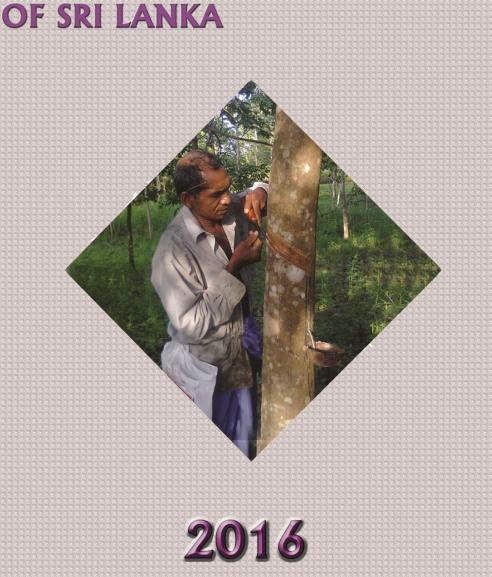


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## Rubber Research Institute of Sri Lanka Dartonfield, Agalawatta

### 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 natural rubber
- Encourage individual competency and self development of RRISL 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

## About us

The origin of rubber research in Sri Lanka goes back to 1909, when a group of planters in the Kalutara district got the service of a chemist to study the coagulation of rubber. This was later expanded to form a Rubber Research Scheme in 1913 and then named as the Rubber Research Institute of Ceylon (now Sri Lanka) in 1951 showing that the Rubber Research Institute of Sri Lanka (RRISL) is the oldest Research Institute on rubber in the world. It has a proud record of service to the industry, in plant breeding, agro-management practices and the chemistry of raw rubber.

RRISL is the nodal agency in Sri Lanka charged with the statutory responsibility for research and development on all aspects of rubber cultivation and processing for the benefit of the rubber industry. The institute specializes in rubber research, both in the biology of the crop and the chemistry of the natural rubber and the technology of the product. Further, the institute is committed towards technology transfer activities and training of extension personnel and the other stakeholders. Accordingly, it has five biological research departments i.e. Plant Science, Genetics & Plant Breeding, Plant Pathology & Microbiology, Soils & Plant Nutrition and Biochemistry & Plant Physiology and four chemistry departments i.e. Raw Rubber Processing Development & Chemical Engineering, Raw Rubber & Chemical Analysis, Polymer Chemistry and Raw Rubber Technology & Development and the Advisory Services Department for technology transfer together with units for Adaptive Research, Biometry, Agricultural Economics, Audio Visual & Information Technology and Library.



## **RUBBER RESEARCH BOARD**

## **ANNUAL REPORT 2016**

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## List of Abbreviations

ANRPC	<ul> <li>Association for Natural Rubber Producing Countries</li> </ul>
BFBF	- Biofilm Biofertilizer
COP	- Cost of Production
GRT	- Ground Rubber Tyre
HP	- Hand pollination
IPT	- Intake per Tapper
IRRDB	- International Rubber Research & Development Board
IRSG	- International Rubber Study Group
NBR	- Nitrile Butadiene Rubber
NIPM	- National Institute of Plantation Management
NR	- Natural Rubber
NSA	- Net Sale Average
NSF	- National Science Foundation
PRI	- Plastic Retention Index
REO	- Rubber Extension Officer
RRII	- Rubber Research Institute of India
RRIM	- Rubber Research Institute of Malaysia
RRISL	- Rubber Research Institute of Sri Lanka
RSS	- Ribbed Smoked Sheets
SMR	- Synthetic Mixed Rubber
SPEnDP	- Smallholders Plantation Entrepreneurship Development Programme
SR	- Synthetic Rubber
TPD	- Tapping Panel Dryness
TSR	- Technically Specified Rubber
YPH	- Yield per Hectare

## **Report of the Chairman Rubber Research Board**

I am pleased to place a record in this report that there has been an optimistic lineup in administrative, research and financial matters due to a conducive positive environment during 2016 at the Rubber Research Institute of Sri Lanka (RRISL).

RRISL has a long history of more than 107 years and has been a renowned institution within the national and international arena and well known among rubber growers, industrialists who use latex for manufacturing of various products and investors who use high technology. Being an institution which continuously provide an extensive backing for the Sri Lankan economy through its authority in research pertaining to the rubber sector, it is our responsibility to ensure sustaining this reputation for the future as well.

It is evident through experience in the year under review that there is a necessity to take proper actions against the drawbacks in the basic activities of RRISL as well as the unresolved issues in the administrative and financial matters which were highlighted in the Annual Report 2015.

It is an accepted fact that basically an organization to be successful in its activities, the entire staff including Scientists, Experimental Officers, Technical Officers, Field Officers, officers in administrative and financial divisions and the entire staff need an independent working environment. In this regard, the Rubber Research Board (RRB) played a pivotal role throughout the year and continued its activities based on the theme "working on a common ground" and held 09 Board meetings during 2016.

#### Administration

In terms of the act, the Rubber Research Board, provided necessary administrative guidance and supported scientific and other activities of RRISL at an optimum level throughout the year to improve the efficiency in activities to achieve optimum productivity levels. It was possible during this year to fill certain vacancies which were essential to improve the expected outputs of the institute by adopting the Scheme of Recruitment through a transparent procedure. During the year under review, 10 Research Officers were recruited at once, which was a long felt need. Moreover, two other important vacancies; *viz.* a Senior Accountant and a Senior Administrative Officer and two other positions, an Engineering Assistant and an Electrician were filled during this year. In addition, arrangements have been made to recruit 15 Technical Officers, 04 Field Officers, a Library Assistant and a Receptionist *cum* Telephone Operator with effect from 2<sup>nd</sup> January 2017. It is to be noted with pleasure, that the Senior Officers who were recruited in mid-2016 have been able to improve the quality of services by formalizing the Finance Division to

the expected level of management and to accomplish the administrative matters in a satisfactory manner.

#### Positive attitudinal development and Local/International trainings

During 2016, through proper steps, it was possible to build capacity and promote positive attitudinal developments among the officers, especially in scientific departments and in other divisions by providing local and foreign trainings on related subjects.

Based on the availability of such programmes, 19 staff members including Research Officers, Experimental Officers, Technical Officers and Extension Officers were sent for training programmes to improve their knowledge on respective disciplines and attitudinal development. Local short term training opportunities; individual and group were also provided to staff members of different grades in administrative and finance sections on computer applications, management, procurement and accounts during this year.

#### **Procurement activities**

To regularize the procurement activities, a special concern was paid on the comments of the Auditor General's previous reports, which highlighted certain shortcomings of the procurement process of RRISL. Together with those and also through the guidance of the Rubber Research Board, proper actions were taken to rectify the issues of procurement procedures. Some of the major procurements planned for the year opted to delay until the end of 2016 due to the attempt of adopting a proper procurement procedure.

Yet, due to proper actions taken by us, the slow-moving nature of procurement during the mid-2016 could be arrested and it was possible to utilize the allocated state funds for 2016 by employing correct procurement procedures. I greatly appreciate the advices given by the Ministry of Plantation Industries to the Rubber Research Board, which were of immense support in making the procurement activities in a timely and effective manner.

#### **Research matters**

The research activities are conducted by RRISL are basically on two facets; namely Agronomy and Technology. The research activities conducted by the departments falling into the above-mentioned areas have been successful throughout the year. Research projects conducted by each department, their results and inventions in research are elaborated concisely but with evidences in another section of this Annual Report.

#### **International Conferences**

As a result of the consequences on the global natural rubber sector due to low market demand which created poor price for natural rubber has been observed during the past few years.

Focusing on the above issue, the International Rubber Research and Development Board (IRRDB) and RRISL have jointly organized a conference under the theme "Coping mechanism for low rubber price" on the 07<sup>th</sup> September 2016 in Colombo with the participation of Honourable Minister of Plantation Industries.

RRISL was able to organize this International conference in a very successful manner, which was attended by a number of local specialists representing plantation and industry sectors and rubber technology as well as experts in Economics from International arena. Special ideas and suggestions have been proposed to avert the risk of facing repercussions of falling prices.

Another special event, the International Rubber Conference and meetings of IRRDB, organized by IRRDB as an annual event, which was held in Cambodia this year from 20<sup>th</sup> to 25<sup>th</sup> November and I had the opportunity to attend this event, as the Chairman of RRB

The proposal tabled by me on exchange of scientific knowledge between IRRDB member countries at the meeting of the Directors of IRRDB, was greatly commended by all the member country representatives. This proposal will be implemented in future with the main objective of fulfilling the training needs of officers at least in the technical category in IRRDB regional member countries, especially China, Philippines, Vietnam, Thailand, Indonesia, Malaysia, Cambodia, Myanmar and India through relevant human resource exchange programmes.

#### **Challenges ahead of the Rubber Research Board** Administration

In 2014, following the circular No. 25/2014 issued by the Ministry of Public Administration, 80 employees had been absorbed into the permanent cadre of RRISL. Adopting this circular in absorption has been identified as improper and there is a need to introduce an appropriate solution in order to correct this situation in an impartial manner.

#### Human resources

The research staff of RRISL consists of 36 employees in different categories, namely; Heads of Department, Principal Research Officers, Senior Research Officers and Research Officers. There are 12 officers who are above 50 years, and 14 out of the remaining 24 have only the first degree who are below 40 years and yet to receive extensive experience in their respective disciplines. There is a timely need to formulate the necessary conducive environment to provide these young scientists with specific experiences in their relevant disciplines to encourage them to serve RRISL for the future.

If appropriate actions have not been taken, obvious vacuum of experienced scientists would probably be created and will adversely affect the future of RRISL. This issue needs thorough concern as 04 Senior Scientists holding PhD degrees in specific disciplines have left the institution in 2016 alone.

Special commendation of the scientists and providing them with attractive benefits through a common policy decision between the crop research institutions and expediting implementation of these policies would help arresting the tendency of leaving the scientists from the institutes.

#### **Research - Agronomy**

The productivity of rubber plantations in regional countries such as, Malaysia, Thailand, Indonesia and Vietnam exceeds 1500 kg/ha/year. Yet, the productivity reported in the Sri Lankan rubber sector is below 1000 kg/ha/year. This is a very poor situation with escalating cost of production figures in the rubber sector. Thus, the responsibility of improving the productivity is the key challenge ahead of research departments of RRISL related to Agronomy. As such, prompt actions; practical and appropriate, are needed to improve the productivity of rubber plantations.

#### **Research – Technology**

A major share of the natural rubber produced in Sri Lanka is used in the solid tyre manufacture. Looking for value addition through specific rubber products not only the solid tyres by recognizing the local and international market dynamics and encouraging investors by promoting novel technologies is the specific responsibility of Rubber Technology departments.

Lastly, in the continued effort of formalizing the functions of RRISL, I greatly appreciate the support extended to me by the Rubber Research Board, the Director and the staff of RRISL. The guidance by the Ministry of Plantation Industries and specialist advices and encouragement by the Honourable Minister of the Ministry of Plantation Industries are gratefully acknowledged.

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N V T A Weragoda Chairman Rubber Research Board

## Director's Report Rubber Research Institute of Sri Lanka

This review consists of an overview of the rubber industry in the country and in the global scale, Research and Development activities of each Department/Unit of RRISL are given separately under the title of "Activities of Research Departments -2016".

#### Rubber industry of Sri Lanka

#### **Rubber** production

The natural rubber (NR) production in the country in the year 2016 (up to September) has decreased by 8.5 % from corresponding values of the previous year, *i.e.* from 69,800 tonnes to 63,890 tonnes. Continuous decline of the rubber price since year 2011 would have resulted in neglecting rubber lands which ultimately reflects on overall production in the country. Two largest contributors to the total rubber production in the country, Rubber Smoked Sheet (RSS) rubber declined from 35,022 tonnes to 32,150 tonnes, a reduction of 8.2% and however, Crepe rubber has increased by 26% from 8,563 tonnes to 10,860 tonnes. Concentrated latex production in the country was only 18,168 tonnes with a decline of 28.8% from previous year. Average price of RSS Grade 1 was around Rs.248.55 per kg at the end of 2015 reduced further to Rs.239. 42 per kg at the end of 2016, which is a 3.6% decrease. A kilo of Latex Crepe 1X price dropped by 13% from Rs.301.15 in 2015 to Rs.261 in this period.

#### **Rubber** extent

Total rubber extent in the country at the end of 2016 was around 135.4 thousand hectares while the extent under tapping was around 108.7 thousand hectares. The increase in rubber extent was due to the extent of new planting which accounted for 2800 ha.

#### NR consumption exports and imports

NR consumption in the country in 2016, reduced to 64,000 tonnes from 72,000 tonnes in 2015 up to September. Sri Lanka has exported around 10,300 and 16,000 tonnes of natural raw rubber during the same period in the years of 2015 and 2016, respectively.

#### Rubber manufacturing sector

Earnings through raw rubber exports was Rs.3,316 million in year 2016 against the Rs.2,671 million in year 2015 up to September period. Export earnings from finished products was recorded as Rs. billion 82 in 2016, with an increase of about 7% against the previous year.

## Global rubber industry review *Natural rubber supply:*

Total world NR production increased up to 7,569 thousand tonnes in 2016 from the value of 7,504 thousand tones in previous year up to second quarter. World NR production has increased by 0.8% according to International Rubber Study Group (IRSG) statistics. The provisional data received from the member countries of ANRPC indicated an increase of 0.1% year-on-year. This is mainly due to the price improvement in the major markets in Asia Pacific region during the end of the year. While production rose by 1.3% in Thailand, 4.8% in Vietnam, 7.4% in India, it fell 4.0% in china, 9.0% in Malaysia and 0.4% in Indonesia, as per actual figures up to September and preliminary estimates for October and November 2016.

Table 1 gives the annual average yield and mature area in the Association of Natural Rubber Producing Countries (ANRPC) group in years 2016 and 2015. While the average yield declines, the mature area expands in all the countries during 2016. 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. However, these have not been translated into improvement in average yield. The sharp fall in rubber prices especially during the year 2016 would have attributed to the decline in productivity.

Country	Total area ('000 ha)		Tapped area	a ('000ha)	Yield (kg/ha/year)	
	2015	2016	2015	2016	2015	2016
Cambodia	389	400	111	132	1,140	1,122
China	1,159	1,159	711	720	1,117	1,069
India	811	827	391	436	1,471	1,454
Indonesia	3,621	3,639	3,016	3,021	1,036	1,045
Malaysia	1,079	1,092	650	630	1,410	1,500
Philippines	223	234	-	142	815	_
Sri Lanka	135	135	108	108	819	855
Thailand	_	_	3015	3,130	1,483	_
Vietnam	981	972	600	972	1,695	1,680

**Table 1.** The annual average yield per hectare in ANRPC member countries and extents under tapping (up to November)

#### Total rubber demand:

Total rubber consumption was 15,599 thousand tonnes in 2016 compared to 15,448 thousand tonnes up to second quarter, in the previous year accounting for 0.9% growth. World NR consumption is being dominated by China with 2,483 thousand tonnes followed by India with 516 thousand tonnes and USA with 474.6 thousand tonnes. China was the highest SR consumer in 2016 followed by USA and European

Union countries. China consumed 2,088.4 thousand tonnes of SR and USA consumed 935.8 thousand tonnes in 2016 up to second quarter. According to the international experts, there is a definite hike in the demand for synthetic rubber in the western world, which affects the demand for NR.

#### 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 2 shows the trends in NR consumption and their growth up to Second quarter for major consumers in the world.

	Consumption ('0	Consumption ('000 tonnes)		Gr	owth (%)*
	2014	2015	2016	2015	2016
China	2,298	2,398	2,483	4.4	3.5
Total EU-28	590	565	609	-4.2	7.8
India	501	500	516	-0.2	3.2
U.S.A.	475	482	475	1.5	-1.5
Japan	350	372	335	6.3	-9.9
Thailand	274	279	310	1.8	11.1
Indonesia	264	262	300	-0.8	14.5
Malaysia	220	232	241	5.5	3.9
Other countries	1,048	1,050	1,004	0.2	-4.4
World	6,020	6,141	6,273	2.0	2.1
				(	*I La da Lana

Table 2. Trends in NR demand by major consumers

(\*Up to June)

Based on the statistics up to second quarter, China consumed 39.5% of the total global consumption of natural rubber during 2016. Other major consuming countries are the European Union (9%), India (8%), the US (7%), Japan (5.3%), Indonesia (4.7%), Thailand (4.9%) and Malaysia (3.8%). The growth rate of demand for NR has decreased in USA and Japan. The unsatisfactory performance reflected through continued growth deceleration in emerging and developing economies including China. China has shown a positive growth rate, however, the rate of increase was less than that of previous year.

#### NR demand and supply gap

Global demand experienced a growth of 2.0% in 2015 while the supply has headed for a 1.9% decrease. The demand supply position for 2016 is also shown in Table 3 in comparison with the previous two years. Global market at the end of second quarter of 2015 was in a deficit of 662 thousand tonnes. Consumption of natural rubber in ANRPC member countries, which account for 65% of the global demand, is anticipated to grow at 4.1% growth during 2016 against the previous year, according to the latest statistics from the association.

	Quantity ('000 tonnes)			Growth (%)*		
_	2014	2015	2016	2015	2016	
Production	5,590	5,479	5,553	-1.9	1.3	
Consumption	6,020	6,141	6,273	2.0	2.1	
Gap	-430	-662	-720			

 Table 3. Outlook for the demand supply gap

(\* up to Second quarter)

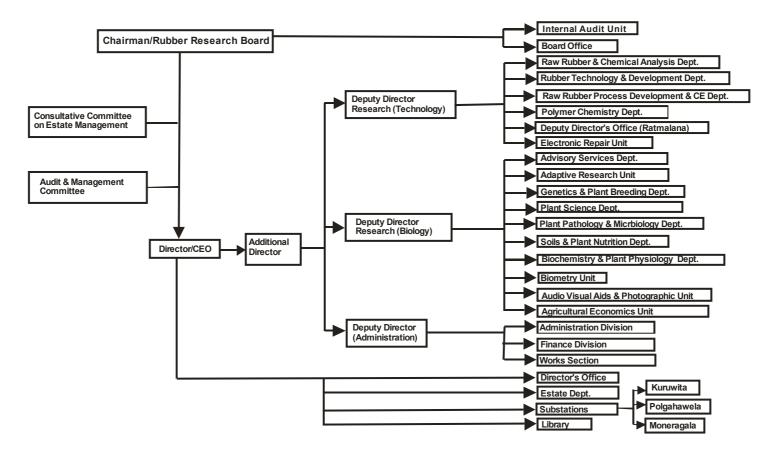
#### World NR price movement

Natural rubber prices follow a decline in world market over the last two years. Sri Lankan annual average RSS3 price was US\$ 1.54 a kg in year 2016. Slight recovery of NR prices was observed at the end of year 2016. The average FOB price of RSS3 recorded as US\$ 2.39 in Bangkok at the end of year. Average Indian RSS4 has increased to US\$2.10 from US\$ 1.91per kg against the previous year. According to the ANPRC countries, global natural rubber prices may stay firm due to increasing trend in crude oil prices and as consumption growth outpace production and increase Chinese demand and appreciation of US dollar *etc*.

R A D S Ranatunge Acting Director Rubber Research Institute of Sri Lanka

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#### **ORGANIZATIONAL STRUCTURE**



## Major Achievements during 2016

• Identification of a suitable slow release fertilizer for rubber nursery plants to reduce overall fertilizer application cost by 90% (Fig. 1).



- Fig.1. Single application of commercially available slow release fertilizers enhances plant growth throughout the nursery stage
- Environmental friendly, economically viable biofilm biofertilizer was developed using effective microbes associated with rubber rhizosphere (Fig. 2).



Fig. 2. Application of biofilm biofertilizers for immature plants

- Natural rubber latex and coir based encapsulated fertilizer was developed for releasing nutrients over an extended period.
- The high performance, lighter weight prosthetic foot (Fig.3) based on hybrid nanomaterial filled natural rubber composites developed in collaboration with Ranaviru Sevana received the NSF Technology Award 2016.



Fig.3. Lighter weight prosthetic foot

• A reclaiming process was developed for NBR glove waste using an environmental friendly, low cost, novel reclaiming agent (Fig. 4 & 5).



Fig.4. Preparation of reclaimed rubber out of NBR glove



Fig.5. Manufacturing a product using the rubber compound containing reclaimed NBR glove waste

• A natural rubber latex based adhesive with good storage stability was developed for shoes (Fig.6).



Fig. 6. Applying the newly developed natural rubber latex based adhesive on shoes

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## Activities of Research Departments – 2016

#### **GENETICS AND PLANT BREEDING**

To enrich the *Hevea* breeding pool, one hundred and twenty two new genotypes were produced in hand pollination programme carried out at Neuchattle estate. Four outstanding genotypes were selected from 2011 hand pollinated progeny. Around 60% of the genotypes showed better performance compared to controls in 1998 hand pollinated progeny evaluation at small scale clone evaluation trials. Two new small scale clone trials from 2008 and 2009 hand pollinated progenies were established at Eladuwa estate. Around 1816 non Wickham accessions were multiplied and established. Simple and rapid method for DNA extraction from different plant tissues was developed and optimized.

#### PLANT SCIENCE

Seed survey revealed that there was a marked reduction in seed production in 2016 as compared to that in 2015 irrespective of clones and areas. Novel and cost effective sowing media using quarry dust, purified sea sand and coir dust showed promising results. Seeds treated with a botanical formula [using drumstick/ "Murunga" (Moringa oleifera) leaf extract] improved germination and growth of both seedlings and budded plants. Growth and physiological data were collected from budded plants treated with sodium nitroprusside (SNP) at the government rubber nursery at Padiyathalawa. Two large scale sprinkler and drip irrigation systems were designed for rubber nurseries and fields at Padiyathalawa. Exogenous salicylic acid as a soil drench improved growth both under normal and reduced irrigation conditions in polybagged plants under glass house and nursery conditions. Seedlings derived from illegitimate seeds of seven clones (RRIC 100, RRISL 201, RRISL 206, RRISL 220, RRISL 221, RRISL 226 and PB 260) reached buddable girth (> 6mm) after three months. Growth and physiological data obtained from plants at Vishwamadu in Kilinochchi showed significant differences for clones. Test tapping yields obtained from young budded plants of RRIC 121 was better than those obtained from bare rooted plants of the same clone at 9<sup>th</sup> year of tapping. Budded plants obtained from rejuvenation experiments conducted for several years were field planted.

Rubber x Agarwood intercropping experiment revealed that, among three Agarwood species [(*Aquilaria crassna, Aquilaria subintegra* and *Gyrinops walla* (walla patta)], a significantly higher girth and height was recorded from *A. subintegra. G. walla* showed the lowest values for growth under different shading and spacing conditions.

