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**RUBBER RESEARCH INSTITUTE
OF SRI LANKA**



2023

Annual Report ආண්ත්‍රික් ගැස් බාර්ලික බාර්කාල

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Rubber Research Institute of Sri Lanka

Dartonfield, Agalawatta

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 giving the status 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.



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.

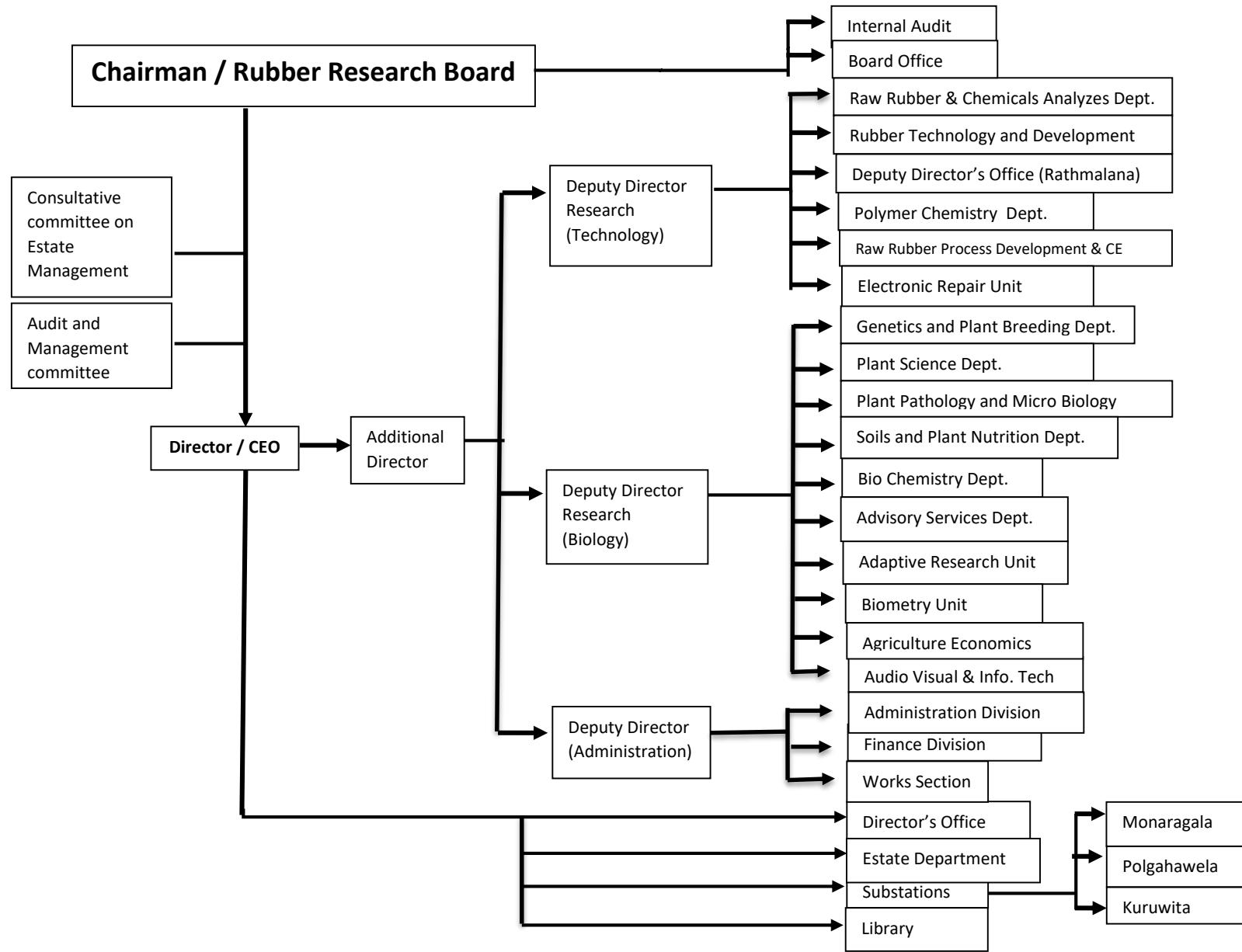
Objectives

- *Increase productivity of rubber to international standards*
- *Increase national production of Natural Rubber (NR) to meet the increasing demand*
- *Optimal and sustainable utilization of land, labour and other resources*
- *Maximize domestic value addition to natural rubber*
- *Improve the organizational effectiveness by encouraging individual competency and self development of RRISL personnel*

Policies

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

ORGANIZATIONAL STRUCTURE



Board of Management, Committees & Staff Members

RUBBER RESEARCH BOARD OF SRI LANKA

BOARD OF MANAGEMENT

Members appointed by the Hon Minister of Plantation Industries

1. Mr Lakshman Abeysekera, Chairman, Rubber Research Board
2. Dr L M K Tillakeratne, Advisor (Rubber), United Nations Organization (up to 30.05.2023)
3. Mr Justin Senevirathne, Director, Lalan Rubbers (Pvt) Ltd
4. Mr Udara Premathilake, Director Plantations (Rubber), Kelani Valley Plantations PLC
5. Mr Prabath Wimal Kumara, Secretary/Director, Sri Lanka Council for Agricultural Research Policy (w.e.f. 16.05.2023)
6. Mr V Lokunarangoda, Chairman, Thurusaviya Fund
7. Mr Prins Gunasekara, Chief Executive Officer, Kegalle/Namunukula Plantations PLC
8. Mr Ajantha Galhena, Additional Director General (Acting), Ministry of Finance
9. Mr C C Muhandiramge, Additional Secretary, Ministry of Plantation Industries
10. Mr Manoj Udugampola, Chief Operating Officer (Rubber)- Pussellawa Plantations Ltd / Agalawatte Plantations PLC (w.e.f. 30.05.2023)

Ex-Officio Members

1. Mr Senaka Alawattegama, Chairman, Planters' Association of Ceylon
2. Mr Madhawa Warnakulasooriya, Director General, Rubber Development Department

In attendance

1. Dr Susantha Siriwardena, Director (Acting), Rubber Research Institute
2. Board Secretary, Ms. Akila Tharinduni, Administrative Officer, (Cover up Duties of the Secretary)

STANDING COMMITTEES

Estates Committee

1. Mr Lakshman Abeysekera, Chairman, Rubber Research Board
2. Dr Susantha Siriwardene, Actg. Director, RRISL
3. Mr Nishsanka Seneviratne, Deputy General Manager, Lalan Rubber Pvt Ltd
4. Mr Jagath Hettiarachchi, Senior Manager, Arrappolakanda Estate
5. Mr Manoj Udugampola, CEO, Pussellawa Plantations

6. Mr P.A.Lukshman, Senior Manager, Dartonfield Estate, RRISL
7. Mr B.S.S.Hewage, Senior Accountant, RRISL

Audit and Management Committee

1. Mr Ajantha Galhena, Additional Director General (Acting), Ministry of Finance
2. Mr Madhawa Warnakulasooriya, Director General, Rubber Development Department
3. Mr C C Muhandiramge, Additional Secretary, Ministry of Agriculture & Plantation Industries
4. Ms W A V D Perera, Audit Superintendent, National Audit Office
5. Mr K A C Shamatha, Chief Internal Auditor, Ministry of Agriculture & Plantation Industries

In attendance

1. Dr Susantha Siriwardena, Acting Director, Rubber Research Institute
2. Mr B S S Hewage, Senior Accountant, Rubber Research Institute
3. Ms M S I Senadheera, Internal Auditor, Rubber Research Board
4. Mr Susantha Dissanayake, Senior Administrative Officer, Rubber Research Institute
5. Ms Akila Tharinduni, Administrative Officer, Rubber Research Board

Scientific Committee

Members of RRISL

1. Mr Lakshman Abeysekara, Chairman, Rubber Research Board
2. Dr S Siriwardena, Actg. Director, RRI
3. Dr (Mrs) D G Edirisinghe, Actg. Additional Director, RRI
4. Dr (Mrs) S P Withanage, Deputy Director Research (Biology), RRI
5. Dr (Mrs) T H P S Fernando, Head, Plant Pathology & Microbiology Dept., RRI
6. Dr (Mrs) E S Munasinghe, Principal Research Officer, Adaptive Research Unit, RRI
7. Dr (Mrs) K V V S Kudaligama, Head, Biochemistry & Physiology Dept., RRI
8. Dr (Mrs) R P Hettiarachchi, Head, Soils & Plant Nutrition Dept., RRI
9. Dr (Mrs) A P Attanayake, Principal Research Officer, Raw Rubber & Chemical Analysis Dept., RRI
10. Dr K K Liyanage, Principal Research Officer, Genetics & Plant Breeding Dept., RRI
11. Dr T U K Silva, Principal Research Officer, Plant Science Dept., RRI
12. Mrs B M D C Balasooriya, Research Officer, Adaptive Research Unit, RRI
13. Dr (Mrs) D S A Nakandala, Senior Research Officer, Plant Science Dept., RRI
14. Dr (Mrs) M K R Silva, Research Officer, Plant Pathology & Microbiology Dept., RRI
15. Mr W D M Sampath, Senior Research Officer, Rubber Technology & Dept., RRI

16. Dr P K K S Gunarathne, Advisory Officer, Advisory Services Dept., RRI
17. Mr J K S Sankalpa, Senior Research Officer, Agricultural Economics Unit, RRI
18. Mr K Adikari, Research Officer, Raw Rubber Processing Development & Chemical Engineering Dept, RRI
19. Mrs. I H K Samarasinghe, Research Officer, Polymer Chemistry Dept., RRI
20. Dr W R N Alles, Senior Research Officer, Polymer Chemistry Dept., RRI
21. Mrs H A Ruwani Jayawardane, Research Officer, Soils & Plant Nutrition Dept., RRI
22. Mrs N P Surani Karunaratne, Research Officer, Biochemistry & Physiology Dept., RRI
23. Mrs P G N Ishani, Research Officer, Agricultural Economics Unit, RRI
24. Mrs Aloka Weerasinghe, Research Officer, Rubber Technology & Dept., RRI
25. Mr Manjula Alwis, Research Officer, Plant Science Dept, RRI
26. Mr Sangeeth Liyanaarachchi, Research Officer, Soils & Plant Nutrition Dept., RRI
27. Mr Dilhan Ratnayake, Research Officer, Biometry Section, RRI
28. Mr PA Lakshaman, Senior Manager (Estate), RRI

Members representing the Industry and other Institutions

1. Mr Nalaka Gunathilake, CEO, Agalawatte Plantations PLC, FLC Tower, No 19, Dudley Senanayake Mw, Colombo 8
2. Mr S Dissanayake, GM, Agalawatte Plantations PLC, Pambegama Estate, Parakaduwa
3. Mr K Fernando, AGM, Agalawatte Plantations PLC, Culloden Estate, Neboda
4. Mr Theekshana Bandara, Superintendent, Agalawatte Plantations PLC, Doloswella Estate, NIVithigala
5. Mr Lalinda Dhananjana, DM, Agalawatte Plantations PLC, Clyde Estate, Tebuwana
6. Mr Dimuthu Wekunagoda, CEO, Balangoda Plantations PLC, P.B.06, Palmgarden, Ratnapura
7. Mr Asitha Thilakaratne, Superintendent, Balangoda Plantations PLC, Palmgarden Estate, Ratnapura
8. Mr D K Wijeratna, Superintendent, Balangoda Plantations PLC, Rambukkande Estate, Ratnapura
9. Mr Indusanka Ramanayake, Superintendent, Balangoda Plantations PLC, Mutwagalla Estate, Kiriella
10. Mr D L D S Kandegama, Superintendent, Balangoda Plantations PLC, Rye/Wikiliya Estate, Balangoda
11. Mr B Bulumulla, CEO, Elpitiya Plantations PLC, Level 09, Aitken Spence Tower 1, Vauxhall Street, Colombo 2
12. Mr A G Geeth Kumara, Senior General Manager, Elpitiya Plantations PLC, Level 09, Aitken Spence Tower 1, Vauxhall Street, Colombo 2
13. Mr B H U Bulugahapitiya, Senior Manager, Elpitiya Plantations PLC, Talgaswella Estate, Talgaswella

14. Mr S G C Hansa, Manager, Elpitiya Plantations PLC, Bentota Estate, Elpitiya
15. Mr R B S Douglas, DGM, Elpitiya Plantations PLC, Ketandola Estate
16. Mr N T Dandeniya, Superintendent, Elpitiya Plantations PLC, Elpitiya Estate, Elpitiya
17. Mr K S Gunawatte, Senior Manager, Elpitiya Plantations PLC, Lelwala Estate, Wadurambe
18. Mr Pramoth Bandara, Manager, Elpitiya Plantations PLC, Gulugahakande Estate,
19. Mr Rohana Wijekon, DGM, Kegalle Plantations PLC, 310 High Level Rd, Navinna, Maharagama
20. Mr P de S A Gunasekara, CEO, Kegalle Plantations PLC, 310 High Level Rd, Navinna, Maharagama
21. Mr Saman Doranegama, GM, Kegalle Plantations PLC, 310 High Level Rd, Navinna, Maharagama
22. Mr S A A P Jayathilake, Superintendent, Kegalle Plantations PLC, Pallegama Estate, Niyadurupola
23. Mr B P S M Cooray, Superintendent, Kegalle Plantations PLC
24. Mr S D Munasinghe, Superintendent, Kegalle Plantations PLC, Eadella Estate, Polgahawela
25. Mr B M J A Moonamalle, Superintendent, Kegalle Plantations PLC, Atale Estate, Atale
26. Mr Roshan Waidyakularatne, Superintendent, Kegalle Plantations PLC, Hathbewa Estate, Rambukkana
27. Mr M W Liyanasekara, Superintendent, Kegalle Plantations PLC, Parambe Estate, Undugoda
28. Mr Danushka Madiwaka. Superintendent, Kegalla Plantations PLC, Udapola Estate, Polgahawela
29. Mr Anusha Perera, CEO, Hapugastennda Plantations PLC, No 95A, NAmbapana, Ingiriya
30. Mr Ranil Kapugekiyana, DO, Hapugastenna Plantations PLC,
31. Mr Priya Gunawardena, DO, Hapugastenna Plantations PLC,
32. Mr B M Priris, Superintendent, Hapugastenna Plantations PLC, Bibile Estate, Bibile
33. Mr Kasun Abeywickrama, Senior Superintendent, Hapugastenna Plantations PLC, Lellopitiya Estate
34. Mr Johann Rodrigo, CEO, Horan Plantations PLC, No 400, Deans Rd, Colombo 10
35. Mr Buddika Weerakon, Director – Plantations – Rubber, Horana Plantations PLC, No 400, Deans Rd, Colombo 10
36. Mr Pushpika Samarakoon, GM – Corporate Affairs, Horana Plantations PLC, No 400, Deans Rd, Colombo 10
37. Mr Mr Sajith Gunawardane, Senior Manager, Horana Plantations PLC, Frocester Estate, Govinna

38. Mr Lakmal Kandegama, Senior Manager, Horana Plantations PLC, Neuchatel Estate
39. Mr Chathura Kumarasinghe, Deputy Manager, Horana Plantations PLC, Halwatura Estate
40. Mr Gayala Perera, Senior Manager, Horana Plantations PLC, Mirishena Estate
41. Mr Dan Seewaratnem, CEO, Kahawatte Plantations PLC, No 111, Negombo Rd, Peliyagoda
42. Mr Aruna Gunasekar, Director, Kahawatte Plantations PLC, No 111, Negombo Rd, Peliyagoda
43. Mr Tony Bertus, RGM, Kahawatte Plantations PLC, No 111, Negombo Rd, Peliyagoda
44. Mr Indika Prabath, DGM, Kahawatte Plantations PLC, No 111, Negombo Rd, Peliyagoda
45. Mr D Jayakody, Manager M & P, Kahawatte Plantations PLC, No 111, Negombo Rd, Peliyagoda
46. Mr C Amaratunga, RGM, Kahawatta Plantations PLC, Regional Office, Pelmadulla Estate, Kahgawatta
47. Mr T V Jayasekara, Agronomist, DGM Office, Kahawatta Plantations PLC, Godellawatte, Sannasgama, Lellopitiya
48. Mr Jeewantha Senaratne, Senior Manager, Kahawatta Plantations PLC, Rilhena Estate, Pelmadulla
49. Mr Indrajith Rukmal, Manager, Kahawatta Plantations PLC, Akarella Estate, Openayake
50. Mr Suneth Hewagama, Senior Manager, Kahawatte Plantations PLC, Poranuwa Estate, Kahawatte
51. Mr Sunil Poholoyadda, Director – Low Country, Kotagala Plantations PLC, Sri Baron Jathilake Mw, Colombo 01
52. Mr Udara Premathilaka, CEO, Kotagala Plantations PLC, Regional Office, Colombo 01
53. Mr J N Hettiarachchi, Senior Manager, Kotagala Plantations PLC, Arapolakande Estate, Tebuwana
54. Mr Gayan Horadagoda, Manager, Kotagala Plantations PLC, Raigam Estate, Ingiriya
55. Mr Deeshan Perera, Senior Manager, Kotagala Plantations PLC, Uskvalley Estate, Lathpandura
56. Mr R Thennakoon, Senior Manager, Kotagala Plantations PLC, Delkith Estate, Baduraliya
57. Mr Samantha Abeywardena, Manager, Kotagala Plantations PLC, Padukka Estate, Padukka
58. Mr N Wijeratne, Manager, Kotagala Plantations PLC, Eduragala Estate, Ingiriya
59. Mr Roshan Obeysekara, Manager, Kotagala Plantations PLC, Vogan Estate, Matugama

