31/12/2015	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	<u>.</u>	
Road Development Df.	4,556,849.62			4,556,849.62	-		-	4,556,849.62	
Land - Df.	1,010,704.74			1,010,704.74	-		-	1,010,704.74	
- N'kele	357,805.90			357,805.90	-		-	357,805.90	
- Galewatta	1,865,476.48			1,865,476.48	-		-	1,865,476.48	
- Kuruwita	732,681.96			732,681.96	-		-	732,681.96	
- Rathmalana	270,760.81			270,760.81	-		-	270,760.81	
Capital Ex. Land productivity	-			-				-	
improvement in existing rubber cultivation	4,226,965.80		4,226,965.80	-				-	
Note 26								-	
Lease Land - Alawwa (55 years lease)	662,365.75			662,365.75	-		-	662,365.75	
<ul> <li>Monaragala (99 years lease)</li> </ul>	106,650.00			106,650.00	-		-	106,650.00	
Buildings - Df. H.Q	25,320,973.31			25,320,973.31	6,956,014.80	642,773.55	7,598,788.35	17,722,184.96	
- Auditorium	33,803,623.04			33,803,623.04	1,183,126.81	1,141,717.37	2,324,844.18	31,478,778.86	
- Df. Estate	3,579,933.36			3,579,933.36	759,684.70	98,708.70	858,393.40	2,721,539.96	
- N'kele	3,559,630.44			3,559,630.44	517,650.57	106,469.30	624,119.87	2,935,510.57	
- Galewatta	713,605.29			713,605.29	102,382.00	21,392.82	123,774.82	589,830.47	
- Kuruwita	5,737,040.87	22,351.50		5,759,392.37	554,951.77	181,373.12	736,324.89	5,023,067.48	
- Rathmalana	18,692,264.84			18,692,264.84	3,918,498.05	517,081.84	4,435,579.89	14,256,684.95	
- Alawwa	1,302,848.78			1,302,848.78	171,061.20	39,612.57	210,673.77	1,092,175.01	
- Monaragala	14,739,679.92	18,465.95		14,758,145.87	1,910,993.68	449,004.02	2,359,997.70	12,398,148.17	97,781,215.7
Intangible Assets			•			•			
Accounting Software DF.	950,000.00			950,000.00		95,000.00	95,000.00	855,000.00	855,000.0

SSETS	Cost as at 01.01.2015	Additional during the year 2015	Vehicles Sales Rubber Came into Tapping	Total as at 31/12/2015	Accumulative Depreciation as at 31.12.2015	Depreciation for the year 2015	Accumulated Depreciation as at 31/12/2015	Written down value as at 31/12/2015	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	31/12/2013	
Infrastructure, Plant and equipment	562.839.09	62.400.45		625.239.54	253.798.58	30.904.05	284.702.63	340.536.91	
Machinery & Tools - Df. - N'kele	221,935.00	1,800.00		223,735.00	20,584.41	20,135.06	40,719.47	183,015.53	
- Df. Estate	902,086.13	12,800.00		914,886.13	527,847.43	37,423.87	565,271.30	349,614.83	
- Kuruwita	113,300.50	12,000.00		113,300.50	41,500.38	7,180.01	48.680.39	64.620.11	
- Rathmalana	2,697,390.00			2,697,390.00	1,754,595.34	94,279.47	1,848,874.81	848,515.19	
- Alawwa	13,045.50			13,045.50	6,112.59	693.29	6,805.88	6,239.62	
Laboratory Equipments - Df.	65,443,994.30	4,747,576.90		70,191,571.20	0,112.37	073.27	0,005.00	0,237.02	
- Rathmalana	81,188,560.12	12,030,691.00		93,219,251.12	93,688,938.78	11,498,762.52	105,187,701.30	66,753,924.00	
- N'kele	4,550,196.98	3,980,606.00		8,530,802.98	75,000,750.70	11,470,702.32	105,107,701.50	00,733,724.00	
Audio Visual Equipment	4,550,170.76	487,001.95		487,001.95				487,001.95	
Effluent Treatment Plant	9,422,910.68	407,001.73		9,422,910.68	329,801.87	318,258.81	648,060.68	8,774,850.00	
Motor vehicles - H.O	78,925,665.17			78.925.665.17	55.174.164.58	4.750.299.92	59,924,464.50	19,001,200.67	
- Df. Estate	1,443,598.00			1,443,598.00	1,155,222.75	57,675.05	1,212,897.80	230,700.20	
- Kuruwita	365,960.00			365,960.00	265,047.42	20,182.52	285,229.94	80,730.06	
Power & Water Supply - Df.	1,511,183.60			1,511,183.60	450,019.42	106,116.42	556,135.84	955,047.76	
- N'kele	29,995.00			29,995.00	19,400.01	1,059.50	20,459.51	9,535.49	
- Kuruwita	228,831.39			228,831.39	74,438.21	15,439.32	89,877.53	138,953.86	
- Rathmalana	272,067.00	142,791.00		414,858.00	164,986.47	10,708.05	175,694.52	239,163.48	
- Monaragala	1,695,132.00	,		1,695,132.00	794,269.35	90,086.27	884,355.62	810,776.39	
- Alawwa	90,685.00			90,685.00	42.491.28	4,819.37	47.310.65	43.374.35	
Furniture & Fixtures &Office Equipment -Df. H	26,193,379.02	2,227,504.49	114,900.00	28,305,983.51	14,053,464.12	2,427,982.98	16,481,447.10	11,824,536.41	
- N'kele	1,339,316.41	2,400.00	,	1,341,716.41	1,084,188.65	51,025.55	1,135,214.20	206,502.21	
- Kuruwita	444,805.75	6,566.76		451,372.51	254,801.02	38,000.95	292,801.97	158,570.54	
- Rathmalana	6,931,795.32	458,693.50		7,390,488.82	4,162,233.75	553,912.31	4,716,146.06	2,674,342.76	
(vote No-01.07.06 +01.08.06) - Alawwa	310,838.89			310,838.89	168,949.62	28,377.85	197,327.47	113,511.42	
- Df. Estate	578,824.61			578,824.61	453,571.47	25,050.63	478,622.10	100,202.51	
- Monaragala	1,230,151.63			1,230,151.63	694,198.07	107,190.71	801,388.78	428,762.85	
Others Assets - Df. H.Q	7,140,211.51	428,270.81	13,620.00	7,554,862.32	-		-		
- Df. Estate	888,552.04			888,552.04	=		-		
- Rathmalana	989,080.84	181,030.00		1,170,110.84	=		-		
- N'kele	163,144.00			163,144.00	2,783,127.81	899,333.94	3,682,461.75	8,868,838.92	
- Kuruwita	662,006.16			662,006.16	=		-		
- Alawwa	64,060.00	117,300.00		181,360.00	-		-		
- Monaragala	1,869,412.67	65,257.64	3,405.00	1,931,265.31	-		-		
Library Periodicals Journals & Sub etc.	8,268,854.09	572,855.30	15,817.00	8,825,892.39	5,628,619.21	528,046.98	6,156,666.19	2,669,226.20	
Rubber Replanting Df & K'wita	42,704,967.74	4,082,768.48	4,554,812.52	42,232,923.70	-	A.	-	42,232,923.70	
Rubber in bearing Df & k'wita	18,274,916.91	4,554,812.52		22,829,729.43		913,745.84	913,745.84	21,915,983.59	
Tea Replanting K'wita	4,790,998.80	18,917.39		4,809,916.19		239,549.94	239,549.94	4,570,366.25	
Replanting Cinnamon K'wita	660,816.89			660,816.89		33,040.85	33,040.85	627,776.04	
Replanting Pepper	106,848.01			106,848.01				106,848.01	
Earth Slip Project	139,543.30			139,543.30	42,963.66	3,380.29	46,343.95	93,199.35	105,000,00
Documentary film	3,723.33			3,723.33	3,350.19	74.63	3,424.82	298.51	195,909,68
Total	495,625,484.29	34,222,861.64	8,929,520.32	520,918,825.61	200,167,050.02	26,205,870.21	226,372,920.23	294,545,905.38	294,545,90
2015.01.01 Accumulated Depreciation	=	200,167,050.02			Total Depreciation	5	= 5	26,205,870.21	AX A
2015 year Depreciation	=	25,019,533.58	1X		Replanting Depreciation	Ļ	=	1,186,336.63	ī.
	Rs.	225,186,583.60		Tran	sfer to the Estate A/C	J	Rs.	25,019,533.58	

### RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE ACCOUNTS FOR THE YEAR ENDED 31/12/2015

#### NOTE (02 ) OTHER FINANCIAL ASSETS NOTE 2B -I KURUWITA

NOIL 2D TROKE WITH	Rs.	Rs.
	2015	2014
Tea in Bearing	48,254.31	59,514.65
Tea in Bearing	250,218.78	153,736.88
Tea Nursery	14,995.99	14,995.99
Young Budding Nursery 2013	209,882.33	259,195.35
2007 Bud Wood Nursery	3,662.73	2,247.39
Young Budding Nursery 2013/2014	217,475.92	334,245.11
Banana Trail	47,548.48	47,548.48
Cinnamon Bearing A/c 4.95 ha	178,122.90	161,261.85
Bud wood Nursery 2008	3,679.00	864.80
Bud Wood Nursery 2011	14,284.99	14,284.99
2014 Young Bud wood Nursery	29,208.23	29,208.23
Cinnamon Bearing 3.75ha	12,773.53	-
Cinnamon Bearing 1.00ha	3,406.27	
Sub Total	1,033,513.46	1,077,103.72
NOTE 2B -II DARTONFIELD ESTATE		
	Rs.	Rs.

		Rs.	Rs.
		2015	2014
2013/2014 Young Budding Nursery NK		183,049.61	242,969.77
G/W Young Budding Nursery 2014/2015		748,961.04	1,058,643.79
Sub Total		932,010.65	1,301,613.56
Grand Total	RS	1,965,524.11	2,378,717.28

#### NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2015

Note 03
OTHER CURRENT ASSETS

		RRI		K'wita Estate		Df. Estate		Total	
		Rs		Rs		Rs		Rs	
		<u>2015</u>	<u>2014</u>	<u>2015</u>	<u>2014</u>	<u>2015</u>	<u>2014</u>	<u>2015</u>	<u>2014</u>
Deposits	Schedule 04	438,517.41	422,793.41					438,517.41	422,793.41
Other Debtors	Schedule 05	1,286,278.99	1,286,278.99					1,286,278.99	1,286,278.99
General Debtors	21,248,093.97							- - -	
Less : Provision for bond debtors (Schedule 06)	1,074,162.13	20,173,931.84	20,712,246.20					20,173,931.84	20,712,246.20
Debtors		8,713,223.45	13,178,567.63					8,713,223.45	13,178,567.63
Loan Receivable		3,587,221.82	5,448,844.01					3,587,221.82	5,448,844.01
Trade & Other Receivables	Schedule 07			392,477.95	3,732,353.54			392,477.95	3,732,353.54
Trade & Other Receivables	Schedule 07					4,288,363.85	3,530,004.50	4,288,363.85	3,530,004.50
								- -	
		34,199,173.51	41,048,730.24	392,477.95	3,732,353.54	4,288,363.85	3,530,004.50	38,880,015.31	48,311,088.28

#### NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2015

#### Note 04

#### INVENTORIES/STOCKS

		2015	2014
		Rs.	Rs.
RRI	Schedule 01	13,712,709.68	10,713,796.92
Kuruwita Estate	Schedule 02	434,460.72	429,427.62
Dartonfield f Estate	Schedule 03	1,440,550.32	1,006,980.74
	Rs	15,587,720.72	12,150,205.28

#### RUBBER RESEARCH BOARD OF SRI LANKA

#### NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2015

#### <u>Note - 04 A</u>

#### WORKING PROGRESS

	2015	2014
	Rs.	Rs.
Nursery Project Monaragala	4,988,147.47	4,988,147.47
Working Progress Office Building	2,199,132.70	-
Working Progress Office Retaining Wall	1,641,621.98	-
<u>-</u>		
Sub Total	8,828,902.15	4,988,147.47

## NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2015 NOTE 05 - RECEIVABLES

	2015	2014
	Rs.	Rs.
RDD/ASD/RRI Control A/C.	3,314,565.20	2,616,291.74
Festival Advance	108,616.70	395,700.00
Travelling Advance	32,000.00	27,000.00
A.S.D.Building Complex	5,214,500.00	5,214,500.00
Staff Salary Advance	1,350.00	1,350.00
RRI Departments - Sundry	1,200.00	1,200.00
Graduate Trainees Reimbursable	627,983.56	627,983.56
Graduate Payment 2014	1,499,345.85	1,499,345.85
Security Deposits	32,150.00	32,150.00
RDD/Nurseries RRI Main Control A/C	98,910.15	98,910.15
ETF	44,362.53	50,203.40
Insurance	17,740.71	41,044.64
Claims From Insurance Corporation	10,893.96	10,893.96
Pre Payments T.Premaratne,Suranga Motors Ampara	150,000.00	150,000.00
NIPM	71,349.88	71,349.88
Graduate Trainees Payment	84,442.84	84,442.84
Cheques Purchase Advance	2,407,801.84	1,318,343.54
Abetment - Advance A/C		113,266.94
	13,717,213.22	12,353,976.50

## RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2015

<u>Note - 06</u>	<u>INVESTMENT</u>			
	2015 Rs.	2014 Rs.		
Bank Of Ceylon Agalawatta C/29 200835	200,000.00	200,000.00		
National Savings Bank-City Branch A/C No.1-0002-04-5806-06	304,322.85	289,510.86		
National Savings Bank - Matugama FD No.2-0045-01-58658	1,176.82	1,096.60		
	505,499.67	490,607.46		

## NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2015 Note - 07 CASH AT BANK AND IN HAND

			2015	2014
	Cash at Bank	Cash in Hand	TOTAL	TOTAL
			Rs.	Rs.
Bank of Ceylon - Cor.Branch	29,190,944.48		29,190,944.48	10,403,711.05
A/C No.1837			-	
Bank of Ceylon - Agalawatta	1,328,995.14		1,328,995.14	76,564.66
A/C No.335976			-	
Dartonfield Estate	292,077.91	1,184.42	293,262.33	38,798.04
A/C No.335978			-	
Kuruwita Estate	1,142,813.35	1,472.82	1,144,286.17	501,926.88
A/C No.4320540			-	
Cash in Transits - Kuruwita Estate			-	399,000.00
Rathmalana Office			-	
	31,954,830.88	2,657.24	31,957,488.12	11,420,000.63

## RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2015

## Capital Ex. Land productivity improvement in existing rubber cultivation

	2015	2014
	Rs.	Rs.
Plant Science	-	338,583.28
Plant Pathology	-	246,535.20
Genetics & Plant Breeding	-	2,903,932.78
Soils & Plant Nutrition	-	180,280.00
Training Centre		557,634.54
Sub Total		4,226,965.80

A sum of Rs. 4,226,965.80 which was included in to total value of the Land & Land productivity improvement in existing rubber cultivation project has been capitalized in the accounts of non current Assets. For the year 2014 and this was corrected in the 2015. This research & development expenditure charged to departmental expenditure for the year 2015.

#### NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2015

Note 08

#### Payables

	RRI Rs.		K'wita Estate Rs.		Df. Estate Rs.		Total Rs.	
	<u>2015</u>	<u>2014</u>	<u>2015</u>	<u>2014</u>	<u>2015</u>	<u>2014</u>	<u>2015</u>	<u>2014</u>
Creditors Schedule 08	28,566,605.20	31,874,353.13					28,566,605.20	31,874,353.13
Payables Schedule 08, 09, 10	636,382.93	12,033.37	2,938,888.29	3,081,739.77	10,333,779.09	9,730,170.49	13,909,050.31	12,823,943.63
Accrued ESchedule 11	9,459,393.00	9,572,473.70	(Schedule 09)	(Schedule 09)	(Schedule 10) 254,564.90	(Schedule 10) 209,017.20	9,713,957.90	9,781,490.90
Total Rs	38,662,381.13	41,458,860.20	2,938,888.29	3,081,739.77	10,588,343.99	9,939,187.69	52,189,613.41	54,479,787.66

#### NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2015

#### PROVISION FOR AUDIT FEE

#### Note - 09

	2015	2014
	Rs.	Rs.
Beyond 2014.01.01	1,000,193.99	2,349,944.17
Provision for 2015	399,267.00	550,431.82
Total	1,399,460.99	2,900,375.99

#### **PROVISION FOR GRATUITY**

Note - 10		
	2015	2014
	Rs.	Rs.
RRI	80,075,252.50	87,113,122.50
Kuruwita	6,672,455.25	6,867,153.00
Dartonfield	18,869,347.50	15,256,757.50
Provision for Gratuity Polgahawela	504,000.00	-
Provision for Gratuity Monaragala	252,000.00	
Total	106,373,055.25	109,237,033.00

Provision were made for 449 employees including Dartonfield and Kuruwita Estate details are available in the JE 861 and Estate Accounts Schedules

## RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2015

#### **Note - 11**

Note - 11		
		Rs.
Accumulated Fund		45,044,234.46
Other Capital Grants	Schedule 12	52,718,757.30
Treasury Grants Capital		482,066,000.00
Treasury Grants Cess		79,828,035.40
Plantation Crop Development Fund		6,300,000.00
		665,957,027.16
Note 12		
Deficit A/C Balance B/F 01.01.2014		(383,268,401.74)
Deficit 2015 year		(36,662,486.39)
		(419,930,888.13)

## RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015

Note-13 - OTHER INCOME - 2015	NON RESEARCH	RESEARCH	TOTAL RS.		
			2015 Rs.	2014 Rs.	
Interest On Institute Loans	237,172.71		237.172.71	238,224.32	
Sales Of Publication	67,635.00		67,635.00	163,356.38	
Bus fare Recoveries	336,978.81		336,978.81	320,479.94	
Sundry Receipts	1,290,693.54		1,290,693.54	883,989.23	
External heavy vehicles entering to RRI Premises	3,000.00		3,000.00	2,800.00	
Effluent Treatment- B/C Dept.		27,000.00	27,000.00	30,400.00	
Testing of Rubber - Polymer		13,500.00	13,500.00	31,850.00	
Testing of Rubber - Rubber Technology		143,060.00	143,060.00	95,000.00	
Testing of Rubber - RRP Dept.	15.250.00	583,696.72	583,696.72	646,703.28	
Kuruwita Guest House Occupational Charges	15,250.00		15,250.00	27,125.00	
Sale of Rejected Items	125,081.50		125,081.50	62,793.00	
Soil & Foliar analysis Fee		241,032.70	241,032.70	910,488.85	
Interest on Investments	28,748.97		28,748.97	35,044.41	
Sale of Tapping Knives		3,187,305.00	3,187,305.00	4,158,135.00	
Use of RRI Vehicles for Projects		133,393.75	133,393.75	218,997.39	
Profit on Training Programmes		311,689.24	311,689.24	433,737.10	
Guest House Income	11,500.00		11,500.00	51,128.00	
Soil Foliar Survey		406,187.35	406,187.35	264,442.77	
Waste Rubber of RRI Depts. Sold		23,896.46	23,896.46	120,373.76	
Tapping Panel Making plants sale		53,900.00	53,900.00	48,225.00	
Testing T.S.R.Samples		1,006,300.00	1,006,300.00	1,032,100.00	
Testing and Analytical Fees Polymer Chemistry		763,077.86	763,077.86	1,100,567.86	
Insurance claims Received Factory Fire	-		-	702,518.00	
Auditorium Income	61,850.00		61,850.00	64,000.00	
RRI Internal Timber Used	711,587.80		711,587.80		
Sale of Bud wood Stumps	125.00		125.00	_	
	2,889,623.33	6,894,039.08	9,783,662.41	11,642,479.29	

### RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015

#### Note -14 PERSONAL EMOLUMENTS EXPENDITURE STATEMENT - 2015

Research Departments	Emoluments	P.F.	E.T.F.	Medical Fund	Over Time	House Rent	Transport Allowance	Fuel Allowance	Total
									Rs.
Plant Science	15,092,421.83	1,834,777.58	348,029.99	1,993,958.92	249,610.90	87,458.58	360,000.00	163,200.00	20,129,457.80
Plant Pathology	7,321,952.34	860,408.47	172,081.70	888,147.53	238,563.34	45,379.27	-	-	9,526,532.65
Genetics & Plant Breeding	15,304,879.17	1,780,966.41	356,364.52	1,765,527.36	374,772.64	96,320.53	180,000.00	81,600.00	19,940,430.63
Soils & Plant Nutrition	10,584,841.92	1,378,978.61	242,861.19	1,382,397.44	81,984.38	53,216.57	-	-	13,724,280.11
Raw Rubber & Chemical Analysis	6,539,401.10	775,405.72	155,081.18	771,032.71	100,070.58	54,228.04	-	-	8,395,219.33
Bio-Chemistry & Physiology	3,503,588.96	388,022.89	77,604.58	416,789.82	184,237.49	7,460.00	-	-	4,577,703.74
Adaptive Research Unit	6,838,519.25	780,016.00	156,891.27	741,702.60	190,866.16	123,679.59	180,000.00	81,600.00	9,093,274.87
Rubber Technology	8,721,716.24	1,062,059.07	202,060.90	906,406.36	64,621.55	68,950.00	180,000.00	81,600.00	11,287,414.12
RRPD & CE Dept	9,522,016.94	1,144,388.23	219,961.54	979,551.53	202,330.61	67,235.71	180,000.00	77,400.00	12,392,884.56
Bio Metry	2,753,835.49	326,163.12	65,232.58	413,806.75	82,787.70	17,280.00	180,000.00	81,600.00	3,920,705.64
RRI New Advisory Ser. Dept	21,766,273.76	2,884,763.61	525,861.07	2,240,602.84	37,011.85	142,357.38	180,000.00	68,400.00	27,845,270.51
Training Centre	1,342,873.94	204,780.61	30,639.40	189,680.39	28,934.52	8,280.00	-	-	1,805,188.86
Polymer Chemistry	5,749,534.34	732,902.58	128,846.33	697,045.63	53,214.11	44,852.00	180,000.00	68,400.00	7,654,794.99
Agriculture Economics	811,422.52	95,463.38	19,092.67	86,152.50	12,149.68				1,024,280.75
SUB TOTAL	115,853,277.80	14,249,096.28	2,700,608.92	13,472,802.38	1,901,155.51	816,697.67	1,620,000.00	703,800.00	151,317,438.56
Other Departments									
Library & Publication Unit	2,797,188.74	326,748.76	65,349.80	379,868.44	150,182.52	9,290.67	-	-	3,728,628.93
Director's Office	6,527,216.71	738,214.14	147,642.84	619,441.28	12,158.85	21,416.00	289,550.00	141,000.00	8,496,639.82
Internal Audit	3,036,439.16	365,172.61	73,034.54	442,186.37	97,521.00	17,513.54	-	-	4,031,867.22
Board Office	8,611,715.36	839,476.37	159,042.52	789,521.01	816,333.30	47,759.00	-	41,677.42	11,305,524.98
Administration	26,228,978.84	3,043,864.86	574,321.08	3,161,821.22	791,721.84	154,041.37	180,000.00	68,400.00	34,203,149.21
Finance (Accounts)	10,406,116.37	1,246,785.83	249,357.13	1,450,018.90	1,445,828.81	43,569.67	-	-	14,841,676.71
Stores	1,948,060.84	208,531.85	41,706.37	228,900.28	76,681.20	16,360.00	-	-	2,520,240.54
Maintenance (Work Section)	32,796,055.75	3,860,651.56	738,198.96	4,105,713.27	2,738,908.49	228,842.29	-	-	44,468,370.32
Electronic Repair Unit	290,721.60	33,633.74	6,307.67	1,874.25	342.42	1,760.00	_	-	334,639.68
SUB TOTAL	92,642,493.37	10,663,079.72	2,054,960.91	11,179,345.02	6,129,678.43	540,552.54	469,550.00	251,077.42	123,930,737.41
Grand total	208,495,771.17	24,912,176.00	4,755,569.83	24,652,147.40	8,030,833.94	1,357,250.21	2,089,550.00	954,877.42	275,248,175.97

Less: Computer Difference

(180.94)