Cinnamon and tea performed well when intercropped under rubber with wider inter row systems as compared to fruit crops such as rambutan, durian and jak with high stature at Kuruwita substation. In order to increase the fruit crop in each tree of rambutan, nearly half of the trees in each subplot were hard pruned. Overall performance of the plants under high densities could be improved after converting the tapping system from conventional (S/2 d2 without stimulation) to low frequency harvesting with stimulation (S/2 d3 + 2.5%ET). Experiments on bark consumption rates and bark anatomical studies demonstrated that excessive recovery and daily tapping negatively affected panel duration of rubber trees. A drastic reduction in number of latex vessels was recorded from renewed barks of rubber trees in different estates due to insufficient time given for the renewed bark to develop.

Modified tapping cut experiment at Pitiyakanda with S/4d3 + 5%ET system showed only a 10% reduction in yield as compared to S/4d3 + 2.5%ET system. Crop estimation experiments at Moneragala and Sapumalkanda revealed that the bark thickness at highest girth class was higher as compared to other two girth classes. A new stump budding experiment was commenced in Moneragala. A new experiment was commenced to reduce TPD incidence by using a botanical formula ("Murunga" leaf extract). All nurseries were inspected for quality assurance and reports were submitted. About 555, 825 budded plants were certified. Post evaluation was done for the home garden project in Kaluthara, Ampara, Moneragala and Polonnaruwa. Issuing authentic plants to establish budwood nurseries, issuing technically specified tapping knives and marking plates, testing polythene were attended/ done by the department staff. About 525 farmers were trained for harvesting and use of new tapping knife. 104 advisory visits, 415 field visits, 11 nursery programmes and 55 training programmes were conducted. Two papers were presented at Plantation Crop Research Symposium (PCRS). Two awards were received at PCRS. One paper was published in TARE journal.

#### PLANT PATHOLOGY AND MICROBIOLOY

Incidence of the secondary leaf fall diseases, Powdery mildew and Colletotrichum leaf disease was mild during the refoliation period except for a few disease vulnerable sites. Sulphur application was completed successfully to chemically control the disease. Based on the Corynespora screening programme, there were no new disease reports from the field plants except for the incidence reported in 2015. Incidence of Phytopthora diseases was also at a mild condition during the year 2016. The studies on the biology of the population of *Rigidoporus* spp. the causative agent of white root disease of rubber under the project of National Research Council 11-39 were

completed. Experiments are in progress to test the effectiveness of tree injection against white root disease management. The antagonistic plants effective against *Rigidoporusin vitro* conditions are being tested in the field. Due to the reason that the incidence of Brown root disease is increasing in the non traditional rubber growing areas studies on the biology is in progress. The clonal screening programme for the 2016 was partially completed due to the lack of transport facilities. Imidoclopid was introduced to control cockchafer grub infestations in rubber plantations. Antaganistic fungi were identified from rubber growing areas to biologically control the white root disease. A compost based medium is used to prepare the biopesticide. A serum based medium to formulate a biopesticide is also being carried out with the collaboration of Biochemistry and Physiology Department. Beneficial microbiological studies were initiated. Fungi and bacteria from different environments were isolated to use their activity for bioremediation. Microbes which are useful for treatment of waste water, fixation of cadmium like heavy metals, biological degradation of chlorphrphos are in progress. Extraction of antifungal and antibacterial compounds from rubber latex is also in progress. A culture collection consisting with beneficial fungi and bacteria are being raised the Plant Pathology and Microbiology Department to be used for commercial purposes. Identification of pest and disease problems related to the nontraditional areas of the country was initiated after receiving the funds for the development project funded by the Ministry of Plantation Industries. Sites were selected to establish clonal screening trials in nontraditional rubber growing areas viz. Padiyathalawa, Maha Oya, Kandakaduwa army camp and Vavuniya. Clonal screening nurseries consisting of fifty recommended and potential rubber clones were established in Monaragala to be used for disease screening purposes.

#### SOILS AND PLNT 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, promoted, implemented and monitored. Improved nitrogen mineralization and K fertility, increase soil pH from extremely acidic levels could be observed with Biofilm biofertilizer (BFBF) treatment compared to non BFBF treatment. Improved root growth combined with high microbial activity in BFBF treatment enhanced the nutrient uptake efficiency. Major nutrients in soils did not show high concentrations with BFBF, but it has yielded a high plant dry matter production and major plant nutrients N, P, K and Mg uptake of nursery plants. Immature field plants showed a high growth rate and the highest leaf nutrient content with combined use of chemical fertilizer with BFBF treatment. Also, it can be concluded that there is a possibility of using BFBF to improve growth of rubber

seedlings and immature field plants with modified levels of chemical fertilizers. Application of weedicides, Glyphosate, Glufosinate ammonium did not show any harmful effect on soil microbial population and available soil nutrient levels N and P during the incubation period of 3 months. Application of commercially available slow release fertilizers for rubber nursery plants has shown comparable growth parameters to recommended fertilizer applications, avoiding biweekly fertilizer applications throughout the nursery stage. Introduction of locally produced coir and rubber based slow release fertilizer for immature field plants had given promising results compared to conventional fertilizer applications. Degraded soil fertility under immature clearings could be enhanced by combine use of environmental friendly agro management practices. Site specific fertilizer recommendation programme provided 36 fertilizer recommendation reports for 3600 ha of mature rubber. Seven land suitability reports were issued for 500 ha under land selection programme. The department analyzed approximately 1100 samples (5000 parameters) for outside organizations including 150 fertilizer samples for rubber growers to assure application of good quality fertilizers to their rubber lands.

#### **BIOCHEMISTRY AND PHYSIOLOGY**

Recently recommended S/2 d4 low frequency harvesting system has been adopted in about 10 ha of rubber land in both smallholdings and estates. Planting of new experimental fields of the project on screening most suitable genotypes for different ecological conditions has been commenced in Vainuya, Kandakadu, Padiyathalawa and Mahaoya area.

A new experiment on identification of effect of non-rubber components on quality of raw rubber was started in view of developing a system to screen best clones producing quality rubber at the early stages of the breeding and selection programme. Monitoring and data collection of experimental fields were completed as scheduled.

#### **ADVISORY SERVICES**

Seven hundred and fifty eight (758) rubber smallholdings were inspected in the Monaragala district by REOo and necessary measures were proposed for improvements under the Smallholders Plantation Entrepreneurship Development Programme (SPEnDP). Under this, awareness programmes were also conducted for the benefit of 543 rubber farmers on general aspects of rubber cultivation, maintenance and processing. A special focus was made on tapping related programmes and 550 new rubber tappers were introduced. As a novel approach in

technology transfer sixty village youth were trained as para extension service providers.

The extension strategy focused on farmer participatory development of selected rubber units in each REO divisions was continued and 185 rubber lands as model rubber holdings were developed. Status of 81 immature substandard rubber holdings and 89 mature substandard rubber holdings were improved successfully. Thirty eight rubber processing centers were developed as models and construction of 18 new RSS processing centers and rehabilitation of 9 substandard centres were attended. As a solution to the tapper shortage, 357 new harvesting assistants were introduced through Tapping Training Schools (TTS) and 1407 semi skilled harvesting assistants were trained to maintain the technically high quality in tapping. Thirty five farmer training programmes were conducted to educate 1909 rubber growers on general cultivation and processing aspects of rubber.

Group extension programme called "*Vihidum Sathkara*" was effectively conducted providing advisory and extension services for 1942 rubber smallholdings and 54 medium scale rubber lands for necessary improvements. Nearly seven hundred advisory visits were made to solve problems in technology adoption on requests made by rubber smallholders. Basic data and information were collected to develop selected villages as model rubber villages. Preliminary work to establish two technology transfer centres at Kegalle and Ratnapura were attended for effective technology transfer to rubber growers.

#### **RUBBER TECHNOLOGY AND DEVELOPMENT**

Rubber composites using fibres of Pandanas (Watakeiya) and powdered dried leaves of Water Hyacinth (Japan Jabara) were developed with the aim of producing green rubber composites. Six crepe rubber based vulcanizates were produced with the aim of producing infant play items and the sheets were handed over to the manufacturer to test for nitrosamines.

A natural rubber (NR) based compound suitable for roofing sheets was developed on request. Also, a NR compound with good adhesion was developed for a glove manufacturer.

Further, a rubber compound was prepared with the aim of manufacturing a textured bat grip on the request of a cricket coach and physico-mechanical properties were evaluated. A NR latex based adhesive for shoes was developed at the request of an entrepreneur.

Six NR/low density polyethylene (LDPE) blend composites filled with rice husk were prepared and physico-mechanical properties were evaluated. NR/nitrile rubber (NBR)/polyvinyl chloride (PVC) blend was produced on a request made by an automobile component manufacturer. Furthermore NBR glove waste was reclaimed using an environmental friendly, novel reclaiming agent and the properties of virgin NR/reclaimed NBR blend composites developed were found to be comparable to those of composites prepared with virgin NR and NBR glove waste reclaimed with TMTD. This work was conducted on a request made by a leading glove manufacturer. A Patent was granted for "Oreclaim - A mechano-chemical reclaiming process for ground rubber tyre (GRT)".

The Department conducted twenty five workshops on "Rubber based products manufacture" for SMEs/ rubber farmers in collaboration with Thurusaviya Fund/RDD/NIPM/SPEnDP. Further, the staff was involved in transferring knowledge on rubber based products manufacture to the public at four exhibitions. A total number of 657 samples of raw rubber, rubber compounds and products were tested at the request of the rubber industry.

#### POLYMER CHEMISTRY

A project on development of nitrosomines free preservative system for natural rubber latex was continued throughout the year. Several trials were carried out to improve the preservative action. Four hundred coir encapsulated fertilizer blocks with two different combinations of fertilizer mixes were prepared and distributed to evaluate its effectiveness under immature *Hevea* at field conditions as requested by Soils & Plant Nutrition Department. A latex based adhesives was successfully developed for shoe industry in collaboration with Rubber Technology Department. Several trials were carried out to develop water-proofing cement using commercially available low cost polymer solutions. About thousand samples of polymer material received from industry and researchers were tested to analyze their polymer composition using the FTIR spectroscopy.

#### **RAW RUBBER & 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. These services were also extended to rubber traders, researchers. 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 were tested for their quality during the year. This included four hundred dry rubber samples two hundred seventy nine latex samples, thirty one rubber processing chemicals and thirty two bleaching agent samples. Three hundred and eighty six 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 Physcio-mechanical properties of raw rubber derived from stimulated latex was studied. New test method for the determination of dirt content was established to replace highly toxic chemical used in previous method. Registration of TSR manufacturing factories was commenced and registration offered to one TSR manufacturer. Trouble shooting activities were carried out regarding quality issues raised for Vietnam latex.

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

Two types of natural rubber (NR) namely un-fractioned and un-bleached crepe rubber and skim crepe rubber were used in preparation of thermoplastic elastomers (TPE) through melt blending with Polypropylene and Polyethylene respectively. The rubber phases of the both blends were dynamically vulcanized. Ethylene Propylene Diene monomer (EPDM) was found to be a potential compatibilizer for these blend systems. It was found that both blends possess comparable processing, mechanical and rheological properties of respective plastics and Technical Specified Rubber (TSR) which is a widely used rubber grade in preparation of NR based TPE blends. However, ageing properties were slightly inferior than the respective thermoplastics/TSR blends. Raw rubber properties of organoclay filled fractionated bleached (FB) and unfractionated unbleached (UFUB) crepe rubber were evaluated in comparison to standard crepe rubber whilst process based characterization was carried out with Moony viscosity and Mooney relaxation data. Raw rubber properties have shown that organoclay acts as a pro-oxidant and as a result, Initial plasticity (Po) and Plasticity Retention Index (PRI), which measures the thermos-oxidative degradation, were negatively affected. Viscoelastic behaviour was significantly affected by the addition of organoclay into the crepe rubber. Reduction of Mooney viscosity of organoclay filled crepe rubber was also found. Mooney stress relaxation has shown that lower clay loading provides a better processability and dispersion of organoclay within the crepe rubber.

Air dried sheets have been drying in conventional drying towers at 34 <sup>o</sup>C for prolong periods (6-7 days) in conventional drying towers. Experiments carried out on the effect of temperature on the raw rubber properties have revealed that sheets could be dried at 50 °C degrees without detrimental effects on the raw rubber properties. An accelerated drying system of sheet rubber at 50 °C was introduced in the field with modified operational practices achieving the complete dryness of sheet rubber in three days cutting down conventional drying period by minimum 50%.

A single day drying system was constructed at Dartonfield estate with funds from Bio-mas Energy Program of Food and Agriculture Organization of United Nations Organization for drying of sheet rubber manufactured at Dartonfield estate and also for knowledge dissemination and technology transfer purposes to the stakeholders.

User-friendly small scale standard coagulations tanks were designed with a view to replace the pan coagulation. Tanks were fabricated and trial coagulations were carried out. Improved quality and guaranteed quality consistency were observed when these tanks were used for coagulation of latex.

The staff of the department continued to provide routine technical assistance/advisory, analytical services and conducting training programs to entire spectrum of raw rubber producers and various government institutions and non-government organizations.

#### **ADAPTIVE RESEARCH UNIT**

Performance of rubber in early stages of growth in North was investigated in Vavuniya District. As the first record for the Dry Zone in the country, the growth

curve for the immature phase of rubber was established and no evidence for permanent damages to photosynthetic apparatus was recorded. Rubber plants (clone RRIC 121, RRISL 203 and RRISL 2001) were established in two smallholdings namely Skandapuram and Vishwamadu in Killinochchi District.



Rubber with Ground nut Vishwamadu



Rubber nine months after planting Vishwamadu

Growth assessments were continued in mature and immature rubber fields to study the growth pattern of rubber and seasonal variation in yield was monitored in the Eastern Province. Livelihood information were collected from the rubber farmers who has mature rubber fields in the Eastern Province. Growth and physiological assessments were taken in rubber – sugarcane intercropping system established in Monaragala. Smallholder survey was carried out to assess the smallholder preference in clone selection. Studies were done to assess the possibility of shortening of lifespan of rubber under different scenarios and to assess the financial viability of rubber under varying market prices.

#### **BIOMETRY SECTION**

The research and development activities conducted by the Biometry section were focused on statistical methods, research support on statistical analysis and research on climate change and variability. A research project titled "Indicator based identification and forecasting of droughts in Sri Lanka" was in progress with National Research Council (NRC) funds. Two versatile drought indices were used in identification and characterization of droughts in nearly 30 stations in Sri Lanka. The temporal variations and trends of rainfall anomalies were also studied for different rainfall seasons of the year.

In 2016, the staff of the Biometry section was supporting the colleagues of other research departments on designing, analysing and interpretation of their research findings. Meteorological stations at Dartonfield, Kuruwita and Moneragala were maintained and data were recorded and disseminated for research purposes. Rainfall

data were collected and recorded from Nivithigalakele, Galewatta and Polgahawela substations also in addition to the stations mentioned above.

#### AGRICULTURAL ECONOMIC UNIT

Agricultural Economics Unit (AEU) was conducting a survey to find out the sustainability of rubber based farming systems of the small holder sector in Moneragala District. AEU has examined the resource quality for rubber farming in Nuwara-eliya district of Sri Lanka in collaboration with Biometry section using multi criteria and GIS approach. The studies conducted during year were focused on analysis of productivity and their driven forces in the smallholder sector in Kalutara district.

AEU has involved in various economic analyses and collaborative research with the Biometry section and Advisory Services Department throughout the year. A Few analyses were focused on technical efficiency on latex harvesting at Dartonfield estate. GIS databases preparation was done on estates own by the RRI which is flexible and effective mechanism to the decision makers for efficient planning and management in rubber. Also AEU has completed analyses on rubber industry performance.

#### LIBRARY AND PUBLICATIONS

Sixteen books were added to the reference section of the library bringing the total collection up to 6050 and arrangements were made to purchase another forty three text books at the beginning of the next year.

While eight journals were purchased, thirty titles were received on exchange basis. Several institutional publications such as Annual Review – 2015, Annual Report – 2015 *etc.* were published and Frequently Asked Questions (Sinhala and English) and few advisory leaflets were reprinted during the year.

Furthermore, as a long felt need, a new Library Assistant & Assistant Publications Officer for Colombo Library was selected at the end of the year.

#### **DARTONFIELD GROUP**

A total crop of 176,136 kg has been harvested during this year which is only 89% of the estimated crop. When comparing with the previous year, 9% crop increase is recorded. The crop harvested from the rainguarded area was 24,994kg which amount to 14% of total harvested crop. The YPH for the year was 972 kg 80 kg more than the YPH for last year.

The average intake per tapper recorded during the year was 7.4kg from an average tapping task of 232 trees. Highest intake per tapper (IPT) of 10.2 kg was recorded from the 1990 field with a tapping of 302 trees of clone RRIC 130/121 tapped at  $\frac{1}{2}$  S d3 with etheral in Gallewatta division.

The total number of Normal, Late, Rainguard and No tapping days recorded during the year were 256, 6, 61, 43 and days respectively.

Rainfall recorded in three divisions were Dartonfield 2,966 mm, Gallewatta 2,782mm, Nivitigalakele 2,299 mm, and the number of wet days were 210,185 and 149 respectively.

Out of total latex manufactured No 01 percentage were 70% and 88%, of crepe and RSS respectively.

#### **KURUWITA SUB – STATION**

The mature and immature extent of the Kuruwita Sub-Station were 75.66 and 6.50 hectares respectively during the year.

A total crop of 104,651kg was harvested during the year recording an increase of 4,481kg on the previous year crop.

The actual per hectare (YPH) was 1383 Kg. The average intake per tapper (IPT) of the estate was 9.1kg and this is an increase of 0.2 kg when compared with the year.

The total number of Normal, Late and No Tapping days recorded during the year were 344, 08 and 14 respectively.

The annual rainfall recorded during the year was 3,342.8 mm with 222 wet days as against 4,002.14 mm with 251 wet days during the previous year.

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## List of Publications

#### **Scientific Journals**

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

- **Dissanayake, D.M.A.P., Gunarathna, P.K.K.S.** and **Wijesuriya**, **W.** (2016). Evaluation of farmer awareness on rubber cultivation and production technologies in major rubber-growing areas of Sri Lanka. *Sri Lanka Journal of food and agriculture*, **1** (1). 39-50.
- Sampath, W.D.M. and Edirisinghe, D.G. (2016). Effect of waste LDPE on properties of maleic anhydride treated NR/LDPE/waste LDPE composites. *The Journal of the Plastics and Rubber Institute of Sri Lanka* 15, p.31-41.

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

- Dissanayake, W.M.S.L. and **Sampath, W.D.M.** (2016). Effect of blend composition on physical, chemical and morphological properties of natural rubber/Low density polyethylene blends. *Proceedings of the Winc 2016 Wayamba International Conference*, 19-20<sup>th</sup> August, 2016.
- Fernando, T.H.P.S., Seneviratne, P., Siriwardena, D., Wijayaratne, C., Tennakoon, B.I., Peiris, P. and Wijewardhana, A.N. (2016). Efficacy of native anatagonistic microflora with special reference to *Trichoderma* sp. in the biological control of white root disease of rubber. *Proceedings of the Sixth Symposium on Plantation Crop Research*, Sri Lanka. 109-118.
- Gayan, M.W.H., Wijesuriya, B.W., Sankalpa, J.K.S., Punyawardene, B.V.R., Premalal, S., Herath, H.M.L.K., Karunaratne, S.B., Peiris, B.L. and Amarasekera, N. (2016). Comparing the use of Standardized Precipitation Index (SPI) and Standardized Precipitation Evapotranspiration Index (SPEI) for Identifying Rainfall Anomalies in the Wet Zone. Wayamba International Conference 2016: 241p.
- Hettiarachchi, R.P., Samarappuli, L., Mithrasenea, U., Edirimanna, V., Thewarapperuma, A. Chandrasiri, J.A.S., Gunathilake, T. and De Silva, K.E. (2016). Availability of plant nutrients from encapsulated fertilizers based on rubber latex and coir dust. *Proceedings of the Sixth Symposium on Plantation Crop Research*, Sri Lanka. 173-183.
- Iqbal, S.M.M., Rodrigo, V.H.L., Munasinghe, E.S., Balasooriya B.M.D.C., Kudaligama, K.V.V.S., Jayathilake, P.M.M. and Randunu, R.P.S. (2016). Growth performance of young rubber (*Hevea brasiliensis*) in the Dry Zone of Sri

Lanka; an investigation in Vavuniya district. *Proceedings of the Sixth Symposium on Plantation Crop Research*, Sri Lanka. 101-111.

- Jeewanthi, P.W., **Wijesuriya, B.W.** and Sarath Kumara (2016). Application of response surface method for optimizing the efficiency of a process: A case study from centrifuge latex manufacturing process. *Wayamba International Conference* 2016: 297p.
- Jeewanthi P.W., Wijesuriya W. and Sankalpa J.K.S. (2016). Changes Observed in Rainfall Patterns in Three Major Rubber Growing Areas. Annual Research Colloquium on Agrarian Studies in Sri Lanka 2016: 25p.
- Kirushanthi, T., Edirisinghe, D.G. and Jayasinghe, C.K. (2016). Investigation on suitability of Banana fiber as a filler material in natural rubber latex-based household gloves. *Proceedings of the Research Symposium of Uva Wellassa* University, 28<sup>th</sup> January, 2016.
- Kumara, P.R., Munasinghe, E.S., Rodrigo, V.H.L. and Karunaratna, A.S. (2016). Carbon footprint of rubber/sugarcane intercropping system in Sri Lanka; a case study. *Procedia Food Science* 6 (2016), 298-302.
- Lakshman, R.G.N., Kudaligama, K.V.V.S., Rodrigo, V.H.L., Iqbal, S.M.M., Attanayake, A.P., Randunu, R.P.S., Perera, M.K.P., Madushani, P.D.T.L. and Nadeeshani, A.A.A. (2016). Effectiveness of S/2 d4 harvesting system in the rubber smallholder sector of Eastern province of Sri Lanka. *Proceedings of the Sixth Symposium on Plantation Crop Research*, Sri Lanka. 181-188.
- Munasinghe, E. and Rodrigo, V.H.L. (2016). Effect of land productivity on the economic lifespan of rubber plantations; a situation analysis in Sri Lanka. *Proceedings of the International Rubber Conference 2016, International Rubber Research and Development Board*, Siem Reap, Cambodia. 21<sup>st</sup> – 22<sup>nd</sup> December 2016. 136-142.
- Nayanakantha, N.M.C., Madhushani, K.D., Amarathunga, L.A.R., Wijesekera, G.A.S., Pathirana, P.D., Karunathilaka, W., De Zoysa, D.L.N., De Alwis, M.N., Handapangoda, R. and Seneviratne, P. (2016). Treatment with nitric oxide and seed coat removal improve germination dynamics and growth attributes of rubber (*Hevea brasiliensis*). Proceedings of the Sixth Symposium on Plantation Crop Research, Sri Lanka. 59-75.
- Padmathilake M.A.V.N., Withanage, N.S., Dharmadasa, R.A.P.I.S., Wijesuriya, W. and Jeewanthi, P.W. (2016). Interference for tapping due to rainfall and

effectiveness of rainguards under different rainfall scenarios: A case study in the Dartonfield Rubber Estate. *Wayamba International Conference* 2016: 138p.