60. Mr Anura Weerakoon, CEO, Kelanivalley Plantations PLC, No 400, Deans Rd, Colombo 10
61. Mr Ranil Fenado, GM-Rubber Marketing & Ad; Kelani Valley Plantations PLC, No 400, Deans Rd, Colombo 10
62. Mr Eranda Welikala, RGM, Kelanivalley Plantations PLC, Panawatte Estate, Yatiyantota
63. Mr S F Fernando, RGM, Kelanivalley Plantations PLC, Kiriporuwa Estate,
64. Mr R M U S Jayasundara, Manager, Kelanivalley Plantations PLC, Urumillewa Estate, Bulathkohupitiya
65. Mr D Samarasinghe, Senior Manager, Kelanivalley Plantations PLC, Edarapola Estate.
66. Mr P de S A Gunasekara, CEO, Namunukula Plantations PLC, No 310, High Level Rd, Nawinna, Maharagama
67. Mr J B Weerasekara, Superintendent, Namunukula Plantations PLC, Pallegoda Estate, Darga Town
68. Mr R Ranasinghe, Superintendent, Namunukula Plantations PLC, Eladuwa Estate, Matugama
69. Mr Kushan Karunathilake, Superintendent, Namunukula plantations PLC, Citrus Estate, Poddala
70. Mr N Kalugalle, Superintendent, Namunukula Plantations PLC, Miriswatte Estate, Welipenna
71. Mr P P A Peris, General Manager, Lalan Rubbers (Pvt) Ltd, No 54, Kirulapana Avenue, Colombo 06
72. Mr W W H P Fernando, Group Senior Manager, Lalan Rubbers (Pvt) Ltd, Udabage group, Deraniyagala
73. Mr C V Dias, Group Senior Manager, Lalan Rubbers (Pvt) Ltd, Miyanawita Estate.
74. Mr A Kuruppu, Actg. Senior Manager, Lalan Rubbers (Pvt) Ltd, Sapumalkande Group, Deraniyagala
75. Mr Tharindu Wickramasinghe, CEO, Maturata Plantations PLC, Colombo
76. Mr Buddhika Madagama, Maturata Plantations, PLC, Andapana Estate, Kamburupitiya
77. Mr L M A C Bandara, Superintendent, Maturata Plantations PLC, Wilpita estate, Akurella
78. Mr M H P Gunarathna, Superintendent, Maturata Plantations Ltd, Diddenipota Estate, Matara
79. Mr Manoj Udugampola, Chief Operating Officer, Pussellawa Plantations PLC, Level 11, FLC Tower, No 19, Dudley Senanayake Mw, Colombo 8
80. Mr Waruna Gunaratne, Superintendent, Pussellawa Plantations PLC, Durampitiya Estate, Gatahetta
81. Mr Prasan Konara, Superintendent, Pussellawa Plantations PLC, Halpe Estate, Tummodara
82. Mr Shanaka Rupasinghe, Superintendent, Pussellawa Plantations PLC, Penrith Estate, Awissawella

83. Mr Anusha Weerakon, Superintendent, Pussellawa Plantations PLC, Elston Estate, Puwakpitiya
84. Mr Upul Siyambalagoda, DM, Pussellawa Plantations PLC, Elston Estate, Puwakpitiya
85. Mr L M Amarathunga Superintendent, Pussellawa Plantations PLC, Salawa Estate, Hanwella
86. Mr Chaminda Jayalath, Asst. General Manager, Pussellawa Plantations PLC, Aye Estae, Padukka
87. Mr Chrishan Hettiarachchi, Superintendent, Pussellawa Plantations PLC, Siriniwasa Estate, Waga
88. Mr Binesh Pananwala, CEO, Watawala Plantations PLC, No 754/5, Kandy Rd, Wedamulla, Kelaniya
89. Mr Sudeera Mananayake, Manager, Watawala Plantations PLC, Thalangaha Estate, Nakiyadeniya
90. Mr Nilantha Seneviratne, Manger, Watawala Plantations PLC, Nakiyadeniya Estate,
91. Mr Dimantha Samarasinghe, Senior Manager, Watawal Plantations PLC, Hemadola Estate, Udugama
92. Mr M I Gourdian, Executive Director – Admin & Rubber Estate, Malwatte Valley Plantations PLC No 280, Dam Street, Colombo 12
93. Mr R M V Ratnayaka, Group Manager, Malwatte Valley Plantations PLC, Group Manager, Malwatte Valley Plantations PLC, Moralioya Estate, Ruwanwella
94. Mr Gaya Nakandala, Consultant, 375/26, Ratnarama Rd, 4th Lane, Hokandara North
95. Mr S Seneviratne, Consultant, Seneviratne Group, D.J. Wijesiriwardana Mawatha, Mt. Lavinia
96. Mr N M Amaraekara, Consultant, 37/9, Terrence Av, Mt. Lavinia
97. Mr Jayantha P Muthutantri, Consultant, No.4/4, Nelum Mw, Sirimal Uyana, Mt. Lavinia

Provident Fund Committee

01. Mr Lakshman Abeysekara, Chairman, Rubber Research Board
02. Dr Susantha Siriwardena, Acting Director, RRI, Member (w.e.f 01.01.2023)
03. Mr D M S Dissanayake, Senior Administrative Officer, Secretary
04. Mr B S S Hewage, Senior Accountant , Treasure
05. Dr (Mrs) K V V S Kudaligama, Head of Biochemistry Department, Elected Committee Member
06. Dr P K K S Gunarathna, Advisory Officer, Elected Committee Member
07. Mr J A S Chandrasiri, Rubber Extension Officer, Elected Committee Member

Chairman's Office & Board Secretariat

Chairman	-	Mr Lakshman Abeysekera
PA to Chairman	-	Ms Akila Tharinduni, Administrative Officer (Cover up Duties of the PA to Chairman)
Management Assistant	-	Ms S M D S R D A Wijerathne

Lawyers

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

Bankers

Bank of Ceylon
Corporate Branch
75, Janadhipathi Mawatha
Colombo 1

Auditors

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

Bank of Ceylon

No.306/72,
Agalawatta

Contact details:

Head Office and Laboratories

Dartonfield, Agalawatta

Telephones:

Director	034 - 2248457
Additional Director	034 - 2248458
Deputy Director Research (Biology)	034 - 3346118
General	034 - 2247426
	034 - 2247383
	034 - 3349999
	034 - 2248459

Fax:

e-mail

Website

034 - 2247427

dirrri@slt.net.lk

www.rriisl.lk

Board Office and Rubber Chemistry & Technology Laboratories

Telewela Road, Ratmalana

Telephones:

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

Fax	011 - 2605171
Director	011 - 2633351
Fax	011 - 2633351
Deputy Director Research (Technology)	011 - 2633352
General	011 - 2635851
	011 - 2635852
Fax:	011 - 2605171
<i>e-mail</i>	<u>dirrub@slt.net.lk</u> , <u>rubberresearch@gmail.com</u>

Sub stations

Nivitigalakele - Substation, Matugama
 Genetics and Plant Breeding Department
 Telephone: 034 - 2247368, 034 - 2247199
 e-mail: rriigpb@slt.net.lk

Kuruwita - Substation, Ratnapura
 Telephone: 045 - 2262115, 045 – 3460537

Polgahawela - Substation, Polgahawela
 Telephone: 037 - 3378191

Monaragala - Substation, Monaragala
 Telephone: 055 - 3600707

Website: www.rriisl.gov.lk

RUBBER RESEARCH INSTITUTE OF SRI LANKA
STAFF LIST

DIRECTORATE

<i>Director</i>	Vacant
<i>Additional Director</i>	Vacant
<i>Deputy Director (Biology)</i>	Vacant
<i>Acting Director/ Deputy Director Research (Tech.)</i>	S Siriwardena, BSc (SL), MSc (Australia), PhD (Malaysia)
<i>Acting Additional Director</i>	Mrs D G Edirisinghe, BSc (SL), MSc (SL), MPhil (UK), PhD (SL)
<i>Acting Deputy Director Research (Biology)</i>	Mrs S P Withanage, BSc Agric. (SL), MSc (India), PhD (Malaysia)

RESEARCH DEPARTMENTS

Agronomy Departments

Genetics & Plant Breeding	<i>(at Nivithigalakele Substation, Matugama)</i>
<i>Head of Department</i>	Mrs S P Withanage, BSc Agric. (SL), MSc (India), PhD (Malaysia)
<i>Principal Research Officer</i>	K K Liyanage, BSc Agri. MPhil (SL), PhD (China)
<i>Experimental Officers</i>	T M S K Gunasekera H P Peiris, Dip. Agric. (Kundasale) Mrs A K Gamage, BSc (SL)
<i>Technical Officers</i>	B W A N Baddewithana, BSc Agric. (SL), MPhil (SL)
<i>(Research & Development)</i>	Mrs N S Jayasinghe, BSc (SL)
<i>Management Assistant (Clerical)</i>	Mrs S D P K L Peiris

Plant Science

<i>Senior Research Officers</i>	<i>(at Dartonfield, Agalawatta)</i>
	T U K Silava, BSc Agric. (SL), MPhil (SL), PhD (SL)
	Mrs D S A Nakandala, BSc Agric. (SL), PhD (SL)
<i>Research Officer</i>	W D M N de Alwis, BSc (SL)
<i>Experimental Officers</i>	D L N de Zoysa P D Pathirana, BSc (SL) P K W Karunathilaka, Dip. Agric. (Rathnapura)

<i>Technical Officers</i>	R Handapangoda, BSc Agric. (SL) (up to 31.05.2023)
<i>(Research & Development)</i>	Mrs U Dissanayake, HNDT, BSc (SL), MSc (SL) Miss H M Subasinghe, BSc (SL) R P D Priyadarshana, BSc (SL) Mrs U N Udayakumari, BSc (SL) Miss W M D Wickremakumari, BSc Agric. (SL)
Plant Pathology and Microbiology	<i>(at Dartonfield, Agalawatta)</i>
<i>Head of Department</i>	Mrs T H P S Fernando, BSc (SL), MPhil (SL), PhD (SL)
<i>Research Officer</i>	Mrs M K R Silva, BSc Agric. (SL), MSc (SL), PhD (SL)
<i>Experimental Officers</i>	Mrs E A D D Siriwardena, BSc (SL) S C P Wijerathne, NDT Agric. (Hardy) E A D N Nishantha, Dip. Agric. (Rathnapura), BIS Agric. (SL), M.AETM (SL) Mrs A H M N R Abeyrathne, BSc (SL), MSc (SL) D A N Mallikaarchchi, BSc (SL) Mrs K A D Y Madushani Lanka, Dip. in (Comp.)
Soils and Plant Nutrition	<i>(at Dartonfield, Agalawatta)</i>
<i>Head of Department</i>	Mrs R P Hettiarachchi, BSc (SL), MPhil (SL), PhD (SL) (up to 08.12.2023)
<i>Research Officers</i>	Mrs H A R K Jayawardena, BSc Agric. (SL), MPhil (SL) L A T S Liyanaarchchi, BSc (SL) Miss V U Edirimanne, BSc (SL) Miss A P Thewarapperuma P D T C Gunathilaka, NDT Agric.
<i>Experimental Officers</i>	Mrs Eranga de Silva, NDT G C Malawaraarchchi, HNDT (Hardy) Mrs M Kulathunga, BSc (SL) (up to 03.09.2023) Mrs R M Baddevidana, BSc (SL) H W Gayan, BSc (SL) B M K Rangana, BSc (SL)
Biochemistry and Physiology	<i>(at Dartonfield, Agalawatta)</i>
<i>Head of Department</i>	Mrs K V V S Kudaligama, BSc (SL), MPhil (SL), PhD (SL)

Research Officer	Mrs N P S N Karunaratne, BSc (SL)
Experimental Officers	M K Perera, BSc (SL)
Technical Officers	Mrs P D T L Madushani, Diploma in Agric.
(Research & Development)	Miss N N Abeywardena, BSc (SL)
Management Assistant	L T B K Fernando, BSc (SL)
	Mrs H A Manojoji Erandika
Advisory Services	<i>(at Telewela Road, Ratmalana)</i>
<i>Advisory Officer</i>	P K K S Gunaratne, BSc Agric. (SL)
<i>Assistant Training Officer</i>	Mrs K G P Manahari, BSc (SL)
<i>Rubber Extension Officers</i>	D E P M Nananyakkara, Diploma in Agric. (Aquinus)
	(up to 01.06.2023)
	Nihal Gamage, Diploma in Agric. (Angunakolapelessa)
	(up to 28.04.2023)
	J A S Chandrasiri
	S M A Samarakoon, Diploma in Agric. (Kundasale)
	W P G D C P K Senanayake, NDT Agric. (Hardy)
	H G M B Jaysinghe, BSc (SL)
	K D K L Siriwardena, BSc (SL)
	Mrs K K I Jayasundena, BSc (SL) (up to 27.08.2023)
	Mrs G R Tennakoon, BSc (SL)
	D S Dissanayake, BSc (SL)
	P V S Madubashana, BSc (SL)
	M N P de Silva, BSc (SL)
	E W S Ruwan Kumara, BSc (SL)
<i>Management Assistant</i>	R G A S Dharmaratne
	K D P Senaratne
	Mrs P Sachini Ishara

Technology Departments

Rubber Technology and Development	<i>(at Telewela Road, Ratmalana)</i>
<i>Head of Department</i>	Mrs D G Edirisinghe, BSc (SL), MPhil (UK), PhD (SL)
<i>Senior Research Officer</i>	W D M Sampath, BSc (SL), Mphil (SL)
<i>Research Officer</i>	Mrs U A Weerasinghe, BSc (SL)

<i>Experimental Officer</i>	Mrs G M Priyanthi Perera, BSc (SL), MSc (SL) (up to 01.06.2023)
<i>Technical Officers</i> <i>(Research & Development)</i>	V G M J Abeywardena, NDT Mrs S G P Bhagayawedha, NDT Mrs P K I L Jayawardena, BSc (SL) Miss A H D M N Gunawardena, BSc (SL) Mrs E N N Nanayakkara, BSc (SL) (up to 02.10.2023) K N D Tillekeratne, BSc (SL)
 <i>Polymer Chemistry</i>	
<i>Senior Research Officers</i>	<i>(at Telewela Road, Ratmalana)</i> W P N Alles, Graduate Chamist, MSc (SL), MSc (UK), PhD (NZ) (up to 01.12.2023)
<i>Research Officers</i>	Mrs I H K Samarasinghe, BSc Agric. Y R Somaratne, BSc (SL), MSc (SL) (up to 10.04.2023)
<i>Experimental Officers</i>	Mrs N Jayawardana, Dip. Agric. (Bibile)
<i>Technical Officers</i>	Mrs H M H Danukamalee, BSc (SL)
<i>(Research & Development)</i>	Mrs S V Rupasinghe, BSc (SL) D V D Mallikarachchi, BSc (SL) Mrs H L T Tharaka, BSc (SL)
<i>Management Assistant</i>	Mr N W E C Madhuranga (up to 13.03.2023)

<i>Raw Rubber and Chemical Analysis</i>	<i>(at Telewela Road, Ratmalana)</i>
<i>Senior Research Officers</i>	Mrs A P Attanayake, BSc (SL), PhD (SL)
<i>Research Officer</i>	A M K S P Adikari, BSc (SL), MPhil (SL)
<i>Experimental Officer</i>	Mrs C S Lokuge
<i>Technical Officers</i>	Mrs M U D S Weerasinghe, BSc (SL)
<i>(Research & Development)</i>	H D M S Wijewardena, BSc (SL) K A S T Koswatte, BSc (SL)
 <i>Raw Rubber process Development and Chemical Engineering</i>	<i>(at Telewela Road, Ratmalana)</i>
<i>Experimental Officers</i>	Mrs U M S Priyanka, BSc (SL), MSc (SL) Mrs V C Rohanadeepa A K D W Prasad
<i>Technical Officers</i>	R D Illeperuma, BSc (SL) Miss P K N N Sadamali, BSc (SL)
<i>(Research & Development)</i>	W A S Bandara, BSc (SL) (up to 05.01.2023)

Management Assistant

Mrs H A Janani Lakshika, BSc (SL)
Mrs P D S Dilhani (up to 27.01.2023)

Section/Units

Biometry Section

Research Officer
Experimental Officer
Management Assistant (Clerical)

(at Dartonfield, Agalawatta)

A M R W S D Rathnayake, BSc (SL)
O V Abeywardena, Dip. in Agric. (Kundasale)
Mrs S N Munasinghe (up to 03.03.2023)

Adaptive Research Unit

Principal Research Officer
Research Officer
Technical Officers
(Research & Development)
Management Assistant (Clerical)

(at Dartonfield, Agalawatta)

Mrs E S Munasinghe, BSc Agric. (SL) PhD (SL)
Mrs B M D C Balasooriya, BSc Agric. (SL)
P M M Jayathilake, NDT (Agric.)
Mrs N M Piyasena, Dip. in Agric. (Kundasale)
Mrs M A Randima Srimali

Agricultural Economics Unit

Senior Research Officer
Research Officer

(at Dartonfield, Agalawatta)

J K S Sankalpa, BSc (SL), MSc (SL), M.Econ. (SL)
Mrs P G N Ishani, BSc Agric.