## RUBBER RES EARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015 DARTONFIELD ESTATE EXPENDITURE

Note 14A Wages, Salaries & Employee Benefits					
Wages, Salaries & Employee Benefits					
ringes, Summes et Emprojee Benefits	201	_		2014	
	2015			2014	
C.1	Rs.		21.517.001.64	Rs.	
Salaries & Wages etc	6,927,273.77		31,517,801.64		
EPF	4,085,619.02		2,560,723.50		
ETF	988,849.25		555,325.18 815,457.30		
Medical	883,241.75		813,437.30		
L/Wages Holiday pay	17,776,796.77 1,679,122.29				
Gratuity	4,568,870.00				
Attendance Bounds	153,125.00				
Paid Holiday	119,025.00				
Total	117,023.00	37,181,922.85		_	35,449,307.62
		37,101,722.03			55,447,507.02
Grants & Other Transfer Payment					
Supplies & Consumables Used					
Tools	7,680.00		2,761.34		
Rain Guard	483,238.74		808,980.32		
Stimulation	26,099.81		30,005.12		
Tapping Utensils	37,051.47		50,391.22		
Chemicals	740,232.89		775,114.58		
packing Materials	70,022.97		61,679.50	_	
Total		1,364,325.88			1,728,932.08
Depreciation & Amortization Expenses	1				
Fixed Assets	298,274.00		335,518.08		
Repenting	839,163.46	_	532,051.28	_	
Total		1,137,437.46			867,569.36
Maintenance of Property, Plant & Equi	pment				
Supervisory Vehicle	368,038.22		396,837.00		
Stationery & Communication	103,067.00		409,098.60		
Bungalows	82,099.89		164,943.36		
Lines	46,837.03		2,504.41		
Miner Building Up-Keep Weeding	17,715.73 14,645.34		51,349.96		
Weeding	14,043.34		57,000.00		
Marking	2,125.00		1,865.00		
Censes	2,445.00		-,		
Tapping Panel Treatment	12,800.00		13,755.00		
Latex (Transports)	396,595.51		434,896.39		
Power	1,281,936.11		1,349,529.24		
Fuel	11 464 50		42,143.81		
Factory Up-Keep	11,464.53		35,747.60		
Machinery Up-keep Factory Sundries	240,200.50 29,146.47		67,772.30 26,077.98		
Transport of Produce	151,055.30		134,053.01		
Water Supply	916.37		3,556.01		
Tapping	241,976.62		,,,,,,,,,		
Road	5,823.80	_			
Total		3,008,888.42		_	3,191,129.67
Other Expenses					
Contingencies	343,862.79		273,909.56		
Levies, Subscription & Visiting	5,639.00		7,483.88		
Welfare & Sports	49,368.91		52,646.09		
Audit Fee	121,006.86		105,223.36		
Other			10,993.92		
Total		519,877.56		_	450,256.81
Finance Costs					
Legal	8,168.00		54,246.00		
Commission Cash Transport/Insurance	317,510.66		395,855.97		
Bank Charges	8,150.00		14,745.57		
Insurance	197,033.33		208,365.27		
Total	. ,,	530,861.99	. 0,0 00.27	_	673,212.81
Total Revenue expenditure	_	43,743,314.16			42,360,408.35

## RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015 KURUWITA SUB STATION

#### Note 14 B

Wages, Salaries	& Employee	Benefits
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<b>.</b> .	20	15		2014
	R	ds.		Rs.
	14,905,678.54		15,028,109.29	
EPF	1,535,345.71		1,521,644.56	
ETF	365,092.40		367,444.31	
Medical	269,423.67		147,205.25	
Medical	720,767.92		538,803.20	
House rent	1,800.00		2,160.00	<u> </u>
Total		17,798,108.24		17,605,366.61
Supplies & Consumables Used				
Fuel	152,561.83		261,533.80	
Stationery	108,242.00		16,165.00	
Chemical etc	185,867.73		92,632.04	_
Total		446,671.56		370,330.84
Depreciation				
Fixed Assets	303,573.84		230,865.40	
Replanting	74,582.71		78,508.12	<u> </u>
Total		378,156.55		309,373.52
Other Expenses				
Contingencies	295,196.75		1,122,283.81	
Subscription & Visiting	1,065.60		1,065.60	
Welfare	18,840.00		15,455.00	
Audit fee	37,560.74		32,661.52	
Legal	65,268.00		18,000.00	
		417,931.09		1,189,465.93
Finance Costs				
Commission on Cash	112,600.97		131,814.05	_
Total		112,600.97		131,814.05
Grand Total		19,153,468.41		19,606,350.95

## NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015 MONARAGALA SUB STATION

#### Note 14 C

	2015		2014	
	Rs	•	R	s.
Emolument	3,295,820.33		3,977,857.81	
EPF	472,889.18		476,836.55	
ETF _	67,789.69	3,836,499.20	125,070.82	4,579,765.18
Supplies & other Consumables used		552,626.89		930,895.51
Other Expenses	_	204,743.50		316,253.98
Total	_	4,593,869.59		5,826,914.67

# RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015 POLGAHAWELA SUB STATION

#### Note 14 C

	2015		2014	
	Rs		R	s.
Emolument	2,400,948.51		2,191,506.24	
EPF	374,957.64		378,727.44	
ETF	54,572.03	2,830,478.18	55,100.92	2,625,334.60
Supplies & Other Consumables used		124,687.00		327,934.40
Consumables used				
Other expenses	_	403,941.98		176,433.32
Total	<u>-</u>	3,359,107.16		3,129,702.32

## RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015

#### Note-15 - TRAVELLING

	2015	2014
	Rs.	Rs.
RESEARCH DEPARTMENTS	Travelling & Sub	sistence
Plant Science	447,291.34	527,862.75
Plant Pathology	238,984.50	255,280.50
Genetics & Plant Breeding	482,781.31	400,512.50
Soils & Plant Nutrition	257,185.25	269,355.00
Raw Rubber & Chemical Analysis	59,882.50	57,702.00
Bio-Chemistry & Physiology	242,134.25	77,282.75
Adaptive Research Unit	76,464.00	92,285.75
Rubber Technology	107,960.00	127,523.50
RRPD & CE Dept	165,821.00	197,179.00
Bio Metry	40,993.00	35,655.00
Polymer Chemistry	83,240.00	93,003.50
Agriculture Economics	7,735.00	7,000.00
Sub Total	2,210,472.15	2,140,642.25
OTHER DEPARTMENTS		
Library & Publication Unit	25,572.95	20,625.00
Director's Office	52,544.50	144,242.00
Internal Audit	32,957.70	84,455.88
Board Office	350,019.41	618,574.00
Administration	52,024.00	73,418.00
Finance (Accounts)	104,118.50	93,887.00
Stores	34,550.00	25,200.00
Maintenance (Work Section)	1,383,053.64	1,322,109.25
RRI New Advisory Services Dept	1,771,538.50	1,454,803.31
Training Centre	32,181.00	6,240.00
Sub Total	3,838,560.20	3,843,554.44
Grand Total	6,049,032.35	5,984,196.69

### RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015

### Note -16 - SUPPLIERS AND CONSUMABLES RESEARCH DEPARTMENTS OTHER EXPENSES

	2015	2014
	Rs.	Rs.
Plant Science	66,643.47	153,149.80
Plant Pathology	663,239.13	305,945.72
Genetics & Plant Breeding	44,064.95	55,722.46
Soils & Plant Nutrition	133,340.20	62,916.34
Raw Rubber & Chemical Analysis	3,775.62	47,212.12
Bio-Chemistry & Physiology	44,133.39	7,552.81
Adaptive Research Unit	45,225.94	111,079.54
Rubber Technology	2,401.80	48,914.30
RRPD & CE Dept	50,830.96	52,382.00
Bio Metry	185,414.13	71,719.64
Polymer Chemistry	19,213.66	18,500.00
Agriculture Economics	30,060.00	-
SUB TOTAL	1,288,343.25	935,094.73
OTHER DEPARTMENTS		
Library & Publication Unit	1,175,752.58	241,108.49
Director's Office	277,615.70	124,268.78
Internal Audit	23,665.46	21,246.86
Board Office	528,699.80	702,578.13
Administration	323,972.62	225,916.61
Finance (Accounts)	340,414.66	259,147.75
Maintenance (Work Section)	169,968.29	221,009.49
RRI New Advisory Services Dept	1,204,210.03	623,800.45
Training Centre	201,350.18	677,969.47
Stores	7,692.72	3,929.89
Electronic Repair Unit	2,000.00	-
SUB TOTAL	4,255,342.04	3,100,975.92
L.P gas for Bungalows	148,881.00	204,163.00
Fuel & Lubricants	5,999,705.81	7,298,797.55
Stationery and Office Requisites	862,475.85	674,306.95
Medical Expenses	283,157.88	392,161.89
Bud wood Stumps	-	2,000.00
Sample survey for rubber productivity	-	14,997.00
SUB TOTAL	7,294,220.54	8,586,426.39
<del></del>		
GRAND TOTAL	12,837,905.83	12,622,497.04

#### NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015 DEPRECIATION OF NON CURRENT ASSETS

#### Note-17

CATEGORY OF ASSETS	Percentage	Rs. 2015 Rs.	2014 Rs.	Depreciation method
Buildings	3.5%	3,198,133.27	3,172,208.89	Reducing Balance method
Intangible Assets	10%	95,000.00	-	
Furniture, Fittings & Office Equipment	20%	3,231,540.99	2,797,609.25	"
Power & Water Supply	10%	228,228.93	253,587.70	"
Machinery & Tools	10%	190,615.75	180,155.76	"
Lab Apparatus	20%	11,498,762.52	14,092,210.24	"
Motor Vehicles	20%	4,828,157.49	6,035,197.11	"
Library Books	20%	528,046.98	468,990.98	"
Documentary Film	20%	74.63	93.28	"
Earth Slip Project	3.50%	3,380.29	3,502.89	"
Other assets	10%	899,333.94	686,275.08	"
Effluent Treatment Plant	3.50%	318,258.81	329,801.87	-
Total Less:		25,019,533.58	28,019,633.04	_
Dartonfield Estate		(298,274.33)	(335,518.08)	"
Kuruwita Estates		(303,573.84)	(230,865.40)	<u>)</u> "
		24,417,685.41	27,453,249.56	
Less: Amortization		(3,117,077.49)	(3,595,417.36)	<u>)</u>
		21,300,607.92	23,857,832.20	_

## RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015

#### Note -18 - MAINTENANCE

	2015	2014
	Rs.	Rs.
Office & General Building Repair & Maintenance	1,331,340.73	1,948,807.37
Maintenance of Auditorium	159,599.93	35,816.95
Bungalows	1,861,881.52	989,225.86
Bungalow Premises & Compounds	7,650,784.57	7,364,809.79
Furniture, Fixtures &Fittings	0.00	747.88
Institute General Building Premises & Compounds	752,944.86	1,300,437.57
RRI Ratmalana Building Premises Upkeep-Maintenance	445,225.20	239,001.45
Maintenance Tools	3,880.00	4,880.00

#### OPERATIONAL EXPENDITURE VEHICLES

	16,007,998.96	15,527,401.20
Maintenance of Plant and Machinery.	42,339.37	6,581.81
Repairs & Maintenance	3,541,652.78	3,525,937.52
Servicing of Vehicles	218,350.00	111,155.00

### RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015

#### ADMINISTRATION - GENERAL CHARGES - 2015 Note 19 -CONTRACTUAL SERVICES

CONTRACTUAL SERVICES	2015 Rs.	2014 Rs.
Legal Expenses	207,640.00	120,254.00
Audit Fees	240,699.40	412,546.94
IRRDB Expenses	1,930,629.78	-
Entertainment Expenses	185,060.79	221,783.00
Environment Protection	5,000.00	-
Insurance General Covers(Excluding vehicles)	695,148.00	1,754,013.90
Welfare and Recreation	201,430.04	131,112.98
Railway Concessionary Season Tickets	20,630.00	30,650.00
Conference/Seminars	850,446.00	260,170.50
Bank Charges	127,093.51	121,799.16
Security Charges - RRI	1,973,961.45	3,924,837.26
Postage	49,556.00	84,704.56
Telephone	3,496,004.74	2,728,817.02
Advertisements	135,309.00	427,190.40
Transport & Handling Charges	-	18,094.81
Sundries & Utility Services	254,369.60	614,948.84
Staff Training & Development	1,145,621.91	1,504,549.28
Fees For Interview Panels	48,401.00	24,000.00
Provident Fund Expenses-RRI Component	460,412.48	68,295.77
Public Relations	26,856.72	4,096.59
Honorarium to Members Attending AFCOM	88,319.00	159,937.00
Police Escort Expenses	18,000.00	18,000.00
Inland Revenue Stamp Duty	64,125.00	73,175.00
Customs Duty/ clearing Charges	62,600.00	26,400.00
Deyata Kirula Exhibition	-	213,245.99
ETF Surcharge	20,671.09	-
Photo Copier Maintenance	167,722.37	70,937.04
Gratuity for the Year	4,806,305.00	9,005,868.47
Staff Gratuity Polgahawela	648,900.00	-
Power Supply & Maintenance	7,813,852.31	9,183,452.17
Water Supply & Maintenance	1,203,525.12	980,682.43
Upkeep & Maintenance of Guest Houses (DF & KW)	573,285.64	1,116,326.33
Revenue Licenses, Insurance Covers, Fitness fees &	1,001,299.67	2,310,234.70
External Vehicles Hired	196,887.00	207,367.79
Rent & Taxes	432,695.00	20,371.16
Contingencies & General Ex.		85,908.00
	29,152,457.62	35,923,771.09

## RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015 EXPENDITURE -RESEARCH AND DEVELOPMENT

#### Note -20 Research Departments

	Laboratory Working	Field Working Rs. 2015	Total	Laboratory Working	Field Working Rs. 2014	Total
Plant Science	64,636.42	1,887,157.67	1,951,794.09	68,895.83	2,182,902.26	2,251,798.09
Plant Pathology	706,490.73	381,360.88	1,087,851.61	428,243.18	276,395.13	704,638.31
Genetics & Plant Breeding	318,477.54	4,645,799.28	4,964,276.82	268,589.14	4,621,342.63	4,889,931.77
Genetics & Plant Breeding- Germplasm Pr	-	4,897,536.93	4,897,536.93	-	-	-
Soils & Plant Nutrition	713,247.45	611,808.27	1,325,055.72	219,163.41	605,571.32	824,734.73
Raw Rubber & Chemical Analysis	357,753.61	22,425.22	380,178.83	298,582.27	131,085.00	429,667.27
Bio-Chemistry & Physiology	215,633.08	267,081.86	482,714.94	126,667.79	84,581.28	211,249.07
Electronic Laboratory	-	-	-	-	-	-
Adaptive Research Unit	9,125.00	1,701.65	10,826.65	16,181.27	76,676.79	92,858.06
Rubber Technology	121,831.73	15,281.63	137,113.36	60,229.50	196,914.69	257,144.19
RRPD & CE Dept	113,868.21	125,298.34	239,166.55	203,718.30	77,927.95	281,646.25
Bio Metry	-	-	-	-	-	-
Polymer Chemistry	329,256.00	2,710.00	331,966.00	51,700.00	202,342.74	254,042.74
Modified Tapping Knives	-	-	-	-	-	-
Manufacturing Charges - Plant Sc.De	-	-	-	-	-	-
Tapping Marking Plates Expenses	-	3,037,500.00	3,037,500.00	-	4,134,500.00	4,134,500.00
TOTAL	2,950,319.77	15,895,661.73	18,845,981.50	1,741,970.69	12,590,239.79	14,332,210.48
Negenahira Navodaya	-	1,795,798.55	1,795,798.55	-	727,438.46	727,438.46
Northern Province Expenses		280,185.70	280,185.70		170,920.54	170,920.54
	2,950,319.77	17,971,645.98	20,921,965.75	1,741,970.69	13,488,598.79	15,230,569.48

#### NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015

#### **Note - 21 OTHER OPERATING EXPENSES**

	2015	2014
	Rs.	Rs.
Rent for Narampola & Kumarawatta	-	162,000.00
Telephone Messenger	2,297.98	277,277.60
Medical Centre Labor	618,226.25	245,102.92
Sanitation	566,669.54	845,968.94
Roads, Fences & Boundaries	1,437,077.07	1,516,418.98
Watchmen & Gate Watchers	1,401,038.92	4,318,268.49
	4,025,309.76	7,365,036.93

## RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015 DARTONFIELD GROUP ESTATE WORKING ACCOUNT FOR THE YEAR ENDED 2015

#### Note 22

Sales of Rubber Kg 187807	Note 22					
1 Sales of Rubber Kg 187807       42,696,910.73       44,777,428.37         Add       3,883,699.00       2,901,038.00         2014.12.31 Stock (kg 13007)       46,580,609.73       47,678,466.37         Less       2,901,038.00       4,120,513.00         Rubber Sale Broker Charges       669,330.11       699,364.54         Gross Profit       43,010,241.62       42,858,588.83         Add:-       2       1,382,335.68       24,858,588.83         Rubber Replant Subsidy       659,974.45       742,621.76       43,858,588.83         Rubber Replant Subsidy       659,974.45       742,621.76       43,858,588.83         Rain Guard Subsidy       659,974.45       742,621.76       46,994,317.86         Less:       1,504,030.00       6,316,552.12       1,047,125.00       4,135,729.03         Rain Guard Subsidy       1,504,030.00       6,316,552.12       1,047,125.00       4,135,729.03         Rain Guard Subsidy       1,504,030.00       6,316,552.12       1,047,125.00       4,6994,317.86         Less:       Expenses       8       1,728,932.08       1,728,932.08       1,728,932.08       1,728,932.08       1,728,932.08       1,728,932.08       1,728,932.08       1,728,932.08       1,728,932.08       1,728,932.08       1,728,932.08						2014
Add   2014.12.31 Stock (kg 13007)				Rs.		Rs.
2014.12.31 Stock (kg 13007)	1 Sales of Rubber Kg 187807			42,696,910.73		44,777,428.37
Less         46,580,609.73         47,678,466.37           2014.01.01 Stock kg 25688         2,901,038.00         4,120,513.00           Rubber Sale Broker Charges         669,330.11         699,364.54           Gross Profit         43,010,241.62         42,858,588.83           Add:-         2         Sundry Receipts         1,382,335.68         Respective of the content of the conte	<u>Add</u>					
Page   Page	2014.12.31 Stock (kg 13007)		-	3,883,699.00		2,901,038.00
2,901,038.00				46,580,609.73		47,678,466.37
Rubber Sale Broker Charges         669,364.54           Gross Profit         43,010,241.62         699,364.54           Add:-         2           2 Sundry Receipts         3,502,525.15         1,382,335.68           Rubber Replant Subsidy         659,974.45         742,621.76           Tea Green Leaf Sale         650,022.52         963,646.59           Rain Guard Subsidy         1,504,030.00         6,316,552.12         1,047,125.00         4,135,729.03           Less:         Expenses           Wages, Salaries and employee benefits         (Note 14A)         37,181,922.85         35,449,307.62         Supplies and Other consumables used         (Note 14A)         1,364,325.88         1,728,932.08         Depreciation and amortization expenses         (Note 14A)         1,37,437.46         867,569.36         Amintenance of property, plant and equipment         (Note 14A)         3,008,888.42         3,191,129.67         Other expenses         (Note 14A)         519,877.56         450,256.81         Finance Costs         450,256.81         Finance Costs         450,256.81         705,745.09         4,672.50         4,672.50         4,672.50         4,672.50         4,672.50         4,672.50         1,980/93 Rubber Field Ex.         710,417.59         710,417.59         705,745.09         710,417.59         710,4	Less					
Add :-   2 Sundry Receipts   3,502,525.15   1,382,335.68     Rubber Replant Subsidy   659,974.45   742,621.76     Tea Green Leaf Sale   650,022.52   963,646.59     Rain Guard Subsidy   1,504,030.00   6,316,552.12   1,047,125.00   4,135,729.03     49,326,793.74   46,994,317.86     Less : Expenses     Wages, Salaries and employee benefits   (Note 14A)   37,181,922.85   35,449,307.62     Supplies and Other consumables used   (Note 14A)   1,364,325.88   1,728,932.08     Depreciation and amortization expenses   (Note 14A)   1,137,437.46   867,569.36     Maintenance of property, plant and equipment   (Note 14A)   3,008,888.42   3,191,129.67     Other expenses   (Note 14A)   519,877.56   450,256.81     Finance Costs   (Note 14A)   530,861.99   43,743,314.16   673,212.81   42,360,408.35      Other Expenditure Projects   Tea Green Leaf Expenditure   1,922.50   4,672.50     1980/93 Rubber Field Ex.   677,718.71   710,417.59	2014.01.01 Stock kg 25688			2,901,038.00		4,120,513.00
Add :-         2 Sundry Receipts       3,502,525.15       1,382,335.68         Rubber Replant Subsidy       659,974.45       742,621.76         Tea Green Leaf Sale       650,022.52       963,646.59         Rain Guard Subsidy       1,504,030.00       6,316,552.12       1,047,125.00       4,135,729.03         Expenses         Wages, Salaries and employee benefits       (Note 14A)       37,181,922.85       35,449,307.62         Supplies and Other consumables used       (Note 14A)       1,364,325.88       1,728,932.08         Depreciation and amortization expenses       (Note 14A)       1,137,437.46       867,569.36         Maintenance of property, plant and equipment       (Note 14A)       3,008,888.42       3,191,129.67         Other expenses       (Note 14A)       519,877.56       450,256.81         Finance Costs       (Note 14A)       530,861.99       43,743,314.16       673,212.81       42,360,408.35         Other Expenditure Projects         Tea Green Leaf Expenditure       675,796.21       705,745.09         Cinnamon Expenditure       1,922.50       4,672.50         1980/93 Rubber Field Ex.       677,718.71       710,417.59	Rubber Sale Broker Charges		_	669,330.11		699,364.54
2 Sundry Receipts       3,502,525.15       1,382,335.68         Rubber Replant Subsidy       659,974.45       742,621.76         Tea Green Leaf Sale       650,022.52       963,646.59         Rain Guard Subsidy       1,504,030.00       6,316,552.12       1,047,125.00       4,135,729.03         Less:         Expenses         Wages, Salaries and employee benefits       (Note 14A)       37,181,922.85       35,449,307.62         Supplies and Other consumables used       (Note 14A)       1,364,325.88       1,728,932.08         Depreciation and amortization expenses       (Note 14A)       1,137,437.46       867,569.36         Maintenance of property, plant and equipment       (Note 14A)       3,008,888.42       3,191,129.67         Other expenses       (Note 14A)       519,877.56       450,256.81         Finance Costs       (Note 14A)       530,861.99       43,743,314.16       673,212.81       42,360,408.35         Other Expenditure Projects         Tea Green Leaf Expenditure       675,796.21       705,745.09         Cinnamon Expenditure       1,922.50       4,672.50         1980/93 Rubber Field Ex.       677,718.71       710,417.59	Gross Profit			43,010,241.62		42,858,588.83
Rubber Replant Subsidy         659,974.45         742,621.76           Tea Green Leaf Sale         650,022.52         963,646.59           Rain Guard Subsidy         1,504,030.00         6,316,552.12         1,047,125.00         4,135,729.03           Less:           Expenses           Wages, Salaries and employee benefits         (Note 14A)         37,181,922.85         35,449,307.62         5           Supplies and Other consumables used         (Note 14A)         1,364,325.88         1,728,932.08         1,728,932.08           Depreciation and amortization expenses         (Note 14A)         1,137,437.46         867,569.36         867,569.36           Maintenance of property, plant and equipment         (Note 14A)         3,008,888.42         3,191,129.67         70ther expenses           Other expenses         (Note 14A)         519,877.56         450,256.81         42,360,408.35           Finance Costs         (Note 14A)         530,861.99         43,743,314.16         673,212.81         42,360,408.35           Other Expenditure Projects           Tea Green Leaf Expenditure         675,796.21         705,745.09           Cinnamon Expenditure         1,922.50         4,672.50           1980/93 Rubber Field Ex.         677,718.71         710,417.59<	<u>Add :-</u>					
Tea Green Leaf Sale         650,022.52         963,646.59         4,135,729.03           Rain Guard Subsidy         1,504,030.00         6,316,552.12         1,047,125.00         4,135,729.03           Less:           Expenses           Wages, Salaries and employee benefits         (Note 14A)         37,181,922.85         35,449,307.62           Supplies and Other consumables used         (Note 14A)         1,364,325.88         1,728,932.08           Depreciation and amortization expenses         (Note 14A)         1,137,437.46         867,569.36           Maintenance of property, plant and equipment         (Note 14A)         3,008,888.42         3,191,129.67           Other expenses         (Note 14A)         519,877.56         450,256.81           Finance Costs         (Note 14A)         530,861.99         43,743,314.16         673,212.81         42,360,408.35           Other Expenditure Projects           Tea Green Leaf Expenditure         675,796.21         705,745.09           Cinnamon Expenditure         1,922.50         4,672.50           1980/93 Rubber Field Ex.         677,718.71         710,417.59	2 Sundry Receipts		3,502,525.15		1,382,335.68	
Rain Guard Subsidy         1,504,030.00         6,316,552.12         1,047,125.00         4,135,729.03           Less:           Expenses         Wages, Salaries and employee benefits         (Note 14A)         37,181,922.85         35,449,307.62         Salaries and Other consumables used         37,181,922.85         35,449,307.62         Salaries and Other consumables used         Note 14A)         1,364,325.88         1,728,932.08         Salaries and employee benefits         Note 14A)         1,137,437.46         867,569.36         Salaries and employee benefits         Note 14A)         3,008,888.42         3,191,129.67         Other expenses         Note 14A)         519,877.56         450,256.81         450,256.81         Finance Costs         Note 14A)         530,861.99         43,743,314.16         673,212.81         42,360,408.35         Other Expenditure Projects         Cinnamon Expenditure         675,796.21         705,745.09         705,745.09         Cinnamon Expenditure         1,922.50         4,672.50         40,472.50         710,417.59           1980/93 Rubber Field Ex.         677,718.71         710,417.59         710,417.59         710,417.59         710,417.59         710,417.59         710,417.59         1,000.00         1,000.00         1,000.00         1,000.00         1,000.00         1,000.00         1,000.00         1,000.0	Rubber Replant Subsidy		659,974.45		742,621.76	
Less : Expenses   Wages, Salaries and employee benefits   (Note 14A)   37,181,922.85   35,449,307.62   Supplies and Other consumables used   (Note 14A)   1,364,325.88   1,728,932.08   Depreciation and amortization expenses   (Note 14A)   1,137,437.46   867,569.36   Maintenance of property, plant and equipment   (Note 14A)   3,008,888.42   3,191,129.67   Other expenses   (Note 14A)   519,877.56   450,256.81   Finance Costs   (Note 14A)   530,861.99   43,743,314.16   673,212.81   42,360,408.35   Other Expenditure Projects   Tea Green Leaf Expenditure   675,796.21   705,745.09   Cinnamon Expenditure   1,922.50   4,672.50   1980/93 Rubber Field Ex.   677,718.71   710,417.59	Tea Green Leaf Sale		650,022.52		963,646.59	
Less:           Expenses           Wages, Salaries and employee benefits         (Note 14A)         37,181,922.85         35,449,307.62           Supplies and Other consumables used         (Note 14A)         1,364,325.88         1,728,932.08           Depreciation and amortization expenses         (Note 14A)         1,137,437.46         867,569.36           Maintenance of property, plant and equipment         (Note 14A)         3,008,888.42         3,191,129.67           Other expenses         (Note 14A)         519,877.56         450,256.81           Finance Costs         (Note 14A)         530,861.99         43,743,314.16         673,212.81         42,360,408.35           Other Expenditure Projects         Tea Green Leaf Expenditure         675,796.21         705,745.09           Cinnamon Expenditure         1,922.50         4,672.50           1980/93 Rubber Field Ex.         677,718.71         710,417.59	Rain Guard Subsidy		1,504,030.00	6,316,552.12	1,047,125.00	4,135,729.03
Expenses           Wages, Salaries and employee benefits         (Note 14A)         37,181,922.85         35,449,307.62           Supplies and Other consumables used         (Note 14A)         1,364,325.88         1,728,932.08           Depreciation and amortization expenses         (Note 14A)         1,137,437.46         867,569.36           Maintenance of property, plant and equipment         (Note 14A)         3,008,888.42         3,191,129.67           Other expenses         (Note 14A)         519,877.56         450,256.81           Finance Costs         (Note 14A)         530,861.99         43,743,314.16         673,212.81         42,360,408.35           Other Expenditure Projects           Tea Green Leaf Expenditure         675,796.21         705,745.09           Cinnamon Expenditure         1,922.50         4,672.50           1980/93 Rubber Field Ex.         677,718.71         710,417.59				49,326,793.74		46,994,317.86
Wages, Salaries and employee benefits         (Note 14A)         37,181,922.85         35,449,307.62           Supplies and Other consumables used         (Note 14A)         1,364,325.88         1,728,932.08           Depreciation and amortization expenses         (Note 14A)         1,137,437.46         867,569.36           Maintenance of property, plant and equipment         (Note 14A)         3,008,888.42         3,191,129.67           Other expenses         (Note 14A)         519,877.56         450,256.81           Finance Costs         (Note 14A)         530,861.99         43,743,314.16         673,212.81         42,360,408.35           Other Expenditure Projects           Tea Green Leaf Expenditure         675,796.21         705,745.09           Cinnamon Expenditure         1,922.50         4,672.50           1980/93 Rubber Field Ex.         677,718.71         710,417.59	Less:					
Supplies and Other consumables used         (Note 14A)         1,364,325.88         1,728,932.08           Depreciation and amortization expenses         (Note 14A)         1,137,437.46         867,569.36           Maintenance of property, plant and equipment         (Note 14A)         3,008,888.42         3,191,129.67           Other expenses         (Note 14A)         519,877.56         450,256.81           Finance Costs         (Note 14A)         530,861.99         43,743,314.16         673,212.81         42,360,408.35           Other Expenditure Projects           Tea Green Leaf Expenditure         675,796.21         705,745.09           Cinnamon Expenditure         1,922.50         4,672.50           1980/93 Rubber Field Ex.         677,718.71         710,417.59	Expenses					
Depreciation and amortization expenses   (Note 14A)   1,137,437.46   867,569.36   Maintenance of property, plant and equipment (Note 14A)   3,008,888.42   3,191,129.67   Other expenses   (Note 14A)   519,877.56   450,256.81   Finance Costs   (Note 14A)   530,861.99   43,743,314.16   673,212.81   42,360,408.35	Wages, Salaries and employee benefits	(Note 14A)	37,181,922.85		35,449,307.62	
Maintenance of property, plant and equipment (Note 14A)         3,008,888.42         3,191,129.67           Other expenses (Note 14A)         519,877.56         450,256.81           Finance Costs (Note 14A)         530,861.99         43,743,314.16         673,212.81         42,360,408.35           Other Expenditure Projects           Tea Green Leaf Expenditure         675,796.21         705,745.09           Cinnamon Expenditure         1,922.50         4,672.50           1980/93 Rubber Field Ex.         677,718.71         710,417.59	Supplies and Other consumables used	(Note 14A)	1,364,325.88		1,728,932.08	
Other expenses         (Note 14A)         519,877.56         450,256.81           Finance Costs         (Note 14A)         530,861.99         43,743,314.16         673,212.81         42,360,408.35           Other Expenditure Projects           Tea Green Leaf Expenditure         675,796.21         705,745.09           Cinnamon Expenditure         1,922.50         4,672.50           1980/93 Rubber Field Ex.         677,718.71         710,417.59	Depreciation and amortization expenses	(Note 14A)	1,137,437.46		867,569.36	
Finance Costs         (Note 14A)         530,861.99         43,743,314.16         673,212.81         42,360,408.35           Other Expenditure Projects         Tea Green Leaf Expenditure         675,796.21         705,745.09           Cinnamon Expenditure         1,922.50         4,672.50           1980/93 Rubber Field Ex.         677,718.71         710,417.59	Maintenance of property, plant and equipment	(Note 14A)	3,008,888.42		3,191,129.67	
Other Expenditure Projects           Tea Green Leaf Expenditure         675,796.21         705,745.09           Cinnamon Expenditure         1,922.50         4,672.50           1980/93 Rubber Field Ex.         677,718.71         710,417.59	Other expenses	(Note 14A)	519,877.56		450,256.81	
Tea Green Leaf Expenditure       675,796.21       705,745.09         Cinnamon Expenditure       1,922.50       4,672.50         1980/93 Rubber Field Ex.       677,718.71       710,417.59	Finance Costs	(Note 14A)	530,861.99	43,743,314.16	673,212.81	42,360,408.35
Cinnamon Expenditure         1,922.50         4,672.50           1980/93 Rubber Field Ex.         677,718.71         710,417.59	Other Expenditure Projects					
1980/93 Rubber Field Ex. 677,718.71 710,417.59	Tea Green Leaf Expenditure		675,796.21		705,745.09	
	Cinnamon Expenditure		1,922.50		4,672.50	
Surplus for the period Rs. <u>4,905,760.87</u> 3,923,491.92	1980/93 Rubber Field Ex.			677,718.71		710,417.59
	Surplus for the period		Rs.	4,905,760.87		3,923,491.92