- Rodrigo, V.H.L. and Munasinghe, E.S. (2016). Competitive crops for rubber plantations; a comparative financial analysis under Sri Lankan conditions. *Proceedings of the International Rubber Conference 2016, International Rubber Research and Development Board*, Siem Reap, Cambodia. 21<sup>st</sup> – 22<sup>nd</sup> December 2016. 128-135.
- Rupasinghe, P.V.S., Withanage, N.S., Munasinghe, E., Rodrigo, V.H.L., Iqbal, S.M.M. and Jayasinghe, H.A.S.L. (2016). Effect of anti-transpirant in sustaining rubber leaf physiology under dry climatic conditions. *Proceedings of the Sixth Research Symposium of Uva Wellassa University of Sri Lanka*. 79.
- Sampath, W.D.M., Edirisinghe, D.G. and Egodage, S.M. (2016). Property improvements of natural rubber and low density polyethylene blends through dynamic vulcanization. *Proceedings of the Sixth Symposium on Plantation Crop Research*, Sri Lanka. 55-64.
- Silva, M.K.R., Wjesundera, R.L.C., Fernando, T.H.P.S., Tennakoon, B.I. and Wijekoon, W.M.S.P. (2016). Association of forest-origin tree species on the development of Brown root disease in Sri Lankan rubber plantations. *Twenty first International Forestry & Environment Symposium*, Sri Lanka.
- Silva, M.K.R., Fernando, T.H.P.S. and Tennakoon, B.I. (2016). Potential use of lower concentrations of currently-used fungicides for the control of black stripe disease of rubber. Fifth Symposium of the Young Scientists Forum, National Science and Technology Commission, Sri Lanka.
- Silva, S.P.P., Nayanakantha, N.M.C., Seneviratne, P. and Nugawela, A. (2016). Influence of selected clonal seedling rootstocks on growth of young budded rubber (*Hevea brasiliensis*). Proceedings of 15<sup>th</sup> Agricultural Research Symposium. 28<sup>th</sup> – 29<sup>th</sup> June 2016. Wayamba University of Sri Lanka.
- Silva, T.U.K., Senevirathne, A.M.W.K., Seneviratne, P., De Costa, W.A.J.M., Samarasekera, R.K. and Deshapriya, H.A.U. (2016). Impact of different latex harvesting systems on bark consumption, yield and economic lifespan of rubber plantations in Sri Lanka. *Proceedings of the Sixth Symposium on Plantation Crop Research*, Sri Lanka. 125-133.
- Weerakoon, W.M.T.H., Attanayake, A.P., Gamage, H.V.K., Lokuge, C., Vitharana, L.P. and Withanage, N.S. (2016). Effect of processing conditions on

raw rubber properties of natural rubber. *Proceedings of the Sixth Symposium on Plantation Crop Research*, Sri Lanka. 43-47.

Wijesuriya, B.W., Sankalpa, J.K.S., Liyanaarachchi, L.A.T.S. and Gayan, M.W.H. (2016). Drought Indices to Identify Rainfall Anomalies in Rubber Growing Areas of Sri Lanka. *CRRI & IRRDB International Rubber Conference*, Siem Reap, Cambodia, 21-25 November 2016. 415-427.

#### Awards

Ratnayake, U.N., Edirisinghe, D.G., Sampath, W.D.M. and Abeywardena, D.G.M.J. (2016). Technology Award (Technology Award of Excellence) (2016). from the National Science Foundation for the project titled "High Performance Lighter Weight Prosthetic Foot based on Hybrid Nano-material Filled Natural Rubber Nano-composite".

#### **Patents**

Edirisinghe, D.G., Mahanama, M.K., Rathnawardhana, M.K.N.N. and Gunathilaka, R.P.D. (2016). Patent was granted for "A Mechano-chemical Reclaiming Process (Oreclaim) for Ground Rubber Tyre" (Patent No. 17588).

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## Awards

• The prosthetic foot developed by Dr Upul Ratnayake, Dr (Mrs) D G Edirisinghe, Mr W.D. Sampath and Mr Mahesh Abeywardena of RRISL in collaboration with Ranaviru Sevana, Army Rehabilitation Centre, Ragama, received a "Technology Award of Excellence" of the National Science Foundation (NSF), Sri Lanka. This development was made with a technology grant received from NSF, under the category of "Support for Technology Development".



 Dr N.M.C. Nayanakantha, Head, Plant Science Department of RRISL, received the Award for the "Best oral presenter" for the rubber sector at the 6<sup>th</sup> Symposium on Plantation Crop Research held from 3<sup>rd</sup> – 5<sup>th</sup> November 2016, at BMICH, Colombo.



### **Board of Management, Committees & Staff Members**

#### **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

Mrs M K D N Madampe, Treasury Representative

Mr R A D S Ranatunge, Representative of Ministry of Plantation Industries

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

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

Mr Anusha Perera, Chief Executive Officer, Pussellawa Plantations Ltd. (from 28.09.2016)

- Dr A R Ariyaratne, Director/Secretary, Sri Lanka Council for Agricultural Research Policy (up to 17.11.2016)
- Dr J D H Wijewardana, Director/Secretary, Sri Lanka Council for Agricultural Research Policy (from 30.05.2016)

Mr N P C Dhanayake

- Mr K H M Rambanda Herath
- Mr E G S Premachandra

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

Dr W M G Seneviratne, Director, Rubber Research Institute (up to 18.12.2016)
Mr R B Premadasa, Director General, Rubber Development Department
Mr W G R Rajadurai, Chairman, Planters Association of Ceylon (up to 15.09.2016)
Mr S S Poholiyadde, Managing Director, RPC Plantation Management Services (Pvt.) Ltd. (from 15.09.2016)

#### STANDING COMMITTEES

#### **Estates Committee**

Mr N V T A Weragoda, Chairman, Rubber Research Board Dr W M G Seneviratne, Director, Rubber Research Institute (up to 18.12.2016) Mr R A D S Ranatunge, Acting Director, RRI (from 19.12.2016) Dr V H L Rodrigo, Additional Director, RRI Dr (Mrs) P Seneviratne, Deputy Director Research (Biology) Mr Nissanka Seneviratne, General Manager, Kotagala Plantations Ltd. Mr Eriyagama, Director - Operations, Kegalle Plantations Ltd. (up to January 2016) Mr Jagath Hettiarachchi, Senior Manager, Paiyagala Estate, Baduraliya Mr P Gunasekera, Manager, Baddegama Estate, Baddegama (from April 2016) Mr P A Lukshaman, Senior Manager - Estate, Dartonfield Estate Mr S A R Samarasekera, Manager - Estate, Kuruwita Sub-station Mrs A M Lasanthi, Accountant, RRI (In attendance) Mr B S S Hewage, Senior Accountant, RRI (from 20.05.2016) (In attendance)

#### Audit and Management Committee

Mrs M K D N Madampe, Chairman of the Committee, Treasury Representative Mr R B Premadasa, Director General, Rubber Development Department

- Mr R A D S Ranatunge, Representative of Ministry of Plantation Industries (up to
- 18.12.2016)
- Dr J D H Wijewardana, Director/Secretary, Sri Lanka Council for Agricultural Research Policy (from 19.12.2016)

#### In attendance

Dr W M G Seneviratne, Director, RRI (up to 18.12.2016)

- Mr R A D S Ranatunge, Acting Director, RRI (from 19.12.2016)
- Mr K Kandage, Audit Superintendent, MPI (up to July 2016)
- Ms Nilani Jayasiri, Audit Superintendent, MPI (from 28.12.2016)

Mr B S S Hewage, Senior Accountant, RRI

Mrs Lasanthi Munasinghe, Accountant, RRI

Mrs S Senadheera, Internal Auditor, RRB

Mr A H Kularatne, Acting Deputy Director Administration & Secretary, RRB (up to October 2016)

#### Scientific Committee

Members of RRISL

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

- Dr W M G Seneviratne, Director, Rubber Research Institute (up to 18.12.2016)
- 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 (Mrs) S P Withanage, Head, Genetics & Plant Breeding Dept., RRI

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

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

Dr N M C Nayanakantha, Head, 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 K K Liyanage, Senior Research Officer, Genetics & Plant Breeding Dept., RRI

- Mrs G D D Seneviratne, Senior Research Officer, Rubber Technology & Deve. Dept., RRI
- Mrs B M D C Balasuriya, Research O 30 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 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, Raw Rubber & Chemical Analysis Dept., RRI
- Mrs I H K Samarasinghe, Research Officer, Polymer Chemistry Dept., RRI
- Mrs T T Tolshi Dahanayake, Research Officer, Genetics & Plant Breeding Dept.,
- Miss K S Dananga Senanayake, Research Officer, Plant Science Dept.,
- Miss B M Suboda Panditharatne, Research Officer, Plant Science Dept.,
- Mrs L H Samudra Gunaratne, Research Officer, Plant Pathology & Microbiology Dept., RRI
- Mrs H A Ruwani Jayawardane, Research Officer, Soils & Plant Nutrition Dept., RRI
- Mr Thilina Jayasinghe, Research Officer, Soils & Plant Nutrition Dept., RRI (up to 03.05.2016)
- Miss N P Surani Karunaratne, Research Officer, Biochemistry & Physiology Dept., RRI
- Miss P G N Ishani, Research Officer, Agricultural Economics Unit, RRI
- Mr Yashoda Somaratne, Research Officer, Polymer Chemistry Dept., RRI
- Mr Y C Yohan Sudusinghe, Research Officer, Raw Rubber Process Development & Chemical Engineering Dept., RRI

#### Members representing the Industry and other Institutions

- Mr A C Bertus, General Manager, Agalawatta Plantations PLC, No.10. Gnanarthapredeepa Mawatha, Colombo 8
- Mr A C de A Seneviratne, Manager, Agalawatta Plantations PLC, Kiriwanaketiya Estate, Mahagama
- Mr L H Sampath Chandima, Manager, Agalawatta Plantations PLC, Culloden Estate, Neboda
- Mr D P A Perera, Deputy General Manager, Balangoda Plantations PLC, P.O. Box 06, Palmgarden, Ratnapura
- Mr A I B Rajasinghe, Superintendent, Balangoda Plantations PLC, Palmgarden Estate, Ratnapura
- Mr R M D T J Ratnayake, Superintendent, Balangoda Plantations PLC, Mahawala Estate, Ratnapura

- Mr D K Wijerathne, Superintendent, Balangoda Plantations PLC, Rambukkande Estate, Ratnapura
- Mr B L L Premathilake, Superintendent, Balangoda Plantations PLC, Mutwagalla Estate, Ratnapura
- Mr I K A B Ellepola, Superintendent, Balangoda Plantations PLC, Galatura Estate, Ratnapura
- Mr S H M Gunawardane, Acting Superintendent, Balangoda Plantations PLC, Millawitiya Estate, Ratnapura
- Mr D L D S Kandegama, Superintendent, Balangoda Plantations PLC, Rye/Wikiliya Estate, Balangoda
- 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, Talgaswella estate, Talgaswella
- Mr U A Karunanayake, Manager, Elpitiya Plantations PLC, Diviturai Estate, Ethkandura
- 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 Deugles, Manager, Elpitiya Plantations PLC, Elpitiya Estate, Elpitiya
- Mr W A Pathirana, Director Operations, Hapugastenna Plantations PLC, Hapugastenna Tea Estate, Gallella
- Mr S T M Perera, Superintendent, Hapugastenna Plantations PLC, Madampe Estate, Rakwana
- Mr E N Gunawardane, Manager, Hapugastenna Plantations PLC, Madampe Estate, Rakwana
- Mr H Madiwaka, Superintendent, Hapugastenna Plantations PLC, Bibile Estate, Bibile
- Mr H A Ariyathilake, Superintendent, Hapugastenna Plantations PLC, Hopton Estate, Lunuwila
- Mr D M D D Diyagama, Superintendent, Hapugastenna Plantations PLC, Galbode Estate, Gallella
- Mr Manuja Kariapperuma, Director/CEO, Horana Plantations PLC, 7/1, Gower Street, Colombo 5
- Mr W M N Wijenayake, Manager, Horana Plantations PLC, Frocester Estate, Ingiriya
- Mr B H Weerakoon, Deputy General Manager, Horana Plantations PLC, Neuchatel Estate, Neboda
- Mr Indika Weerakoon, Manager, Horana Plantations PLC, Dumbara Estate, Ingiriya
- Mr C D W Kirinda, Manager, Horana Plantations PLC, Hilstream Estate, Bulathsinghala
- Mr R C Peiris, CEO, Kotagala Plantations PLC, 53 1/1, Sri Baron Jayathilake Mawatha, Colombo 1

- Mr N B Senevirathne, General Manager, Kotagala Plantations PLC, Regional Office, Ellakande Estate, Horana
- Mr J N Hettiarachchi, Senior Manager, Kotagala Plantations PLC, Paiyagala Estate, Dodangoda
- Mr C S Amarathunga, Senior Manager, Kotagala Plantations PLC, Rayigam Estate, Ingiriya
- Mr R A Alahakoon, Manager, Kotagala Plantations PLC, Delkith Estate, Baduraliya
- 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 A Abeysinghe, Manager, Kotagala Plantations PLC, Arappolakanda Estate, Tebuwana
- Mr Udara Premathilake, General Manager Low Country, Kelanivelly 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, Manager, Kelanivelly Plantations PLC, Urumiwella Estate, Bulathkohupitiya
- Mr Vajira Hewage, Manager, Kelanivelly Plantations PLC, Kiriporuwa Estate, Yatiyantota
- Mr S A Eriyagama, Director, Kegalle Plantations PLC, Director/CEO, 310, High Level Road, Nawinna, Maharagama
- Mr B M J A Moonemalle, Superintendent, Kegalle Plantations PLC, Weniwella Estate, Alauwa
- Mr S A A P Jayathilake, Superintendent, Kegalle Plantations PLC, Parambe Estate, Undugoda
- Mr A C S Munaweera, Superintendent, Kegalle Plantations PLC, Eadella Estate, Polgahawela
- Mr N D Madawala, Superintendent, Kegalle Plantations PLC, Parambe Estate, Undugoda
- Mr Viren Ruberu, Director/CEO, Kahawatte Plantations PLC, 52, Maligawatta Road, Colombo 10
- Mr Sujiva Godage, DGM, Kahawatte Plantations PLC, DGM Office, Godellawatte, Sannasgama, Lellopitiya
- Mr T V Jayaseekara, Agronomist, Kahawatte Plantations PLC, DGM Office, Godellawatte, Sannasgama, Lellopitiya

- Mr Jeewantha Senaratne, Senior Manager, Kahawatte Plantations PLC, Rilhena Estate, Pelmadulla
- Mr Damith Mohottige, Manager, Kahawatte Plantations PLC, Hunuwala Estate, Openayake
- Mr Madushanka Dunusinghe, Manager, Kahawatte Plantations PLC, Pelmadulla Estate, Kahawatte
- Mr Lakkhana Perera, Manager, Kahawatte Plantations PLC, Houpe Estate, Kahawatte
- Mr D O S Hettiarachchi, Manager, Kahawatte Plantations PLC, Wellandura Estate, Kahawatte
- Mr Indrajith Rukmal, Manager, Kahawatte Plantations PLC, Ekkerella Estate, Openayake
- Mr V Karunaratne, Manager, Kahawatte Plantations PLC, Poranuwa Estate, Kahawatte
- Mr Gaya Weerasekara, Manager, Kahawatte Plantations PLC, Opatha Estate, Kahawatte
- Mr Albert Peries, General Manager Estates, Lalan Rubbers (Pvt) Ltd., No.54, Kirulapana Avenue, Colombo 6
- Mr Nishantha Senaviratne, Group General Manager, Lalan Rubbers (Pvt) Ltd., Sapumalkande estate, Deraniyagala
- Mr Indika Wakkumbura, Manager, Lalan Rubbers (Pvt) Ltd., Mahaoya Group, Deraniyagala
- Mr K M Wilson, DGM, Maturata Plantations Ltd., Diddenipotha Estate, Mulatiyana Junction, Matara
- Mr N V Samarasekara, 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 S M Doranegama, Superintendent, Namunukula Plantations PLC, Pallegoda Estate, Dharga Town
- Mr S B Dissanayake, Superintendent, Namunukula Plantations PLC, Yatadola Estate, Matugama
- Mr J Weerasekara, Superintendent, Namunukula Plantations PLC, Eladuwa Estate, Matugama
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- 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, Pussellawa Plantations Ltd., Elston Estate, Puwakpitiya
- Mr A D Perera, Senior Manager, Pussellawa Plantations Ltd., Penrith Estate, Avissawella
- Mr C M Hettiarachchi, Superintendent, Pussellawa Plantations Ltd., Ayr Estate, Bope, Padukka
- Mr Binesh Pananwala, Deputy CEO, Watawala Plantations PLC, No.60, Dharmapala Mawatha, Colombo 3
- Mr Yajith de Silva, Consultant, Watawala Plantations PLC, No. 60, Dharmapala Mawatha, Colombo 3
- Mr Chamika Naranapitiya, DGM, Watawala Plantations PLC, No.60, Dharmapala Mawatha, Colombo 3
- Mr Danushka Daswatte, Senior Manager, Watawala Plantations PLC, Nakiyadeniya Estate, Nakiyadeniya
- Mr D U H Bulugahapitiya, General Manager Rubber, Malwatte Valley Plantations PLC, Vincit Estate, Waharaka
- Mr Kristoper Fernando, Executive Director, Malwatte Valley Plantations PLC, No. 280, Dam Street, Colombo 12
- Mr R M V Ratnayake, Superintendent, Malwatte Valley Plantations PLC, Moralioya Estate, Ruwanwella
- Mr Gaya Nakandala, Project Consultant, Wellassa Rubber Co, Tissa Jinasena Group, 57, Lake Crescent, Colombo 2
- Mr Asoka Jayasekera, Project Consultant, Wellassa Rubber Co., C/O Tissa Jinasena Group, 57 Lake Crescent, Colombo 2
- Mr Clinton N M Rodrigo, Agricultural Consultant, 25/45, Kalinga Mawatha, Vijaya Kumaratunga Mw, Colombo 5
- Mr S W Karunarathne, Consultant, Mallikarama Road, Ratmalana
- Mr N M Amarasekara, Consultant, 37/9, Terramec Avenue, Mt. Lavinia
- Mr Sarath Senevirathne, Senevirathne Group, 2/4B, D.J. Wijesiriwardane Road, Mt. Lavinia

#### **Provident Fund Committee**

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

Dr W M G Seneviratne, Director, Rubber Research Institute (up to 18.12.2016)

Mr A H Kularatne, Acting Deputy Director Administration, RRI, (up to October 2016)

- Mr T B Dissanayake, Elected Committee Member
- Mr R A D Ranawaka, Elected Committee Member

Mr B S S Hewage, Senior Accountant, RRI (from 20.05.2016) (In attendance)

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

#### Chairman's Office & Board Secretariat

Chairman	- Mr N V T A Weragoda
Secretary to the Board	- Mr A H Kularatne (up to October 2016)
Acting Secretary to the Board	- Dr Wasana Wijesuriya (from October 2016)
Personal Assistant to the Chairman	- Ms B H P Balasuriya
Management Assistants	- Ms H N Kanchana (from 04.10.2016)
	- Ms P S Ishara (from 04.10.2016)

Bankers

Colombo 1

No.306/72, Agalawatta

Bank of Ceylon

Bank of Ceylon

www.rrisl.lk

Corporate Branch

75, Janadhipathi Mawatha

#### Lawyers

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

#### Auditors

Website

Auditor General Auditor General's Department No.306/72, Polduwa Road, Battaramulla

Head Office and Laboratories Dartonfield, Agalawatta

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Additional Director	034 - 2248458
Deputy Director Research (Biology)	034 - 3346118
General	034 - 2247426
	034 - 2247383
	034 - 3349999
	034 - 2248459
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e-mail	<u>dirrri@sltnet.lk</u>

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Telephones:	
Chairman	011 - 2635019

Fax Board Office Fax Director Fax Deputy Director Research (Technology) General

Fax: e-mail

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#### Nivitigalakele - Substation, Matugama

Genetics and Plant Breeding Department Telephone: 034 - 2247368, 034 - 2247199 e-mail: <u>rrigpb@sltnet.lk</u>

#### Kuruwita - Substation, Ratnapura

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# Polgahawela - Substation, Polgahawela

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### **RUBBER RESEARCH INSTITUTE OF SRI LANKA**

#### STAFF

#### DIRECTORATE

Director	W M G Seneviratne, BSc (SL), PhD (Sussex) (up to 18.12.2016)
Acting Director	R A D S Ranatunge (from 19.12.2016)
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 (Administration)	A H Kularatne, BSc (SL), MSc (Reading), MSc (SL) (up to October 2016)

#### **RESEARCH DEPARTMENTS**

Genetics and Plant Breeding	(at Nivithigalakele Substation, Matugama)
Head of Department	Mrs S P Withanage, BSc Agric (SL),
	MSc (India), PhD (Malaysia)
Senior Research Officers	K K Liyanage, BSc Agric (SL) MPhil (SL)
	P K S G Senarath Bandara, BSc (SL),
	PhD (Japan) (up to 31.05.2016)
Research Officer	Miss P V A Anushka, BSc Agric (SL)
	Mrs T T D Dahanayake, BSc Agric (SL)
	(from 09.05 2016)
Experimental Officers	I D M J Sarath Kumara
	L S Kariyawasam (up to 30.01.2016)
	T B Dissanayake
	T M S K Gunasekera
	H P Peries, Dip. Agric (Kundasale)
	Mrs A K Gamage, BSc (SL)
Technical Officers	B W A N Baddewithana, BSc Agric. (SL)
(Research & Development)	Miss W D A R Tharanga, BSc (SL)
Management Assistants (Clerical)	Mrs S D P K L Peiris
Plant Science	(at Dartonfield, Agalawatta)