Library and Publications Unit

Librarian
Library Assistant & Assistant
Publication Officer
Experimental Officer
Library Assistant & Publication Assistant

(at Dartonfield, Agalawatta)

Mrs N C D Wijesekera, BA (SL), MSSc (SL)
Mrs R M Amaratunga, Intermediate; Lib. Sci. Doc. & Info. (SLLA) (up to 23.08.2023)
Mrs D M S Wijesekera, Dip.Rubber Tech. (PRI)
Mrs D N C Amaratunga (up to 10.04.2023)

Audio Visual and Information Technology Unit

Network Administrative

(at Dartonfield Agalawatta)

S R D P C Peiris, BSc (SL)

Administration Department

Senior Administrative Officer
Management Assistant (Clerical)

(Agalawatte)

D M S Dissanayake, BSc (Mgt.) (SL), MHRM (SL)
Mrs J A D Wijayanthi
Mrs B D Niranjala
Mrs O W D Namali Udayanthi
Mrs P C Athukorala
Mrs Thamosha Munasinghe

<i>Telephone Operator</i>	Mrs O W D Nilusha Udayanthi Mrs M N D Perera, Dip. in (HRM), Advanced Dip. in (CA & SP) Mrs B Chandralatha, BA (SL) Mrs M G L Niroshani, BA (SL) Mrs J A D C Preethika
Administration Unit <i>Administrative Officer</i>	<i>(Rathmalana</i> Mrs U K Akila Tharinduni, BSc (SL), PQHRM, MBM A T Senaratne Mrs A R M de Alwis
<i>Management Assistant (Clerical)</i>	
Internal Audit <i>Internal Auditor</i>	<i>(at Dartonfield, Agalawatta)</i> Mrs M S I Seenadeera, IFA, IPFA, IRCA, EPFA, PGDM A M W K Tillekeratne
<i>Management Assistant (Clerical)</i>	
Work Section <i>Resident Engineer</i>	<i>(at Dartonfield, Agalawatta)</i> K A D K Chathuranga, BSc (Eng.) Hons, CEng. MIE (SL)AMSSE (SL), GREEN ^{SL} AP Mrs W D D Prasadini, NDES
<i>Engineering Assistant</i>	M A D K Jayasumana, NCT (up to 31.03.2023)
<i>Technological Officer (Civil)</i>	U L D R LGunasinghe
<i>Transport Officer</i>	H J P Fernando, HNDE
<i>Technological Officer (Mech.)</i>	Mrs J A S Dharshani, (Dip. in Management) (up to 21.08.2023)
<i>Management Assistant (Clerical)</i>	Mrs K K D K P Ranaweera Mrs M H W H Kumari, BSc (SL)
Accounts Section <i>Senior Accountant</i>	<i>(at Dartonfield, Agalawatta)</i> B S S Hewage, CPFA (UK), CBA, APFA
<i>Accountant</i>	D S R M P Gunawardena, MBA (USJ), BSc (FM), FPFA, CBA, MAAT (from 01.12.2023)
<i>Management Assistant</i>	Mrs G P Kukulewitthana
<i>(Accounting)</i>	Mrs C Dissanayake (up to 14.02.2023)
<i>Management Assistant (Clerical)</i>	Mrs S I K Pathirage Mrs S A Niluka Harshani Mrs K K D Y L Ranaweera Miss K K T L Jayasekera J A J R Lakmal, B.com. (SL) Mrs R P Thilini

	K A Dilan Sampath Mrs Erandi Kanchana Jayasinghe, BA (SL) (up to 01.02.2023)
Cashier	Mrs S R Sinhabahu G N K Gunasena Mrs K D Piyumi Hasara Mrs G A D D Jayawardena
Kuruwita Sub-station Management Assistant (Clerical) Field Officer	<i>at Kuruwita</i> D S Jayasinghe D D A Jayathunga (up to 25.11.2023)
Polgahawela Sub-station Research Officer Management Assistant (Clerical)	(<i>at Narampola Estate, Nungamuwa, Yatigaloluwa</i>) Mrs B M D C Balasooriya, BSc (SL) D P N P Dissanayake
Monaragala Sub-station Field Officers Management Assistant (Clerical)	(<i>at Kumbukkana, Moneragala</i>) V G G Nishantha Gunaseela N V U S Vijitha Kumara Mrs D M P Sadun Kumari M M Chamath Kumara *
Dartonfield Group Senior Manager – Estate Management Assistant (Clerical)	P A Luckshman, BSc (SL) H D D Achinda M A N Sachith Pawinda T D Harsha B M Siriwardena
Field Officer	

Chairman's Report

Rubber Research Institute of Sri Lanka

1. Introduction

It is with deep responsibility and foresight that I present the Chairman's Report for the year 2023. The year marked a critical turning point for the rubber sector in Sri Lanka, as the industry faced systemic and structural challenges threatening its sustainability, productivity, and global competitiveness.

Having assumed duties on November 15, 2022, I have had the privilege of working closely with the Board of Directors of the Rubber Research Board (RRB), the Rubber Research Institute (RRI), the Rubber Development Department (RDD), Ministry of Plantation Industries and stakeholders in the Private Sector to evaluate the current situation, develop actionable insights, and recommend strategic interventions for the revitalization of Sri Lanka's rubber sector.

2. Industry Overview and Key Challenges

The natural rubber (NR) industry in Sri Lanka continues to face severe setbacks, driven by multiple interrelated factors:

2.1 Decline in Natural Rubber Production

Production has plummeted from 158,000 MT in 2010 to approximately 62,000 MT in 2023.

Yield per hectare remains at 50% of that in leading rubber-producing countries. Key contributing factors include outdated agronomy practices, poor adoption of RRI recommendations, reduced land extent, challenges in attracting and retaining Human Capital and increasing vulnerability to climate change.

2.2 Low Rate of Adaptation of RRI Recommendations

Despite extensive R&D by the RRI, stakeholder adoption of improved clones, GAPs, and technological advances remains alarmingly low. This has resulted in persistent underperformance in plantation productivity and profitability.

2.3 Human Resource Crisis

The retirement of senior scientists has critically weakened the RRI's ability to drive essential research, including clone development and soil fertility improvements. A lack of succession planning, coupled with limited training

opportunities and unfilled vacancies, has led to a significant loss of institutional experience and operational continuity. Traditional organization model that engage Senior Scientists with Administration and operational work hinders most important Human Resource investments in Research Activities.

2.4 Structural and Governance Gaps

Absence of leadership in key institutions: Director of RRI and Senior Scientists positions remain vacant. Institutional inefficiencies, weak policy enforcement, and outdated management structures undermine reform efforts. The stagnation in exports of rubber products (hovering around USD 1.0 billion annually) indicates underutilized capacity and market potential.

2.5 Disease Threats

The Circular Leaf Spot Disease (CLSD) has severely affected yields since 2018, worsening production decline.

3. Board-Level Strategic Interventions

In response to these challenges, the Rubber Research Board has prioritized the following strategic actions during 2023.

3.1 National Rubber Development Plan (2024–2030)

A call for a comprehensive, climate-sensitive development plan, integrating the existing Rubber Master Plan, Plantation Sector Modernization Policy, and international sustainability mandates. RRI was tasked with submitting a unified strategic plan for 2024–2026 by February 2024.

3.2 Competent Authority Appointment

Immediate recommendation to appoint a “Competent Authority” to unify RRI and RDD under central leadership, with complete responsibility for 3 to 5 year Strategic Plan execution and reporting to the Ministry Secretary. A transitional strategy to amalgamate both institutions is proposed.

3.3 Human Resource Strengthening

Immediate filling of expert-level vacancies by restructuring the Organizational Chart with appropriate budget allocations. Development of a “pooled resource mechanism” across all institutes under the Ministry of Plantation Industries. Establishment of a specialized “training and development program” for future scientists and technologists.

3.4 Green and Development Funding

Formation of a “Rubber Sector Growth Funding Group” to mobilize foreign and domestic funding (e.g., EUDF, Green Funds, carbon credit schemes). The carbon credit eligibility of non-forest plantation expansion presents a significant, untapped revenue stream.

4. Organizational Reform and Industry Partnerships

4.1 Institutional Restructuring

To enhance the efficiency and effectiveness of the Rubber Research Institute (RRI), two expert committees have been appointed to lead a comprehensive institutional restructuring process:

Prof. Gamini Senanayake Committee – Tasked with reviewing and reforming the overall organizational structure of RRI.

Dr. J.D. Hemantha Wijewardena Committee – Assigned to realign and optimize the Research and Development (R&D) departments.

These committees are expected to provide strategic recommendations to ensure that RRI’s institutional framework is streamlined, appropriately staffed, and better positioned to meet its research and development objectives.4.2 Public–Private Partnerships (PPP).

Proposed joint management of 492 Ha of RRI-managed estates and the Crepe Rubber Factory with selected Private sector operator, ensuring continued research autonomy with reinvested profits.

Partnership with the “National Institute of Plantation Management (NIPM)” to manage the RRI Training Center.

4.2 Rebranding and Market Strategy

Launch of a “branding strategy” to position Sri Lanka as the “Hub of Rubber R&D and High Value-Added Product Exports.” Proposed to link RRI Technology Division in Rathmalana to Ministry of Industries and to work closely with BOI, EDB, PRISL, SLAMERP, and SMEs to drive exports to “USD 3 billion annually”.

4.3 Collaborative Research Initiatives

Strengthened ties with the “International Rubber Research and Development Board (IRRDB)” to lead global research by rubber growing countries and Sri Lanka to specialize few areas in clone development and sustainability related Research. This would lead to specialization by countries, and usage of limited resources by eliminating duplications.

Research outsourcing to local universities and collaborations with international organizations such as “Cirad, France”.

5. Governance and Policy Recommendations

To ensure long-term institutional integrity and stakeholder confidence:

Institutional continuity must be protected through policy-based appointments rather than political reshuffles. A clear framework for “performance evaluation and accountability” should be institutionalized across RRI and RDD. Ministry-level performance monitoring through “Key Performance Indicators (KPIs)” is recommended to justify public investments.

6. Way Forward

The natural rubber industry in Sri Lanka is at a decisive juncture. While the challenges are multifaceted and entrenched, the solutions are well within reach—provided we act decisively, strategically, and collaboratively. The proposed actions outlined in this report, if supported and implemented with urgency, can revitalize the sector, increase exports, secure livelihoods, and reposition Sri Lanka as a competitive player in the global rubber economy.

We respectfully seek “ministerial leadership and support” to:

1. Endorse and drive the “National Rubber Development Plan (2024–2030)”.
2. Appoint a “Competent Authority “to implement reforms.
3. Mobilize resources and policy support to address the human capital crisis.
4. Champion governance reforms to ensure “institutional sustainability and accountability”.

7. Interim Proposal and Corporate Governance

As an interim measure, I propose to de-bundle non-scientific activities of the RRI and establish a “SMART & Lean Organization” that focuses exclusively on natural rubber plantation development research, operating within the limits of available resources and guided by a reallocated 2025 budget.

The RRI (Technology Division) in Rathmalana should be more integrated with the Ministry of Industries and work closely with BOI, EDB, Industrial Development Board, PRISL, SLAMERP, SMEs, and related stakeholders to drive exports to USD 3 billion.

We also propose public–private partnership management of the 492 hectares of estates and the Crepe Rubber Factory, retaining research autonomy while committing to reinvest a portion of the profits into future research.

Finally, to ensure Good Corporate Governance, I strongly advocate for a review of the practice of replacing Chairpersons and Board Members with changes in ministerial leadership. A transparent, policy-driven appointment process is essential for the sustainability of state institutions and accountability to taxpayers.

Mr. Lakshman Abeysekara
Chairman

Director's Report

Rubber Research Institute of Sri Lanka

This report, at the outset, presents an overview of the local and international rubber industry in the year 2023. It is followed by a summary of key research and development activities carried out by the institute to address the existing major issues in the rubber industry. The research activities carried out by each department and unit are briefed next. The performance of administrative and financial functions of the institute is also included in this report. Finally, the key obstacles being faced in carrying out R & D activities are also addressed.

Rubber Industry of Sri Lanka

Rubber production and consumption

Sri Lanka's rubber production in 2023 recorded 65,300 MT, falling short of the preceding year's production by 6,000 MT or 6%. In the above official figures, published by the Rubber Development Department, the quantity of Technically Specified Rubber (TSR) has not been disclosed, though there were 10 registered TSR manufacturers in the country. However, it was a challenging year for the local rubber industry where extremely high rainfall was registered in major rubber growing areas, reporting an over 3,000 to 5,000mm rainfall dramatically reducing the number of tapping days.

A part from the adverse rainfall, continued spread of the leaf disease known by the name *Pestalotiopsis* or Circular Leaf Spot Disease, particularly in these wet areas, contributed to a yield decrease of an estimated figure of about 10%. The above two factors suggest establishing new rubber plantations in non-traditional areas, where more dry weather conditions prevail to ensure economically viable natural rubber plantations. In addition, a sample survey carried out on the estimation of untapped lands in tappable lands revealed that approximately 10% of the tappable trees are not tapped daily due to a variety of reasons, and of them, high rainfall, tapper shortage, and unattractive rubber prices being the main causes.

A decline in the total rubber consumption in 2023 was shown amounting to 91,866 MT which includes 37,295 MT of imported NR. Approximately a 16% reduction in the NR demand for local rubber product manufacture has been reported.

NR exports and imports

As it has been done in the previous years, Sri Lanka exported NR in two forms, namely Crepe rubber and RSS. RSS and Crepe rubber contributed to 15% and 74% of the total exports respectively, while the balance was miscellaneous types, such as TSR and compounded rubber. The total exports of NR from the country were recorded as 12,672 tons in 2023 against 15,138 tons of NR exports made in 2022 indicating a decline in exports.

Sri Lanka imported around 37,295 tons of NR in 2023, mainly in the forms of TSR (20%), RSS (51%), centrifuged NR latex & other latex (29%) and compounded rubber (0.3%). This shows a 42% decrease in imports in 2023 compared with the figure for the year 2022.

Rubber extent

The Rubber Development Department has revised the rubber extent in the country and it is 98,583 ha. According to their new statistics, the total mature and immature extents of the country are 84,998 ha and 13,585 ha, respectively. Of the total rubber extent, nearly 68% of rubber lands are occupied by the smallholder sector while the rest of the area is managed by large plantation companies and, just 1% is managed by the Government-owned agency, namely Janatha Estate Development Board. The Rubber smallholders continued to be dominant amongst producers by contributing over 67% of total national production. The country's average yield has also been adjusted in line with the revised rubber land extent showing a higher average productivity value of 838 kg per ha/year.

NR prices

Sri Lanka enjoyed a fairly reasonable price for both RSS and Crepe rubber during the second half of the year 2023. The average price of RSS category 3 was US \$ 2.45 per kg in December 2023, while it was as low as US \$ 1.5 per kg at the beginning of the year. The price of Latex Crepe rubber went up to US \$ 2.78 per kg during December 2023 which was as low as US \$ 1.70 at the beginning of the same year.

Export earnings from raw rubber and rubber products

The export earnings from raw rubber in 2023 totaled Rs.9.28 billion as against Rs.12.7 billion in the previous year. This is a decrease of Rs.3.42 billion or 26% compared with the previous year. As in the previous years, RSS and Crepe rubber were the two major types of Natural Rubber exported. Sri Lanka remains a key producer of superior-quality Crepe rubber in the global rubber market. Exports of 4,353 MT of Crepe rubber and 6,778 MT of RSS rubber earned

Rs.2.2 billion and Rs.6.1 billion, respectively. The export earnings from the semi-processed rubber have been reported as Rs.9.3 billion in the year 2023, while it was Rs.9.5 billion in the year 2022.

The total export earnings from rubber products was Rs.327 billion (US\$ 0.97bn). This was earned by exporting tyre products, rubber gloves and other rubber products for US\$ 595 million, US\$ 229 million and US\$ 81 million, respectively. The prime destinations for local rubber products were the USA, followed by Germany, France, Pakistan, and China. Despite the decline being considered slight, it has been stagnating around US\$ 1 billion for decades. However, it remains as the third largest export earner in the merchandise sector. These figures demand new investments for manufacturing a new spectrum of export-oriented non-traditional rubber products and more avenues to expand our share in the global market.

Global Rubber Industry Review

NR supply

According to the statistics of the Association of Natural Rubber Producing Countries (ANRPC) total world NR production increased to 15,141 thousand tons in 2023 from 14,360 thousand tons in the previous year 2022 recording nearly a 9% annual increase. This is mainly due to the favourable NR price in the major markets in the Asia Pacific region during the second half of the year and tapping operations around the world becoming normal while overcoming the barriers imposed during the COVID-19 pandemic.

NR average yield

NR average yield (YPH) of the ANRPC countries varied between 624 to 1720 kg/ha/year. Vietnam has recorded the highest national average yield, while Philippines has recorded the lowest which was 624 kg/ha/year. As previously mentioned, the annual average yield of Sri Lanka was 838 kg/ha/yr in the year 2023.

Rubber extent

The total rubber extent in ANRPC countries is estimated at 12,890 thousand hectares in 2023 compared to the value of 12,882 thousand hectares in the previous year. Of the total extent of NR in ANRPC countries, about 75% fall under-tapped area.

Global NR demand

The total NR demand has increased to 15,501 MT thousand tons in 2023 showing a 3.2% decrease from the previous year 2022, which amounted to 15,540 thousand tons according to ANRPC. The world's largest NR consumer was China during the last five years and Chinese consumption is expected to reach 6,710 thousand tons in the year 2023, which was reported as 6,480 thousand tons in the year 2022.

World NR price movement

Despite the declining trend prevailing in most of the markets starting from the year 2011 up to 2018, prices experienced a gradual decline for the years 2021 and 2022. Global prices have shown a gradual recovery in the year 2023. Initially, the price of RSS3 was lower than Thailand's RSS3 prices until June of year 2023. However, starting in November, it saw an increase, reaching US\$ 1.70, which surpassed the Bangkok price. The average RSS4 price of the Kottayam market, India has increased starting from March 2023 and decreased slightly up to US\$ 1.83 per kg of RSS4 rubber at the end of December. The Indian rubber (RSS4) market behaves comparatively better than the other international markets.

Research and Development Focus

Rubber Research Institute of Sri Lanka recorded another landmark in its history by successfully completing a project in offering National Vocational Qualification-3 along with a beneficiary card - *Kiri Thuru Abhiman* - to 169 Rubber Harvest Assistants (RHAs) for the first time in the country, perhaps in the world, uplifting their social recognition and highlighting the professional tasks they are performing in the harvesting of latex in Rubber Plantations. This is another approach taken by the institute to find a pragmatic solution for the severe shortage of harvest assistants. Also, another project was successfully completed producing multi-skilled rubber farming service providers as an attempt to provide a solution for the shortage of technically competent service providers required for rubber farming activities. These service providers were given a comprehensive training on all aspects of rubber farming and were moulded to provide their services as entrepreneurs getting the contracts from the rubber plantation owners. In addition, a new concept of tapping of untapped rubber lands was initiated during the year as a way forward to arresting the declining NR production in the country.