Expenditure on Rubber Replanting Amounting Rs. 5,581,451.55

## RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015 Kuruwita Estate Working Account for the Year Ended 2015

#### Note 23

	20	2015		14
	R	s.	R	s.
Revenue				
Sales of Latex & Scrap (93192 kg & 18799 kg)		15,466,455.43		24,973,418.34
Other Revenue				
Add:-				
Sundry Receipts	73,278.75		532,111.87	
Rubber Replanting Subsidy	585,407.13		984,436.66	
Cinnamon Income		658,685.88	80,147.94	1,596,696.47
<b>Total Revenue</b>		16,125,141.31		26,570,114.81
Less:				
Expenses				
Wages, Salaries and employee benefits (Note 1	4B) 17,798,108.24		17,605,366.61	
Supplies and consumables used (Note 1	4B) -		370,330.84	
Depreciation and amortization expenses (Note 1	4B) 378,156.55		309,373.52	
Other expenses (Note 1	4B) 417,931.09		1,189,465.93	
Finance Costs		18,594,195.88	131,814.05	19,606,350.95
Surplus for the Period	Rs	(2,469,054.57)		6,963,763.86

Expenditure on Rubber Replanting Amount is Rs. 1,187,733.42

## NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015 KUMARAWATTA ESTATE WORKING ACCOUNT FOR THE YEAR ENDED 2015

#### Note 24

- 1 - 1 - 1			
		2015	2014
		Rs.	Rs.
Sales of Income		160,210.00	15,522.00
Rubber Re-Planting Subsidy		125,810.19	-
Less:-			
Maintenance Cost	(Note 14C)	(4,593,869.59)	(5,826,914.67)
Loss for the Year	Rs.	(4,307,849.40)	(5,811,392.67)

# RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015 NARAMPOLA ESTATE WORKING ACCOUNT FOR THE YEAR ENDED 2015 Note 25

		2015	2014
		Rs.	Rs.
Sales of Sundry Crops		-	120,542.00
Rubber Sales		2,487,092.51	2,184,890.13
Rubber Re-Planting Subsidy	_	102,754.70	499,054.30
		2,589,847.21	2,804,486.43
Less:-			
Maintenance Cost (Note 14C)	_	(3,359,107.16)	(3,129,702.32)
	Rs.	(769,259.95)	(325,215.89)

## RUBBER RESEARCH BOARD OF SRI LANKA SCHEDULE TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015

#### INVENTORIES/ STOCKS - RRI

#### SCHEDULE 01

	2015	2014
	Rs.	Rs.
G( 1 D ( G1)	2 002 (00 00	2 001 020 00
Stock - Dartonfield	3,883,699.00	2,901,038.00
Stock - Rathmalana	255,185.41	-
Stationary	444,943.60	286,175.56
Stock - General	8,269,860.00	7,391,059.25
Stock in obsolete	480,635.81	135,524.11
Non Moving Stock	378,385.86	-
Total	13,712,709.68	10,713,796.92

## RUBBER RESEARCH BOARD OF SRI LANKA SCHEDULE TO THE ACCOUNTS FOR THE YEAR ENDED 31/12/2015

#### SCHEDULE 02 - KURUWITA ESTATE STOCK

	2015		20	)14
<u>Fertilizer</u>	Qty.(kg)	Rs.	Qty.(kg)	Rs.
Urea	35.45kg	786.48	35.45Kg	786.48
M.O.P.	9.5kg	213.73	9.5Kg	213.73
H.E.R.P	212kg	3,180.00	212Kg	3,180.00
T/750	78 Kg	1,911.00	0	-
T/65	6kg	330.00	6Kg	330.00
T/750	_	-	78Kg	1,911.00
Di Ammonia Phosphate	36.5kg	984.59	49.5Kg	1,335.26
Sulphate of Potash	74.9kg	2,272.62	86.9Kg	2,636.73
Sulphate of Ammonia	87.9kg	3,126.50	99.9Kg	3,553.33
Epson Soalt	164.6kg	4,032.42	179.6Kg	4,399.89
Ethereal		-	2 Liters	1,739.99
Glyfosate	4Litis	5,314.11	16 Liters	17,360.00
Coir Broom	2Nos	190.00	0	-
Equl Broom		-	1 Nos	130.00
L.P.Gas	1	1,388.00	1 Nos	2,438.00
E/Bulbs	1Nos	80.00	9 Nos	720.00
China Clay	510	10,020.00	0	-
Polythene	424.45Kg	133,575.70	732 Kg	217,587.43
Poly bags	1000Kg	43,411.20	10000 Kg	43,411.20
T/Cells	6Nos	360.00	6 Nos	360.00
Rubber Chemicals	36 Kg	5,762.27	16 Kg	2,240.00
Tar	144 Kg	118,620.00	720 Kg	71,139.63
Cement	1	835.00	0	-
Tapping Knives	36Nos	23,300.00	54 Nos	31,460.00
Jack Pole (3x4)	605	19,687.17	60.5 Feet	19,687.17
Timber		47,080.00	0	-
Zine Sulphate	5	550.00	0	-
Sulpher		-	2.8Kg	301.00
Fungicide	1.3 Kg	2,449.93	1. 3 Kg	2,506.78
Dioron	-	5,000.00	_	•
Total	_	434,460.72		429,427.62