Head of Department

(at Dartonfield, Agalawatta) N M C Nayanakantha, BSc (SL), MSc (India), PhD (India) (from 01.06.2016)

Research Officers	Mrs D S A Nakandala, BSc Agric (SL)
	T U K Silva, BSc Agric (SL), MPhil (SL)
	Miss B M S S Panditharatne, BSc Agric. (SL)
	(from 09.05.2016) Miss K S D N Senanayake, BSc Agric. (SL)
	(from 09.05.2016)
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)
	(up to 09.11.2016)
	Miss L A R Amaratunga, BSc (SL)
	(up to 11.11.2016)
	Miss N C Jayawanthi, BSc (SL)
	(up to 13.07.2016)
	H A U Deshapriya, BSc (SL)
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)
	Mrs L H S N Gunaratne, BSc Agric (SL)
	(from 09.05.2016)
Experimental Officers	Mrs B I Tennakoon, Dip. Agric (Kundasale)
	Mrs E A D D Siriwardene, BSc (SL)
	S C P Wijayaratne, NDT Agric (Hardy)
	**E A D N Nishantha, Dip. Agric. (Ratnapura),
Technical Officers	BIS (Agric) (SL) (from 01.11.2016) Miss S P Wijekoon, BSc (SL) (up to 27.10.2016)
(Research & Development)	Miss A N Wijewardena, BSc (SL)
(Research & Development)	(up to 27.10.2016)
Management Assistant (Clerical)	Mrs K A D Y Madushani Lanka
Audio Visual and Information	(at Dartonfield, Agalawatta)
Technology Unit	
Network Administrator	S R D C P Peiris, BSc (SL) (from 01.06.2016)

#### **Soils and Plant Nutrition**

Senior Research Officer Research Officers

Experimental Officers

Technical Officers (Research & Development)

Management Assistant (Stenography)

**Biochemistry and Physiology** Senior Research Officer

Research Officer

Experimental Officers Technical Officers (Research & Development)

Management Assistant (Clerical)

Advisory Services Head of Department

Advisory Officers

Assistant Training Officer Rubber Extension Officers

(at Dartonfield, Agalawatta) Mrs R P Hettiarachchi, BSc (SL), MPhil (SL) Mrs H A R K Jayawardana, BSc Agric. (SL) (from 09.05 2016) J M T S Jayawardana, BSc Agric. (SL) (from 09.05.2016 to 03.10.2016) Mrs S D C K Maheepala, (up to March, 2016) A H U Mitrasena (up to 18.12.2016) Miss V U Edirimanne, BSc (SL) Miss A P Thewarapperuma P D T C Gunatilleke, NDT (Agric) J A Sarath Chandrasiri Mrs Eranga de Silva, NDT C G Mallawaarachchi, Dip. in Agric. (Hardy) Mrs M Kulathunga, BSc (SL) Mrs R H N S Alwis, BSc (SL) (up to 30.11.2016) Mrs K A D L Rupasinghe Perera

(at Dartonfield, Agalawatta)
Mrs K V V S Kudaligama, BSc (SL),
MPhil (SL), PhD (SL)
Miss N P S N Karunaratne, BSc (SL)
(from 09.05.2016)
M K P Perera, BSc (SL)
R P S Randunu, BSc (SL) (up to 10.09.2016)
Miss P A D T L Madushani, Diploma in Agric.
Miss A A Amila Nadeeshani, BSc (SL)
(up to 31.10.2016)
Mrs H A Manoji Erandika

(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)
D Weerasekera
W D T C Muniratne, Dip. Plant Ex. Mangt.
D R A M G Abeydissanayake
(up to 30.05. 2016)
R M S Ratnayake, NDT Agric (Hardy)
D E P M Nanayakkara, Dip. Agric. (Aquinas)

Rubber Extension Officers Experimental Officer Management Assistants (Clerical)	W D Chandrasiri (up to 01.03.2016) M Dharmadasa, BSc (SL), MSc (SL) J A J Perera (up to 09.04.2016) E G U Dhanawardena Nihal Gamage, Dip. Agric. (Angunakolapelessa) U N Jayasuriya G D N Seneviratne 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 Senanayake, NDT Agric (Hardy) T L Ramanayake, BSc (SL) A R Kulathunga, BSc (SL) S M A Samarakoon, Dip. Agric. (Kundasale) Mrs M K Wijetilleke Miss S V Shirani Madurika, BA (SL) Mrs C Gunatilleke Mrs J N R Jayasinghe Mrs S M Kaluarachchi T R C Silva R G A S Dharmaratne
	Mrs K Y G M P Kumari, BA (SL)
Polymer Chemistry Department	(at Telewela Road, Ratmalana)
Head of Department	Mrs A H L R Nilmini, BSc (SL), PhD (Cardiff)
Denous L Office	(up to 01.03.2016)
Research Officer	Mrs I H K Samarasinghe, BSc (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)
	(up to 06.08.2016) M T D C Porera, PSe (SL) (up to 02.12.2016)
Management Assistant	M T D C Perera, BSc (SL) (up to 02.12.2016) M A W K Tillekeratne
Management Assistant	

Management Assistant (Clerical)

Raw Rubber and Chemical Analysis (at Telewela Road, Ratmalana) Research Officers Mrs A P Attanayake, BSc (SL) A M K S P Adikari, BSc (SL), MPhil (SL)

Experimental Officers	Mrs L Wanigatunga (up to 12.04.2016) 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 &	Miss S P Wijewardena, BSc (SL)	
Development)	Miss J A Jayamuthu, BSc (SL)	
1	(up to 11.07. 2016)	
Management Assistants (Clerical)	Miss W D D Samanmali	
Rubber Technology and Development (at Telewela Road, Ratmalana)		
Head of Department	Mrs D G Edirisinghe, BSc (SL), MSc (SL) MPhil (UK), PhD (SL)	
Research Officer	W D M Sampath, BSc (SL)	
Experimental Officers	Mrs M K Mahanama, Dip. Rubber Tech. (PRI) (up to 29.01.2016)	
	Mrs S I Yapa, Dip. Rubber Tech. (PRI)	
	Mrs P C Wettasinghe, Dip. in Science (up to 27.11.2016)	
	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 &	V G M J Abeywardena, NDT	
Development)	Miss S G P Bhagayawedha, NDT	
1	K I D P Perera, BSc (SL)	
Management Assistant (Clerical)	Miss SMDSR de A Wijeratne	

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	Mrs U M S Priyanka, BSc (SL), MSc (SL)
	Mrs V C Rohanadeepa
	A K D W Prasad
Technical Officers (Research &	Miss K G P M Dharmatilleke, BSc (SL)
Development)	(up to 11.03.2016)
	A S Ghouse, Graduate Chemist
	(up to 11.03. 2016)
	Miss B P Kannangara, BSc (SL)
	(up to 15.09.2016)

*Technical Officers (Research & Development)* 

Management Assistants (Clerical)

#### **Biometry Section**

Principal Research Officer

Experimental Officers

#### Adaptive Research Unit

Principal Research Officer

Senior Research Officer Research Officer Technical Officer (Research & Development) Management Assistant (Clerical)

#### Agricultural Economics Unit Research Officers

Management Assistant (Clerical)

#### **Polgahawela Sub-Station** *Management Assistant (Accounting)*

**Moneragala Sub-Station** *Field Officers* 

Management Assistants (Clerical)

**Library and Publications Unit** *Librarian*  B D J H Wijewardana, BSc (SL) (up to 08.02.2016) Dinesh Balasooriya, BSc (SL) (up to 28.07.2016) 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

(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)

(at Dartonfield, Agalawatta) S M M Iqbal, 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.)

#### Mrs M A Randima Srimalee

(at Dartonfield, Agalawatta) J K S Sankalpa, BSc (SL), MSc (SL) Miss P G N Ishani, BSc Agric. (SL) (from 09.05.2016) Miss W W L S Shashikala, BA (SL)

*(at Narampola Estate, Nungamuwa, Yatigaloluwa)* W A C Weeramanthree

(at Kumbukkana, Moneragala) V G D Nishantha Gunaseela N V U S Vijitha Kumara Mrs D M P Sandun Kumari M M Chamath Kumara

(at Dartonfield, Agalawatta) S U Amarasinghe, BSc (SL), MA (SL), ASLLA

Library Assistant & Assistant Publications Officer	Mrs R M Amaratunga, Intermediate; Lib. Sci. Doc. & Info. (SLLA)
Management Assistants (Clerical)	P M P Jayantha N W E C Maduranga
Administration Department (a	tt Dartonfield, Agalawatta)
Senior Administrative Officer	D M S Dissanayake, BSc (Mgt.) (SL), MHRM (SL)
Assistant Medical Practitioner	M Subasinghe
Administrative Officers	L P K W Weliwatta, BA (SL), Dip. in HRM
	(up to 22.02.2016)
	Mrs P Mandalawatta, (Dip. in HRM)
Management Assistants (Clerical)	Mrs P W Neelamanie
	Mrs J A D Wijayanthi Mrs B D Nizariala
	Mrs B D Niranjala Mrs O W D Namali Udayanthi
	Mrs P C Athukorala
	Mrs Thamosha Munasinghe
	Mrs O W D Nilusha Udayanthi
	Mrs M N D Perera
	Mrs B Chandralatha, BA (SL)
	Miss M G L Niroshani
Management Assistant	Mrs J A H S Kumari
(Stenography)	
Translator	Mrs D N Senevirathna, Dip. Agric. (Kundasale),
	BSc (SL) (up to 31.03.2016)
Telephone Operator	Mrs J A D C Preethika
Pharmacist	S Lankeshwara (up to 30.03.2016)
Administration Unit (Ratmalana)	(at Telewela Road, Ratmalana)
Management Assistant (Clerical)	Mr A T Senaratne
	D P N P Dissanayke
	Harith Kalutharawithana, BSc (SL)

Internal Audit Unit Internal Auditor Internal Audit Officer Management Assistants (Clerical)

**Works Section** Engineering Assistant

Technological Officer (Civil)

(at Dartonfield, Agalawatta) Mrs M S I Senadeera, AFA, IIPF, IRCA, LICA K C Fernando Mrs S N Munasinghe R G A S Dharmaratne

(at Dartonfield, Agalawatta) Mrs W D D Prasadani, NDES (from 01.06. 2016) M A D K Jayasumana, NCT Transport Officer Technological Officer (Mech.) Management Assistants (Clerical)

Work Supervisor (Electrical)

Accounts Section Senior Accountant

Accountant Accounting Assistant Management Assistants (Accounting)

Management Assistants (Clerical)

U L D R L Gunasinghe H J P Fernando, HNDE Mrs K C S Wickremasinghe Mrs J A S Dharshanie (Dip. in Management) Mrs K K D K P Ranaweera Mrs M S W H Kumari, BSc (SL) Udaya Smantha Munindradasa, BA (SL) T M R P Tennakoon

(at Dartonfield, Agalawatta) S S Hewage, CPFA (UK), CBA, FPFA (from 20.05.2016) Mrs A M Lasanthi, BSc (SL) D D R Lankatilaka, BCom (SL) Mrs Irene Perera (up to 29.10.2016) Mrs M Gunawardene (up to 08.12.2016) Mrs R Handungoda Mrs G P Kukulewithana A V Nandasena (up to 27.11.2016) Mrs K J M C R Fernando Mrs C Dissanavake A K D A Wickremasinghe 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 Javasekera Miss R P Thilini J A J R Lakmal, BA (SL) Mrs M N D Perera K A Dilan Sampath Mrs Erandi Kanchana Jayasinghe, BA (SL) Miss S R Sinhabahu Mrs G A D D Jayawardena

Cashier

#### **DARTONFIELD GROUP**

Senior Manager - Estate Management Assistants P A Lakshman, BSc (SL) K K P Gunawardena (up to 27.02.2016) H D D Achinda M A N Sachith Pawinda T D Harsha Field Officer (Nivitigalakele)

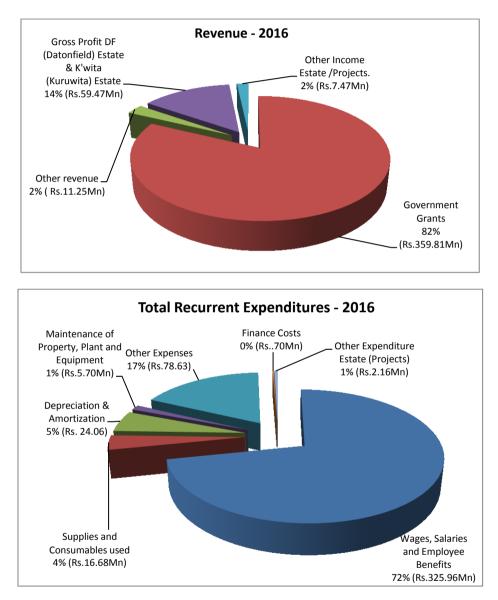
B M Siriwardena

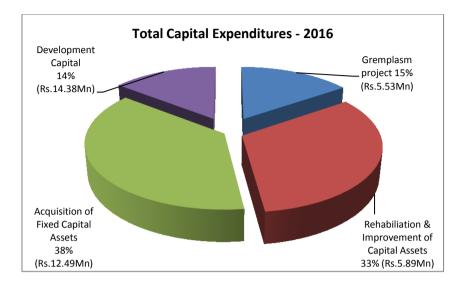
Kuruwita Sub-Station Manager Management Assistants (Clerical) *(at Kuruwita)* S A R Samarasekera D S Jayasinghe K D P Senaratne

\* On study leave overseas

# **Financial Statements**







# RUBBER RESEARCH BOARD OF SRI LANKA FINANCIAL STATEMENTS - 2016 CONTENTS

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#### RUBBER RESEARCH BOARD OF SRI LANKA - STATEMENT OF FINANCIAL POSITION AS AT DECEMBER 31, 2016

		20	16	20	)15	
ASSETS	Note	F	Rs	Rs		
Non-Current Assets						
Land and Buildings	1	118,710,660.03		97,781,215.71		
Infrastructure, Plant and Equipment	-01	198,571,696.31		195,909,689.67		
Intangible Assets	J	929,500.00		855,000.00		
			318,211,856.34		294,545,905.38	
Current Assets						
Other Financial Assets	02	2,105,014.22		1,965,524.11		
Other Current Assets	03	32,092,836.52		38,880,015.31		
Inventories	04	18,568,595.51		15,587,720.72		
Working Progress	04-A	-		8,828,902.15		
Receivables	05	13,689,133.05		13,717,213.22		
Investments in Associates	06	520,368.57		505,499.67		
Cash and cash Equivalents	07	99,403,267.39		31,957,488.12		
			166,379,215.26		111,442,363.30	
Total Assets			484,591,071.60		405,988,268.68	
LIABILITIES						
Current Liabilities						
Payables	08	(65,639,034.77)		(52,189,613.41)		
Short -Term Provisions	09	(1,878,581.39)		(1,399,460.99)		
			(67,517,616.16)		(53,589,074.40)	
Non-Current liabilities						
Employee Benefits	10	(112,740,525.50)		(106,373,055.25)		
			(112,740,525.50)		(106,373,055.25)	
Total Liabilities						
Total Net Assets			(180,258,141.66)		(159,962,129.65)	
NET ASSETS/EQUITY			304,332,929.94		246,026,139.03	
Accumulated Fund	11	749,970,269.54		665,957,027.16		
Accumulated Surpluses/(Deficits)	12	(445,637,339.60)		(419,930,888.13)		
• • • •						
TOTAL NET ASSETS/EQUI	ΤY		304,332,929.94		246,026,139.03	

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.

4 N.V + A.Weragoda Chairman - RRB

R.A.D.S.Ranathunga Acting Director - RRI

cuss 0 B S S Hewage Board Member Senior Accountant -RRI

#### RUBBER RESEARCH BOARD OF SRI LANKA

#### STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED DECEMBER 31, 2016

	Note	RI	RI	Df. E	state	K'wita	Estate	Kumarawa	atta Estate	Narampo	la Estate	То	tal
Revenue		2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
		R	S	R	S	R	s	R	s	R	s	R	ls
Transfers from other government entities		359,812,000.00	342,296,800.00									359,812,000.00	342,296,800.00
Other revenue	13	11,252,103.50	9,783,662.41									11,252,103.50	9,783,662.41
Deferred Income		22,371,751.14										22,371,751.14	-
Gross Profit Df. Estate & K'wita Estate	22,23			36,777,149.17	43,010,241.62	22,967,272.59	15,466,455.43					59,744,421.76	58,476,697.05
Other Income Estate (Projects)	22,23,24,25			4,302,359.70	6,316,552.12	969,697.18	658,685.88	2,704.40	286,020.19	2,193,335.99	2,589,847.21	7,468,097.27	9,851,105.40
NSF Grant	26	1,883,650.92										1,883,650.92	-
Total Revenue		395,319,505.56	352,080,462.41	41,079,508.87	49,326,793.74	23,936,969.77	16,125,141.31	2,704.40	286,020.19	2,193,335.99	2,589,847.21	462,532,024.59	420,408,264.86
Less: Expenses													
Wages, Salaries and employee benefits	14,15,14A,14B, 14C	270,703,677.96	281,297,027.38	32,359,597.40	37,181,922.85	15,690,813.66	17,798,108.24	3,871,999.49	3,836,499.20	3,336,364.57	2,830,478.18	325,962,453.08	342,944,035.85
Supplies and consumables used	16,14A,14B,14 C	12,837,938.39	12,837,905.83	1,943,440.82	1,364,325.88	863,925.05	446,671.56	707,705.48	552,626.89	271,023.59	124,687.00	16,624,033.33	15,326,217.16
Depreciation and amortization expenses	17,14A,14B,14 C	22,371,751.14	21,300,607.92	1,310,196.72	1,137,437.46	381,079.08	378, 156.55					24,063,026.94	22,816,201.93
Maintenance of property, plant and equipment	14A			5,697,286.35	3,008,888.42							5,697,286.35	3,008,888.42
Other expenses	18,19,20,21,14 A,14B,14C	105,041,650.45	69,980,638.58	701,723.68	519,877.56	178,062.40	417,931.09	141,823.49	204,743.50	103,221.75	403,941.98	106,166,481.77	71,527,132.71
Finance Costs	14A,14B	120,586.00	127,093.51	459,940.35	530,861.99	110,531.66	112,600.97					691,058.01	770,556.47
Other Expenditure Estate (Projects)	22,23			626,029.11	677,718.71	1,536,309.08						2,162,338.19	677,718.71
NSF Expenditure	26	1,883,650.92										1,883,650.92	-
Total Expenses		412,959,254.86	385,543,273.22	43,098,214.43	44,421,032.87	18,760,720.93	19,153,468.41	4,721,528.46	4,593,869.59	3,710,609.91	3,359,107.16	483,250,328.59	457,070,751.25
Surplus/(Deficit)	for the Period	(17,639,749.30)	(33,462,810.81)	(2,018,705.56)	4,905,760.87	5,176,248.84	(3,028,327.10)	(4,718,824.06)	(4,307,849.40)	(1,517,273.92)	(769,259.95)	(20,718,304.00)	(36,662,486.39)

#### RUBBER RESEARCH BOARD OF SRI LANKA CONSOLIDATED CASH FLOW STATEMENT FOR THE YEAR ENDED 31 DECEMBER 2016

	2016	
Operating Activities	Rs.	
Surplus/Deficit		(20,718,304.00)
Non Cash Movements		
Add : Depreciations	26,811,033.42	
Less: (Amortization)		
Add :Provision for Gratuity	24,980,718.00	
Less : Interest on Investment	(31,329.38)	
Deferred Income	(22,371,751.14)	
Piror Year adjustment	(4,988,147.47)	
Net Cash Flow before working Capital Changes		24,400,523.43
Working Capital Changes		
Increse /( Decrease) Payables	13,928,541.76	
(Increse) / Decrease other current Assets	12,508,927.31	
Decrease Short-term provision	-	
Gratuity paid	(18,613,247.75)	7,824,221.32
Net Cash Flow form Operating Activity		11,506,440.75
Investing Activities	-	
Purchase of Property ,Plant and Equipment	(41,848,268.86)	
Interest Income on Investment	31,329.38	
Net Cash Flow from Investing Activity		(41,816,939.48)
Finance Activities	_	
Fund Received from Treasury for Capital Grant	84,800,000.00	
Net Cash flow of NSF	3,998,278.00	
Net Cash Flow from Financing Activity	8,958,000.00	97,756,278.00
Net Cash Flow for the Year		67,445,779.27
Cash and Cash Equivalents at Beginning of the Year		31,957,488.12
Cash and Cash Equivalents at End of the Year		99,403,267.39

#### RUBBER RESEARCH BOARD OF SRI LANKA STATEMENT OF CHANGES IN NET ASSETS/EQUITY ENDED DECEMBER 31, 2016

ATTRIBUTAR							
	Contributed Capital	Other Reserves	Translation Reserves	Accumulated Surpluses/(Deficits)	Total	Minority Interest	Total net Assets/equity
				Rs.			
Balance at December 31, 2015							
Changes in accounting policy	665,957,027.16			(419,930,888.13)	246,026,139.03		246,026,139.03
Restated balance	-						
Change in net asset/equity for 2016							
Gain on property revaluation							
Loss on revaluation of investments							
Exchange differences on translating							
Funds Received	84,013,242.38				84,013,242.38		84,013,242.38
Prior Year Adjustment				(4,988,147.47)	(4,988,147.47)		(4,988,147.47)
Net revenue recognized directly in net							
asset/equity							
Surplus for the period				(20,718,304.00)	(20,718,304.00)		(20,718,304.00)
Total recognized revenue and							
expenses for the period							
Balance at December 31, 2016	749,970,269.54	-	-	(445,637,339.60)	304,332,929.94	-	304,332,929.94
Carried forward							

#### RUBBER RESEARCH BOARD OF SRI LANKA Notes to the Financial Statements

### 1. Corporate Information

### 1.1 Reporting Entity

The Rubber Research Board of Sri Lanka (RRB) was established as a Public Corporation under the Rubber Research Ordinance. This Ordinance has been amended from time to time; the most recent introduction has been the "Rubber Research Bill Part II of April 2003 with the amendment No. 28". The RRB coming under the purview of Ministry of Plantation Industries and the registered office of the RRB is located at Telawala Road, Ratmalana.

# 1.2 Principal Activities and Nature of Operations

The Mission of RRB 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.

# 1.3 Number of Employees

The number of employees of the RRB as at 31<sup>st</sup> December 2016 amounted to 378. The comparative figure for the year 2015 was 410.

# 1.4 Financial Year

The Financial year of the RRB is the 12 months period ended by 31<sup>st</sup> December 2016.