The Circular Leaf Spot Disease (CLSD) continued to appear during the year 2023 as in the previous years. The disease survey conducted in 2023 showed

that a decline in the crop is evident both in diseased and healthy plantations. The crop losses due to the disease and other factors were site-specific and hence recommendations are to be given after studying the individual sites. A national programme was formulated to combat the disease and the practical implementation is to be undertaken jointly with Rubber Development Department, Rubber Research Institute of Sri Lanka and stakeholders.

New genotypes were raised in the annual hand pollination programme at Nuechattle Estate using non-Wickham germplasm selections as the female parent to enrich the *Hevea* breeding pool. Clonal screening for new CLSD continued. Investigations on effectiveness of six different rain guard types were commenced during this year. Two nursery experiments were established in 2023 at the Dartonfield and Moneragala sub-stations representing Wet and Intermediate Zones, to study the clonal variation of stock-scion interaction according to morphological and physiological attributes under nursery conditions in different climatic zones in Sri Lanka. Modified perforated root trainer cones were tested with improved potting medium to raise more vigorous and healthy rubber plants in the nurseries. During the year, smallholder sector was supported by different types of advisory service programmes such as rehabilitation of rubber smallholdings and smoke houses, establishment of intercropping systems, advisory visits and workshops, participation at exhibitions, *etc.* Site specific latex stimulation protocols were proposed for specific low or unproductive rubber lands. Commercial scale testing of the new water-based ethephon formulation developed by RRISL was continued as a private-public partnership programme.

The trials commenced to assess nutrient management for CLSD in mature rubber plantations, alongside identifying management zones using geo-statistical techniques. Newly-developed fertilizer mixtures for nursery and immature rubber plantations were evaluated at Sapumalkanda Central Nursery and two other estates.

Farmer participatory adaptive research trials were conducted in Nuwaragampalata Central and Ipalogama Divisional Secretariats of the Anuradhapura District. Rubber-based farming models were conducted in Thalawa and Nachchaduwa Divisional Secretariats in the Anuradhapura district for demonstration purposes. The rate of adoption of the RRISL recommendations among rubber smallholder fields, medium-scale estates and Regional Plantation Companies of the Kalutara District was assessed and found to be approximately 55%, 60% and 73%, respectively.

Reduced graphene oxide nano sheets, polyethylene glycol (PEG) grafted reduced graphene oxide and copper (Cu) grafted reduced graphene oxide were synthesized and NR composites were produced incorporating the same. Electrical conductivity of 1 phr Cu grafted reduced graphene oxide incorporated NR composite was at a high level. Chemically treated Corn Husk Fibers (CHF), even at a low loading showed its potential to reinforce NR in its composites in the presence of a coupling agent. NR-based erasers were produced using the crepe rubber manufactured at the RRISL Crepe Rubber Factory, Dartonfield, Agalawatta. NR latex-based glue for a wool carpet manufacturing company in New Zealand, dry rubber-based cellular compound for a marine engineering application and deproteinized natural rubber (DPNR)-based reusable hygiene product were the other developments conducted during the year.

Experiments were conducted to find a potential coagulant derived from a naturally occurring acid source to find a replacement to formic acid used as a coagulant in the RSS manufacturing process. This was conducted to address the scarcity and high cost of formic acid prevailed during the past and manufacture RSS in a more sustainable manner. An experiment was conducted to utilize the rubber effluent water which has a considerable level of nitrogen as a liquid fertilizer for growing leafy plants. The plants showed an accelerated growth. However, further research is required to analyse the heavy metal contents in the waste water and these plants, before making a final recommendation.

New statistical methods were applied to socio-economic data in the rubber sector to improve the interpretability of research. Research work focusing on Machine Learning (ML) and Internet of Things (IoT) strategies was initiated in 2023 for the rubber sector. A collaborative research project titled “Use of GIS in rubber plantation management” was continued during the year.

Hindrance of Research Activities

All the administrative procedures were completed to recruit five Research Officers and five Rubber Extension Officers during the year 2023. Total research cadre is 79. Existing research staff is 25. Therefore, there are 54 vacancies when the approved cadre is considered. Among them there are 16 vacancies of Research Officers at recruitment grade and 26 vacancies of senior grades (Senior Research Officers and Principal Research Officers) making 68.35 % of the research staff positions vacant. Out of 10 research departments only three departments are operated by the head of the department and other seven departments are operated by the junior research officers due to the lack

of qualified scientists to appoint to those positions. Shortage of experienced and Senior Research Officers and inability to retain the research staff are crucial issues and adversely affect the guiding of the next generation and continuation of the research and development activities.

Administrative and Financial Functions

The Institute managed to continue R & D activities in prioritized areas with the available limited staff and continued to provide advisory and extension services to the small, medium and large scale rubber plantations and growers. New policies were adopted with the Rubber Research Board approval to streamline the deliveries to the stakeholders. Some of them are: Introduction of Intellectual Policy, Establishment of Clone Release Policy, Establishment of Dartonfield Estate Advisory Committee and RRISL Recommendations Release Policy. During the year under review, attention of the management was focused on to increase the income generation as per the directive given by the Minister of Finance, Economic Stabilization and National Policies in his observations on the Institute's Annual Report of 2021. This attempt yielded positive results with the increase of annual income from Rs.27.62 million in 2022 to Rs.53.2 million in 2023. An Income Generation and Disbursement Policy approved by the Rubber Research Board was submitted to the Ministry of Finance for their approval. Rs.442.25 Mn (CF) and Rs.94.10 Mn (via MPI) of the approved budget was received of which 87.9% was utilized. It was compelled to halt some other development projects scheduled for the year following the guidelines given by the Government due to the dire financial situation and restrictions imposed in the country.

Appreciation

The guidance, directions and financial support given by the Rubber Research Board and the Ministry of Agriculture and Plantation Industries are highly appreciated. Also, the guidance and funding assistance afforded to complete the few special projects during this year are highly admired. Other assistance rendered for conducting the R &D activities smoothly is gratefully recorded. All the categories of Research, Technical and non-Technical staff members of the Institute are also appreciated for their contribution towards the development of the economic situation of the entire country.

In conclusion, the contributions made by the Actg. Additional Director, Actg. Deputy Director - Research (Biology), and all the Heads of the Scientific and Non-scientific Departments/Units in compiling this Annual Report are also gratefully acknowledged. Special appreciations must be accorded to the

Agricultural Economics Unit for furnishing required data for this report and to the staff of the Library and Publications Unit for compiling and producing the Annual Report 2023.

Dr. Susantha Siriwardena
Acting Director

Research and Development Achievements

Development of improved clones

- Comprehensive early-stage analysis was implemented to reduce the breeding cycle of *Hevea* clones from 25 years to 12-15 years.
- Tapping was commenced in non-traditional rubber growing areas to evaluate the best-performing clone for water stress conditions.
- Six promising clones suitable for marginal areas were identified from the screening of existing clones for drought tolerance through molecular analysis.
- A clonal screening programme against economically important leaf diseases was completed for the year 2023. Clones such as RRIC 100, RRISL 2006 & Centennial 4 were found to be comparatively tolerating the disease.

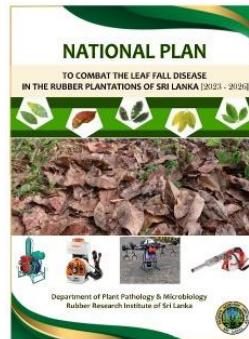
Development of Agronomy practices in rubber cultivation

- An application was submitted to the National Intellectual Property Office (NIPO) to obtain intellectual property (IP) rights for the innovation, “Process for preparation of Fertilizer Encapsulated Coir Brick (FECB) as a slow release fertilizer for immature *Hevea* plants.
- Eight innovations of the institute were selected for the “Rubber, Plastic and Fibre based Industry related Research Presentation and Networking Forum 2023” organized by the Ministry of Industries in collaboration with Ministry of Education, research institutes, universities and sector advisory committees. Fertilizer encapsulated coir brick (FECB) for slow release of fertilizer to immature rubber plants and the new porous root trainer for rubber plants were among the best innovations presented at the Forum.



- Oleic acid based ethephon formulation to enhance yield of rubber trees was produced and applied for IP rights.
- A low cost hand-made compost enriched rubberized-coir pith media was developed to produce a bio-fungicide and applied for IP rights.

- Biological controlling agents against the newly spreading Circular Leaf Spot Disease (CLSD) were identified.
- A fungicide cocktail was developed against the CLSD.
- A national plan was forwarded to be implemented for a three year period to effectively manage the CLSD.



- A new rapid protocol was developed to obtain skeletonized rubber leaves for the preparation of various handicrafts.



Preparation of handicrafts from skeletonized rubber leaves

Refining and transferring technologies to enhance the productivity

- Nine officers as NVQ level 3 Assessors to assess rubber harvesting assistants were appointed by the Tertiary and Vocational Education Commission (TVEC).
- 49 multi tasked rubber farming service providers (RFSP) were trained and introduced into the sector.
- The rate of adoption of the RRISL recommendations among rubber smallholder fields, medium-scale estates and Regional Plantation Companies of the Kalutara district was identified.

Technology development and quality assurance in rubber industry

- A DRC laboratory was established at the Monaragala sub-station.
- NR latex based glue was developed to bond recycled carpet waste material (composite of wool and jute fibres and polypropylene) to different NR latex based materials and to a fabric material on a contract signed with Auckland University, New Zealand and the technology was transferred to the university.



Composite materials produced with the NR latex based glue

- An application was submitted to the National Intellectual Property Office (NIPO) to obtain IP rights for the innovation, “Mechano-chemical modification process for rigid thermoset polyurethane foam waste”.
- Natural rubber (NR) composites with good mechanical properties were produced using reduced graphene oxide (rGO) synthesized in the laboratory. Polyethylene glycol (PEG) grafted rGO and Cu grafted rGO were also synthesized successfully and NR composites were produced incorporating the same. Electrical conductivity of 1 phr Cu grafted rGO incorporated NR composite was at a maximum level.



Cu grafted reduced graphene oxide

- Cellulosic fibers of corn husk (CHF) were extracted successfully from corn husk leaf waste and treated with chemicals. The treated CHF even at a low loading (2.5

phr) in NR composites showed its potential to reinforce NR in the presence of a coupling agent.



Extraction of corn husk fibers from corn husk leaf waste

- A NR based eraser with the lettering “Dartonfield” was produced using the crepe rubber manufactured at the RRISL crepe rubber factory in Dartonfield, Agalawatta.



Crepe rubber based erasers

- A dry rubber based cellular rubber compound was developed for a marine engineering application at the request of Tantri Trailers (Pvt.) Ltd.
- A deproteinized natural rubber (DPNR) based reusable hygiene product was manufactured at the request of an entrepreneur.
- A crepe rubber based compound was developed to produce a medical item at the request of a neurosurgeon attached to the Kotalawala Defence University.

Special Activities of Research Departments

Agronomy Departments/Sections/Units

GENETICS & PLANT BREEDING DEPARTMENT

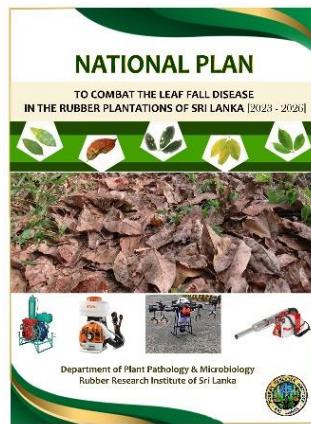
- Two non-Wickham germplasm selections were used as female parents to develop genetically diverse new genotypes.
- Two hand-pollinated progenies were evaluated at physiological and molecular levels to identify promising genotypes.
- Molecular screening of clones for drought stress was completed.

PLANT SCIENCE DEPARTMENT

- Six different rain guard types were fixed to compare the performance during usage.
- Two nursery experiments were established at the Dartonfield and Moneragala Sub-station nurseries representing Wet and Intermediate Zones, respectively to study the clonal variation of stock-scion interaction according to morphological and physiological attributes under nursery conditions in different climatic zones in Sri Lanka.
- Modified perforated root trainers were tested with an improved potting medium to raise more vigorous and healthy rubber plants in the nurseries.
- Improved irrigation systems together with different soil amendments were established to reduce irrigation interval and increase water use efficiency.
- 15 bud grafting programs were conducted to train 300 bud grafters.
- Inspected 2,500,000 rubber seedlings in government, private and estate-owned rubber nurseries.
- More than 600,000 budded rubber plants were certified.
- 169 Rubber harvesting assistants were assessed for awarding the National Vocational Qualification (NVQ) Level-3 for the first time in Sri Lanka as a novel approach to increase social recognition and competency in rubber tapping.
- About 102 ha of abandoned rubber lands in the smallholder sector of the Kalutara District were identified and provided possible solutions for recommencement of tapping.

PLANT PATHOLOGY & MICROBIOLOGY DEPARTMENT

- Registration process of the bio pesticides is at the final stage at Registrar of Pesticides. Pilot-scale trials were commenced.
- Interim recommendations on short-term, mid-term and long-term agronomic and chemical controlling practices were advocated to manage the Circular Leaf Spot Disease (CLSD) of rubber.
- A National Plan on CLSD management was forwarded to the stakeholders for implementation.



- A survey conducted to report the extent of rubber plantations under the disease was undertaken jointly by the Ministry of Plantation Industries (MPI), Rubber Research Institute of Sri Lanka (RRISL) and Rubber Development Department (RDD).
- Based on the above survey a field reporting system was conducted at five sites to observe the possible causes for the crop reduction. This operation was undertaken by all the disciplines at RRISL, RDD and MPI. The report is being prepared.



- An international workshop on CLSD was conducted by the RRISL with the funds received from the International Rubber Research and Development Board (IRRDB) providing a platform to exchange research & development ideas. Thirteen foreign delegates, international and national experts, stakeholders and policy makers participated.



- A special formulation has shown effectiveness towards managing CLSD in several locations and this will be tested further before giving the recommendation.

SOILS & PLANT NUTRITION DEPARTMENT

- The experiment with newly introduced sandwich technique with compost, paddy husk and coconut husk were continued at the Salawa estate and second fertilizer application was done for the compost and paddy husk containing treatments.
- Fertilizer trials were initiated to evaluate the effectiveness of nutrient management in mature rubber plantations on the new CLSD. Management zones under mature rubber were identified through geo-statistical and geo-spatial techniques for effective fertilizer applications.
- Trials were initiated to evaluate the effectiveness of newly developed fertilizer mixtures for nurseries (R/U YB 20:10:18:3) and immature rubber plantations (R/U 20:7:20) at the Sapumalkanda central nursery and two plantation company estates.
- Documentation and procedures were established for the laboratory analysis to obtain laboratory accreditation with ISO 17025 certification.
- Successfully conducted a workshop for promotion of Fertilizer Encapsulated Coir Bricks (FECB) at immature rubber plantations of the estate sector.
- Total number of 589 samples which include 241 soil samples, 165 leaf samples, 183 fertilizer samples, 04 compost samples, and 03 other miscellaneous samples were analyzed.
- 28 Site Specific Fertilizer Recommendation (SSFR) reports were issued for the Regional Plantation Companies.
- A training program on “Laboratory soil analysis” for five technicians of the Industrial Technology Institute (ITI) was successfully conducted.

BIOCHEMISTRY & PHYSIOLOGY DEPARTMENT

- Site specific stimulation protocols were designed for low/unproductive rubber lands.
- Commercial scale testing of the new water based ethephon formulation developed by RRISL was continued as a private-public partnership.
- Investigations were continued to identify the best clones to grow under suboptimal climatic conditions in non-traditional rubber growing areas.
- R & D activities were conducted to develop a latex diagnosis based protocol to identify devastating clones during the early stage of the screening process.
- Investigations were initiated to identify any effect of CLSD on latex physiology of trees and thereby the yield.

ADVISORY SEVICES DEPARTMENT

- 45 immature and 57 mature rubber lands were rehabilitated.
- 10 model rain guard applying lands and 6 intercropping lands were established.
- 6 new single-day drying smoke houses were constructed and 15 old smoke houses were rehabilitated.
- 716 technical advisory visits were made to the small holder sector.
- 2 training programs on land lining for 60 participants were conducted.
- 8 and 18 general awareness programs were conducted for 108 participants in the estate sector and 313 participants in the small and medium sector, respectively.
- 10 and 9 tapping skill development programs were conducted for 359 participants in the estate sector and 89 participants in the small and medium sector, respectively.
- A training program for 19 participants was conducted to improve the quality of RSS.
- Contributed to 2 tapping training schools organized by the Thurusaviya fund.
- Contributed to 11 human resource development programs organized by the STaRR project.
- Involved as resource personnel in 16 one-day training programs.
- Contributed to 2 training programs on rubber product manufacture for 36 participants.
- Contributed to assess 169 Harvest Assistants as NVQ level 3 qualified rubber harvesting assistants.
- The staff was actively involved in 5 exhibitions held island-wide.
- 49 competent agro-service providers were produced to offer services to the plantation sector under a new concept of introducing Rubber Farming service Providers entrepreneurs in an attempt to solve the shortage of competent workers assuring implementation of Good Agricultural Practices in the field.

BIOMETRY SECTION

- Development and modifications of statistical methods were performed to suit the needs of the rubber sector.
- New statistical methods were applied to socio-economic data in the rubber sector to improve the interpretability of research.

- New research was initiated focusing on the strategies, Machine learning (ML) and Internet of things (IoT) for the rubber sector.
- A collaborative research project titled “Use of GIS in rubber plantation management” was continued.