#### RUBBER RESEARCH BOARD OF SRI LANKA SCHEDULE TO THE ACCOUNTS FOR THE YEAR ENDED 31/12/2015

#### SCHEDULE 03 - STOCK VALUE - DARTONFIELD ESTATE

2015 2014				
Ite m	Qty (Kg)	Value (Rs)	Qty (Kg)	Value (Rs)
Sodium Bi Sulphite	100kg	15,905.24	100 Kg	18,312.13
Maxi Crop		-	1 Bot	340.00
Bulet		-	01 Bot	384.00
Sodium Sulphite	50kgs	8,714.67		-
Formic Acid	35kgs	6,217.85	72 Kg	13,580.88
Policer	400ml	2,200.00	400 ml	2,200.00
Urea	414kgs	9,581.24	44 Kg	9,581.24
Kieserite	44kgs	1,032.07	44 Kg	1,032.07
Cinnamon Manure	50 Kg	14,862.80	50 Kg	14,862.80
Dolomite	3128kgs	25,971.06	28 Kg	182.55
RU 465 N.P.K.	2125kgs	52,962.50	2716 Kg	75,140.00
M.O.P	378 Kg	8,737.58	378 Kg	8,737.58
Sulper		-	27.5 Kg	3,824.91
C.E.S	10kgs	225.00	20 Kg	450.00
D.A.P	10kgs	225.00	20 Kg	450.00
S.O.A	10kgs	225.00	20 Kg	450.00
S.O.P	10kgs	225.00	20 Kg	450.00
Poultry	01 Roll	3,475.00	01 Roll	3,475.00
Weighing Scale	01 Nos	225.00	01 Nos	225.00
Clay Powder		-	250 Kg	3,440.91
Dust Mask		-	01 Nos	85.83
Bolt & Nut		-	16 Nos	112.00
Coir Brooms	21nos	1,931.99	1 Nos	91.90
Brass Screws		-	200 Nos	1,290.00
P.V.C.Pipe	1.5 Length	6,885.00	1.5 Length	6,885.00
Visi Katy		-	01 Nos	137.50
Epoxy Thinner		-	04 Lits	969.23
Clear Polythene		-	8.950 Kg	2,148.00
Plain Sheet	01 Nos	1,331.25	01 Nos	1,331.25
Tapping Knife		-	05 Nos	2,976.47
Marking Plate		-	05 Nos	2,125.00
Bitumen (tar)	2790kgs	238,762.25	1260 Kg	124,071.50
Thinner		-	01 Lits	256.97
Wire Nails	3.750 Kg	695.00	3.750 Kg	695.00
Auticomonsive Pain	t 02 Lits	1,178.33	02 Lits	1,178.33
Bend 4"	01 Nos	140.00	01 Nos	140.00
Chain	01 Nos	2,700.00	01 Nos	2,700.00

		2015	20	14
Item	Qty (Kg)	Value (Rs)	Qty (Kg)	Value (Rs)
Poly Bags	28750nos	85,675.00	29000 Nos	86,420.00
Bouarsate		-	96 Lits	69,885.64
Ethephone		-	30 Lits	26,099.81
Petrol		-	3 Lits	450.06
Fire Wood	8.5yds	6,345.00	13 Yd	4,849.05
Eckel Brooms	08 Nos	736.00	03 Nos	286.46
Polythene	434.75kgs	129,951.56	1178.02 Kg	352,356.68
Down Pipe (180 LF)	180 nos	22,028.40	180 Lf	22,028.40
End Cap Vf	4 nos	388.44	4 Lf	388.44
Timber 3" x 4"	48 l/ft	2,880.00	100 Lf	6,000.00
Timber 2" x 2"		-	194 Lf	3,298.00
Timber 3" x 5"	117 l/ft	8,775.00	25.5 Lf	1,963.16
Timber 6" x 4"		-	30 Lf	2,700.00
Timber 3" x 3"		-	12 Lf	540.00
Timber 2" x 4"	143 l/ft	5,005.00	167 Lf	5,845.00
Timber 2" x 6"		-	72 Lf	4,680.00
Timber 2" x 5"		-	41 Lf	2,460.00
Timber 1.5" x 2.5"		-	252. Lf	4,536.00
Timber 2" x 1"		-	354 Lf	3,540.00
Timber 1.5" x 10"		-	175 Lf	3,172.50
Timber1" x 1 1/8"		-	409 Lf	26,587.60
Timber 3" x 4"		-	48 Lf	2,880.00
Timber 2" x 4"		-	143 Lf	5,005.00
Timber 3" x 5"		-	117 Lf	8,775.00
Timber 2" x 1 1/4"		-	357 Lf	6,426.00
Timber 2" x 2"	426.25 Lf	7,246.25	426.25 Lf	7,246.25
Timber 2" x 1"	1493.75 Lf	5,975.00	1493.75 Lf	5,975.00
Timber 1" x 9"	115.5 Lf	5,197.50	11505 Lf	5,197.50
Timber 1 1/8" x 4"		-	140.9 Lf	9,158.50
Timber 2" x 1"	114 Lf	1,140.00	114 Lf	1,140.00
Timber 2" x 2.5"	357 Vft	6,426.00		-
Timber 1" x 1/8"	140.9 l/ft	9,158.50		-
Cloths		-	10 Kg	2,000.00
Red Powder		-	4 Kg	3,200.00
Cement	4 Bag	3,480.00	1 Bag	920.00
Gutter Box	4 Nos	2,783.76	4 Nos	2,783.76
V Belt	8 Nos	6,433.28	8 Nos	6,433.28
Gutter	60 Lf	7,440.60	60 Lf	7,440.60
U.709	300Kgs	7,583.40		-
* DDE (00********** 1 .1	2 4001	<b>511 102</b> 00		

711,492.80

1,006,980.74

1,440,550.32

LDPE 600X300Polythe 2400kgs

Total

### RUBBER RESEARCH BOARD OF SRI LANKA SCHEDULE TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015

#### SCHEDULE 04

#### DEPOSITS

DEI OSIIS	2015	2014
	Rs.	Rs.
Telecom	6,000.00	6,000.00
Electricity	90,500.00	90,500.00
Post Master General	27,395.41	11,671.41
Sundry	2,005.00	2,005.00
M.P.C.S. Moratuwa	50,000.00	50,000.00
New Bambalapitiya Service Station	4,000.00	4,000.00
Ceylon Oxygen Co. Ltd.	113,316.00	113,316.00
Tender	2,000.00	2,000.00
Lanka Filling station-Narahenpita	15,000.00	15,000.00
Leo Freight Services(Pvt) Ltd	3,801.00	3,801.00
M.P.C.S. Matugama (Fuel)	74,500.00	74,500.00
Samaranayake & Samaranayake	50,000.00	50,000.00
	438,517.41	422,793.41

#### RUBBER RESEARCH BOARD OF SRI LANKA SCHEDULE TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015

	2015	2014
	Rs.	Rs.
S CHEDULE 05		
OTHER DEBTORS		
Thurul Warnakula	936,278.34	936,278.34
D.E.D.E.I.N.Perera	350,000.65	350,000.65
	1,286,278.99	1,286,278.99
TRADE DEBTORS		
General Debtors	21,248,093.97	21,786,408.33
SANDRY DEBTORS		
Provident Fund Control A/C RRI	3,915,578.18	4,956,201.20
Interest Receivable	6,909.58	7,972.60
Bad & Doubtful Debtors	830,936.98	830,936.98
CARP Control Account	14,149.13	14,149.13
National Science Foundation	148,368.76	148,368.76
Medicinal Plant Project -2	219,701.03	219,701.03
Medicinal Plant Project -1	1,109.12	1,109.12
Rubber/Cane Cinnamon Project	14,466.24	14,466.24
CARP Project No 12/477/357	27,719.01	27,719.01
NRESA	5,400.00	5,400.00
Salaries Payable A/C	3,188.97	3,188.97
NSF Grant RG/2006/EPSD/01	116,007.83	116,007.83
Training Centre	980,412.61	980,412.61
NSF Grant	296,410.00	296,410.00
ANRPC	40,454.53	40,454.53
Sandee Project	5,294.02	5,294.02
Medical Fund Loan	30,454.20	30,454.20
Nurseries	21,744.96	21,744.96
Handy Craft Project	65,495.25	65,495.25
Rubber Cocoa Cinnamon Project	-	7,000.00
Ministry of Science & Technology	41,687.50	41,687.50
N.S.F.Grant RG/2012/AG/06	209,988.75	5,637.68
NSF Grant RG/2008/AG/02	137,327.92	137,327.92
S.P.H.D.P	280,221.00	280,221.00
RRI/CRI/TRI Symposium	553,382.90	553,382.90
N.S.F.Grant RG.2010/AG/01	127,499.25	127,499.25
N.S.F.Grant RG.2012/AG/10	0.00	243,552.44
International Work Shop on White Root Dieses	82,029.84	82,029.84
Divineguma	537,285.89	537,285.89
Divineguma 2014	0.00	3,383,094.45
	8,713,223.45	13,184,205.31

#### LOAN RECEIVABLES

	2015	2014
Motor Car / Motor Car Repair Lo	306,250.00	405,000.00
Motor Cycle Loan	238,665.79	354,665.35
Personal/Distress/Study Loan	802,587.40	1,776,703.36
New Personal Loan	2,239,718.63	2,905,316.18
Staff Medical Fund Loan	-	7,159.12
	3,587,221.82	5,448,844.01
Note		
<b>Bond Debtors</b>	Balance as at 31.12.2015	
H .H. Thalgaswatta	38,402.56	
B.P.Weera rathna	1,825,654.55	
N.A.A.D.Wickramarathna	7,245.46	
JAGSG Gunawardana	2.00	
Samanthie P Herath	444,289.87	
SM CE Silva	1,635,005.85	
Nalinda P Wicramasinghe	10,643.54	
G.V.L.Nilmini	1,884,612.81	
	5,845,856.64	

#### RUBBER RESEARCH BOARD OF SRI LANKA

#### SCHEDULE TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015

#### SCHEDULE 06 DOUBTFUL DEBTORS

Provision for bad & doubtful debts have not been made since year 2002. A balance of Rs.1,074,162.13 is appeared in the accounts for last 07 years. Arrangements will be made to write-off this balance by obtaining the approval of the Rubber Research Board.