# 2. Significant Accounting Policies

### 2.1 Basis of preparation of Financial Statements

The Financial Statement of the RRB is prepared in Sri Lanka Rupees on a historical cost basis and presented in Sri Lankan Rupees.

### 2.2 Statement of Compliance

The Financial Statement of the RRB has been prepared in accordance with the Sri Lanka Public Sector Accounting Standards (SLPSAS).

# 2.3. Assets and Basis of Valuation

**2.3.1** Property Plant and Equipment are recorded at cost less depreciation in the financial statement. The cost of Property Plant and Equipment are the market

value or cost of purchase with any incidental expenses.

#### 2.4 Depreciation Policy

- **2.4.1** Fixed Asset will not be depreciated in the year of purchasing and the depreciation will be commence as from the following year.
- **2.4.2** In depreciation the reducing balance method is applied by the Institute.
- **2.4.3** Value of the Non-current Assets have been reflected in the balance sheet on written down value basis.
- **2.4.4** The depreciation charges are determined separately for each significant part of an item of Property, Plant and Equipment and begin to depreciate when it is available for use.
- **2.4.5** 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%

#### 2.5 Inventories

Inventories consist of spare parts, maintenance items, cleaning materials and stationery stock etc are stated on Average cost basis.

#### 2.6 Receivables

Receivables are stated at the amounts they are estimated to realize, net of provision for bad and doubtful receivables.

#### 2.7 Provision for Bad and Doubtful Debts

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 five years. Since arrangements will be made a provision for bad & doubtful debts by obtaining the approval of the Rubber Research Board.

#### 2.8 Cash and cash equivalent

Cash and cash equivalent consists of Investment, cash at banks and cash in hand.

#### 2.9 Conversion of foreign exchange:

Foreign currency has been converted at prevailing rates.

#### 2.10 Retirement Gratuity

Provision has been made in the Financial Statements for retirement gratuities equivalent to an amount calculated based on a half month's salary of the last month Financial Year of all employees for each completed year of service, commencing from the first year of service. However under the payment of Gratuity Act No 12 of 1983, the liability to an employee arises only on completion 5 years of continued service.

### 2.11 Government Grant

#### 2.11.1 Recurrent Grant

The Recurrent Grant received from the government is reflected in the Income Statement as the source of income of the RRB.

#### 2.11.2 Capital Grant

The Capital Grant received from the government in cash and kind has been set up as Deferred Income which is recognized as income on a systematic and rational basis over the useful life of the assets.

The acquisition of Property Plant & Equipment under the Capital Grant is Rs.55,374,017.69.

**2.11.3** Replanting subsidies have been set off against replanting expenditure and net amount has been represented in the balance sheet under fixed assets.

#### 2.11.4 Other Grants

NFS and Special Project Grants for the year 2016 have been shown under the Note No 26A and 26B. The amount equal to the expenditure for the year 2016 have been treated as NFS and Special Project Grants in the statement of Financial Performance.

### 2.12 Deferred Income

Deferred Income consists of the Capital Grant received from the General Treasury in the 2016 for capital expenditure.

The Deferred Income is recognized as income on a systematic and rational basis over the useful life of the assets in case of capital grant and amortizes the deferred income set up for capital purchases.

#### 2.13 Revenue Recognition

Institute generates Revenue from the following sources, and recognizes such revenues for accounting purposes on the accruals basis.

- (a) Testing and Analytical Fees
- (b) Seminars and Work Shops
- (b) Sale of Publications
- (c) Sale of Tapping Knives
- (d) Sundry Receipts

#### 2.14 Expenditure

All expenditure is recognized on the accrual basis.

#### 2.15 Adjustments made to the Cumulative Expenditure

No adjustment has been made to the cumulative expenditure account.

#### 3. Legal Matters

Legal issues pertaining to matters of employees were pending at Courts Labour Tribunals the Labour Department and the Human Rights Commission of Sri Lanka as at 31<sup>st</sup> December 2016. The details are shown in annexure.

#### 4. **Consolidation Policies:**

- **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.
- **4.2** The Rubber Research Institute and estates have a common financial year which ends on 31 December.
- **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.
- **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.

#### 5. Non-Current Assets:

#### 5.1 Lands

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

#### 5.1.1. <u>Substation at Narampola (Alawwa) Kumarawatta</u> (Monaragala)

#### 5.1.1 (a) Narampola (Alawwa)

The extent of this land is 106 Acres 02 Roods & 31perches. 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/-

5.1.1 (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.

**5.1.1 (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 approval of cabinet has been obtained to acquire these Lands. The ownership will be transferred to RRB after settlement of dues from Treasury allocation.

#### 5.1.1 (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.

#### 6. Work in Progress

The amount shown in the Work in Progress of Monaragala sub station has been cleared.

Working Progress of Office Building and of Retaining Wall have been completed in year 2016 and it has been capitalized.

#### 7. Current Assets

#### 7.1 Debtors & Other Receipts

- 7.1.1 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. In the 2016 two offers have been settled Rs. 1,219,289.87 and balance of Rs.4,626,564.77 still remaining as Surety Bond Debtors.
- 7.1.2 Other debtors amounting to Rs.1,286,278.99 is also generated out of the Bond defaulters. The details are as follows.

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

#### 8. Liabilities

#### 8.1 Contingency Liability

The contingency liabilities balance as at 31.12.2015 is Rs.4,626,564.77 which has made up as follows.

Mr. H.H.Talgaswatta	- 38,402.56
Mr. G.V.L.Nilmini	- 1,084,612.81
Mr. S.M.C.E.Silva	- 1,635,005.85
Mrs. Samanthi P. Herath	- 25,000.00
Mr. N.A.A.D.Wickramasinghe	- 7,245.46
Mr. Nalinda P Wickramasinghe	- 10,643.54
Mr. B.P.Weerarathna	- <u>1,825,654.55</u>
Total	4,626,564.77

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.

### 8.2 Payable of EPF, ETF and Gratuity since 2006 to 2011

The liability of Rs. 39,583,815.83 is calculated for the payment of of EPF, ETF and Gratuity since 2006 to 2011 and Rs. 2,300,347.68 has been settled against the courts cases in 2016. Balance will be settled by obtaining funds from treasury.

#### 9. Writing off long outstanding balance

The long outstanding balance has been corrected as per the recommendations given by the committee which has appointed for clearance of debtors.

#### **10.** 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.

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

The above categories of expenditure have been capitalized in the accounts and depreciation will be made on maturity.

#### 12. 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 and Field working expenses have been shown under Supplies and services respectively.

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. Labour Charges related to Institute activities have been charged to the relevant department expenditure votes.

ASSETS	Cost as at 01.01.2016	Additional during the year 2016	Des pos al	Total as at 31/12/2016	Accumulative Depreciation as at 01/01/2016	Depreciation for the year 2016	Accumulated Depreciation as at 31/12/2016	Written down value as at 31/12/2016
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs
Road Development Df.	4,556,849.62	2,624,419.12		7,181,268.74	-		-	7,181,268.74
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	1,865,476.48			1,865,476.48	-		-	1,865,476.48
- Rathmalana	270,760.81			270,760.81	-		-	270,760.81
Capital Ex. Land productivity	-			-				-
improvement in existing rubber cultivation Note 26				-				-
Lease Land - Alawwa (55 years lease)	662,365.75			662,365.75	-		-	662,365.75
- Monaragala (99 years lea	106,650.00			106,650.00	-		-	106,650.00
Buildings - Df. H.Q	25,320,973.31	18,165,387.83		43,486,361.14	7,598,788.35	620,276.47	8,219,064.82	35,267,296.32
- Auditorium	33,803,623.04	44,700.00		33,848,323.04	2,324,844.18	1,101,757.26	3,426,601.44	30,421,721.60
- Df. Estate	3,579,933.36	252,493.62		3,832,426.98	858,393.40	95,253.90	953,647.30	2,878,779.68
- N'kele	3,559,630.44	,		3,559,630.44	624,119.87	102,742.87	726,862.74	2,832,767.70
- Galewatta	713,605.29			713,605.29	123,774.82	20,644.07	144,418.89	569,186.40
- Kuruwita	5,759,392.37	100,233.16		5,859,625.53	736,324.89	175,807.36	912,132.25	4,947,493.28
- Rathmalana	18,692,264.84	·		18,692,264.84	4,435,579.89	498,983.97	4,934,563.86	13,757,700.98
- Alawwa	1,302,848.78			1,302,848.78	210,673.77	38,226.13	248,899.90	1,053,948.88
Upgrading telecominication		2,690,915.18		2,690,915.18		, i i i i i i i i i i i i i i i i i i i	-	2,690,915.18
- Monaragala	14,758,145.87	138,922.65		14,897,068.52	2,359,997.70	433,935.19	2,793,932.89	12,103,135.63
Intangible Assets		·				, i i i i i i i i i i i i i i i i i i i		
Accounting Software DF.	950,000.00	160,000.00		1,110,000.00	95,000.00	85,500.00	180,500.00	929,500.00
Infrastructure, Plant and equipment		·				, i i i i i i i i i i i i i i i i i i i		
Machinery & Tools - Df.	625,239.54	43,005.00		668,244.54	284,702.63	34,053.69	318,756.32	349,488.22
- N'kele	221,935.00	1,800.00		223,735.00	40,719.47	18,301.55	59,021.02	164,713.98
- Df. Estate	902,086.13	12,800.00		914,886.13	565,271.30	34,961.48	600,232.78	314,653.35
- Kuruwita	113,300.50	751,558.00		864,858.50	48,680.39	6,462.01	55,142.40	809,716.10
- Rathmalana	2,697,390.00			2,697,390.00	1,848,874.81	84,851.52	1,933,726.33	763,663.67
- Alawwa	13,045.50			13,045.50	6,805.88	623.96	7,429.84	5,615.66
Laboratory Equipments - Df.	70,191,571.20	5,629,352.90		75,820,924.10	-		-	
- Rathmalana	93,219,251.12	229,499.51		93,448,750.63	105,187,701.30	13,350,784.80	118,538,486.10	59,261,991.61
- N'kele	4,550,196.98	3,980,606.00		8,530,802.98	-		-	
Audio Visual Equipment		487,001.95		487,001.95	-	97,400.39	97,400.39	389,601.56
Effluent Treatment Plant	9,422,910.68			9,422,910.68	648,060.68	307,119.75	955,180.43	8,467,730.25
Motor vehicles - H.Q	78,925,665.17	15,375,000.00		94,300,665.17	59,924,464.50	3,800,240.13	63,724,704.63	30,575,960.54
- Df. Estate	1,443,598.00			1,443,598.00	1,212,897.80	46,140.04	1,259,037.84	184,560.16
- Kuruwita	365,960.00			365,960.00	285,229.94	16,146.01	301,375.95	64,584.05

# RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2016

ASSETS	Cost as at 01.01.2016		Desposal	Total as at 31/12/2016		Depreciation for the year 2016	Accumulated Depreciation as at 31/12/2016	Written down value as at 31/12/2016	
	Rs.	Rs.	Rs	Rs	. Rs.	Rs.	Rs.	Rs.	
Power & Water Supply - Df.	1,511,183.60	263,546.39		1,774,729.99	556,135.84	95,504.78	651,640.62	1,123,089.3	7
- N'kele	29,995.00			29,995.00	20,459.51	953.55	21,413.06	8,581.94	
- Kuruwita	228,831.39			228,831.39	89,877.53	13,895.39	103,772.92	125,058.47	
- Rathmala	414,858.00	6,950.00		421,808.00	175,694.52	23,916.35	199,610.87	222,197.13	
- Monaraga	1,695,132.00			1,695,132.00	884,355.62	81,077.64	965,433.26	729,698.74	
- Alawwa	90,685.00			90,685.00	47,310.65	4,337.44	51,648.09	39,036.92	
Furniture & Fixtures &Office Equipment -	28,305,983.51	2,240,820.88		30,546,804.39	16,481,447.10	2,364,907.28	18,846,354.38	11,700,450.01	
- N'kele	1,341,716.41	1,000.00		1,342,716.41	1,135,214.20	41,300.44	1,176,514.64	166,201.77	
- Kuruwita	451,372.51	8,707.50		460,080.01	292,801.97	31,714.11	324,516.08	135,563.93	
- Rathmalana	7,390,488.82	1,437,693.99		8,828,182.81	4,716,146.06	534,868.55	5,251,014.61	3,577,168.20	
(vote No-01.07.06 +01.08.06) - Alawwa	310,838.89			310,838.89	197,327.47	22,702.28	220,029.75	90,809.14	
- Df. Estate	578,824.61			578,824.61	478,622.10	20,040.50	498,662.60	80,162.01	
- Monaragal	1,230,151.63			1,230,151.63	801,388.78	85,752.57	887,141.35	343,010.28	
Others Assets - Df. H.Q	7,554,862.32	241,598.96		7,796,461.28	<b>)</b> -		-		
- Df. Estate	888,552.04			888,552.04	-		-		
- Rathmalana	1,170,110.84	198,801.85		1,368,912.69	-		-		
- N'kele	163,144.00			163,144.00	3,682,461.75	886,883.89	4,569,345.64	8,490,355.84	
- Kuruwita	662,006.16	14,000.00		676,006.16	-		-		
- Alawwa	64,060.00	117,300.00		181,360.00	-		-		
<ul> <li>Monaragala</li> </ul>	1,931,265.31	54,000.00		1,985,265.31	] -		-		
Library Periodicals Journals & Sub etc.	8,825,892.39	101,903.20	37,618.20	8,890,177.39	6,156,666.19	533,845.24	6,690,511.43	2,199,665.96	
Rubber Replanting Df & K'wita	42,232,923.70			42,232,923.70			-	42,232,923.70	
Rubber in bearing Df & k'wita	21,915,983.59			21,915,983.59		1,095,799.18	1,095,799.18	20,820,184.41	
Tea Replanting K'wita	4,570,366.25			4,570,366.25		228,518.31	228,518.31	4,341,847.94	
Replanting Cinnamon K'wita	627,776.04			627,776.04		31,388.81	31,388.81	596,387.23	
Replanting Pepper	106,848.01			106,848.01			-	106,848.01	
Earth Slip Project	139,543.30			139,543.30	46,343.95	3,261.98	49,605.93	89,937.37	
Documentary film	3,723.33			3,723.33	3,424.82	59.70	3,484.52	238.81	198,571,696.3
Total	516,265,775.55	55,374,017.69	37,618.20	571,602,175.04	225,186,583.63	27,070,940.54	252,257,524.17	319,344,650.86	319,344,650.8
2016.01.01 Accumulated Depreciation	=	225,186,583.63			2016 Total Depreciat	ion	=	27,070,940.54	
2016 year Depreciation	=	25,715,234.24			2016 Replanting Dep	reciation	= ]	1,355,706.30	
·					Transfer to the Estat			-	
	Rs.	250,901,817.87					Rs.	25,715,234.24	

# **RUBBER RESEARCH BOARD OF SRI LANKA** NOTES TO THE ACCOUNTS FOR THE YEAR ENDED 31/12/2016

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

	Rs.	Rs.
	2016	2015
Tea in Bearing	60,641.22	48,254.31
Tea in Bearing	243,062.49	250,218.78
Tea Nursery	14,995.99	14,995.99
Young Budding Nursery 2013	225,412.33	209,882.33
2007 Bud Wood Nursery	5,024.85	3,662.73
Young Budding Nursery 2013/2014	165,215.92	217,475.92
Banana Trail	47,548.48	47,548.48
Cinnamon Bearing A/c 4.95 ha	87,112.10	178,122.90
Bud wood Nursery 2008	3,679.00	3,679.00
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	27,642.23	3,406.27
Sub Total	923,827.83	1,033,513.46

#### NOTE 2B - II DARTONFIELD ESTATE

	Rs.	Rs.
	2016	2015
2013/2014 Young Budding Nursery NK	183,049.61	183,049.61
G/W Young Budding Nursery 2014/2015	772,356.04	748,961.04
Project Land & Land Improvement	24,475.00	-
Cinnamon Area GW	6,385.00	-
Budwood Nursery	17,972.50	-
Field 1978 GW Division	176,948.24	-
Sub Total	1,181,186.39	932,010.65
Grand Total RS	5 2,105,014.22	1,965,524.11

# RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2016

#### Note 03

#### **OTHER CURRENT ASSETS**

		RRI		K'wita	a Estate	Df. E	state	To	tal
		R	5	]	Rs		s	1	<b>≷s</b>
		<u>2016</u>	<u>2015</u>	<u>2016</u>	<u>2015</u>	<u>2016</u>	<u>2015</u>	<u>2016</u>	<u>2015</u>
Deposits	Schedule 04	421,634.41	438,517.41					421,634.41	438,517.41
Other Debtors	Schedule 05	1,286,278.99	1,286,278.99					1,286,278.99	1,286,278.99
								-	
ConcertDatase	10 772 702 00							-	
General Debtors	18,773,783.00							-	
Less : Provision for bond debtors	1,074,162.13	17,699,620.87	20,173,931.84					17,699,620.87	20,173,931.84
(Schedule 06)								-	
Debtors		7,579,377.40	8,713,223.45					7,579,377.40	8,713,223.45
Loan Receivable		2,411,788.51	3,587,221.82					- 2,411,788.51	3,587,221.82
		2,411,700.51	5,567,221.62					-	-
Trade & Other Receivables	Schedule 07			258,863.79	392,477.95			258,863.79	392,477.95
								-	
Trade & Other Receivables	Schedule 07					2,435,272.55	4,288,363.85	2,435,272.55	4,288,363.85
								-	
L	1	29,398,700.18	34,199,173.51	258,863.79	392,477.95	2,435,272.55	4,288,363.85	32,092,836.52	38,880,015.31

### RUBBER RESEARCH BOARD OF SRI LANKA

#### NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2016

#### Note 04

#### INVENTORIES/STOCKS

		2016	2015
		Rs.	Rs.
RRI	Schedule 01	17,864,367.22	13,712,709.68
K'wita Estate	Schedule 02	385,022.99	434,460.72
Df Estate	Schedule 03	319,205.30	1,440,550.32
	Rs	18,568,595.51	15,587,720.72

# **RUBBER RESEARCH BOARD OF SRI LANKA**

#### NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2016

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

#### WORKING PROGRESS

	2016	2015
	Rs.	Rs.
Nursery Project Monaragala	-	4,988,147.47
Working Progress Office Building	-	2,199,132.70
Working Progress Retaining Wall	-	1,641,621.98
Sub Total	-	8,828,902.15

# **RUBBER RESEARCH BOARD OF SRI LANKA**

# NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2016 NOTE 05 - RECEIVABLES

	2016 Rs.	2015 Rs.
RDD / ASD / RRI Control A/C.	516,829.86	3,314,565.20
Festival Advance	82,716.70	108,616.70
Travelling Advance	45,000.00	32,000.00
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	46,621.04	44,362.53
Insurance	22,369.28	17,740.71
Claims From Insurance Corporation	0.00	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	1,351,857.34	2,407,801.84
Supplier Advance A/C	3,842,506.55	-
	13,689,133.05	13,717,213.22

### NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2016

<u>Note - 06</u>	<b>INVESTMENT</b>	
	2016	2015
	Rs	. Rs.
Bank Of Ceylon Agalawatta	200,000.00	200,000.00
C/29 200835		
National Savings Bank-City Branch	319,115.24	304,322.85
A/C No.1-0002-04-5806-06		
National Savings Bank-Matugama	1,253.33	1,176.82
FD No.2-0045-01-58658		
	520,368.57	505,499.67

### RUBBER RESEARCH BOARD OF SRI LANKA

# NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2016 Note - 07 CASH AT BANK AND CASH IN HAND

	Cash at Bank	Cash in Hand	2016 TOTAL	2015 TOTAL
			Rs.	Rs.
Bank of Ceylon - Cor.Branch A/C No.1837	89,004,245.57		89,004,245.57	29,190,944.48
Bank of Ceylon - Agalawatta A/C No.335976	803,907.53		803,907.53	1,328,995.14
Bank of Ceylon - Agalawatta	5,046,772.20		5,046,772.20	
Dartonfield Estate	917,905.32	4,053.66	921,958.98	293,262.33
A/C No.335978			-	-
Kuruwita Estate A/C No.4320540	3,625,497.79	885.32	3,626,383.11	1,144,286.17
Cash in Transits - Kuruwita Estate			-	-
Rathmalana Office			-	-
	99,398,328.41	4,938.98	99,403,267.39	31,957,488.12

### NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2016

Capital Ex. Land productivity

improvement in existing rubber cultivation

	2016	2015
	Rs.	Rs.
Plant Science	-	
Plant Pathology	-	
Genetics & Plant Breeding	-	
Soils & Plant Nutrition	-	
Training Centre		
Sub Total	-	-
Plant Pathology Genetics & Plant Breeding Soils & Plant Nutrition Training Centre		

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.

# RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2016

### Note 08

# Payables

		RRI		K'wita Estate		Df. Estate		Total	
		R	s.	R	s.	R	s.	Rs.	
		<u>2016</u>	<u>2015</u>	<u>2016</u>	<u>2015</u>	<u>2016</u>	<u>2015</u>	<u>2016</u>	<u>2015</u>
Creditors	Schedule 08	18,360,326.57	28,566,605.20					18,360,326.57	28,566,605.20
Payables	Schedule 08, 09, 10	10,635,453.35	636,382.93	2,830,959.94	2,938,888.29	13,619,905.65	10,333,779.09	27,086,318.94	13,909,050.31
				(Schedule 09)	(Schedule 09)	(Schedule 10)	(Schedule 10)		
Accrued Expe	nse Schedule 11	20,100,372.28	9,459,393.00			92,016.98	254,564.90	20,192,389.26	9,713,957.90
Total	Rs	49,096,152.20	38,662,381.13	2,830,959.94	2,938,888.29	13,711,922.63	10,588,343.99	65,639,034.77	52,189,613.41

# NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2016

### **PROVISION FOR AUDIT FEE**

Note - 09		
	2016	2015
	Rs.	Rs.
Beyond 2014.01.01	1,399,460.99	1,000,193.99
Provision for 2015	479,120.40	399,267.00
Total	1,878,581.39	1,399,460.99

# **PROVISION FOR GRATUITY**

Note - 10		
	2016	2015
	Rs.	Rs.
RRI	87,715,525.50	80,075,252.50
Kuruwita	5,999,000.00	6,672,455.25
Dartonfield	17,516,800.00	18,869,347.50
Provision for Gratuity Polgahawela	777,700.00	504,000.00
Provision for Gratuity Monaragala	731,500.00	252,000.00
Total	112,740,525.50	106,373,055.25

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

# NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2016

Note - 11

		Rs.
Accumulated Fund		45,044,234.46
Other Capital Grants	Schedule 12	74,303,750.82
Treasury Grants Capital		544,494,248.86
Treasury Grants Cess		79,828,035.40
Plantation Crop Development Fund		6,300,000.00
		749,970,269.54

### Note 12

Deficit A/C Balance B/F 01.01.2014	(419,930,888.13)
Piror Year adjustment	(4,988,147.47)
	(424,919,035.60)
Deficit 2016 year	(20,718,304.00)
	(445,637,339.60)

### NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016

Note-13 - OTHER INCOME - 2016	NON RESEARCH	RESEARCH	TOTAL RS.		
			2016	2015	
			Rs.	Rs.	
Interest On Institute Loans	163,202.75		163,202.75	237,172.71	
Sales Of Publication	149,205.00		149,205.00	67,635.00	
Bus fare Recoveries	314,148.25		314,148.25	336,978.81	
Sundry Receipts	4,809,679.67		4,809,679.67	1,290,693.54	
External heavy vehicles entering to RRI Premises	2,800.00		2,800.00	3,000.00	
Effluent Treatment- B/C Dept.		25,450.00	25,450.00	27,000.00	
Testing of Rubber - Polymer		-	-	13,500.00	
Testing of Rubber - Rubber Technology		240,706.00	240,706.00	143,060.00	
Testing of Rubber - RRP Dept.		620,775.00	620,775.00	583,696.72	
Kuruwita Guest House Occupational Charges	16,650.00	,	16,650.00	15,250.00	
Sale of Rejected Items	55,600.00		55,600.00	125,081.50	
Soil & Foliar analysis Fee		-	-	241,032.70	
Interest on Investments	31,329.38		31,329.38	28,748.97	
Sale of Tapping Knives	-	1,600,240.00	1,600,240.00	3,187,305.00	
Use of RRI Vehicles for Projects		121,980.07	121,980.07	133,393.75	
Profit on Training Programmes		832,485.70	832,485.70	311,689.24	
Guest House Income	-	,	-	11,500.00	
Soil Foliar Survey		-	-	406,187.35	
Waste Rubber of RRI Depts. Sold		-	-	23,896.46	
Tapping Panel Making plants sale		40,025.00	40,025.00	53,900.00	
Testing T.S.R.Samples		1,107,850.00	1,107,850.00	1,006,300.00	
Testing and Analytical Fees Polymer Chemistry		1,018,299.52	1,018,299.52	763,077.86	
Insurance claims Received Factory Fire	-	, ,	-	-	
Auditorium Income	6,000.00		6,000.00	61,850.00	
RRI Internal Timber Used	-		-	711,587.80	
Sale of Bud wood Stumps	-		-	125.00	
Claims Received from Insurance Corporation	11,727.16		11,727.16		
Registration Suppliers	37,450.00		37,450.00		
Testing fee Plant Patholody	46,500.00		46,500.00		
	5,644,292.21	5,607,811.29	11,252,103.50	9,783,662.41	

### **RUBBER RESEARCH BOARD OF SRI LANKA** NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016

Note -14 PERSONAL EMOLUMENTS EXPENDITURE STATEMENT - 2016

<b>Research Departments</b>	Emoluments	<b>P.F.</b>	E.T.F.	Medical Fund	Over Time	House Rent	1	Fuel	Total
							Allowance	Allowance	Rs.
Plant Science	13,980,115.43	1,585,820.70	317,164.12	1,753,082.49	280,395.72	80,570.16	400,000.00	168,480.00	18,565,628.62
Plant Pathology	7,408,187.26	910,295.77	163,996.86	911,679.40	194,783.50	39,081.94	-	-	9,628,024.73
Genetics & Plant Breeding	15,803,792.33	1,831,720.70	340,523.10	1,431,504.66	334,739.58	69,622.22	400,000.00	168,480.00	20,380,382.59
Soils & Plant Nutrition	9,505,810.78	1,254,736.18	216,882.70	940,372.45	123,318.58	48,935.59	-	-	12,090,056.28
Raw Rubber & Chemical Analysis	6,131,680.06	790,667.85	141,570.89	750,332.05	35,086.28	49,894.06	-	-	7,899,231.19
Bio-Chemistry & Physiology	4,210,399.03	474,734.12	94,946.81	539,929.83	99,900.96	10,507.75	-	-	5,430,418.50
Adaptive Research Unit	6,631,500.10	729,406.21	145,881.22	783,862.83	196,863.52	17,040.00	400,000.00	168,480.00	9,073,033.88
Rubber Technology	7,862,696.37	1,050,936.59	174,508.77	965,132.72	57,667.06	67,823.52	400,000.00	168,480.00	10,747,245.03
RRPD & CE Dept	7,676,699.10	865,393.61	173,078.69	746,382.40	123,597.14	74,311.07	50,689.66	22,303.45	9,732,455.12
Bio Metry	3,212,832.31	329,505.39	65,901.11	280,057.27	76,440.26	19,040.00	400,000.00	168,480.00	4,552,256.34
RRI New Advisory Services Dept	20,084,617.63	2,543,523.80	461,271.51	1,767,949.36	5,088.66	138,850.00	400,000.00	136,800.00	25,538,100.96
Training Centre	1,331,831.87	147,654.32	29,530.87	107,126.01	30,601.89	8,280.00	-	-	1,655,024.96
Polymer Chemistry	4,783,258.09	650,183.95	108,926.92	543,965.54	42,338.05	36,367.44	60,000.00	22,800.00	6,247,839.99
Agriculture Economics	1,236,877.47	141,844.98	28,368.98	94,213.95	6,160.00				1,507,465.38
SUB TOTAL	109,860,297.83	13,306,424.17	2,462,552.55	11,615,590.96	1,606,981.20	660,323.75	2,510,689.66	1,024,303.45	143,047,163.57
Other Departments									
Library & Publication Unit	2,763,145.44	333,321.00	66,664.24	404,651.41	194,819.47	18,090.00	-	-	3,780,691.56
Director's Office	6,010,033.24	660,831.99	132,166.40	585,082.12	13,574.30	21,680.00	667,560.00	400,000.00	8,490,928.05
Internal Audit	2,862,687.87	327,202.64	65,440.56	437,608.29	99,332.36	15,180.00	-	-	3,807,451.72
Board Office	9,157,755.52	833,700.48	167,793.04	701,389.31	705,462.14	48,060.00	-	-	11,614,160.49
Administration	23,199,288.44	2,709,625.28	490,070.69	2,943,693.14	822,930.37	135,366.77	287,419.35	109,219.35	30,697,613.39
Finance (Accounts)	12,390,949.24	1,655,510.56	282,990.24	1,834,510.81	1,021,184.53	58,094.18	261,612.90	103,714.84	17,608,567.30
Stores	1,734,727.92	181,883.37	36,376.66	228,406.52	70,188.26	14,483.55	-	-	2,266,066.28
Maintenance (Work Section)	32,008,914.88	3,653,624.77	702,138.86	4,515,109.53	2,449,021.54	177,531.51	-	-	43,506,341.09
Electronic Repair Unit	45,078.75	4,288.81	857.76	35,005.00	-	280.69	-	-	85,511.01
SUB TOTAL	90,172,581.30	10,359,988.90	1,944,498.45	11,685,456.13	5,376,512.97	488,766.70	1,216,592.25	612,934.19	121,857,330.89
Grand total	200,032,879.13	23,666,413.07	4,407,051.00	23,301,047.09	6,983,494.17	1,149,090.45	3,727,281.91	1,637,237.64	264,904,494.46
Less : Computer Difference						(30.06)			

264,904,464.40

# RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016 DARTONFIELD ESTATE EXPENDITURE

### Note 14A

### Wages, Salaries & Employee Benefits

Wages, Salaries & Employee Benefits				
	2010	<b>b</b>		2015
Salaries & Wages etc	5,236,308.14		6,927,273.77	
EPF	4,246,658.71		4,085,619.02	
ETF	960,565.20		988,849.25	
Medical	755,264.22		883,241.75	
L/Wages	19,303,646.06		17,776,796.77	
Holiday pay	1,722,855.07		1,679,122.29	
Gratuity			4,568,870.00	
Attendance Bounds	134,300.00		153,125.00	
Paid Holiday			119,025.00	
Total		32,359,597.40	117,025.00	37,181,922.85
1 otal		52,557,577.40		57,101,722.05
Grants & Other Transfer Payment				
Supplies & Consumables Used				
Tools	16,350.00		7,680.00	
Rain Guard	1,125,038.34		483,238.74	
Stimulation	92,318.06		26,099.81	
Tapping Utensils	203,506.50		37,051.47	
Chemicals	475,245.32		740,232.89	
packing Materials	30,982.60		70,022.97	
Total	50,702.00	1,943,440.82	10,022.91	1,364,325.88
		1,9 10,1 10102		1,001,020100
Depreciation & Amortization Expense	s			
Fixed Assets	285,251.12		298,274.00	
Repenting	1,024,945.60		839,163.46	
Total	-,	1,310,196.72	,	1,137,437.46
		-,		_,,
Maintenance of Property, Plant & Equ				
Supervisory Vehicle	877,182.73		368,038.22	
Stationery & Communication	793,827.19		103,067.00	
Bungalows	490,289.48		82,099.89	
Lines	64,445.81		46,837.03	
Miner Building Up-Keep	51,293.08		17,715.73	
Weeding	874,361.25		14,645.34	
Marking	301,075.62		2,125.00	
Censes	· -		2,445.00	
Tapping Panel Treatment	22,000.00		12,800.00	
Latex (Transports)	804,383.19		396,595.51	
Power	822,082.20		1,281,936.11	
Fuel	302,788.64		1,201,750.11	
Factory Up-Keep	164,320.90		11,464.53	
Machinery Up-keep	28,776.84		240,200.50	
Factory Sundries	21,371.77		29,146.47	
Transport of Produce	79,087.65		151,055.30	
Water Supply	-		916.37	
Tapping	-		241,976.62	
Road	-		5,823.80	
Total		5,697,286.35		3,008,888.42
Other Expenses				
Contingencies	485,230.61		343,862.79	
Levies, Subscription & Visiting	405,250.01		5,639.00	
Welfare & Sports	77,335.19		49,368.91	
Audit Fee				
Other	139,157.88		121,006.86	
Total		701,723.68		519,877.56
10(a)		/01,/23.08		319,8//.30
Finance Costs				
Legal			8,168.00	
Commission Cash Transport/Insurance	296,269.17		317,510.66	
Bank Charges	6,500.00		8,150.00	
Insurance	157,171.18		197,033.33	
Total	<u> </u>	459,940.35	,	530,861.99
Total Revenue expenditure		42,472,185.32		43,743,314.16

### RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016 KURUWITA SUB STATION

Note 14 B

Wages, Salaries & Employee Benefits

Wages, Saaries et Employee Selenas	2016		2015		
	Rs.		Rs.		
Emolument EPF	3,141,336.17		14,905,678.54		
EFF	1,636,334.66 392,976.32		1,535,345.71		
Medical	341,789.78		365,092.40 269,423.67		
L/Wages - Tapping/other sundries	9,182,037.62		209,423.07		
Overtime pay / Holiday pay	940,914.11		720,767.92		
Attendence bonus			/20,/6/.92		
House rent	55,425.00		1,800.00		
Total	-	15,690,813.66	1,800.00	17,798,108.24	
		- , ,		· , · · , · · · ·	
Supplies & Consumables Used					
Tools	2,250.00		-		
Rainguard	561,231.70		-		
Stimulation	46,150.00		-		
Tapping Utensils	84,410.93		-		
Packing Materials	8,184.00		-		
Fuel	-		152,561.83		
Stationery	-		108,242.00		
Chemical etc	161,698.42		185,867.73		
Total		863,925.05		446,671.56	
Depreciation					
Fixed Assets	310,225.50		303,573.84		
Replanting	70,853.58		74,582.71		
Total	,	381,079.08	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	378,156.55	
Maintenance of Property, Plants & Equipment					
Supervisory Vehicle	153,361.04		-		
Stationery & Communication	136,917.23		-		
Bungalows	410,077.99		-		
Lines	105,134.74		-		
Minor Building upkeep	71,783.59		-		
Weeding	241,641.15		-		
Marking	178,346.00		-		
Tapping panel treatment	3,520.00		-		
Latex transport	81,700.62		-		
Fuel	73,117.63		-		
Factory upkeep	5,059.00		-		
Machinery upkeep	1,100.00		-		
Factory sundries	69,800.09		-		
Transport of Produce	4,750.00		-		
Total		1,536,309.08		-	
Other Expenses					
Contingencies	45,084.36		295,196.75		
subscription & Visiting			1,065.60		
Welfare	16,405.00		18,840.00		
Audit fee	43,194.85		37,560.74		
Legal	12,500.00		65,268.00		
Insurance	60,878.19		-		
Finance Costs		178,062.40		417,931.09	
Commission on Cash	110,531.66		112,600.97		
Total		110,531.66		112,600.97	
Grand Total	1	18,760,720.93		19,153,468.41	

# RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016 MONARAGALA SUB STATION

Note 14 C

	201	16	2015		
	Rs.		R	s.	
Emolument	3,361,566.78		3,295,820.33		
EPF	443,260.47		472,889.18		
ETF	67,172.24	3,871,999.49	67,789.69	3,836,499.20	
Supplies & Other Consumables used		707,705.48		552,626.89	
Other Expenses	_	141,823.49	-	204,743.50	
Total	=	4,721,528.46	=	4,593,869.59	

# RUBBER RESEARCH BOARD OF SRI LANKA

# NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016 POLGAHAWELA SUB STATION

Note 14 C

	201	16	2015		
	R	5.	Rs.		
Emolument	2,853,747.00		2,400,948.51		
EPF	424,703.46		374,957.64		
ETF	57,914.11	3,336,364.57	54,572.03	2,830,478.18	
Supplies & Other Consumables used		271,023.59		124,687.00	
Other Expenses	-	103,221.75	-	403,941.98	
Total	=	3,710,609.91	-	3,359,107.16	

### NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016

Note 15 - TRAVELLING

	2016	2015
RESEARCH DEPARTMENTS	Rs. Travelling & S	Rs.
	0	
Plant Science	432,385.25	447,291.34
Plant Pathology	156,526.50	238,984.50
Genetics & Plant Breeding	419,350.68	482,781.31
Soils & Plant Nutrition	172,002.75	257,185.25
Raw Rubber & Chemical Analysis	46,841.70	59,882.50
Bio-Chemistry & Physiology	181,937.50	242,134.25
Adaptive Research Unit	36,739.00	76,464.00
Rubber Technology	90,888.50	107,960.00
RRPD & CE Dept	103,473.75	165,821.00
Bio Metry	38,794.50	40,993.00
Polymer Chemistry	87,420.00	83,240.00
Agriculture Economics	7,935.00	7,735.00
Sub Total	1,774,295.13	2,210,472.15
OTHER DEPARTMENTS		
Library & Publication Unit	22,277.25	25,572.95
Director's Office	87,297.50	52,544.50
Internal Audit	30,512.50	32,957.70
Board Office	358,612.94	350,019.41
Administration	139,661.00	52,024.00
Finance (Accounts)	121,754.00	104,118.50
Stores	33,050.00	34,550.00
Maintenance (Work Section)	1,468,376.18	1,383,053.64
RRI New Advisory Services Dept	1,732,492.71	1,771,538.50
Training Centre	30,884.35	32,181.00
Sub Total	4,024,918.43	3,838,560.20
Grand Total	5,799,213.56	6,049,032.35

# RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016

# Note 16 - SUPPLIERS AND CONSUMABLES RESEARCH DEPARTMENTS OTHER EXPENSES

	2016	2015
	Rs.	Rs.
Plant Science	33,593.20	66,643.47
Plant Pathology	954,948.10	663,239.13
Genetics & Plant Breeding	139,420.54	44,064.95
Soils & Plant Nutrition	54,846.84	133,340.20
Raw Rubber & Chemical Analysis	58,597.80	3,775.62
Bio-Chemistry & Physiology	10,117.50	44,133.39
Adaptive Research Unit	93,247.40	45,225.94
Rubber Technology	65,140.28	2,401.80
RRPD & CE Dept	90,299.04	50,830.96
Bio Metry	330,435.37	185,414.13
Polymer Chemistry	34,316.02	19,213.66
Agriculture Economics	12,559.69	30,060.00
SUB TOTAL	1,877,521.78	1,288,343.25
OTHER DEPARTMENTS		
Library & Publication Unit	1,322,253.44	1,175,752.58
Director's Office	129,706.84	277,615.70
Internal Audit	9,016.14	23,665.46
Board Office	1,069,462.12	528,699.80
Administration	218,083.86	323,972.62
Finance (Accounts)	231,722.43	340,414.66
Maintenance (Work Section)	206,910.75	169,968.29
RRI New Advisory Services Dept	521,715.72	1,204,210.03
Training Centre	193,693.07	201,350.18
Stores	31,516.29	7,692.72
Electronic Repair Unit		2,000.00
SUB TOTAL	3,934,080.66	4,255,342.04
L.P gas for Bungalows	378,162.00	148,881.00
Fuel & Lubricants	5,869,306.52	5,999,705.81
Stationery and Office Requisites	434,282.96	862,475.85
Medical Expenses	344,584.47	283,157.88
Bud wood Stumps	-	-
Sample survey for rubber productivity	-	-
SUB TOTAL	7,026,335.95	7,294,220.54
GRAND TOTAL	12,837,938.39	12,837,905.83

### NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016 DEPRECIATION OF NON CURRENT ASSETS

Note-17

CATEGORY OF ASSETS	Percentage	Rs. 2016 Rs.	2015 Rs.	Depreciation method
Buildings	3.5%	3,087,627.22	3,198,133.27	Reducing Balance method
Intangible Assets	10%	85,500.00	95,000.00	
Furniture, Fittings & Office Equipment	20%	3,101,285.74	3,231,540.99	"
Power & Water Supply	10%	219,685.13	228,228.93	"
Machinery & Tools	10%	179,254.22	190,615.75	"
Lab Apparatus	20%	13,350,784.80	11,498,762.52	"
Motor Vehicles	20%	3,862,526.19	4,828,157.49	"
Library Books	20%	533,845.24	528,046.98	"
Documentary Film	20%	59.70	74.63	"
Earth Slip Project	3.50%	3,261.98	3,380.29	"
Other assets	10%	886,883.89	899,333.94	"
Effluent Treatment Plant	3.50%	307,119.75	318,258.81	"
Audio Visual Equipment	20.00%	97,400.39		_
Total Less:		25,715,234.24	25,019,533.58	=
Dartonfield Estate - Depreciation		(285,251.12)	(298,274.33)	) "
Kuruwita Estates - Depreciation		(310,225.50)	(303,573.84)	) "
-		25,119,757.62	24,417,685.41	-
Less: Amortization		(2,748,006.48)	(3,117,077.49)	<u>)</u>
		22,371,751.14	21,300,607.92	

### NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016

# <u>Note-18 -</u> MAINTENANCE

	2016	2015
	Rs.	Rs.
Office & General Building Repair & Maintenance	1,812,261.25	1,331,340.73
Maintenance of Auditorium	60,169.04	159,599.93
Bungalows	2,634,620.16	1,861,881.52
Bungalow Premises & Compounds	6,010,303.17	7,650,784.57
Furniture, Fixtures & Fittings	202,970.71	0.00
Institute General Building Premises & Compounds	943,673.14	752,944.86
RRI Ratmalana Building Premises Upkeep-Maintenance	76,497.60	445,225.20
Maintenance Tools	-	3,880.00
Maintenance of Computer	1,320,629.72	
Maintenance of Plant Machinery	7,375.00	
Maintenance of Computer	38,882.68	
Maintenance of Computer	45,500.00	
	95,000.00	
Computer Network	7,855.00	
Maintenance of Computer	259,868.33	

# **OPERATIONAL EXPENDITURE VEHICLES.**

	17,263,873.84	16,007,998.96
Maintenance of Plant and Machinery.	0.00	42,339.37
Repairs & Maintenance	3,573,358.04	3,541,652.78
Servicing of Vehicles	174,910.00	218,350.00

# RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016

# ADMINISTRATION - GENERAL CHARGES - 2016 Note 19 CONTRACTUAL SERVICES

CONTRACTUAL SERVICES	2016 Rs.	2015 Rs.
Legal Expenses	1,762,624.22	207,640.00
Audit Fees	296,767.67	240,699.40
IRRDB Expenses	2,993,914.91	1,930,629.78
Entertainment Expenses	167,005.50	185,060.79
Environment Protection	64.60	5,000.00
Insurance General Covers(Excluding vehicles)	757,757.37	695,148.00
Welfare and Recreation	119,962.39	201,430.04
Railway Concessionary Season Tickets	570.00	20,630.00
Conference/Seminars	21,500.00	850,446.00
Bank Charges	120,586.00	127,093.51
Security Charges - RRI	1,916,400.00	1,973,961.45
Postage	83,767.65	49,556.00
Telephone	3,842,614.44	3,496,004.74
Advertisements	1,624,360.05	135,309.00
Transport & Handling Charges	6,928.48	-
Sundries & Utility Services	401,339.24	254,369.60
Staff Training & Development	3,351,900.41	1,145,621.91
Fees For Interview Panels	199,148.20	48,401.00
Provident Fund Expenses-RRI Component	57,308.91	460,412.48
Public Relations	7,328.08	26,856.72
Honorarium to Members Attending AFCOM	95,192.00	88,319.00
Police Escort Expenses	9,000.00	18,000.00
Inland Revenue Stamp Duty	-	64,125.00
Customs Duty/ clearing Charges	-	62,600.00
Deyata Kirula Exhibition	-	-
ETF Surcharge	-	20,671.09
Photo Copier Maintenance	194,684.24	167,722.37
Gratuity for the Year	24,227,518.00	4,806,305.00
Staff Gratuity Polgahawela	273,700.00	648,900.00
Staff Gratuity Monaragala	479,500.00	
Power Supply & Maintenance	7,689,133.81	7,813,852.31
Water Supply & Maintenance	762,266.42	1,203,525.12
Upkeep & Maintenance of Guest Houses (DF & KW)	627,266.68	573,285.64
Revenue Licenses, Insurance Covers, Fitness fees &	2,734,897.62	1,001,299.67
External Vehicles Hired	248,525.00	196,887.00
Rent & Taxes	228,625.04	432,695.00
Contingencies & General Ex.	6,318.00	-
Inland Revenue Stamp Duty	120,300.00	-
Sundry Expenses	2,150.00	-
Grand Total	55,430,924.93	29,152,457.62