ADAPTIVE RESEARCH UNIT

- Awareness programmes were conducted for Development Officers and farmers of Nuwaragampalata East & Central and Ipalogama Divisional Secretary’s Divisions of the Anuradhapura district and feasibility studies were conducted for the establishment of rubber.
- Farmer participatory adaptive research trials were established in Nuwaragampalata Central and Ipalogama Divisional Secretary’s Divisions of the Anuradhapura District.
- A training programme was conducted to develop the entrepreneurial skills of young rubber farmers in the Ampara district.
- Rubber-based farming models were established in Thalawa and Nachchaduwa Divisional Secretary’s Divisions of the Anuradhapura district.
- The adoption levels of RRISL recommendations related to latex harvesting were assessed in the Kegalle district.
- The psycho socio economic status of plantation workers in the Kalutara district was identified in relation to education, child protection and gender issues.

AGRICULTURAL ECONOMICS UNIT

- Performance indicators of the rubber industry of Sri Lanka at the international market were reviewed.
- Economic analyses of rubber-based farming practices were completed.
- The spatial mapping of changes in rubber land productivity was continued
- Analysis on cost of production of rubber and reviewing the current situation were completed.
- A guidance price for rubber was estimated and was in progress throughout the year.
- A study on Rubber Farm Livelihood resilience to climate change was in progress.

LIBRARY & PUBLICATION UNIT

- Institutional publications, namely RRISL Journal Vol. 102(2022), Bulletin Vol. 58(2021), 59(2022), 60(2023), Rubber Puwath Vol. 35(2023), Annual Review 2022 and Annual Report 2022 were uploaded to the RRISL official website.

AUDIO VISUAL & INFORMATION TECHNOLOGY UNIT

- Administration of Local Area Network (LAN), Virtual Local Area Network (VLAN), Hardware Firewall & Mail Server was conducted.

- Maintenance of computers and peripherals, audio visual equipment, finger scanners, PABX telephone systems and Surge Protection System was done throughout the year with the relevant service providers.
- Official website (www.rrisl.gov.lk) and Facebook page (www.facebook.com/RubberResearchInstitute) were updated throughout the year.

Chemistry & Technology Departments

RUBBER TECHNOLOGY & DEVELOPMENT DEPARTMENT

- 146 crepe rubber, 830 rubber compound, 99 rubber product and 10 polythene sample tests were conducted and reports were issued at the request of the rubber industry and state universities.
- 74 entrepreneurs / rubber small holders from different districts of the country were trained at RRISL, Ratmalana on "Rubber product manufacture" on their request.



Training entrepreneurs / rubber small holders on "Rubber product manufacture"

- A group of 10 young entrepreneurs / rubber small holders from Padiyatalawa were trained at RRISL, Ratmalana on "Manufacture of rubber products at cottage level" in collaboration with the Adaptive Research Unit and Advisory Services Department of RRISL.



Training young entrepreneurs/rubber small holders on “Rubber product manufacture at cottage level”

- A group of 26 rubber small holders from Kegalle district was also trained at RRISL, Ratmalana on the above subject.
- A one day training program on “Rubber product manufacture” was conducted for 17 Rubber Development Officers of the RDD.

POLYMER CHEMISTRY DEPARTMENT

- Epoxidized Natural Rubber (ENR-30) and Cyclized Natural Rubber were successfully synthesized at laboratory level and these modified grades of natural rubber were characterized using the Fourier Transform Infrared (FTIR) Spectrophotometer and Nuclear Magnetic Resonance (NMR) Spectroscopy.
- 853 samples of polymer materials and compounding ingredients received from the industry and academia were characterized using advanced testing equipment namely, FTIR Spectrophotometer and Thermo-Gravimetric Analyzer (TGA). Industrial solutions were also given to the clients on their request based on the characterization results.

RAW RUBBER & CHEMICAL ANALYSIS DEPARTMENT

- A latex testing laboratory was established at the Monaragala sub-station with the financial assistance received from MPI.
- An alternative carbon black source from waste wood ash was investigated.
- Five training programs on latex/dry rubber testing were conducted for rubber industries and university students.
- Special training programme on “Dry rubber analysis” was conducted for the tyre manufacturers and TSR manufacturers in Sri Lanka in collaboration with the Dartonfield Academy.



Training for TSR manufacturers & Tyre manufacturers in Sri Lanka

- Quality certificates were issued for all forms of dry rubber (1356 tests), field latex and centrifuged latex (542 tests) and 49 rubber processing chemicals for the plantation sector and for the rubber exporters.

RAW RUBBER PROCESS DEVELOPMENT & CHEMICAL ENGINEERING

- The possibility of manufacturing low protein RSS was studied by treating latex with an extracted natural peptizer.
- 60 water samples and 36 rubber samples for extractable protein content were tested and certificates were issued.
- 78 epidemic prevention certificates were issued for crepe rubber.
- 17 industrial visits and troubleshooting were conducted.

ESTATES OWNED BY RRISL & SUB-STATIONS

DARTONFIELD GROUP

- A total crop of 84235.5kg has been harvested and it is 67.36% of the estimated crop. When compared with the previous year, crop records a decrease of 15.75%. The crop harvested on wet days using rain guards was 13644kg which amounts to 16.2% of the total harvested crop.
- The average Yield per Hectare (YPH) was 494kg and it shows a decrease of 97kg from the previous year.
- The average intake per tapper was 5.5kg from a tapping task of 195trees. The highest intake per tapper of 6.6kg was recorded from the 4.69ha (RRIC 121/102 PB260, PB 217 clones) planted in the year 2007 and tapped at S/2 d4 low frequency systems with ethrel stimulation (tapping task of 259 trees).
- The total number of normal, late, rain guard and no tapping days were 178, 24, 83 & 80 days, respectively.

- Total rainfall recorded was 5951.6 mm with 175 wet days showing 1664.1 mm over rainfall and 16 more wet days compared to the previous year.
- The Cost of Production (COP) and Net Sale Average (NSA) were Rs.664.40 and Rs.604.62 respectively, giving a loss of Rs.59.78per kg and a total loss of Rs.5Million. Loss per hectare recorded for the year was Rs.29532.57.
- The average percentage of Pale Crepe No. 01 grade achieved was 84%.

KURUWITA SUB-STATION

- The mature extent of rubber in the Kuruwita Sub Station was 77.66 ha.
- A total crop of 40595kg was harvested recording a decrease of 5225kg from the previous year's crop.
- The actual yield per hectare (YPH) was 544kg. The average intake per tapper (IPT) was 4.6 kg, and this is a decrease of 0.2kg when compared with the previous year.
- The total number of normal, rainguard and no tapping days recorded were 210, 124 and 29, respectively.
- The annual rain fall was 5141.2mm with 158 wet days showing a 379.1 mm over rainfall and 24 more wet days compared to the previous year.
- The Cost of Production (COP) and the Net Sale Average (NSA) for the year were Rs.626.82 and Rs.599.11per kg, respectively. The loss made for the year was Rs.1.1million and the loss per hectare recorded for the year was Rs.14484.77.
- The average percentage of Pale Crepe No. 01 grade was 85%.

POLGAHAWELA SUB-STATION

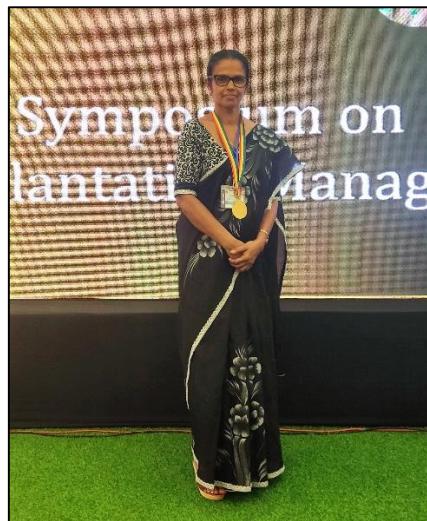
- A total crop of 18849kgs has been harvested and it is 90.88% of the estimated crop. However, there was a 50.68% increase from the value recorded for the previous year. The crop harvested on wet days using rain guards was 5567kg which amounts to 29.5% of the total harvested crop (there was a labour dispute in 2022 and fixing of rainguards was started in 2023.)
- The YPH for the year was 1061kg. This showed an increase of 357kg (50.71%) over the last year value.
- The average IPT was 8.7kg. The highest IPT of 10.0kg was recorded since the 2008 field with a tapping task of 269 trees of clone RRIC121 tapped on S/2 d3 system.
- The total number of normal, slight rain, rainguard and no tapping days were 238, 06, 91 and 12, respectively.
- Total rainfall recorded for the year was 2782.3mm with 122 wet days showing a 431.7mm over rainfall and 28wet days than the values recorded in the previous year.
- The COP and NSA recorded for the year were Rs.449.92 and Rs.529.87, respectively, giving a profit of Rs.79.95per kg and a total profit of Rs.1.5Million. Profit per hectare recorded for the year was Rs.130864.72.
- Out of the total manufactured RSS, the share of the RSS No.01 grade was 73%.

MONARAGALA SUB-STATION

- To increase land utilization of sub-stations, some land areas which do not contain rubber plants at present were temporarily given to the workers of our institution to cultivate some seasonal crops such as brinjals, long beans, ground nuts, ladies fingers, green chillies, cowpea, *etc.* to create some income for their livelihood development.
- Establishment of young budding and budwood nurseries to support experimental trials.
- At the end of the year, YPH was close to 1300 and expect to achieve a YPH of 1500–2000 in near future.

Awards

Dr. R.P. Hettiarachchi – Head of the Soils and Plant Nutrition Department, RRISL won the best presenter award for her article entitled ‘Effect of Slow-Release Fertilizer Techniques on Growth and Mineral Composition of Immature *Hevea* and Fertility of Rubber Growing Soils’ at the National Institute of Plantation Management (NIPM) Symposium in August 2023.



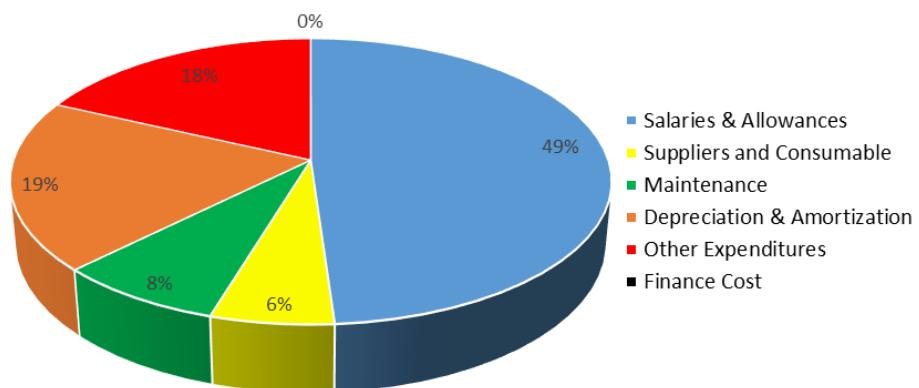
Mr. W.D.M. Sampath received the Best Postgraduate Presenter Award for the presentation titled “Cure characteristics of polyethylene glycol grafted reduced graphene oxide (PEG-g-rGO) filled natural rubber composites” at the Wayamba University Research Congress (WURC) 2023.



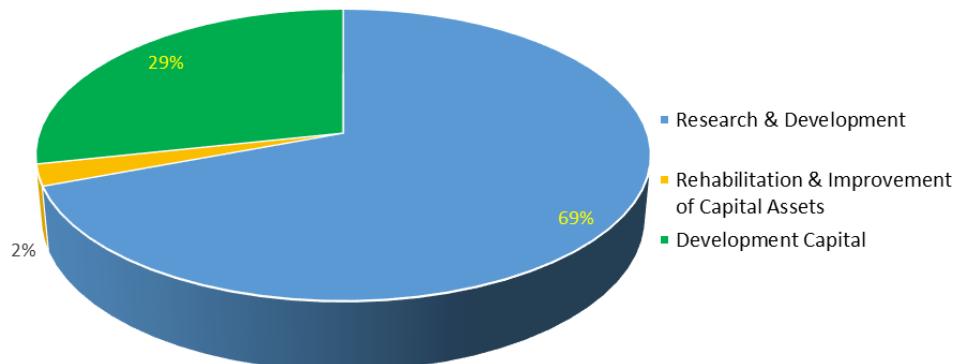
Financial Statements

Analysis of Recurrent and Capital Expenditures for the Financial Year 2023

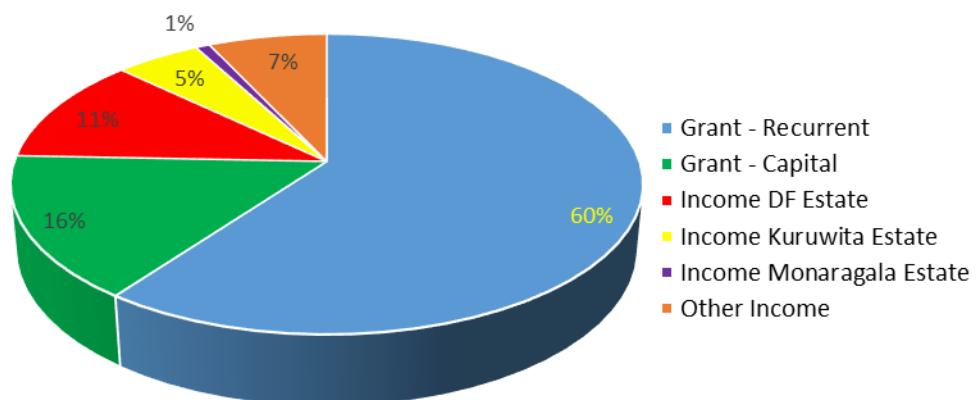
Composition of the Recurrent Expenditure



Composition of the Capital Expenditure - 2023



Composition of the Income - 2023



RUBBER RESEARCH INSTITUTE OF SRI LANKA
FINANCIAL STATEMENTS - 2023
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RUBBER RESEARCH BOARD OF SRI LANKA - STATEMENT OF FINANCIAL POSITION
AS AT DECEMBER 31, 2023

	Note	2023		2022	
		Rs		Rs	
		ASSETS		ASSETS	
Current Assets					
Cash And Cash Equivalents	1	75,981,243.89		74,920,069.53	
Receivables	2	13,178,435.88		23,939,628.73	
Inventories	3	23,130,232.16		17,932,718.39	
Working Progress	4	4,699,830.83		26,499,424.35	
Other Current Assets	5	30,629,606.27		36,000,902.09	
Investments in Associates		-			
Total Current Assets			147,619,349.03		179,292,743.09
Non-Current Assets					
Property, Plants And Equipment	6	4,570,509,655.20		4,577,911,148.09	
Land & Building	7	259,012,929.54		336,127,810.14	
Infrastructure, Plant, And Equipment	8	517,261.75		5,798,386.48	
Intangible Assets	9	115,442,031.57		104,680,728.86	
Total Non-Current Assets			4,945,481,878.06		5,024,518,073.57
Total Assets			5,093,101,227.09		5,203,810,816.66
LIABILITIES AND EQUITY					
Current Liabilities					
Trade And Other Payables	10	26,881,452.90		27,396,140.43	
Short-term Provisions	11	1,331,631.00		5,679,847.17	
Total Current Liabilities			28,213,083.90		33,075,987.60
Non-Current Liabilities					
Employee Benefits	12	132,397,173.50		162,927,340.00	
Total Non Current Liability			132,397,173.50		162,927,340.00
Total Liabilities			160,610,257.40		196,003,327.60
TOTAL NET ASSETS / EQUITY			4,932,490,969.69		5,007,807,489.06
Accumulated Fund	13	23,269,189.79		550,584,893.84	
Accumulated Surpluses / (Deficits)	14	472,953,094.24		9,772,744.86	
Revaluation Surpluses / (Deficits)		4,436,268,685.66		4,447,449,850.36	
TOTAL NET ASSETS / EQUITY			4,932,490,969.69		5,007,807,489.06

The Financial Statements have been prepared in accordance with Sri Lanka Public Sector Accounting Standards (SLPSAS).

Mr. B S S Hewage
Senior Accountant -RRI

Dr. S Siriwardhana
Acting Director - RRI

The accounting policies and notes on pages from 54 to 83 from an integral part of these Financial Statements. The Board of Directors is responsible for the preparation and presentation of these Financial Statements. These Financial Statements were approved by the Board of Directors and signed on their behalf.