# RUBBER RESEARCH BOARD OF SRI LANKA SCHEDULE TO THE ACCOUNTS FOR THE YEAR 31/12/2015 KURUWITA ESTATE TRADE & OTHER RECEIVABLE

#### **SCHEDULE 07**

	Rs.	Rs.
	2015	2014
Check Roll	25,638.40	30,854.62
Festival Advance (Labor)	4,200.00	73,800.00
Festival Advance (Staff)	950.00	5,450.00
Festival Advance	107,000	-
Postage	235.00	55.00
St.Joachime Estate	178,044.27	84,819.21
Sundry Debtors	9,176.49	9,176.49
Distress Loan	39,861.66	66,913.08
Electricity Bills Receivables	7,582.08	1,024.32
J.D.& Sons	-	3,460,260.82
Fire Wood	19,790.05	-
	392,477.95	3,732,353.54

#### <u>DARTONFIELD ESTATE</u> TRADE & OTHER RECEIVABLE

Rs.	Rs.
2015	2014
-	_
35,414.14	23,177.69
2,690.00	2,690.00
962,676.92	1,814,502.83
191,700.00	134,325.00
66,066.14	66,066.14
27,499.89	37,499.85
10.00	30.00
6,100.00	6,100.00
12,000.00	5,000.00
374,400.00	250,200.00
23,493.81	76,114.46
94,500.00	63,000.00
535,500.00	-
557,084.00	438,436.25
449,230.68	-
14,498.54	12,819.78
666,320.29	567,148.95
269,179.44	-
-	0.39
-	32,893.16
4,288,363.85	3,530,004.50
	2015  35,414.14 2,690.00 962,676.92 191,700.00 66,066.14 27,499.89 10.00 6,100.00 12,000.00 374,400.00 23,493.81 94,500.00 535,500.00 557,084.00 449,230.68 14,498.54 666,320.29 269,179.44

## RUBBER RESEARCH BOARD OF SRI LANKA SCHEDULE TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015 CREDITORS 2015

#### SCHEDULE 08

SCHEDULE 08	2015	2014
	Rs.	Rs.
Creditors Ledger Control A/C (C L C)	16,643,553.45	18,925,022.08
SUNDRY CREDITORS		
Provident Fund Account - RDD	3,266,348.58	2,590,865.60
Tender Deposits	1,463,548.34	1,267,848.34
Canteen Deposits	13,500.00	13,500.00
Contract Deposits	15,350.00	15,350.00
Ru: Ban: Intercropping Programme Ecology UK (D F I D)	542,618.53	542,618.53
Receipt-in -Advance A/C (J.I C.A)	208,297.09	208,297.09
Plant Science Intercropping Unit (Essex U.K)	21,731.55	21,731.55
National Science Foundation NSF/RAP/2001/RRI/01	705.96	705.96
NSF - SIDA/98/EP01	95,014.85	95,014.85
Receipt in Adr(Welfare)	595.00	595.00
NSF - PG/99/C/7	5,637.68	5637.68
Biometry Project - Climate Change on Rubber	16,338.28	16,338.28
NSF RG 2012/AG/06	-	256,322.40
N.S.F.Grant RG/2012/AG/10	23,883.56	-
NSF Grant No RG/2014/EQ/08	825,000.00	-
Centre for Poverty Analysis	1,841.25	1,841.25
Divineguma B461	1,063,933.42	<u>-</u> ´
NSF Grant RG/2006/SPR/06	356,001.00	356,001.00
Lapsed Cheques A/C	<u>-</u>	166,425.75
Medical Fund Reserve RRI Staff	8,513.50	7,989.50
RDD Nursery - Gampaha	45,000.00	45,000.00
Receipt in Advance (stamp)	271,645.00	271,645.00
RDD (Salary Arrears)	92,837.57	92,837.57
RDD Staff Payments & Recoveries Control A/C	1,621.72	1,621.72
Intercropping Research (Sadaharitha Plantation)	87,243.75	-
N.S.F.Grant RG/2015/BT-01	814,795.26	-
Vitex Project	9,288.79	9,288.79
National Workers Congress	67,497.50	67,497.50
Moratuwa University	878,063.00	560,588.00
Staff Fire Wood A/C	7,813.24	10,688.24
R.D.D.Kegalle	23,318.75	23,318.75
Insurance Claim Received	19,285.71	19,285.71
Plantation Development Project	543,237.59	543,237.59
Humate Plus Experiments	22,101.50	22,101.50
Payee Tax	43,247.29	100,143.76
White root Diseases Research Project Sweden	25,717.80	517,084.66
Postgraduate Institute of Peradeniya	24,640.00	24,640.00
G.S.I.Mapping of Tea & Rubber Lands on Galle Dis.	155,000.00	155,000.00
N.S.F.Grant RG/2012/Tech/D04	449,177.94	4,307,728.73
N.S.F.Grant RG/2012/Tech/D05	110 100 57	197,880.00
Carbon Market Project	118,108.57	118,108.57
I.R.R.D.B.Plant Breeding Workshop	294,552.18	294,552.18
=	28,566,605.20	31,874,353.13
PAYABLE		
Medical Fund A/C	22,039.87	12033.37
Audit fee Payable A/C	556,110.00	-
Abetment - Payable A/C	58,233.06	-
Payable =	636,382.93	12,033.37

## RUBBER RESEARCH BOARD OF SRI LANKA SCHEDULE TO THE ACCOUNTS FOR THE YEAR ENDED 31/12/2015

#### SCHEDULE 09 -KURUWITA - PAYABLES

SCHEDOLE 07 - NORO WITA - TATABLES	2015	2014
	Rs.	Rs.
Check Role Wagers	1,007,080.00	974,840.00
CEB	36,275.31	27,307.19
Sri Lanka Telecom Ltd	8,232.53	-
EPF Payable	332,364.59	326,669.44
ETF Payable	45,322.54	44,545.83
Holiday Pay	577,120.00	643,770.00
Attendance Bonus	53,337.50	63,608.00
Tax payable	1,138.64	1,628.48
National Savings Bank	-	10,276.78
Death Donation Welfare	-	3,765.00
Deposits	59,662.00	54,662.00
Receipt in Advance	21,796.90	8,063.52
RRI Provident Fund	108,202.61	54,513.92
L.K.S.Rubber Stores	13,025.00	-
Palawela Rubber Stores	17,700.00	-
Prasad Hardware	12,910.00	-
Kuruwita M.P.C.S	36,492.00	-
S.L.N.S.S	8,400.00	13,080.00
Agroserve	550.00	-
Vishwa Shakthi Welfare	10,300.00	-
Un paid coins A/C	42,550.07	42,092.29
Profit Bonus	399,389.46	798,778.93
Bank Loan	86,350.00	14,138.39
Sundry Creditors	23,225.00	-
Palanda Hardware	23,528.00	-
Motor Cycle Loan - staff	13,936.14	-
Total	2,938,888.29	3,081,739.77

#### RUBBER RESEARCH BOARD OF SRI LANKA SCHEDULE TO THE ACCOUNTS FOR THE YEAR ENDED 31/12/2015 DARTONFIELD ESTATE SCHEDULE 10 - PAYABLES

	Rs.	Rs.
	2015	2014
Attendance Bonus	153,125.00	199,549.80
Buddhist Society	1,950.00	2,575.00
Check Roll	3,327,562.73	2,940,817.75
Commission on Cash Transport	416,901.62	160,121.74
Samaranayaka & Samaranayaka	585.00	7,327.50
C.S.C.& W.U.	210.00	900.00
C.P.M.S.U.	2,800.00	7,700.00
E.P.F.	1,806,135.53	1,442,727.31
E.T.F.	124,186.51	131,216.93
Holiday Pay	1,460,106.34	1,886,535.90
Horticulture Society	740.00	260.00
Janatha Fertilizer Enterprises	298,577.50	298,577.50
Kovil Fund - Dartonfield	117,000.00	103,500.00
Kovil Fund - Galewatta	25,600.00	65,200.00
Kalyani Trading (Pvt)Ltd	356,492.80	10,300.00
L.J.E.W.U.	60,248.00	5,576.00
L.E.W.U.	5,850.00	105.00
New Mahinda Stores	2,025.35	27,018.00
National Savings Bank	20,800.00	91,750.00
New Paper Agent	1,020.00	8,490.00
RRI Welfare Society Colombo	67,140.00	51,695.00
Refundable Deposits	189,296.00	42,796.00
RRI Club	62,195.00	7,264.00
Staff Provident fund	408,911.63	255,087.56
S.L.N.S.S.	89,280.00	232,440.00
Thrift Society	8,355.00	14,150.00
Transport Agent	8,050.00	5,000.00
Unpaid Wagers	206,766.91	181,946.32
Welfare Society - N' Kele	51,700.00	20,700.00
Welfare Society - H.O	130,582.50	160,294.50
Welfare Society - Work Section a/c	· -	3,200.00
Wijegunawardana & Sons	145,250.00	87,380.00
Agalawatta Auto Service	3,500.00	10,780.00
Agalawatta Motors	13,330.00	21,020.00
Institute Medical Fund	1,189.00	909.00
Profit Bonus - 2013/2014	104,639.56	104,639.56
Welfare Society Wishwa Shakthi	26,500.00	231,900.00
Sundry Creditors	1,050.00	168,288.13
State Mortage Bank	80,290.00	80,290.00
Chanlo Hardware	-	6,660.00
Chemanex Ltd	142,660.11	95,961.60
Co-operative Society	362,125.00	231,875.00
National Housing Development Authority	35,832.00	56,735.89
Udaya Printers	4,500.00	3,700.00
Poly pac socio	· -	265,209.50
RRI Canteen	8,720.00	·
	10,333,779.09	9,730,170.49

#### RUBBER RESEARCH BOARD OF SRI LANKA SCHEDULE TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015

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Schedule 11 09-i RRI	Rs. 2015	Rs. 2014
Overtime 2008 December	-	66,456.63
Overtime 2015 December	703,086.55	750,091.07
Travelling & Subsistence 2015 Dec	436,306.45	435,926.00
Rental - Kumarawatta 2006 - 400,000/-		
2007 - 400,000/-		
2008 - 400,000/-		
2009 - 400,000/-		
2010 - 400,000/-		
2011 - 400,000/-		
2012 - 400,000/-		
2013 - 400,000/-	3,200,000.00	3,200,000.00
Rental - Narampola 2006 - 640,000/-		
2007 - 640,000/-		
2008 - 640,000/-		
2009 - 640,000/-		
2010 - 640,000/-		
2011 - 640,000/-	-	-
2012 - 640,000/-		
2013 - 640,000/-	5,120,000.00	5,120,000.00
	9,459,393.00	9,572,473.70
Dartonfield Estate (09-iii)		
Overtime, Travel. & Subsist Dec'2015	83,493.90	89,133.20
Labor Charges - December 2015	155,431.00	119,884.00
Meals supply to Tappers	15,640.00	
	254,564.90	209,017.20
Grand Total	9,713,957.90	9,781,490.90

#### (Inter Transaction Accounts - Current A/C)

	RRI	K/W	D/F	Total
Dartonfield	(22,503,504.34)		22,503,504.34	-
Kuruwita	(6,606,605.24)	6,606,605.24		=
RRI	(29,110,109.58)	6,606,605.24	22,503,504.34	-

#### RUBBER RESEARCH BOARD OF SRI LANKA SCHEDULE TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2015

Schedule 12	OTHER CAPITAL GRANTS - 2015				
Other Capital Grants	Value as at	Additions	Amortization	Value as at	
	01.01.2014	<b>During Year</b>	on Grants	31.12.2015	
	Rs.	Rs.	Rs.	Rs.	
Accumulated Fund					
O.D.A. Grant	5,606.79			5,606.79	
Government Grant	1,556,097.28			1,556,097.28	
Australian Grant	165,221.00			165,221.00	
World Bank Grant	4,739,779.82			4,739,779.82	
UNDP Grant	2,571,866.95			2,571,866.95	
UNICEF Grant	10,000.00			10,000.00	
CRI /TRI Grant	334,058.64			334,058.64	
NARESA Grant	1,345,912.39			1,345,912.39	
UNDP Research Grant	2,510,441.46			2,510,441.46	
Tea Board Grant	445,343.40			445,343.40	
SRRP I Grant	12,624.52			12,624.52	
ARP Project	4,578,055.64			4,578,055.64	
CARP Grant	54,738.94			54,738.94	
Medicinal Plant Project Grant	15,624.46			15,624.46	
NERESA Grant	5,600.00			5,600.00	
SRRP II - Grant	7,644,391.73			7,644,391.73	
Treasury Grant (Capital)	13,881,881.84		2,771,200.00	11,110,681.84	
N.S.F. Grant	823,807.90	1,049,000.00	97,439.55	1,775,368.35	
D.F.I.D. Grant	49,151.93			49,151.93	
Staff Grant Comfort room	10,272.93			10,272.93	
European Union Grant	9,693.90			9,693.90	
Centre for Poverty	2,221.03			2,221.03	
Environment Project Phase II	3,489.70			3,489.70	
Climate Change Project	3,445.16			3,445.16	
3rd Symposium Grant	38,471.68		7,694.34	30,777.34	
A.F.National Research Council	236,880.00	222,722.40	47,376.00	412,226.40	
Divineguma	851,938.00	,	170,387.60	681,550.40	
International Foundation for Science	114,900.00		22,980.00	91,920.00	
Agricultural Research	12,542,595.30		,	12,542,595.30	
	54,564,112.39	1,271,722.40	3,117,077.49	52,718,757.30	

Labour rates and break down of cost of production from 2011 to 2015(Rs./kg.) in Dartonfield estate

	2011	2012	2013	2014	2015
1. Labour wages	Jan/Mar 447.75	572.00	572.00	687.50	687.50
	Apr/Dec 572.00				
2. Cost of production	228.96	216.33	262.39	245.06	270.57
2.1 Tapping	76.72	84.64	100.94	118.61	113.94
2.2 Manufacture	28.89	35.66	35.68	35.82	36.43
2.3 General charges	103.43	75.02	102.26	74.49	103.07
2.4 M/area upkeep	19.92	20.91	23.51	16.14	17.13
3. N.S.A.	509.65	383.36	348.74	256.56	255.26
4. Profit per kg	72.38	167.13	86.35	11.50	(15.31)