# RUBBER RESEARCH BOARD OF SRI LANKA NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016 EXPENDITURE -RESEARCH AND DEVELOPMENT

### Note -20 Research Departments

	Laboratory Working	Field Working	Total	Laboratory Working	Field Working	Total
			Rs.			Rs.
		2016			2015	
Plant Science	26,449.88	1,635,262.08	1,661,711.96	64,636.42	1,887,157.67	1,951,794.09
Plant Pathology	982,557.08	586,691.34	1,569,248.42	706,490.73	381,360.88	1,087,851.61
Genetics & Plant Breeding	47,117.96	1,691,220.50	1,738,338.46	318,477.54	4,645,799.28	4,964,276.82
Genetics & Plant Breeding- Germplasm P	5	8,499,457.52	8,499,457.52	-	4,897,536.93	4,897,536.93
Soils & Plant Nutrition	319,583.44	1,081,714.01	1,401,297.45	713,247.45	611,808.27	1,325,055.72
Raw Rubber & Chemical Analysis	160,821.50	500.00	161,321.50	357,753.61	22,425.22	380,178.83
Bio-Chemistry & Physiology	557,641.81	324,424.37	882,066.18	215,633.08	267,081.86	482,714.94
Adaptive Research Unit	6,948.56	302,100.76	309,049.32	9,125.00	1,701.65	10,826.65
Rubber Technology	59,248.06	1,020.00	60,268.06	121,831.73	15,281.63	137,113.36
RRPD & CE Dept	839,158.50	4,000.00	843,158.50	113,868.21	125,298.34	239,166.55
Bio Metry	-	3,850.00	3,850.00	-	-	-
Polymer Chemistry	108,472.79	420.00	108,892.79	329,256.00	2,710.00	331,966.00
Tapping Marking Plates Expenses	-	1,375,750.00	1,375,750.00	-	3,037,500.00	3,037,500.00
Rubber Cultivation in N'Kele		41,157.00	41,157.00	-	-	-
Analytical Charges and Other Testing	185,340.00		185,340.00	-	-	-
Sails & Foliar Analysis Fee	543,328.90		543,328.90	-	-	-
	2,524,184.62		2,524,184.62	-	-	-
Rubber Re-Planting Ex.	117,150.32		117,150.32	-	-	-
-	6,285.86		6,285.86	-	-	-
Land & Land Improment	30,280.00		30,280.00	-	-	-
Soils and Foliar Survey	739,763.55		739,763.55	-	-	-
Land & Land Improment	16,125.00		16,125.00	-	-	-
Land & Land Improment	36,000.00		36,000.00	-	-	-
TOTAL	7,306,457.83	15,547,567.58	22,854,025.41	2,950,319.77	15,895,661.73	18,845,981.50
Negenahira Navodaya	-	1,151,804.79	1,151,804.79	-	1,795,798.55	1,795,798.55
Northern Province Expenses	-	893,831.53	893,831.53	-	280,185.70	280,185.70
Pest & Disease Management Project		1,120,071.19	1,120,071.19		,	,
		675,444.95	675,444.95			
Grand Total	7,306,457.83	19,388,720.04	26,695,177.87	2,950,319.77	17,971,645.98	20,921,965.75

### NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016

# Note -21 OTHER OPERATING EXPENSES

	2016	2015
	Rs.	Rs.
Rent for Narampola & Kumarawatta	-	-
Telephone Messenger	-	2,297.98
Medical Centre Labor	1,017,805.00	618,226.25
Sanitation	497,072.47	566,669.54
Roads, Fences & Boundaries	1,528,935.11	1,437,077.07
Watchmen & Gate Watchers	2,728,447.23	1,401,038.92
Grand Total	5,772,259.81	4,025,309.76

### NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016 DARTONFIELD GROUP ESTATE WORKING ACCOUNT FOR THE YEAR ENDED 2016

Note 22 2016 2015 Rs. Rs. 1 Sales of Rubber Kg 176136 36,355,848.17 42,696,910.73 <u>Add</u> 2014.12.31 Stock (kg 12300) 4,305,000.00 3,883,699.00 40,660,848.17 46,580,609.73 Less 2014.01.01 Stock kg 13007 3,883,699.00 2,901,038.00 Rubber Sale Broker Charges 669,330.11 Gross Profit 36,777,149.17 43,010,241.62 Add :-2 Sundry Receipts 408,525.00 3,502,525.15 Rubber Replant Subsidy 608,895.31 659,974.45 Tea Green Leaf Sale 538,819.39 650,022.52 Rain Guard Subsidy 2,746,120.00 4,302,359.70 1,504,030.00 6,316,552.12 41,079,508.87 49,326,793.74 Less : Expenses Wages, Salaries and employee benefits (Note 14A) 32,359,597.40 37,181,922.85 Supplies and Other consumables used 1,364,325.88 (Note 14A) 1,943,440.82 Depreciation and amortization expenses (Note 14A) 1,137,437.46 1.310.196.72 Maintenance of property, plant and equipme (Note 14A) 5,697,286.35 3,008,888.42 Other expenses (Note 14A) 701,723.68 519,877.56 Finance Costs (Note 14A) 459,940.35 530,861.99 43,743,314.16 42,472,185.32 **Other Expenditure Projects** Tea Green Leaf Expenditure 626,029.11 675,796.21 Cinnamon Expenditure 1,922.50 \_ 1980/93 Rubber Field Ex. 626,029.11 677,718.71 Rs. (2,018,705.56) 4,905,760.87 Surplus for the period

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 2016 Kuruwita Estate Working Account for the Year Ended 2016

Note 23

			2016		2015
			Rs.		Rs.
Revenue					
Sales of Latex & Scrap (93192 kg & 18799 kg)			22,967,272.59		15,466,455.43
Other Revenue					
<u>Add :-</u>					
Sundry Receipts		40,676.94		73,278.75	
Rubber Replanting Subsidy		782,178.79		585,407.13	
Cinnamon Income		146,841.45	969,697.18	-	658,685.88
Total Revenue			23,936,969.77		16,125,141.31
Less :					
Expenses					
Wages, Salaries and employee benefits	(Note 14B)	15,690,813.66		17,798,108.24	
Supplies and consumables used	(Note 14B)	863,925.05			
Depreciation and amortization expenses	(Note 14B)	381,079.08		378,156.55	
Maintenance of Property, Plants & Equipment	(Note 14B)	1,536,309.08			
Other expenses	(Note 14B)	178,062.40		417,931.09	
Finance Costs	(Note 14B)	110,531.66	18,760,720.93		18,594,195.88
Surplus for the Period		Rs	5,176,248.84		(2,469,054.57)

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

# NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016 KUMARAWATTA ESTATE WORKING ACCOUNT FOR THE YEAR ENDED 2016

Note 24			
		2016	2015
		Rs.	Rs.
Sales of Income		2,704.40	160,210.00
Rubber Re-Planting Subsidy		-	125,810.19
Less :-			
Maintenance Cost	(Note 14C)	(4,721,528.46)	(4,593,869.59)
Loss for the Year	Rs.	(4,718,824.06)	(4,307,849.40)
		() -)	()== )= = = = )

### RUBBER RESEARCH BOARD OF SRI LANKA

# NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016 NARAMPOLA ESTATE WORKING ACCOUNT FOR THE YEAR ENDED 2016

### Note 25

		2016	2015
		Rs.	Rs.
Sales of Sundry Crops		8,540.00	-
Rubber Sales		1,975,656.93	2,487,092.51
Rubber Re-Planting Subsidy		209,139.06	102,754.70
		2,193,335.99	2,589,847.21
Less :-			
Maintenance Cost	(Note 14C)	(3,710,609.91)	(3,359,107.16)
	Rs.	(1,517,273.92)	(769,259.95)

### SCHEDULE TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016

# <u>INVENTORIES/ STOCKS - RRI</u> <u>SCHEDULE 01</u>

	2016 Rs.	2015 Rs.
Stock - Dartonfield	4,305,000.00	3,883,699.00
Stock - Rathmalana	743,738.76	255,185.41
Stationary	528,237.31	444,943.60
Stock - General	11,364,137.73	8,269,860.00
Stock in obsolete	489,004.07	480,635.81
Non Moving Stock	434,249.35	378,385.86
Total	17,864,367.22	13,712,709.68

# RUBBER RESEARCH BOARD OF SRI LANKA SCHEDULE TO THE ACCOUNTS FOR THE YEAR ENDED 31/12/2016 SCHEDULE 02 - KURUWITA ESTATE STOCK

		2016	2	015
<u>Fertilizer</u>	Qty.(kg)	Rs.	Qty. (kg)	Rs.
Urea	35.50kg	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	78 Kg	1,911.00
T/65	-	-	6kg	330.00
Sodium bi sulphate	11Kg	1793.85	-	-
Di Ammonia Phosphate	36.5kg	984.59	36.5kg	984.59
Sulphate of Potash	74.9kg	2,272.62	74.9kg	2,272.62
Sulphate of Ammonia	87.9kg	3,126.50	87.9kg	3,126.50
Epson Soalt	164.6kg	4,032.42	164.6kg	4,032.42
Fomic acid	35 Ltr	6000.00	_	-
Glyfosate	-	-	4Litis	5,314.11
Coir Broom	-	-	2Nos	190.00
Sodium sulphate	25 Kg	4200.00	-	-
L.P.Gas	1Nos	1,388.00	1Nos	1,388.00
E/Bulbs	-	-	1Nos	80.00
China Clay	280	4,599.35	510	10,020.00
Polythene	651.4Kg	199,211.15	424.45Kg	133,575.70
Poly bags	1000Kg	43,411.20	1000Kg	43,411.20
T/Cells	6Nos	360.00	6Nos	360.00
Rubber Chemicals	-	-	36 Kg	5,762.27
Tar	1260Kg	79,155.00	144 Kg	118,620.00
Cement	-	-	1	835.00
Tapping Knives	9Nos	5,085.00	36Nos	23,300.00
Jack Pole (3x4)			605	19,687.17
Timber	1214 Ft	19,687.17		47,080.00
Zine Sulphate	-	-	5	550.00
Sulpher	8.00Kg	880.00	-	-
Fungicide	1.3 Kg	2,449.93	1.3 Kg	2,449.93
Dioron				5,000.00
Maxi crop	4 Kg	295.00	-	-
Total		385,022.99		434,460.72

### RUBBER RESEARCH BOARD OF SRI LANKA SCHEDULE TO THE ACCOUNTS FOR THE YEAR ENDED 31/12/2016

### SCHEDULE 03 - STOCK VALUE - DARTONFIELD ESTATE

2016			2015		
Item	Qty (Kg)		Value (Rs)	Qty (Kg)	Value (Rs)
Sodium Bi Sulphite		-	-	100kg	15,905.24
Sodium Sulphite		-	-	50kgs	8,714.67
Formic Acid		-	-	35kgs	6,217.85
Policer		-	-	400ml	2,200.00
Urea	414kgs		9,581.24	414kgs	9,581.24
Kieserite				44kgs	1,032.07
Cinnamon Manure	50 Kg		14,862.80	50 Kg	14,862.80
Dolomite	29788kgs		24,725.64	3128kgs	25,971.06
RU 465 N.P.K.	1575kgs		39,254.56	2125kgs	52,962.50
M.O.P	378 Kg		8,737.58	378 Kg	8,737.58
Sulper		-	-		-
C.E.S	10kgs		225.00	10kgs	225.00
D.A.P		-	-	10kgs	225.00
S.O.A	10kgs		225.00	10kgs	225.00
S.O.P	10kgs		225.00	10kgs	225.00
Poultry		-	-	01 Roll	3,475.00
Weighing Scale		-	-	01 Nos	225.00
Di Amonia Posphate	10 Nos		225.00		-
Tar	660Ltrs.		56,481.40		-
Coir Brooms		-	-	21nos	1,931.99
Brass Screws		-	-		
P.V.C.Pipe		-	-	1.5 Length	6,885.00
Plain Sheet		-	-	01 Nos	1,331.25
Bitumen (tar)		-	-	2790kgs	238,762.25
Wire Nails		-	-	3.750 Kg	695.00
Auticomonsive Paint		-	-	02 Lits	1,178.33
Bend 4"	75.17	-	-	01 Nos	140.00
China clay	75 Kg		1,274.23	01 Nos	2,700.00
Poly Bags	28750nos		85,675.00	28750nos	85,675.00
Etheral	17.25Ltrs.		13,157.44	9 <b>5</b> 1-	-
Fire Wood Eckel Brooms		-	-	8.5yds 08 Nos	6,345.00 736.00
		-	-	434.75kgs	
Polythene Down Pipe (180 LF)		-	-	180 nos	129,951.56 22,028.40
End Cap 1/f		-	-	4 nos	388.44
Timber 3" x 4"		_		48 l/ft	2,880.00
Timber 3" x 5"		_	_	481/ft 1171/ft	8,775.00
Timber	2955/ft.	-	51,803.25	11/1/10	-
Timber 2" x 4"	2)55/11.	_	-	143 l/ft	5,005.00
Timber 2" x 2"		_	_	426.25 Lf	7,246.25
Timber 2" x 1"		_	-	1493.75 Lf	5,975.00
Timber 1" x 9"		-	-	1495.75 Lf	5,197.50
Timber 1 $1/8'' \times 4''$		-	-	113.3 LI	5,197.50
		-		11416	-
Timber 2" x 1"		-	-	114 Lf	1,140.00
Timber 2" x 2.5"		-	-	357 l/ft	6,426.00
Timber 1" x 1/8"		-	-	140.9 l/ft	9,158.50
Cement		-	-	4 Bag	3,480.00
Gutter Box	4 Nos		2,783.76	4 Nos	2,783.76
VBelt		-	-	8 Nos	6,433.28
Gutter	60 Lf		7,440.60	60 Lf	7,440.60
U.709	100Kgs		2,527.80	300Kgs	7,583.40
LDPE 600X300Polythene			-	2400kgs	711,492.80
Total			319,205.30		1,440,550.32

# SCHEDULE TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016

# SCHEDULE 04

# **DEPOSITS**

Rs.         Rs.           Telecom         6,000.00         6,000.00           Electricity         90,500.00         90,500.00           Post Master General         10,512.41         27,395.41           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         3,801.00           M.P.C.S. Matugama (Fuel)         74,500.00         74,500.00           Samaranayake & Samaranayake         50,000.00         50,000.00		2016	2015
Telecom       6,000.00       6,000.00         Electricity       90,500.00       90,500.00         Post Master General       10,512.41       27,395.41         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         M.P.C.S. Matugama (Fuel)       74,500.00       74,500.00		Rs.	Rs.
Post Master General       10,512.41       27,395.41         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	Telecom	6,000.00	
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         M.P.C.S. Matugama (Fuel)       74,500.00       74,500.00         Samaranayake & Samaranayake       50,000.00       50,000.00	Electricity	90,500.00	90,500.00
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       50,000.00	Post Master General	10,512.41	27,395.41
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       50,000.00	Sundry	2,005.00	2,005.00
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	M.P.C.S. Moratuwa	50,000.00	50,000.00
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	New Bambalapitiya Service Station	4,000.00	4,000.00
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	Ceylon Oxygen Co. Ltd.	113,316.00	113,316.00
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	Tender	2,000.00	2,000.00
M.P.C.S. Matugama (Fuel)       74,500.00       74,500.00         Samaranayake & Samaranayake       50,000.00       50,000.00	Lanka Filling station-Narahenpita	15,000.00	15,000.00
Samaranayake & Samaranayake 50,000.00 50,000.00	Leo Freight Services (Pvt) Ltd	3,801.00	3,801.00
· · · · · · · · · · · · · · · · · · ·	M.P.C.S. Matugama (Fuel)	74,500.00	74,500.00
Total 421,634.41 438,517.41		·	
	Total	421,634.41	438,517.41

ULE TO THE STATEMENT OF FINANCIAL PERFOI	2016	2015
	2010 Rs.	2013 Rs.
SCHEDULE 05	N3.	NS.
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	18,773,783.00	21,248,093.97
SUNDRY DEBTORS		
Provident Fund Control A/C RRI	3,335,688.94	3,915,578.18
Interest Receivable	10,410.96	6,909.58
Unidentified	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 Receivable	3,188.97	3,188.97
NSF Grant RG/2006/EPSD/01	-	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	61,135.25	65,495.25
Ministry of Science & Technology	41,687.50	41,687.50
N.S.F.Grant RG/2012/AG/06	37,725.56	209,988.75
NSF Grant RG/2008/AG/02	-	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
International Work Shop on White Root Dieses	82,029.84	82,029.84
Divineguma	537,285.89	537,285.89
N.S.F.Grant RG.2015/BT/01	-	
Total	7,579,377.40	8,713,223.45

### **RUBBER RESEARCH BOARD OF SRI LANKA** SCHEDULE TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 20

# LOAN RECEIVABLES

Loniv Recentribles	2016	2015
Matan Can / Matan Can Danain Lasa		
Motor Car / Motor Car Repair Loan	251,250.00	306,250.00
Motor Cycle Loan	205,665.90	238,665.79
Personal/Distress/Study Loan	204,983.44	802,587.40
New Personal Loan	1,623,928.75	2,239,718.63
Staff Medical Fund Loan	125,960.42	-
	2,411,788.51	3,587,221.82
Note		
Bond Debtors	Balance as at 31.12.2015	
H .H. Thalgas watta	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	25,000.00	
SMCE Silva	1,635,005.85	
Nalinda P Wicramasinghe	10,643.54	
G.V.L.Nilmini	1,084,612.81	
	4,626,566.77	

### **RUBBER RESEARCH BOARD OF SRI LANKA**

SCHEDULE TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016

### 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.

# SCHEDULE TO THE ACCOUNTS FOR THE YEAR 31/12/2016 KURUWITA ESTATE TRADE & OTHER RECEIVABLE

SCHEDULE 07

400.00	
30,175.61	19,790.05
9,228.56	7,582.08
17,728.68	39,861.66
9,176.49	9,176.49
67,361.77	178,044.27
113.00	235.00
101,100	107,000.00
-	950.00
-	4,200.00
23,579.68	25,638.40
2016	2015
Rs.	Rs.
	<b>2016</b> 23,579.68 - - 101,100 113.00 67,361.77 9,176.49 17,728.68 9,228.56 30,175.61

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

	Rs.	Rs.
	2016	2015
Adaptive Research Unit	-	-
Check Roll debtors	88,739.81	35,414.14
Deposit A/c	2,690.00	2,690.00
J.D. & Sons	-	962,676.92
Labor Festival Advance (Sinhala)	-	191,700.00
National Institute of Plantation Management	66,066.14	66,066.14
Personal Loan	16,432.41	27,499.89
Postage Stamp	360.00	10.00
Pry Month Rubber Industries	6,100.00	6,100.00
Festival Advance - Staff	228,150.00	12,000.00
Tamil Festival Advance	3,250.00	374,400.00
Vogen Estate	71,469.75	23,493.81
Festival Advance Christmas	9,550.00	94,500.00
Special Festive Advance	110,000.00	535,500.00
Project GPB / NC / 2014 A/C	353,781.00	557,084.00
Replanting GW 2016	-	449,230.68
Factory chemical Balance	22,657.38	14,498.54
Drying Tower Repair A/C	666,320.29	666,320.29
New Smoke House	-	269,179.44
Co-Operative Society	16,125.00	-
Special Salary advance	2,189.36	-
Special Festive Advance	4,550.00	-
Supdt Jeep Repair	110,479.91	-
Festival Advance Tamil	556,550.00	-
Payment in advance	99,811.50	-
Total	2,435,272.55	4,288,363.85

### RUBBER RESEARCH BOARD OF SRI LANKA SCHEDULE TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016 CREDITORS 2016

CREDITORS 2010		
SCHEDULE 08		
	2016 Rs.	2015 Rs.
Creditors Ledger Control A/C (C L C)	7,952,179.68	16,643,553.45
SUNDRY CREDITORS	7,952,179.08	10,045,555.45
Biometry Project - Climate Change on Rubber	16,338,28	16,338.28
Canteen Deposits	13,500.00	13,500.00
Carbon Market Project	118,108.57	118,108.57
Centre for Poverty Analysis	1,841.25	1,841.25
Contract Deposits	15,350.00	15,350.00
Divineguma B461	1,063,933.42	1,063,933.42
G.S.I.Mapping of Tea & Rubber Lands on Galle Dis.	155,000.00	155,000.00
Humate Plus Experiments	22,101.50	22,101.50
I.R.R.D.B.Plant Breeding Workshop	294,552.18	294,552.18
Insurance Claim Received	19,285.71	19,285.71
Intercropping Research (Sadaharitha Plantation)	87,243.75	87,243.75
Medical Fund Reserve RRI Staff	10,017.50	8,513.50
Moratuwa University	1,025,768.00	878,063.00
National Science Foundation		
N.S.F.Grant 2015/EQ	1,418,136.00	-
N.S.F.Grant 2016/AG/01	1,200,766.25	-
N.S.F.Grant RG/2012/AG/10	23,883.56	23,883.56
N.S.F.Grant RG/2012/Tech/D04	304,804.34	449,177.94
N.S.F.Grant RG/2015/BT-01	455,441.69	814,795.26
National Science Foundation NSF/RAP/2001/RRI/01	705.96	705.96
National Workers Congress	67,497.50	67,497.50
NSF - PG/99/C/7	5,637.68	5,637.68
NSF - SIDA/98/EP01	95,014.85	95,014.85
NSF Grant No RG/2014/EQ/08	0.00	825,000.00
NSF Grant RG/2006/SPR/06	356,001.00	356,001.00
Payee Tax	49,103.99	43,247.29
Plant Science Intercropping Unit (Essex U.K)	21,731.55	21,731.55
Plantation Development Project	328,819.09	543,237.59
Postgraduate Institute of Peradeniya	24,640.00	24,640.00
Provident Fund Account - RDD	443,036.16	3,266,348.58
R.D.D.Kegalle	23,318.75	23,318.75
RDD (Salary Arrears)	92,837.57	92,837.57
RDD Nursery - Gampaha	45,000.00	45,000.00
RDD Staff Payments & Recoveries Control A/C	1,621.72	1,621.72
Receipt in Adr(Welfare)	595.00	595.00
Receipt in Advance (stamp) $P_{\text{constraint}}$ Advance $A/C$ (LLCA)	271,645.00	271,645.00
Receipt-in -Advance A/C (J.I C.A) Ru: Ban: Intercropping Programme Ecology UK (D F I D)	208,297.09	208,297.09
Staff Fire Wood A/C	542,618.53	542,618.53
Tender Deposits	10,813.24	7,813.24 1,463,548.34
Vitex Project	1,538,133.62 9,288.79	9,288.79
White root Diseases Research Project Sweden	25,717.80	25,717.80
while foot Diseases Research i fojeet Sweden	18,360,326.57	28,531,598.61
	10,500,520.57	20,331,370.01
PAYABLE		
Rent Kumarawatta & Narampola	5,693.20	-
Medical Fund A/C	33,099.87	22,039.87
Audit fee Pavable A/C Abetment - Payable A/C	556,110.00 19,745.64	556,110.00 58,233.06
Retention Payable A/C	826,283.92	-
Lease Rental Payable A/C Kumarawatta, Narampola	8,320,000.00	
Legal Fee Payable A/C	874,520.72	
Payable	10,635,453.35	636,382.93