Mr. Sarath Chandrasiri Vithana
Chairman - Rubber Research Board

Ms. P D L P Senarathne
Board Member - Rubber Research Board

STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED DECEMBER 31, 2023

Description	Note	2023		2022	
REVENUE					
Transfer from other Government Entities	15	512,367,454.66		394,650,000.00	
Other Revenue	16	47,534,038.47		21,242,083.09	
Deferred Income				174,271,891.15	
Income Dartonfiled Estate	17	77,560,445.20		90,498,606.93	
Income Kuruwita Estate	18	34,348,185.19		36,264,842.09	
Income Monaragala Estate		5,675,480.76		6,380,178.78	
TOTAL REVENUE			677,485,604.28		723,307,602.04
EXPENSES					
Wages ,Salaries & Employee Benefits	19	354,446,535.50		394,187,003.76	
Suppliers and Consumable Used	20	41,862,016.72		29,029,011.29	
Maintenance Expenditures	21	57,173,126.74		57,795,485.10	
Depreciation & Amortization Expenses	22	163,536,106.54		119,655,929.83	
Other Expenditures	23	131,018,063.09		115,895,564.84	
Finance Cost	24	59,750.00		377,449.55	
TOTAL EXPENSES			748,095,598.59		716,940,444.37
SURPLUS / (DEFICIT) FOR THE PRIOD		(70,609,994.31)			6,367,157.67

**CONSOLIDATED CASH FLOW STATEMENT
FOR THE YEAR ENDED 31 DECEMBER 2023**

	2023		2022		
	Rs		Rs	Rs	
<u>Operating Activities</u>					
Surplus/Deficit	(47,245,733)		6,367,158		
Non Cash Movements					
Add : Depreciations	140,171,845		119,655,930		
Provision for Gratuity	16,135,607		13,164,307		
Provision for bad debtors	(1,075,052)		(458)		
Short Term Provisions	(4,348,216)		433,290		
Less : Interest on Investment	(5,717,197)		(1,290,121)		
Deferred Income			(174,271,891)		
Net Cash Flow before working Capital Changes	97,921,254		(35,941,786)		
<u>Working Capital Changes</u>					
Increase / (Decrease) Payables	(514,688)		(24,538,201)		
(Increase) / Decrease other current Assets	32,114,605		52,356,024		
Gratuity paid	(46,665,774)		(7,202,397)		
Net Cash Flow from Operating Activity	82,855,398			(15,326,359)	
<u>Investing Activities</u>					
Purchase of Property ,Plant and Equipment	(95,266,009)		(109,026,441)		
Other Financial Assets	(10,761,303)		(8,437,939)		
Interest Income on Investment	5,320,211		189,162		
Net Cash Flow from Investing Activity	(100,707,101)			(117,275,217)	
<u>Finance Activities</u>					
Fund Received from Treasury for Capital Grant	3,991,684		20,400,000		
Uprooting Trees	-		1,465,800		
Other Grants	14,993,861		36,000,000		
Fund Received for Special Project			(485,501)		
Other Receipts	(72,668)				
Re-payments NFS Grants			18,912,878	57,380,299	
Net Cash Flow from Financing Activity	1,061,174		-	(75,221,277)	
Cash and Cash Equivalents at Beginning of the Year	74,920,070			150,141,346	
Cash and Cash Equivalents at End of the Year	75,981,244			74,920,070	

STATEMENT OF CHANGES IN NET ASSETS/EQUITY ENDED DECEMBER 31, 2023

							Rs.
	Accumulated Fund	Other Reserves	Revaluation Reserves	Accumulated Surpluses/(Deficits)	Total	Minority Interest	Total net Assets/equity
Balance at 01.01.2021	1,056,728,472.15		174,722,678.56 5,715,350.00	(21,171,147.94) 15,873,555.17 (993,537.99)	1,210,280,002.77 5,715,350.00 15,873,555.17 (389,148,321.15)		1,210,280,002.77 5,715,350.00 15,873,555.17 (389,148,321.15)
Loss / Profit on property Revaluation							
Surpluses / Deficit for the period							
Prior Year Adjustment	(388,154,783.16)						
Disposal of Assets Surpluses / (Deficits)							
Balance at December 31, 2021	668,573,688.99	-	180,438,028.56	(6,291,130.76)	842,720,586.79		842,720,586.79
Balance as at 01.01.2022	668,573,688.99		180,438,028.56	(6,291,130.76)	842,720,586.79		842,720,586.79
Loss / Profit on property Revaluation							
Surpluses / Deficit for the period							
Prior Year Adjustment	(117,988,795.15)						
Disposal of Assets Surpluses / (Deficits)							
Balance at December 31, 2022	550,584,893.84	-	4,447,449,850.36	9,772,744.86	5,007,807,489.06	-	5,007,807,489.06
Balance as at 01.01.2023	550,584,893.84	-	4,447,449,850.36	9,772,744.86	5,007,807,489.06		5,007,807,489.06
Net Treasury Grant	18,985,546.00				18,985,546.00		18,985,546.00
Surpluses / Deficit for the period							
Prior Year Adjustment	(546,301,250.05)		(11,181,164.70)	534,047,010.69	(23,435,404.06)		(23,435,404.06)
Disposal of Assets Surpluses / (Deficits)							
Balance at December 31, 2023	23,269,189.79	-	4,436,268,685.66	472,953,094.24	4,932,490,969.69	-	4,932,490,969.69

RUBBER RESEARCH BOARD OF SRI LANKA
Accounting Policies and Notes to the Financial Statements

Accounting Policies to the Financial Statements

1. Corporate Information

1.1 Reporting Entity

The Rubber Research Board (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 Agriculture and Plantation Industries and the registered office of the RRB located at Thelewala Road, Rathmalana.

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 31st December 2023 amounted to 290. The comparative figure for the year 2021 was 338.

1.4 Financial Year

The Financial year of the RRB was the 12 months period ended by 31st December 2023.

1.5 Date of Authorization for Issue

The Financial Statements for the year ended 31/12/2023 of RRB were authorized to issue by the Board of Management on 28th February 2024.

2. Significant Accounting Policies

2.1 Basis of preparation of Financial Statements

The Financial Statements of the RRB were prepared in Sri Lankan Rupees on a historical cost basis and presented in Sri Lankan Rupees.

2.2 Statement of Compliance

The Financial Statements of the RRB have 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 (written down value) in the financial statement.

The cost of Property Plant and Equipment are valued at the market value or cost of purchase with any incidental expenses.

- 2.3.2 Revaluation of Motor Vehicles, Machinery & Tools, Laboratory Equipment, Audio Visual Equipment, Furniture & Fixtures, Office Equipment and OthersAssets were done in the year 2019 and recorded in the financial statements.
- 2.3.3 The revaluation values of Lands and Buildings were recorded based on the valuation report obtained from the Chartered Valuer.
- 2.3.4 Non biological assets values of the estates were shown separately in the financial statements.

2.4 Depreciation Policy & Amortization

- 2.4.1 The depreciation for Fixed Assets 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. Depreciations not provided for lands.
- 2.4.2 The provision for depreciation were calculated at straight line method on the cost of all Property Plant and Equipment. The effective rates are as follows.

Description	Percentage
Buildings	2.50%
Intangible Assets	20.00%
Furniture, Fittings & Office Equipment	20.00%
Power & Water Supply	10.00%
Machinery & Tools	12.50%
Lab Apparatus	20.00%
Motor Vehicles	20.00%
Library Books	20.00%
Documentary Film	12.50%
Earth Slip Project	4.00%
Other assets	10.00%
Effluent Treatment Plant	4.00%
Audio Visual Equipment	20.00%
Road Development	10.00%
Solar Panel - DF Estate	20.00%
CCTV Camera	20.00%
Surge Protection Device	20.00%
Upgrading Telecommunication	2.50%

2.4.3 After completion of five years the immature field value of rubber plantations is reclassified as mature field. Consequently, an annual amortization of 5% is applied based on the declining balance in these mature fields.

2.5 Inventories

Inventories consist of spare parts, maintenance items, cleaning materials and stationery stock *etc.* are stated at the cost / net realization value.

The values of the closing rubber stocks of Dartonfield and Kuruwita estates are shown in the financial statements at the lower value of both cost and net realizable value according to Section 15 of Sri Lanka Public Sector Accounting Standard No. 09.

2.6 Receivables

Receivables consist debtors, other receivables *etc.*

2.7 Provision for Bad and Doubtful Debts

Provisions for bad and doubtful debts were calculated and provided in the accounts as follows.

Period of outstanding	Provision Made
Less than one year	Nil
Others	5.0%

2.8 Cash and cash equivalent

Cash and cash equivalent consists Investments, 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 was reflected in the Income Statement as the source of income of the RRB.

2.11.2 Capital Grant

As per the provisions of SLPSAS No. 11, the capital grant received from the Government has been recorded as the source of income of RRB from 2023 in lieu of deferred revenue policy and adjustments were made to the financial statements accordingly.

Description	Rs
Decrease Accumulated Fund (Dr.)	546,228,581.58
Increase in Accumulated Surpluses (Cr.)	546,228,581.58

2.12 Revenue Recognition

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

- (a) Research base revenue
- (b) Non Research base revenue

2.13 Expenditure

All expenditures were recognized on the accrual basis.

3. Consolidation Policies

- 3.1 The Rubber Research Board accounts comprise the consolidation of the activities of the R.R.I. Estates (plantations) managed by the Rubber Research Institute. I.e. Dartonfield, Kuruwita and Narampola (Alawwa).
- 3.2 The Rubber Research Institute and estates have a common financial year which ends on 31 December.
- 3.3 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.
- 3.4 The detail information of the projects have been shown separately and it has been reflected in the financial statements.

4. Non-Current Assets

4.1 Lands

All lands except Kumarawatta (Monaragala) and Narampola (Alavwa) belong to the Sri Lanka Rubber Research Board.

Transfer of ownership in Kumarawatta (Monaragala) and Narampola (Alavwa) is in progress. Therefore, it is planned to record the revaluation values of the above lands after transfer of title to RRB.

4.2. Substation at Narampola (Alawwa) Kumarawatta (Monaragala)

4.2.1. Narampola (Alawwa)

The extent of this land is 106 Acres 02 Roods & 31 perches. This land was taken over on 14.12.2004 under MOU on a Rental agreement.

4.2.2. Kumarawatta (Monaragala)

The extent of the land is 50 acres and this was taken over from the JEDB on 19 September 2006 under MOU on 30 years Lease agreement.

4.2.3. Profit and Loss - Kumarawatta (Monaragala) Substation

Kumarawatta (Monaragala) Substation has been established for Research and extension activities related to non-traditional Rubber growing areas including Northern and Eastern Provinces and it is still in developing stage.

5. Research & Development Expenditure

Research and development expenditure have been charged to departmental expenditure for the relevant period.

6. New planting /replanting /crop diversification expenditure

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

7. Expenditure against Budget Format

Laboratory Working expenses and Field Working expenses have been shown under Research and Development Expenditures 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 to the Rubber Research Institute except Rent for Narampola and Kumarawatta. These expenses were charged to the Rubber Research Institute of monthly accounts of Dartonfield and Kuruwita Estates. The Labour Charges related to Institute activities have been charged to the relevant department expenditure votes.

Accounting Notes to the Financial Statements

1. Debtor Balance

During the year 08 debtor balances amounting to Rs.3, 408,310.49 were written off from the books and adjustments were made to Debtors Clearance account of the Financial Statements.

In addition to the above, the debtor balance of National Language Education and Training Institute of Rs.5, 214,500.00 was written off from the books and adjustments were made accordingly. The impact to the financial statements is tabulated below.

Description	Rs.
Decrease in Debtors Account (Cr.)	5,214,500.00
Decrease in Debtors Clearance Account (Cr.)	3,408,310.49
Decrease in Provision for Doubtful and Bad Debtors Account (Dr.)	3,408,310.49
Decrease in Accumulated Surpluses (Dr.)	5,214,500.00

2. Capital Grant

As per the provisions of SLPSAS No. 11, the capital grant received from the Government has been recorded as the source of income of RRB from 2023 in lieu of deferred revenue policy and adjustments were made to the financial statements accordingly. The impact of changes the capital grant recognition policy as per the provisions of SLPSAS No. 11, is tabulated below.

Description	Rs.
Decrease in Accumulated Fund (Dr.)	546,228,581.58
Increase in Accumulated Surpluses (Cr.)	546,228,581.58

3. Adjustment made to the Cumulative Expenditure

In the year 2022, the depreciation amount of Rs.9, 591,117.00 for the disposed vehicles and revalued of land and buildings was recorded as Prior year adjustment. Inclusive of the above amount, Rs.11,296,522.44 has been made to the Prior year adjustments Adjustment Account.

4. Legal Matters

Legal issues pertaining to matters of employees were pending at Courts as at 31st December 2023 are as follows.

	Case No.	Court / Institution	Applicant
01.	32/RM/49/2023	Labour Court - Rathmalana	Mrs. .G M Priyanthi Perera

5. Surety Bonds

The Surety Bonds pertaining to matters of employees were pending as at 31.12.2023 of Rs. 4,433,954.66 and it was made up as follows.

Name	Balance as at 31.12.2023
Mr. H. H. Talgaswatta	2,402.56
Mr. S. M. C. E. Silva	1,455,005.85
Mr. B. P. Weeraratne	1,825,654.55
Mr. Thurul Warnakula	936,278.34
Mr. Chathura Jayampathi	214,613.36
Total Amount	4,433,954.66

NOTE 01 - CASH AND CASH EQUIVALENTS

Description	2023 Rs.	2022 Rs.
Bank of Ceylon - A/C No.335976	20,500,817.01	4,734,541.75
Bank of Ceylon (KW)- A/C No.4320540	1,455,536.28	2,095,000.90
Bank of Ceylon (DF) - A/C No.335978	138,007.00	4,029,219.28
Bank of Ceylon - A/C No.1837	32,738,473.60	33,898,351.75
Fuel Coupons Imprest - HO	136,000.00	214,000.00
Fuel Coupons Imprest - RT	5,000.00	25,000.00
Investment - Gratuity Fund KW	18,000,000.00	16,000,000.00
Investment - Gratuity Fund DF	3,000,000.00	7,500,000.00
Medical Fund Saving A/C		6,408,480.85
Petty Cash - DF	1,010.00	235.00
Petty Cash - KW Estate	6,400.00	15,240.00
Total	75,981,243.89	74,920,069.53

NOTE 02 - RECEIVABLES

Description	Schedul No.	2023 Rs.	2022 Rs.
Loan Receivables	01	4,496,003.60	4,414,121.90
Other Receivables	02	3,708,807.61	7,967,454.18
Receivables			
Staff Receivables	03	158,970.00	210,615.00
Trade and Other Receivables - DF	04	4,226,745.95	7,313,452.67
Trade and Other Receivables - KW	05	587,908.72	4,033,984.98
Total		13,178,435.88	23,939,628.73

NOTE 03 - INVENTORIES

Description	Schedule No.	2023	2022
		Rs.	Rs.
Inventories - Monaragala	06	45,075.00	461,015.00
Inventories - Polgahawela	07	10,360.00	920.00
Inventories - RRISI Publications	08	1,315,050.75	1,347,730.75
Inventories - Stationary	09	1,574,768.37	1,783,515.64
Stock Control - DF	10	887,068.39	1,930,765.34
Stock Control - KW	11	105,924.41	201,146.15
Stock Control HO	12	7,209,098.58	6,664,895.01
Stock Control RT	13	993,799.26	977,577.16
Unsold Rubber Stock - DF		5,446,851.60	4,442,073.84
Unsold Rubber Stock - KW	14	5,542,235.80	123,079.50
Total		23,130,232.16	17,932,718.39

NOTE 04 - WORKING PROGRESS

Description	Schedule No.	2023	2022
		Rs.	Rs.
Working Progress	15	4,699,830.83	26,499,424.35
Total		4,699,830.83	26,499,424.35

NOTE 05 - OTHER CURRENT ASSETS

Description	Schedule No.	2023 Rs.	2022 Rs.
Debtor's Clearance A/C			3,408,310.49
General Debtors	16	1,017,114.47	252,428.82
Staff Debtors			21,575.00
Other Debtors	17	4,433,954.66	1,286,278.99
Provision for Bad & Doubtful Debtors	18	(222,976.95)	(4,706,339.71)
		5,228,092.18	262,253.59
Control Accounts		-	-
Deposits	19	1,120,405.00	1,120,405.00
Supplier's Advance	20	24,281,109.09	34,618,243.50
Total		30,629,606.27	36,000,902.09

NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2023
NOTE 06.07.08 - Property, Plants And Equipment

ASSETS	Cost as at 01.01.2023 Rs.	Additional / correction during the year 2023 Rs.	Disposal / Adjusted Assets Rs.	Total as at 31/12/2023 Rs.	Accumulative Depreciation as at 01.01.2023 Rs.	Depreciation for the year 2023 Rs.	Depreciation for the Disposal / Adjus	Accumulated Depreciation as at 31/12/2023 Rs.	Written down value as at 31/12/2023 Rs.
Land	3,529,969,015.75			3,529,969,015.75					3,529,969,015.75
Buildings	1,047,058,585.25	39,973,272.84	20,807,633.53	1,066,224,224.56	5,660,666.03	26,398,495.90		32,059,161.93	1,034,165,062.63
Upgrading telecommunication	7,389,346.74	16,470.00		7,405,816.74	845,133.62	185,106.31		1,030,239.93	6,375,576.81
Intangible Assets									
Software	30,001,202.41	-		30,001,202.41	24,202,815.93	5,281,124.73		29,483,940.66	517,261.75
Solar Panel - DF Estate	12,695,629.92			12,695,629.92	8,327,823.47	2,539,125.98		10,866,949.45	1,828,680.47
CCTV Camera	6,604,782.80			6,604,782.80	4,108,035.33	1,320,956.56		5,428,991.89	1,175,790.91
Surge Protection Device	7,249,574.00			7,249,574.00	4,370,603.63	1,262,172.33		5,632,775.96	1,616,798.04
Infrastructure, Plant and equipment									
Machinery & Tools	36,433,980.23	112,452.62		36,546,432.85	13,433,432.63	4,557,994.59		17,991,427.22	18,555,005.63
Laboratory Equipments	342,024,171.63	52,084,690.20		394,108,861.83	154,801,035.73	73,875,854.67		228,676,890.40	165,431,971.43
Audio Visual Equipment	10,780,306.33	399,530.50		11,179,836.83	6,667,907.13	2,227,313.69		8,895,220.82	2,284,616.01
Effluent Treatment Plant	9,422,910.68			9,422,910.68	3,126,716.20	376,916.43		3,503,632.63	5,919,278.05
Motor vehicles	95,929,674.00	-	2,750,000.00	93,179,674.00	76,717,994.02	18,635,934.80	2,200,000.00	93,153,928.82	25,745.18
Power & Water Supply	7,704,390.80	405,520.00		8,109,910.80	5,424,522.96	574,334.06	91,650.92	5,907,206.10	2,202,704.70
Furniture & Fixtures & Office Equipment - DF	103,069,664.10	913,100.00	102,310.58	103,880,453.52	66,852,249.96	20,613,444.59		87,465,694.55	16,414,758.97
Others Assets	33,113,787.28	467,150.00	8,400.00	33,572,537.28	12,457,669.56	3,325,622.84		15,783,292.40	17,789,244.88
Library Periodicals Journals & Sub etc.	5,519,208.04	51,274.86		5,570,482.90	3,183,453.33	1,109,335.09		4,292,788.43	1,277,694.47
Rubber in bearing Df & K'wita	20,304,054.67	691,840.45	-	20,995,895.12		1,015,202.73	-		19,980,692.39
Tea Replanting K'wita	3,191,657.21	-	-	3,191,657.21		159,582.86	-		3,032,074.35
Replanting Cinnamon K'wita & Df	1,489,923.98	-	-	1,489,923.98		74,496.20	-		1,415,427.78
Earth Slip Project	139,543.30	-	-	139,543.30	74,004.84	3,092.17	-	77,097.01	62,446.29
Documentary film	3,723.33	-	-	3,723.33	3,723.33			3,723.33	-
Total	5,310,095,132.45	95,115,301.47	2,860,710.58	5,381,542,089.81	390,257,787.70	163,536,106.54	2,291,650.92	550,252,961.53	4,830,039,846.49
2023.01.01 Accumulated Depreciation	=	390,257,787.70		2023 Total Depreciation				=	163,539,829.86
2023 year Depreciation	=	163,539,829.86		2023 Replanting Depreciation				=	1,249,281.79
2023 disposal Dispriation		(2,295,374.25)		Transfer to the Estate A/C					
Rs.		551,502,243.31						Rs.	162,290,548.07