Labour rate (Rs.) and the break down of the cost of production from 2011 to 2015 (Rs./kg.)in Kuruwita estate

			Year		
_	2011	2012	2013	2014	2015
Labour rate	572.00	572.00	687.50	687.50	687.50
Cost of production	155.94	178.69	187.19	198.00	191.21
Tapping cost	73.32	79.49	90.44	96.70	87.77
Manufacturing	-	-	-	-	22.14
General chargers	64.46	77.13	74.55	79.58	64.72
Field & cultivation cost	18.15	22.07	22.20	21.72	16.58
N.S.A	442.84	366.21	339.62	251.92	207.86
Profit per kg	286.90	187.52	152.43	53.92	16.65



### විගණකාධිපති දෙපාර්තමේන්තුව

கணக்காய்வாளர் தலைமை அதிபதி திணைக்களம்
AUDITOR GENERAL'S DEPARTMENT



මගේ අංකය எனது இல. My No. PLA/C/RRB/1/15/07

මබේ අංකය உழது இல. Your No. 23 November 2016

The Chairman, Sri Lanka Rubber Research Board

Report of the Auditor General on the Financial Statements of the Sri Lanka Rubber Research Board for the year ended 31 December 2015 in terms of the Section 14(2)(c) of the Finance Act, No.38 of 1971

The audit of financial statements of the Sri Lanka Rubber Research Board for the year ended 31 December 2015 comprising the statement of financial position as at 31 December 2015 and the statement of financial performance, statement of changes in equity and cash flow statement for the year then ended and a summary of significant accounting policies and other explanatory information, was carried out under my direction in pursuance of provisions in Article 154(1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with Section 13(1) of the Finance Act, No.38 of 1971 and Section 8(2) of the Rubber Research Ordinance (Cap.439) as amended by the Rubber Research (Amendment) Act, No.11 of 1956. My comments and observations which I consider should be published with the Annual Report of the Institute in terms of Section 14(2)(c) of the Finance Act appear in this report. A detailed report in terms of Section 13(7)(a) of the Finance Act was furnished to the Chairman of the Board on 22 July 2016.

#### 1.2 Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Sri Lanka Public Sector Accounting Standards and for such internal control as the management determines is necessary to enable the preparation of financial statements that are free from material misstatements whether due to fraud or error.



#### 1.3 Auditor's Responsibility

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Sri Lanka Auditing Standards consistent with International Auditing Standards of Supreme Audit Institutions (ISSAI 1000 – 1810). Those Standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Board's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Board's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of financial statements. Sub-sections (3) and (4) of Section 13 of the Finance Act, No.38 of 1971 give discretionary powers to the Auditor General to determine the scope and extent of the audit.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

#### 1.4 Basis for Qualified Opinion

My opinion is qualified based on the matters described in paragraph 2.2 of this report.

#### 2. Financial Statements

#### 2.1 Qualified Opinion

In my opinion, except for the effects of the matters described in paragraph 2.2 of this report the financial statements give a true and fair view of the financial position of the Sri Lanka Rubber Research Board as at 31 December 2015 and its financial performance and cash flows for the year then ended in accordance with Sri Lanka Public Sector Accounting Standards.



#### 2.2 Comments on Financial Statements

#### 2.2.1 Sri Lanka Public Sector Accounting Standards

The following non-compliances were observed.

#### (a) Sri Lanka Public Sector Accounting Standard 01

Even though the assets and liabilities and income and expenditure should not be set off unless otherwise required or permitted by the Standards, the other Capital Grants receivable in the year under review amounting to Rs.12,826,235 and expenditure amounting had been set off to Rs. 11,554,513 and net value amounting Rs.1,271,722 only had been shown in the financial statements.

#### (b) Sri Lanka Public Sector Accounting Standard 02

- (i) The employees gratuity amounting to Rs.1,040,400 paid during the year had not been included in the cash flow statement.
- (ii) Even though gratuity provision totalling Rs.10,024,075 had been made for the Rubber Research Institute in respect of the year under review, that had been shown erroneously as Rs.5,203,205 in the cash flow statement. As such the cash flow from operating activities had been understated by a sum of Rs.4,820,870.

#### (c) Sri Lanka Public Sector Accounting Standard 08

Even though employees had instituted 11 cases against the Institute as at 31 December 2015 claiming compensation amounting to Rs.2,433,157, the necessary provision or disclosure in that connection had not been made in the financial statements.

#### 2.2.2 Accounting Deficiencies

The following observations are made.

(a) Even though the expenditure on the Seedling Nursery of the Kumarawatta at Moneragala amounting to Rs.4,950,638 had been shown as the work-in-progress over a period exceeding three years, the expenditure had not been identified and brought to account.



(b) The bad and doubtful debtors balance as at 31 December of the year under review amounting to Rs.830,937 had not been deducted from the debtors thus resulting in the overstatement of debtors by that amount.

#### 2.2.3 Unreconciled Accounts

The balances of 19 debtors totalling Rs.370,172 according to the Debtors Ledger of the Institute had been shown as zero according to the letters of confirmation of the debtors.

#### 2.2.4 Lack of Evidence for Audit

The evidence indicated against the following items of account had not been furnished to audit.

Item of Account	Value Rs.	Evidence not made available
(a) Non-Current Assets	294,545,905	Register of Fixed Assets and the
		Board of Survey Reports
(b) Other Financial Assets	1,965,524	Annual Stock Verification Reports

#### 2.3 Accounts Receivable and Payable

The following observations are made.

- (a) Even though Rs.6,248,386 out of the balances receivable totalling Rs.13,717,213 had been older than 7 years, action for recovery had not been taken even during the year under review.
- (b) Out of the trade debtors balances totalling Rs.21,460,210 as at 31 December of the year under review according to the ledger, Rs.14,469,876 or 64 per cent had exceeded 10 years while further balances amounting to Rs.4,636,295 or 27 per cent had been old between 5 years to 10 years. Action for recovery of those debtors balances had not been taken even during the year under review.
- (c) Out of the Sundry Debtors balances totalling Rs.8,713,223 as at the end of the year under review, a sum of Rs.2,863,000 had been the debtors balances older than 05 years.



- (d) Action had not been taken even up to 31 December of the year under review for the recovery of a sum of Rs.1,035,600 receivable by the Board from the National Science Foundation since the year 2011 and for the settlement of Rs.298,577 payable to the Janatha Fertiizer Company since the year 2002.
- (e) The balances totalling Rs.16,643,553 included in the Sundry Creditors balances, contained balances totalling to Rs.4,324,179 older than 10 years, balances totalling Rs.1,900,115 old between 5 to 10 years and balances totalling Rs.503,538 old between 2 to 5 years.
- (f) Action had not been taken for the settlement of a sum of Rs.5,214,500 shown under the balances receivable.

2.4	Non-compliance with Laws, Rules, Regulations and Management Decisions				
	The following non-compliances were observed.				
	Reference to Laws, Rules, Regulations, and Management Decisions	Non-compliance			
	(a) Financial Regulations of the Democratic Socialist Republic of Sri Lanka				

(i) Financial Regulations 102 and 103

Action in terms of the Financial Regulations had not been taken on the shortage of 29 items appearing in the Board of Survey Report of the stores as at the end of the year under review.

(ii) Financial Regulation 751

Even though goods received by the Government Institutions should be taken on charge in the Inventory Book at once, it had not been so done in connection with the assets totalling Rs.3,967,781 received from the projects.

(b) Trade, Tariff and Investment Policy Circular No.1/2010 of 10 December 2010. Action had not been taken for the recovery from the officers responsible, the loss of Rs.8,090,574 caused to the Government on account of concessions of the Customs Duty and other duties on a motor vehicle imported under the motor vehicle permit issued to an Estates Superintendent recruited on contract basis.



(c) Public Enterprises CircularNo.PED/12 of 02 June 2003 –Paragraph 9.12

Action had not been taken to obtain the approval of the General Treasury for the Medical Bills Reimbursement Programme implemented by the Institute.

3. Financial Review

#### 3.1 Financial Results

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According to the financial statements presented, the financial result of the year under review had been a deficit of Rs.36,662,486 as compared with the corresponding deficit of Rs.43,971,568 for the preceding year, thus indicating an improvement of Rs.7,309,082 in the financial result of the year under review, as compared with the preceding year. Even though the expenditure on salaries for the year under review had increased by Rs.80,346,675 as compared with the preceding year, the increase of the Government Grants by a sum of Rs.89,796,800 had been the main reason for the above improvement in the financial results. An analysis of the financial results for the year under review and the 4 preceding years indicated that despite the financial surplus achieved in the year 2011, there were financial deficits from the year 2012 to the year under review. Nevertheless, in consideration of the employees remuneration and the depreciation on the non-current assets, despite the decrease of the contribution of the Board in the year 2012 as compared with the year 2011, thereafter it had gradually improved from the year 2013 to the year 2015.

#### 3.2 Analytical Financial Review

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Out of the four estates belonging to the Institute, three estates had incurred losses during the year under review and the overall profit of Rs.4,750,647 for the preceding year had deteriorated by 167 per cent and converted to a loss of Rs.3,199,674. The profit of the Kuruwita Estate for the preceding year amounting to Rs.6,963,763 for the preceding year had deteriorated by 143 per cent in the year under review and converted to a loss of Rs.3,028,327, and that had been the main impact on the overall loss.

Nevertheless, the Dartonfield Estate which achieved a profit in the preceding year had improved by 25 per cent in the year under review while the loss of Kumarawatta had decreased by 25 per cent.

Operating Review

#### 4.1 Performance

The management, maintenance, encouragement and promotion of the scientific researches relating to the following fields are the major objectives of the Board.

- Settlement of all problems relating to rubber and rubber industry.
- Treatment and prevention of diseases such as fungus affecting the rubber cultivation/ seedling cultivation.
- Conversion/ utilization of rubber latex to suit the market.
- Utilization, marketing and removal of all production from the rubber and rubber cultivation.

#### 4.2 Underutilization of Funds

Out of the allocation of Rs.87.6 million made under the Capital provision, a sum of Rs.48.49 million or 55 per cent only had been utilized. The provision made for the repairs to the internal roads of the Dartonfield and Nivithigalakele Estates had not been utilized. Out of the sum of Rs.18.5 million allocated for the construction of buildings 30 per cent or Rs.5.48 million only had been utilized.

#### 4.3 Management Activities

The following observations are made in connection with the overseas leave approved for an officer who joined the service as Assistant Rubber Chemist in August 2005.

(a) Academic leave with full salary for 1 year and 10 months with effect from 25 October 2007 had been approved. Even though, she had reported for duty on 21 October 2009 on the expiry of leave approved, leave with no-pay for a job for 06 months with effect from 01 June 2011 had been approved before the completion of the period of compulsory service or without recovering the value of the bond in terms of the Section 4.4 of chapter XV of the Establishments Code.



(b) Subsequently, leave with pay and no-pay had been approved in two instances with effect from 20 February 2012 and the approved leave had expired in March 2016. Nevertheless, the officer had not reported for duty even by October 2016 and action in terms of Section7.1 of Chapter V of the Establishments Code had not been taken.

#### 4.4 Staff Administration

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Instead of appointing permanent officers for the duties assigned to the Genetics and Plant Propagation Department and the Polymer Chemistry Department, two officers had been appointed to act in the posts for more than 4 years and Rs.723,528 had been paid in that connection.

5. Accountability and Good Governance

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5.1 Procurement and Contract Process

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The following non-compliances were observed.

- (a) The Institute had obtained a patent for designing a rubber tapping knife and the tenders for production of the knife had been awarded to the same private institution over and over again without following the procurement procedure. Contrary to the objectives of the Institute, the knives had been purchased at Rs.550 per knife by utilizing funds of the Department of Rubber Development and sold again at Rs.565 retaining a profit margin.
- (b) The contract for the construction of the Office building with car park had been awarded for Rs.9,950,719 without a decision of the Procurement Committee.

#### 5.2 Audit Committee

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Even though the Audit Committee should meet at least once in 3 months in terms of Section 7.4.1 of the Public Enterprises Circular No.PED/12 of 02 June 2003, only 02 meetings had been held during the year under review.



#### 6. Systems and Controls

Deficiencies in systems and controls observed during the course of audit were brought to the notice of the Chairman of the Institute from time to time. Special attention is needed in respect of the following areas of control.

Areas of Systems and Controls	Observation
(a) Fixed Assets Control	Failure to record assets in the registers at the
	time of purchase/receipt and ensure existence of
	assets through physical verification.
(b) Procurement Process	Failure to follow the Procurement Guidelines

H.M. Gamini Wijesinghe

Auditor General