### **RUBBER RESEARCH BOARD OF SRI LANKA** SCHEDULE TO THE ACCOUNTS FOR THE YEAR ENDED 31/12/2016

# SCHEDULE 09 - KURUWITA - PAYABLES

SCHEDULE 09 - KURUWITA - PAYABLES	<u>2016</u>	2015
	<u>2010</u> Rs.	<u>2013</u> <u>Rs.</u>
	<u></u>	<u></u>
Check Role Wagers	1,190,880.00	1,007,080.00
CEB	19,271.95	36,275.31
Sri Lanka Telecom Ltd	10,536.12	8,232.53
EPF Payable	367,832.75	332,364.59
ETF Payable	50,159.15	45,322.54
Holiday Pay	633,960.00	577,120.00
Attendance Bonus	55,425.00	53,337.50
Tax payable	9,464.32	1,138.64
National Savings Bank	-	-
Death Donation Welfare	13,377.00	-
Deposits	59,662.00	59,662.00
Receipt in Advance	15,783.02	21,796.90
RRI Provident Fund	41,667.39	108,202.61
L.K.S.Rubber Stores	-	13,025.00
Palawela Rubber Stores	27,225.00	17,700.00
Prasad Hardware	7,909.00	12,910.00
Kuruwita M.P.C.S	5,357.00	36,492.00
S.L.N.S.S	-	8,400.00
Agroserve	-	550.00
Vishwa Shakthi Welfare	48,250.00	10,300.00
Accrued expenditure	50,427.50	-
Un paid coins A/C	43,639.74	42,550.07
Profit Bonus	-	399,389.46
Bank Loan	-	86,350.00
Sundry Creditors	1,650.00	23,225.00
Palanda Hardware	1,433.00	23,528.00
Motor Cycle Loan - staff	-	13,936.14
Personal Bank Loan	121,850.00	-
Nidahas Sewaka Sangamaya	55,200.00	-
Total -	2 830 050 04	2 038 888 20

Total

2,830,959.94 2,938,888.29

### RUBBER RESEARCH BOARD OF SRI LANKA SCHEDULE TO THE ACCOUNTS FOR THE YEAR ENDED 31/12/2016 DARTONFIELD ESTATE SCHEDULE 10 - PAYABLES

SCHEDULE IU - PAYABLES		
	Rs.	Rs.
	2016	2015
Attendance Bonus	134,300.00	153,125.00
Buddhist Society	3,450.00	1,950.00
Check Roll	3,763,650.00	3,327,562.73
Commission on Cash Transport	529,838.96	416,901.62
Samaranayaka & Samaranayaka	10,210.00	585.00
C.S.C.& W.U.	570.00	210.00
C.P.M.S.U.	2,100.00	2,800.00
E.P.F.	940,754.45	1,806,135.53
E.T.F.	128,284.74	124,186.51
Holiday Pay	1,348,321.37	1,460,106.34
Horticulture Society	1,260.00	740.00
Janatha Fertilizer Enterprises	298,577.50	298,577.50
Kovil Fund - Dartonfield	215,000.00	117,000.00
Kovil Fund - Galewatta	99,200.00	25,600.00
Kalyani Trading (Pvt)Ltd	15,170.00	356,492.80
L.J.E.W.U.	78,608.00	60,248.00
L.E.W.U.	-	5,850.00
New Mahinda Stores	-	2,025.35
National Savings Bank	26,100.00	20,800.00
New Paper Agent	3,060.00	1,020.00
RRI Welfare Society Colombo	69,240.00	67,140.00
Refundable Deposits	42,796.00	189,296.00
RRI Club	63,902.00	62,195.00
Staff Provident fund	869,186.54	408,911.63
S.L.N.S.S.	88,080.00	89,280.00
Thrift Society	25,217.00	8,355.00
Transport Agent	-	8,050.00
Unpaid Wagers	210,772.28	206,766.91
Welfare Society - N' Kele	63,700.00	51,700.00
Welfare Society - H.O	145,175.50	130,582.50
Wijegunawardana & Sons	236,989.00	145,250.00
Agalawatta Auto Service	4,980.00	3,500.00
Agalawatta Motors	17,470.00	13,330.00
Institute Medical Fund	17,470.00	1,189.00
Profit Bonus - 2013/2014	- 104,639.56	104,639.56
Welfare Society Wishwa Shakthi	104,059.50	26,500.00
Sundry Creditors	36,828.00	1,050.00
State Mortage Bank	80,290.00	
Chanlo Hardware	26,215.00	80,290.00
		- 142 660 11
Chemanex Ltd	53,380.23	142,660.11
Co-operative Society	-	362,125.00
National Housing Development Authority Udaya Printers	44,790.00	35,832.00
5	660.00	4,500.00
RRI Canteen CEB	24,355.00	8,720.00
CEB Festival Advance Staff	969.67	-
	5,000.00	-
JD& sons Pvt Ltd	3,603,571.67	-
Kandy Plastic Industries	28,350.00	-
Receipts in advane workers	15,400.48	-
PND Construction Pvt Ltd	8,050.00	-
Ranjanas Grocery	60,163.97	-
Vishwashakthi Welfere	67,100.00	-
NUW	21,000.00	-
Unpaid coins	3,178.73	-
Total	13,619,905.65	10,333,779.09

RUBBER RESEARCH BOARD OF SRI LANKA
SCHEDULE TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016

Accrued Expenses Schedule 11	Rs.	Rs
09-i RRI	2016	2015
Accured Expenses	18,946,105.63	-
Overtime 2016 December	781,929.42	703,086.55
Travelling & Subsistence 2016 Dec	372,337.23	436,306.45
	-	
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
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
=	20,100,372.28	9,459,393.00
Dartonfield Estate (09-iii)		
Overtime, Travel. & Subsist Dec'2016	60,832.82	83,493.90
Labor Charges - December 2016	6,093.36	155,431.00
Meals supply to Tappers	-	15,640.00
Re-imbusement of Medical expenses to Sta	25,090.80	-
	92,016.98	254,564.90
Grand Total	20,192,389.26	9,713,957.90

(Inter Transaction Accounts - Current A/C)

	RRI	K/W	D/F	Total
Dartonfield	(26,371,099.41)		26,371,099.41	-
Kuruwita	(3,635,862.22)	3,635,862.22		-
RRI	(30,006,961.63)	3,635,862.22	26,371,099.41	-

### RUBBER RESEARCH BOARD OF SRI LANKA SCHEDULE TO THE STATEMENT OF FINANCIAL PERFORMANCE AS AT 31ST DECEMBER 2016

Schedule 12 OTH	IER CAPITA	L GRANTS -	2016	
Other Capital Grants	Value as at	Additions	Amortization	Value as at
	01.01.2015	During Year	on Grants	31.12.2016
	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
Treasury Grant (Motor Vehicles)		15,375,000.00		15,375,000.00
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)	11,110,681.84		2,216,960.00	8,893,721.84
N.S.F. Grant	1,775,368.35		287,751.65	1,487,616.70
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	30,777.34		6,155.47	24,621.87
A.F.National Research Council	412,226.40		82,445.28	329,781.12
Divineguma	681,550.40		136,310.08	545,240.32
International Foundation for Science	91,920.00		18,384.00	73,536.00
Agricultural Research	12,542,595.30			12,542,595.30
Strengthening of RRI Facilities		-		-
Special Project Other Grants		8,958,000.00		8,958,000.00
	52,718,757.30	24,333,000.00	2,748,006.48	74,303,750.82

		2012	2013	2014	2015	2016
1.	Labour wages	572.00	572.00	687.50	687.50	687.50 up to Sept.
						805 from Oct.
2.	Cost of production	216.33	262.39	245.06	270.57	241.13
2.1	Tapping	84.64	100.94	118.61	113.94	116.46
2.2	Manufacture	35.66	35.68	35.82	36.43	32.35
2.3	General charges	75.02	102.26	74.49	103.07	74.43
2.4	M/area upkeep	20.91	23.51	16.14	17.13	17.89
3.	N.S.A.	383.36	348.74	256.56	255.26	234.84
4.	Profit per kg	167.13	86.35	11.50	(15.31)	(6.29)

Labour rates and break down of cost of production from 2012 to 2016 (Rs/Kg) in Dartonfield estate

# Labour rate (Rs) and the break down of the cost of production from 2012 to 2016 (Rs/kg) in Kuruwita estate

	Year					
	2012	2013	2014	2015	2016	
Labour rate	572.00	687.50	687.50	687.50	Jan Nov.	687.50
					From D	December
						805.00
Cost of production	178.69	187.19	198.00	191.21		179.27
Tapping cost	79.49	90.44	96.70	87.77		89.65
Manufacturing	-	-	-	22.14		21.49
General chargers	77.13	74.55	79.58	64.72		54.48
Field & cultivation	22.07	22.20	21.72	16.58		13.65
cost						
N.S.A	366.21	339.62	251.92	207.86		217.11
Profit per kg.	187.52	152.43	53.92	16.65		37.84

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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 2016 in terms of Section14(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 2016 comprising the statement of financial position as at 31 December 2016 and the statement of financial performance, statement of changes in equity and the 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 Board 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 issued to the Chairman of the Board on 30 May 2017.

### 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 judgement, 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 2016 and its financial performance and cash flows for the year then ended in accordance with Sri Lanka Public Sector Accounting Standards.



ວິດອາເລ ເປັວອີ ແຕະວ່ອນເອືອກ່ອງວ ເວນ ໂອມໂອມາມັນ ເງັນແມ່ນ ເຫັງເຖິງ ເງັນການໂອມແ Auditor General's Department

### 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

In terms of Section 48 of the Standard, revenue and expenses should not be offset unless required or permitted by the Standards. Nevertheless, revenue earned from Rubber cultivations and expenditure thereon had been offset and shown in the accounts over a period of 3 years. The deficit of Rs.1,020,937 occurred as a result of the offsetting, had been shown in other financial assets as at 31 December 2016.

### (b) Sri Lanka Public Sector Accounting Standard - 03

In terms of Section 47 of the Standard, the material prior year adjustments should be corrected by retrospective restatement in the first set of financial statements in which they were discovered. Nevertheless, the prior year adjustments of Rs.4,988,147 made in the year under review had not been adjusted comparatively in the financial statements and necessary disclosures thereon had not been made in terms of the Standard.

(c)

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### Sri Lanka Public Sector Accounting Standard - 07

Even though an asset should be depreciated from the date it became suitable for use, contrary to that, the Accounting Policy of "non-depreciation of fixed assets in the year on which they were purchased" had been followed. As such, the assets valued at Rs.55,374,017 which were acquired during the year 2016 but still being used, had not been depreciated. Accordingly, the depreciation of the year under review had been understated by Rs.6,833,591. Further, the useful life of assets had not been reviewed annually.

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### (d) Sri Lanka Public Sector Accounting Standard - 09

In terms of Section 15 of the Standard, the inventory should be measured at the lower of cost and net realizable value. Nevertheless, the inventory costing Rs.18,568,595 had been measured at the normal cost and shown in the financial statements.

### 2.2.2 Accounting Policies

The following observations are made.

- (a) According to the Policy disclosed along with the financial statements relating to the accounting of capital grants, it had been mentioned that the Government grants are identified as revenue under a systematic basis on the useful life of assets purchased under the capital grants. Nevertheless, the capital grants totalling Rs.51,158,827 received from the Treasury for various projects since many preceding years, had been retained in the Capital Grants Account, instead of taking action accordingly.
- (b) Even though the expenditure of Rs.1,084,075 incurred for cultivations in two estates maintained by the Board had been shown under other financial assets, the Accounting Policy for the Accounting of Biological Assets, had not been disclosed in the financial statements.

### 2.2.3 Accounting Deficiencies

The following observations are made.

The equivalence of the Cash Flow Statement was problematic in audit due to following deficiencies therein furnished along with the financial statements.

(a) Even though the gratuity payments during the year under review totalled Rs.17,561,020, it had been shown as Rs.18,613,247 in the Cash Flow Statement. As such, the cash flow received from operating activities had been understated by Rs.1,052,227.



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(b) Even though the receipts of capital grants of the year under review amounted to Rs.84,800,000, the capital grants had been shown as Rs.84,013,242 under financial performance of the Cash Flow Statement. As such, the cash flow generated from financial activities had been understated by Rs.786,758.

### 2.2.4 Unexplained Differences

Even though the total balance, recoverable to the Board due to breaching terms of the Bond after proceeding abroad for study, had been shown as Rs.4,626,566 in the financial statements, according to the relevant schedule, that value had been Rs.8,673,126, thus indicating a difference of Rs.4,046,560.

### 2.3 Accounts Receivable and Payable

The following observations are made.

- (a) Out of the Trade and Sundry Debtors Balances as at the end of the year under review, sums of Rs.13,125,063 and Rs.5,971,760 had remained over a period of 10 years without being recovered and Trade Debtors Balance amounting to Rs.3,806,329 between a period of 5 and 10 years respectively and there was an unidentified Sundry Debtor Balance amounting to Rs.830,936.
- (b) Even though Letters of Confirmation of Balances had been called for, from 238 out of 657 debtors, confirmation of balances had been received only from 34 debtors. Out of them, balances of 27 persons had been shown as zero. However, according to the Debtors Ledger, those total balances had been shown as Rs.1,376,753. Even though the balances which were confirmed by 04 debtors, totalled Rs.108,005, according to the Debtors Ledger, those balances totalled Rs.1,097,543.
- (c) Action had not been taken even in the year under review for the receivable balance of Rs.5,214,500, granted in the year 2011 to the Department of Consultancy Services of the Board for the construction of a building.

களைவின் எப்பிலைன்றை வார்பர்யாம் நலையா அநிரி நீல Auditor General's Department

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(d) Out of the balance of Rs.7,952,180 in the Creditors Control Account as at the end of the year under review, the balance between 05 and 10 years amounted to Rs.2,265,277 and the balances exceeding 10 years totalled Rs.4,299,181. These balances had not been settled even in the year under review. Further, out of the sundry creditors balance totalling Rs.10,408,146, the balances exceeding 10 years totalled Rs.2,340,867 and the balances between 5 and 10 years totalled Rs.2,489,732 and action had not been taken to settle those balances.

- (e) The expenditure totalling Rs.2,211,770 incurred in the year 2011 for the Ministry of Plantation Industries had remained unrecovered even by the end of the year under review.
- 2.4 Non-compliance with Laws, Rules, Regulations and Management Decisions

The following instances of non-compliance were observed.

Reference	to	Laws,	Rules	and	
Regulations					

(a) Establishments Code of the Democratic Socialist Republic of Sri Lanka

(i) Chapter VII

(ii) Chapter XII

In addition to the overtime, days' pay had been paid for the same day to Non-staff Officers for working at the weekend. Contrary to provisions of the Establishments Code, 56 and 53 leave had been obtained per year by the Officers in the Executive Grade and other Grades of the Board respectively.

Non-compliance



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(b)Financial Regulations of the Democratic Socialist Republic of Sri Lanka

Financial Regulations 757 and 757(2)

(c) Section 2(a) of the Public Finance Circular No. 3/2015 of 14 July 2015.

(d)Section 12 of the Public Administration Circular No. 06/2006 of 25 April 2006

(e) National Library and Documentation
 Services Board Circular No.
 2004/Li/01 of 26 January 2004

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Action in terms of the Financial Regulations had not been taken on the spare parts of motor vehicles costing Rs.92,228 and 34 items costing Rs.30,586 which were identified as disposables in the Annual Board of Survey of 2015 and on the shortages of 24 items appearing in the Board of Survey Report of the stores.

Even though the Petty Cash Imprest given for defraying petty expenses to an officer working under the direct supervision of a Staff Officer should not exceed Rs.25,000, a Petty Cash Imprest of Rs.50,000 had been granted from January 2016 without the prior approval of the Treasury.

Even though the Combined Allowance for the Field Officers of the Board is Rs. 500 per day, the Field Officers of the Board had been permitted to reimburse the expenses up to Rs.700 per day without the approval of the Board of Directors instead of the Combined Allowance.

The Boards of Survey for the books for the year 2016 had not been carried out and reports thereon had not been furnished to Audit even by 15 June 2017.



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### 3. Financial Review

### 3.1 Financial Results

The operations of the Board for the year under review had been a deficit of Rs.20,718,304 as compared with the corresponding deficit of Rs.36,662,486 for the preceding year, thus indicating an improvement of Rs.15,944,182 in the financial result of the year under review, as compared with the preceding year. The increase in the Government grants by Rs.17,515,200 in the year under review had been the reason for the above improvement.

An analysis of the financial results for the year under review and the 4 preceding years revealed that there was a financial deficit from the year 2012 up to the year under review. However, in readjusting the employees remuneration and the depreciation on the non-current assets to the financial result, the contribution of the Board which was Rs.123,811,233 in the year 2012 had gradually improved up to the year 2015. Nevertheless, it had decreased by Rs.46,646 in the year 2016.

### 3.2 Legal Action initiated against the Board

Nine cases had been filed against the Board as at 31 December 2016 and a sum of Rs.1,762,624 had been spent in the year under review as legal fees.

### 4. Operating Review

#### 4.1 Performance

In terms of the Rubber Research Ordinance (Cap. 439), 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.



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The following observations are made in respect of achieving those objectives.

- Even though 4 main development activities which were intended to be (a) completed in the year 2016, had been included in the Annual Action Plan, information on the completion of those activities had not been indicated in the Performance Report which was submitted in conformity with the Action Plan.
- (b) Rubber seedlings had been distributed as home gardening by spending Rs.30 million for 9 Districts in the year 2014 and Rs.17 million for 5 Districts in the year 2013 from the Divineguma Project. In terms of plans of this Project, the follow up action had not been carried out in every District. Further, out of 1,860 seedlings distributed in 26 Divisional Secretariat Divisions of the Hambanthota District in the years 2011 and 2012, one thousand seven hundred and seventy eight seedlings representing 95 per cent had perished.
- (c) Out of 111 researches commenced, 63 researches had been completed within the period from 2011 to 2015 and a period between 18 and 20 years had elapsed for certain projects. The 48 incomplete researches were due to be completed within a period ranging between 5 and 28 years. Even though a research carried out within 20 years revealed that the annual rubber productivity had been increased, the expected annual yield of the Darton Field Estate, cultivated under the purview of the Rubber Research Board had been 3004 kg. However, the actual yield was between 800 kg and 900 kg.

#### 4.2 **Management Activities**

The following observations are made.

(a) Contrary to provisions of the 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 occurred 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.

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Even though the books issued by the Library of the Institute for the use of the staff should be returned within a period of one month, 111 books valued at Rs.557,336 issued to 20 officers, had not been returned, despite the elapse of a period from 22 days to 19 years as at 31 December 2016 from the date of issue. However, necessary management action had not been taken in that connection.

### 4.3 Transactions of Contentious Nature

(b)

Even though the approval of the Treasury had not been obtained for the methodology of reimbursement of medical bills of the staff, implemented by the Institute in the year under review, the medical bills of Rs.23,301,047 of the staff, had been reimbursed. Further, a sum of Rs.5,046,772 had been deposited in another bank account for the establishment of a separate fund for the payment of medical assistance only on a Decision of the Board of Directors.

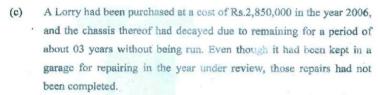
### 4.4 Idle and Underutilized Assets

The following observations are made.

- (a) The coagulating pans valued at Rs.102,780, instructions leaflets valued at Rs.370,725 and roofing sheets valued at Rs.169,202 had remained underutilized without being used. Even though the Computer Software, Barcode Scanner and Barcode Printer had been purchased on 05 February 2015 at a cost of Rs.238,117 for the use of the Library of the Institute, those equipment had not been utilized even by 17 March 2017.
- (b) There were 8 Rubber Grinding Machines in the Darton Field Rubber Sheets Manufacturing Factory located in the Research Institute and out of them, 03 machines had been inoperative over a period of one year. It had not been ensured whether the 05 machines in operation are adequate for the capacity of the Factory and repair of 03 inoperative machines had been estimated at Rs.13.5 million.

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### 4.5 Identified Losses

The Employees' Provident Fund, Employees' Trust Fund and the Gratuity for 266 employees had been computed without considering the Cost of Living Allowance from 01 January 2006 to October 2011 and as such, a sum of Rs.933,567 had been paid as surcharges. Further, the contribution for the Employees' Provident Fund and Employees' Trust Fund had not been paid as at due date from the year 2012 to the year 2016 and as such, a sum of Rs.1,819,711 should have been paid as surcharges. Out of that, a sum of Rs.544,652 had been paid. However, surcharges of Rs.1,275,059 should have been further paid. Moreover, provisions therefor had not been made as well in the financial statements in the year under review.

### 4.6 Commencement of Projects on Lands not properly vested

Even though the approval of the Cabinet of Ministers had been received in the year 2013 for the acquisition of estate lands such as Narampola (Alawwa) and Kumarawatta (Moneragala) where sub offices of the Rubber Research Institute have been established, lands had not been acquired due to non-receipt of provisions.

### 4.7 Staff Administration

The following observations are made.

- (a) Schemes of Recruitment had not been formulated during several preceding years for 09 posts which were approved for the staff of the Institute.
- (b) The post of Research Officer of the Moneragaia Sub Office had been vacant since 24 November 2015 and action had not been taken to recruit an officer therefore, despite the elapse of over a period of one year. Moreover, research activities relating to those areas had been assigned to two Field Officers.



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### 5. Systems and Controls

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

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#### Observations

(a) Library Administration

- (i) Non-documentation of information on borrowed books.
- (ii) Failure in introducing procedures for the use of library books.

occurred due to motor vehicle accidents.

Head of the Department.

(b) Control over Motor Vehicles

(c) Staff Administration

(i) Engaging duties without the approval of the

Failure in taking action to compute losses

(ii) Non-documentation of work done by the Field Officers.

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H.M. Gamini Wijesinghe Auditor General

Sgd./ H.M. GAMINI WIJESINGHF Auditor Genera