NOTE 09 - OTHER FINANCIAL ASSTES

Description	Schedule No.	2023 Rs.	2022 Rs.
Nursery			
Bud Wood Nursery - Gw			94,040.20
Bud Wood Nursery - Kw		65,785.03	67,785.03
Cinnamon Nursery - DF		367,077.64	1,488,876.52
Cinnamon Nursery - Kw		252,608.23	252,608.23
Immature Field			
Cinnamon replanting - Kw		1,032,000.81	1,032,000.81
Cinnamon replanting - DF		1,123,798.88	
Replanting Expenditure		40,936,412.94	29,899,868.55
Replanting Expenditure - Kw		911,169.81	911,169.81
Replanting Expenditure -GW		214,361.50	
Rubber Immature Expenditure		1,544,963.24	1,544,963.24
Rubber Replanting DF & K'wita		68,993,853.49	68,993,853.49
Young Budding Nursery - DF			395,562.98
Total		115,442,031.57	104,680,728.86

NOTE 10 - TRADE AND OTHER PAYABLES

Description	Schedule No.	2023 Rs.	2022 Rs.
Short Term Liability -RRISL	21	11,116,298.04	14,481,403.74
Trade & Other Payable - DF	22	11,696,842.01	8,659,363.37
Trade & Other Payable - KW	23	2,887,210.59	2,760,656.14
New Creditors	24	1,178,805.01	1,492,655.00
Staff Members-cr		2,297.25	2,062.18
Total		26,881,452.90	27,396,140.43

NOTE 11 - SHORT TERM PROVISIONS

Description	Schedule No.	2023 Rs.	2022 Rs.
Provision for Attendance Bonus			153,700.00
Provision for Audit fees		804,288.00	1,836,780.00
Provision for Holiday Pay			3,689,367.17
Provision for Profit Bonus		527,343.00	
Total		1,331,631.00	5,679,847.17

NOTE 12 - EMPLOYEE BENEFITS

Provision for Gratuity

Description	Schedule No.	2023 Rs.	2022 Rs.
DF Estate		20,265,770.00	23,205,770.00
Monaragala		2,730,000.00	2,478,000.00
Polgahawela		1,540,000.00	1,526,000.00
Kuruwita		5,222,000.00	7,910,000.00
RRISL		102,639,403.50	127,807,570.00
Total		132,397,173.50	162,927,340.00

NOTE 13 - ACCUMULATED FUNDS

Description	Schedule No.	2023 Rs.	2022 Rs.
A.F. International Founda			-
A.F.National Research Cou			329,781.12
Accu.Fund Treasury Grant			3,665,000.00
Accumilated Fund Divinegu			438,181.60
Accumulated Funds			45,044,234.46
Generated Funds for Model Estate - DF			7,027,441.00
Model Estate Grant Received from RRISL			12,017,746.58
National Science Foundati			1,049,000.00
NSF Grant And Other Grants - 03.30I			356,001.00
NSF Grant And Other Grants - 03.30Y			195,000.00
NSF Grant And Other Grants - 41.01.15			5,554,170.09
Special Capital Projects CF / MPI Grants		14,993,861.34	408,265,576.21
Special Project Other Grant			8,958,000.00
NSF Grants			965,800.00
Other Grants			500,000.00
Treasury Grant - Capital		3,991,684.00	56,218,961.78
U.N.D.P. Capital Grant		4,283,644.45	-
Total		23,269,189.79	550,584,893.84

NOTE 14 - ACCUMALATED SURPLUS / DIFICIT

Description	Schedule No.	2023 Rs.	2022 Rs.
Accumulated Surpluses / (Deficits)		9,772,744.86	(6,291,130.76)
Add: Govermant Grant		546,228,581.58	
Prior Year Adjustment		(12,181,570.89)	10,336,717.95
Disposal of Assets Surpluses / (Deficits)		(256,667.00)	(640,000.00)
Profit / loss For the Year		(70,609,994.31)	6,367,157.67
Total		472,953,094.24	9,772,744.86

NOTE 15 - TRANSFER FROM OTHER GOVERNMENT ENTITIES

Description	Schedule No.	2023 Rs.	2022 Rs.
Treasury Grant - Recurrent		407,251,000.00	388,230,700.00
Treasury Grant - Recurrent - DF			4,700,498.00
Treasury Grant - Recurrent -KW			1,718,802.00
Capital Grant 2023 (IS) - From Treasury		105,116,454.66	
Total		512,367,454.66	394,650,000.00

NOTE 16 - OTHER REVENUE

Description	Schedule No.	2023 Rs.	2022 Rs.
Analytical Charges		6,572,434.40	7,545,451.40
Other Testing Chargers		6,714,316.00	
Auditorium Income		51,500.00	
Bus Fare Recoveries		306,462.81	481,644.10
Circuit Bungalow Income		743,240.20	58,594.40
Estate Contribution		11,000,000.00	
Bond debtors Income		1,224,644.33	
Interest on loans to staff		154,672.24	179,884.25
Interest on RRI Investment		58,545.02	189,162.40
Non refundable Tender deposit		160,158.61	375,100.00
Other Electricity Income		60,808.50	
Registration of Suplier		97,720.00	2,400.00
Sale of Publication		293,120.00	250,630.00
Sales of tapping Knives		3,040.00	19,465.00
Solar Income		2,399,254.00	2,170,740.00
Sundry Income		4,726,186.84	8,586,425.79
Rent Income		35,140.32	24,055.30
Consultancy Fees		211,984.56	1,081,074.25
Claims Received from Insurance Corporati		767,450.00	80,875.00
Training Consultancy & Advisory Income		11,952,010.64	181,231.20
Tapping Panel Marking Knives		1,350.00	15,350.00
Total		47,534,038.47	21,242,083.09

NOTE 17 - INCOME DARTONFILED ESTATE

Description	Schedule No.	2023 Rs.	2022 Rs.
Sale of Rubber -DF		52,105,971.90	69,894,630.90
Narampola Rubber Sales		10,128,076.30	6,414,631.75
Sales of Scrap Rubber -DF		2,568,231.00	4,957,027.20
Unsold Rubber Stock Adjustment -DF		1,004,777.76	(121,323.16)
Gross Profit		65,807,056.96	81,144,966.69
Add Other Income			
Cinnamon Income - DF		1,104,230.00	1,567,115.00
Other Sales			285,270.00
Rainguard Subsidy Received -DF			761,805.00
Replanting Subsidy Received -DF		2,385,347.39	1,760,603.24
Sundry Income - DF		1,090,295.52	1,821,587.00
Tea Green Leaf Income -DF		2,821,013.00	2,665,890.00
Uprooted Old Rubber Trees Sold -DF		2,616,535.00	140,000.00
Interest on DF Investment		1,735,967.33	351,370.00
Total		77,560,445.20	90,498,606.93

NOTE 18- INCOME KURUWITA ESTATE

Description	Schedule No.	2023 Rs.	2022 Rs.
Cinnamon Income - KW		877,500.00	26,985.00
Rainguard Subsidy Received - KW			178,055.00
Replanting Subsidy Received -KW			285,031.99
Sale of Rubber - KW		17,619,515.80	31,203,780.69
Sale of Scrap Rubber -KW		510,774.26	560,235.00
Sundry Income - KW		1,642,887.03	1,171,629.80
Tea Green Leaf Income -KW		1,825,781.78	3,263,220.38
Interest on Kuruwita Investment		3,922,684.97	749,589.00
Stock Adjustment A/C -KW			33,828.93
Unsold Rubber Stock Adjustment -KW		5,419,156.30	(2,058,258.70)
Uprooted Old Rubber Trees Sold -KU		2,529,885.05	850,745.00
Total		34,348,185.19	36,264,842.09

NOTE 19- PERSONAL EMOLUMENTS EXPENSES

Description	Schedule No.	2023	2022
		Rs.	Rs.
Acting allowance		1,825,027.69	1,416,233.66
Attendance Incentive		146,800.00	137,550.00
Bonus Payments		1,205,531.66	253,670.86
Cost of Living Allowances		26,606,100.14	30,302,345.82
E.P.F		31,682,541.65	36,544,805.70
E.T.F		6,747,513.27	7,714,758.16
Fuel Allowance		5,362,350.45	5,795,090.12
Holiday Pay		4,102,612.20	4,638,848.89
House Rent		1,052,694.29	979,777.21
Labour Wages		35,223,918.43	36,321,190.17
Medical Reimbursement		34,541,558.20	38,715,142.81
Other allowance		26,089,942.60	30,123,608.17
Overtime		16,694,272.33	15,453,199.66
Professional Allowance		2,733,747.32	3,191,397.86
Research Allowance		3,832,607.71	6,019,199.96
Salaries and wages		135,629,487.97	160,234,194.22
Transport Allowance		5,501,682.58	6,456,451.61
Travelling & Subsistance		11,206,509.05	9,219,890.59
Provident Fund Board Contributions		4,261,637.96	669,648.29
Total		354,446,535.50	394,187,003.76

NOTE 20- SUPPLIERS & OTHER CONSUMABLE EXPENSES

Description	Schedule No.	2023 Rs.	2022 Rs.
Advertisement		946,041.75	335,792.00
Electricity Expenses		18,441,499.70	9,645,141.02
Fuel & Lubricant - Other		779,909.72	2,171,097.24
Fuel & Lubricant - Vehicle		11,969,709.77	8,246,329.73
Postage		256,476.40	197,375.01
Telephone		5,704,369.02	5,944,671.01
Transport		2,875,957.77	1,939,898.11
Water		888,052.59	548,707.17
Total		41,862,016.72	29,029,011.29

NOTE 21- MAINTENANCE EXPENSES

Description	Schedule No.	2023	2022
		Rs.	Rs.
Maintenace of Bungalows		4,220,148.66	3,429,117.63
Maintenace of Furniture & Fittings		418,641.66	17,450.00
Maintenace of Institute Buildings Compo		28,057,462.51	29,206,065.38
Maintenace of Water Supply		1,610,686.47	1,684,468.14
Maintenance & Repair of Office Building		9,348,673.32	8,571,267.33
Maintenance of Computer		226,280.00	886,597.50
Maintenance of Environments Protection		24,150.00	25,202.00
Maintenance of Minner Building		139,170.64	661,686.71
Maintenance of Office Equipment		1,648,054.14	162,375.01
Maintenance of Plant Machinery		1,409,346.49	4,727,678.23
Maintenance of Power Supply		1,907,158.27	2,634,157.83
Maintenance of Roads			60,350.00
Maintenance of Tools		359,589.24	153,675.00
Maintenance of Vehicle		7,784,147.34	5,560,499.34
Maintenance up keep of staff bungalows p		19,618.00	14,895.00
Total		57,173,126.74	57,795,485.10

NOTE 22- DEPRICIATION AND AMOTIZATION EXPENSES

Description	Schedule No.	2023 Rs.	2022 Rs.
Amotization for Cinnamon		74,496.20	78,417.05
Amotization for Rubber		1,015,202.73	1,068,634.46
Amotization for Tea		159,582.86	167,981.96
Depreciation for the year only		162,286,824.75	118,340,896.36
Rubber In Bearing Depreciation -DF			
Total		163,536,106.54	119,655,929.83

NOTE 23- OTHER EXPENSES

Description	Schedule No.	2023 Rs.	2022 Rs.
Audit Fee		669,738.00	978,780.00
Bad & Doubtful Debtors for the Year		(1,075,052.27)	(457.50)
Bungalow Expenses		6,148.00	26,693.00
Cinnamon Expenditure		498,125.00	1,230,437.50
Commission on Cash Transport		56,893.82	178,270.18
Computer Network		863,877.59	763,190.06
Computer Software Expenses		1,496,252.55	1,373,505.06
Conference & Seminars Expenses		6,870.00	2,182,452.93
Contingencies & General Expenses			43,909.00
Entertainment Expenses		4,161,453.15	1,176,527.92
Factory Expenses		847,719.63	2,157,179.75
Custom Duty Harbour Dues & Clearance		301,990.80	
Field Work & Cultivation Expenses		4,878,440.99	6,307,487.82
Filed Experiments		23,940,151.96	25,254,769.22
Land & Land improvement		334,250.00	
Gratuity for the Year		16,135,607.47	13,164,306.50
Guest House - Hostel Expenses		1,328,784.80	82,720.50
Honorarium		929,417.50	841,125.00
Insurance Charges - General Policies		1,958,416.38	1,353,818.02
Intercropping Expenditure			24,725.00
Interview Panel Expenses		272,325.63	
IRRDD Expenses		2,125,128.08	2,218,140.19
Laboratory Expenditure		16,944,492.07	13,566,778.03
Manufacturing Expenses		1,399,349.76	856,612.83
Medical Expenses, Medical Drugs		454,203.01	522,941.17
Legal Expenses		97,107.26	
Monaragala Substation - RRI			14,776.25
News Paper Expenses		191,210.00	180,392.00
Nursery Expenses			2,190.00
Professional & Consultancy Fees		1,152,875.20	
PF maintenance			80,547.20
Plucking Expenses		1,002,792.73	1,061,186.42
Polgahawela Substation -RRI			16,214.66
Police Escorting Expenses			9,000.00
Printing & Publication		51,750.00	42,100.00
Production Expenses		3,181,520.00	214,442.05
Registration Fees		2,744,838.91	
Stamp Duty Expenditure		4,150.00	3,417,311.10
Rainguard Expenses		2,949,855.80	2,129,446.82
Rate & Tax		407,829.53	1,168,701.19
Rent Allowance		220,000.00	243,148.00
RRI Photocopier Maintenance		165,599.55	
Staff Welfare & Recreation Activities		785,639.00	708,794.85
Valuation Charges		550,000.00	
Staff Training & Development		1,736,844.81	928,485.62
Stationery & Office Requisites		3,441,153.56	3,211,746.98
Stock Adjustment A/C		(1,652,569.38)	1,950,861.55
Stock Adjustment A/C -DF		1,043,696.95	1,224,683.59
Stock Adjustment A/C -KW		94,897.68	
Sundries			2,420.00
Sundries & Utility Services		705,639.07	1,076,173.75
Sundry Expenses		3,393,171.61	1,499,978.10
Tapping Expenditure		16,942,528.49	19,851,061.53
Insurance Charges		42,948.40	
Training Programmers		2,230,000.00	57,991.00
Administrative Expenses-KU		1,200,000.00	
Administrative Expenses-DF		9,800,000.00	2,500,000.00
Total		131,018,063.09	115,895,564.84

NOTE 24- FINANCE COST

Description	Schedule No.	2023 Rs.	2022 Rs.
Bank Charges		59,750.00	37,850.00
Legal Expenses			339,599.55
Total		59,750.00	377,449.55

STATEMENT OF FINANCIAL PERFORMANCE DARTONFILED ESTATE
FOR THE YEAR ENDED DECEMBER 31, 2023

Description	2023		2022	
REVENUE				
Transfer from other Government Entities	4,750,268.00		4,700,498.00	
Other Revenue				
Deferred Income				
Income Dartonfiled Estate	77,560,445.20		90,147,236.93	
Income Kuruwita Estate				
Income Monaragala Estate				
TOTAL REVENUE		82,310,713.20		94,847,734.93
EXPENSES				
Wages ,Salaries & Employee Benifit	38,276,485.61		37,642,953.39	
Suppliers and Consumable Used	3,096,911.33		2,381,165.72	
Maintenance Expenditures	1,433,230.17		2,528,774.59	
Depreciation & Amotization Expense	949,560.46		999,537.33	
Other Expenditures	45,047,739.86		40,041,363.90	
Finance Cost	6,750.00		57,440.99	
TOTAL EXPENSES		88,810,677.43		83,651,235.92
SURPLUS / (DEFICIT) FOR THE PRIOD		(6,499,964.23)		11,196,499.01

STATEMENT OF FINANCIAL PERFORMANCE KURUWITA ESTATE
FOR THE YEAR ENDED DECEMBER 31, 2023

Description	2023	2022
REVENUE		
Transfer from other Government Entities	1,582,460.33	1,718,802.00
Other Revenue		
Deferred Income		
Income Dartonfiled Estate		
Income Kuruwita Estate	34,348,185.19	35,515,253.09
Income Monaragala Estate		
TOTAL REVENUE	35,930,645.52	37,234,055.09
EXPENSES		
Wages ,Salaries & Employee Benefits	24,991,799.12	26,882,092.21
Suppliers and Consumable Used	2,957,197.25	1,963,748.04
Maintenance Expenditures	279,509.40	1,241,618.57
Depreciation & Amotization Expenses	299,721.33	315,496.14
Other Expenditures	5,009,292.18	3,390,375.36
Finance Cost	5,000.00	7,349.95
TOTAL EXPENSES	33,542,519.28	33,800,680.27
SURPLUS / (DEFICIT) FOR THE PRIOD	2,388,126.24	3,433,374.82

Labour rates and break down of cost of production from 2019 to 2023 (Rs /Kg)
Dartonfield estate

	2019	2020	2021	2022	2023
1. Labour wages	805.00 up to Jan. and 855.00 from Feb.	855.00 1150.00 from	855.00 up to Mar. and 1150.00 from	1150.00	1150.00
2. Cost of production	330.91	300.90	502.49	617.70	708.04
2.1 Tapping	139.94	138.17	204.01	239.79	245.84
2.2 Manufacture	35.35	38.94	49.56	64.39	67.22
2.3 General charges	124.18	94.87	113.03	125.23	139.93
2.4 Mature/area upkeep	31.44	28.92	38.65	71.90	114.24
2.5 Administrative	-	-	97.23	116.40	123.34
3. N.S.A.	276.22	333.73	564.83	718.02	604.62
4. Profit/(Loss) per kg	(54.69)	32.83	62.34	100.32	(103.42)

Labour rates and break down of cost of production from 2019 to 2023 (Rs /Kg)
Kuruwita estate

	2019	2020	2021	2022	2023
1. Labour wages	805.00 up to Jan. and 855.00 from Feb.	855.00 1150.00 from	855.00 up to Mar. and 1150.00 from	1150.00	1150.00
2. Cost of production	337.71	292.36	442.53	577.99	626.82
2.1 Tapping	134.74	137.41	205.40	272.89	272.56
2.2 Manufacture	33.11	37.12	45.41	71.91	102.24
2.3 General charges	135.40	89.49	157.64	163.48	88.15
2.4 Mature/area upkeep	34.47	28.35	34.08	73.47	65.67
2.5 Administrative	-	-	-	-	98.20
3. N.S.A.	263.54	311.69	523.82	653.25	599.11
4. Profit/(Loss) per kg	(74.17)	19.33	81.29	75.26	(27.71)

PAL/E/RRB/01/23/15

30 September 2024

Chairman,

Rubber Research Board of Sri Lanka.

Report of the Auditor General on the Financial Statements and Other Legal and Regulatory Requirements of the Rubber Research Board of Sri Lanka for the year ended 31 December 2023 in terms of Section 12 of the National Audit Act, No. 19 of 2018

1. Financial Statements

1.1 Qualified Opinion

The audit of the financial statements of the Rubber Research Board of Sri Lanka for the year ended 31 December 2023 comprising the statement of financial position as at 31 December 2023 and the statement of financial performance, statement of changes in net assets and cash flow statement for the year then ended, and notes to the financial statements including material accounting policy 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 provisions of the National Audit Act No. 19 of 2018 and Finance Act No. 38 of 1971. My report to Parliament in pursuance of provisions in Article 154 (6) of the Constitution will be tabled in due course.

In my opinion, except for the effects of the matters described in the basis for Qualified Opinion section of my report, the accompanying financial statements give a true and fair view of the financial position of the Board as at 31 December 2023, and of its financial performance and cash flows for the year then ended in accordance with Sri Lanka Public Sector Accounting Standards.

1.2 Basis for Qualified Opinion

- (a) Due to the following observations, the cash flow statement had not been in compliance with Sri Lanka Public Sector Accounting Standards 02.
 - I. Interest received on investments amounting to Rs.6,421,170 during the year under review had been under adjusted by Rs.1,100,959 as Rs.5,320,211 under investment activities in the cash flow statement.
 - II. The difference in other current assets had been under adjusted by Rs. 619,963 in the cash flow statement in adjusting the working capital.

III. A sum of Rs.3,788,101 received from the sale of 03 vehicles in the year under review had not been adjusted as receipts in the cash flow statement.

IV. A sum of Rs.74,307,668 paid by the Board for the purchase of non-current assets in the year 2023 had been adjusted as Rs.95,266,009 under investment activities in the cash flow statement. As a result, the amount received from investment activities had been depreciated by Rs.20,958,341.

(b) According to paragraph 15 of Public Sector Accounting Standards of Sri Lanka 09 and according to the accounting policies of the Board, the value of the closing stock should be indicated in the financial statements at the lower of the cost and net realizable value, the market value amounting to Rs.10,989,087 of the rubber stock that was to be sold had been stated in the financial statements without such calculation.,

(c) The actuarial method had not been used in calculating the value of the gratuity of the employees of the Board in accordance with Sri Lanka Public Sector Accounting Standards 19.

(d) Bearer and consumer biological assets amounting to Rs.24,985,636 had been accounted as property, plant and equipment without identifying separately in the financial statements in accordance with Sri Lanka Public Sector Accounting Standards 18.

(e) Since action had been taken to use an amount of Rs.11,000,000, out of the income of the Dartonfield and Kuruwita Estates owned by the Board, as expenditure of the Board by considering it as the income of the Rubber Research Institute, this value had been accounted twice as income and expenditure in the financial statements of the Board.

(f) The case filed in the Court of Appeal in Colombo against the Board for claiming five acres of land belonging to the Rubber Research Board by two persons had not been disclosed in the financial statements.

(g) Since the "Dumbbell Die" equipment purchased for Rs.1,020,600 in the year 2021 for the tyre centre of the Board had been adjusted as

consumables in the statement of financial performance, the fixed assets had been depreciated by that amount.

(h) Even though 03 capital works amounting to Rs.2,617,462 had been completed in the year 2023, engineering certificate had not been issued for that. Therefore, the value of this improvement had been accounted as work in progress in the year 2023.

I conducted my audit in accordance with Sri Lanka Auditing Standards (SLAuSs). My responsibilities, under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of my report. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my qualified opinion.

1.3 Other Information included in the Annual Report 2023 of the Board

Other information means the information that was obtained by me prior to the date of this audit report and included in the Annual Report - 2023 of the Board, but not included in the financial statements and in my audit report prepared in relation to those financial statements. Management is responsible for the other information.

My opinion on financial statements does not cover other information and I do not express any kind of assurance or opinion on it.

In relation to my audit on the financial statements, my responsibility is to read the other information identified above when such information is available and to consider in reading so as to whether other information is materially inconsistent with the financial statements or according to my knowledge obtained during the audit or otherwise.

If I conclude that there are material misstatements in the other information based on the other information obtained by me prior to the date of this audit report and based on the activities carried out by me, I should report that matters. I have nothing to report in this regard.

1.4 Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation of financial statements that give a true and fair view in accordance with Sri Lanka Public Sector Accounting Standards, and for such internal control as management determine is necessary to

enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Board's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Board or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Board's financial reporting process.

As per Section 16 (1) of the National Audit Act No. 19 of 2018, the Board is required to maintain proper books and records of all its income, expenditure, assets and liabilities, to enable annual and periodic financial statements to be prepared of the Board.

1.5 Auditor's Responsibilities for the Audit of the Financial Statements

My objective is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Sri Lanka Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Sri Lanka Auditing Standards, I exercise professional judgment and maintain professional scepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery,

intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit 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.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the management.
- Conclude on the appropriateness of the management's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Board's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Board to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

I communicate with those charged with governance regarding, among other matters, significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

2. Report on Other Legal and Regulatory Requirements

2.1 National Audit Act, No. 19 of 2018 includes specific provisions for following requirements.

2.1.1 I have obtained all the information and explanation that are required for the audit and as far as appears from my examination, proper accounting records have been

kept by the Board as per the requirement of section 12 (a) of the National Audit Act, No. 19 of 2018.

2.1.2 The financial statements presented is consistent with the preceding year as per the requirement of section 6 (1) (d) (iii) of the National Audit Act, No. 19 of 2018.

2.1.3 The financial statements presented includes all the recommendations made by me in the previous year as per the requirement of section 6 (1) (d) (iv) of the National Audit Act, No. 19 of 2018.

2.2 Based on the procedures performed and evidence obtained were limited to matters that are material, nothing has come to my attention.

2.2.1 To state that any member of the governing body of the Board has any direct or indirect interest in any contract entered into by the Board which are out of the normal cause of business as per the requirement of section 12 (d) of the National Audit Act, No. 19 of 2018.

2.2.2 to state that the Board has not complied with any applicable written law, general and special directions issued by the governing body of the Board as per the requirement of section 12 (f) of the National Audit Act, No. 19 of 2018 except for the following observations.

**Reference to Laws, Rules /
Provisions**

Non -Compliance

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

(i) Chapter XII

Even though there is no entitlement to take sick leave in addition to vacation and casual leave except in special cases, the employees of the Rubber Research Institute had been granted with medical leave entitlement in addition to vacation and casual leave. Instead of 45 days of leave comprised of 21 days of casual leave and 24 days

of vacation leave entitled by a public officer in one year, 58 days of leave had been given to officers of executive grades and 53 days of leave had been given to the officers in other grades in a year as per the unapproved procedure manual of the Rubber Research Institute.

(ii) Section 4:7 of Chapter xv A total of Rs. 4,256,552 to be recovered to the Board from 05 officials, who had violated the bond conditions by taking paid leave for academic activities, for a period of 01 year to 33 years had not been recovered even by 31 July 2024.

(b) F.R. 571(3) of the Financial Regulations of the Democratic Socialist Republic of Sri Lanka. A sum of Rs.3,086,087 withheld from contracts from the year 2018 to the year 2022, and deposits taken for tenders on the condition of repayment amounting to Rs.1,227,700 had not been refunded or credited to Revenue in terms of the Financial Regulation.

(c) F.R. 371(5) as amended by Public Finance Circular No. 01/2020 dated 28 August 2020 Although the sub imprest should be settled within 10 days after the completion of the purpose for which it was given, the settlement of 39 ad hoc sub imprest totalling to Rs.544,200 provided in the year 2023 had been delayed by the Board for a period of 14 to 68 days.

(d) Public Enterprises Circular No. 01/2021 of the Secretary to the Treasury dated 16 November 2021 and Guideline on Corporate Governance issued in accordance to that Circular The objectives of the organization, strategies, activities, monthly targets and responsible officers had not been included in the action plan prepared for the year 2023, and a human resource development plan had not been prepared.

(e) Public Enterprises Circular No. PED 01/2021 (iii) dated 27 September 2023 Although all the public enterprises should prepare administrative and financial manuals suitable for that institution and obtain the

approval of the Director General of the Department of Public Enterprises, action had not been taken accordingly in relation to the procedure manual of the Rubber Research Board.

(f) Public Administration Circular No. 09/2009 (1) dated 17 June 2009

(g) Public Administration Circular No. 30/2016 dated 29 December 2016

(i) Paragraph 3.3

(h) Section 2 of the Public Administration Circular No. 02/2018 dated 24 January 2018

2.2.3 To state that the Board has not performed according to its powers, functions and duties as per the requirement of section 12 (g) of the National Audit Act, No. 19 of 2018.

Although all the government employees, including the Heads of the institutions, are required to confirm their arrival to their workplace and departure from the work place with fingerprint recording machines, 51 officers of the Rubber Research Board had not recorded their arrival for duty and departure from duty through the fingerprint recording machine.

It was not possible in the audit to check whether there have been changes in the amount of fuel used since the date of conducting the fuel test and the amount of fuel used in the last month as notes had not been maintained according to the format of the aforesaid Circular regarding the 39 vehicles of the Board, for which fuel tests were carried out.

According to the annual action plan, specific responsibilities should be assigned to each officer of the staff in order to achieve the expected results, formal duty lists had not been provided to the officers of the Rubber Research Institute.

2.2.4 To state that the resources of the Board had not been procured and utilized economically, efficiently and effectively within the time frames and in compliance with the applicable laws as per the requirement of section 12 (h) of the National Audit Act, No. 19 of 2018.

Since the Gas Chromatography - Mass Spectrometry (GC-MS) equipment worth Rs. 20,034,200 and the ICP - OES equipment worth Rs. 15,950,000, which were installed in the year 2020 and belonging to the tyre centre had been used for testing samples only on a few occasions in the past years and due to the departure of the research officers handling the equipment from the institute, the equipment remained underutilized. Accordingly, it was not possible to achieve the expected objectives from purchasing these 02 sets of equipment, and the amount of Rs. 35,984,200 used for the purchase of the equipment had not been utilized sufficiently.

2.3 Other Matters

- (a) The Board had not maintained a master research register containing detailed information on the research carried out by the Rubber Research Board.
- (b) As the Board had not maintained a formal register regarding the complaints submitted by the individuals and institutions related to the rubber industry, the audit could not ascertain the action taken in relation to the complaints.
- (c) A fixed asset register had not been prepared for the fixed assets amounting to Rs.5,285,109,496 held by the Board as at 31 December 2023.
- (d) Although the Rs. 10,000,000, Rs. 8,000,000 and Rs. 13,740,000 had been invested in the years 2021, 2022 and 2023 respectively by the Rubber Research Institute for carrying out relevant epidemiological studies related to leaf fall disease started in the period of 2019-2020 and biological studies of pathogens and improving efficient disease management methods, leaf fall disease had spread to 11,482.59 hectares by the end of the year 2023.
- (e) Due to the non-successful completion of the works of the pilot project to introduce biofuel timber types for the rubber small holders, for which contract agreement had been entered into with the United Nations Food

and Agriculture Organization in the year 2017 and was scheduled to be completed in the year 2022, a sum of Rs. 4,283,644, i.e. 4 percent remained as at 31 December 2023, out of Rs. 10,457,200 received for that purpose.

- (f) Since the function of the Finite Element Analysis and Simulation Centre (FEAS Centre), which had been started at a cost of Rs. 49.7 for designing and performance evaluation of rubber products as a business model through Public Private Partnership had been stopped completely from October 2023, the relevant building and all the computers and software, machines, wooden furniture and office equipment costed Rs.38,918,694 remained idle. Accordingly, it had not been possible to achieve the objectives of establishing the centre such as developing the skills required to use FEAS for the design and simulation of rubber products by adding value to natural and synthetic rubber of Sri Lanka to compete effectively in the global market, and to become a centre of excellence in providing FEAD services to the region.
- (g) Even though it had been planned to identify 100 microbial species (Cultures) to maintain the national collection for the encouragement of small-scale cottage industries under the Plant Pathology and Microbiology Division according to the action plan, only 30 cultures had been identified and Rs.520,000 was allocated, and Rs.420,000 i.e. 80 percent, out of that, had been spent.
- (h) Even though the Advisory Services Department of the Board had planned to establish 02 model clearings for the plantation sector, and to establish 02 rain guard model plots and to establish 02 intercropping model plots according to the action plan, those activities had not been carried out in the year 2023.
- (i) Although the institution had a Mahendra type cab suitable for the transportation of rubber latex, the Board had not used that vehicle and had used a hired vehicle for that purpose from the year 2021. Thereby, the Board had incurred an expenditure of Rs.1,825,520 for that vehicle in the year 2023. Moreover, the cab owned by the institution had not been operated in the year 2023 and it had not been repaired and remained idle throughout the year. Rubber latex is being transported in this hired vehicle even in the year 2024.

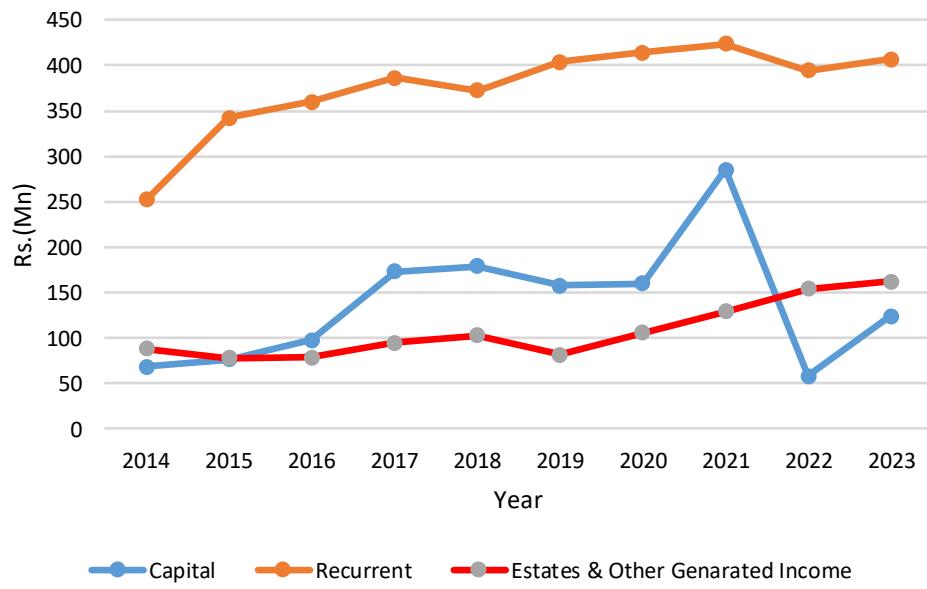
- (i) The fixed deposit amounting to Rs.3,000,000 maintained at the Agalawatte branch of the Bank of Ceylon had been maintained in favour of the Estate Superintendent without using the name of the institution.
- (k) Kumarawatte Estate in Monaragala and Narampolawatte Estate in Alawwa had not been transferred to the Rubber Research Board even by 03 July 2024.
- (l) The position of Deputy Director (Administration) of the Sri Lanka Rubber Research Board had been vacant for more than 04 years and 26 persons had been recruited for the posts of Junior Assistant Field Officer and General Worker, who were not in the approved staff.
- (m) The posts of Heads of the 05 departments, out of the 12 departments directly involved in research activities in the Rubber Research Institute, remained vacant for a period of 04 months to 33 years and officers had been appointed on acting basis for those posts.
- (n) Employees who obtain daily wages had been recruited for the major duties of the institution without getting the approval of the Department of Management Services and 32 employees had been employed in the Board from 02 months to 22 years.

W.P.C. Wickramaratne
Auditor General

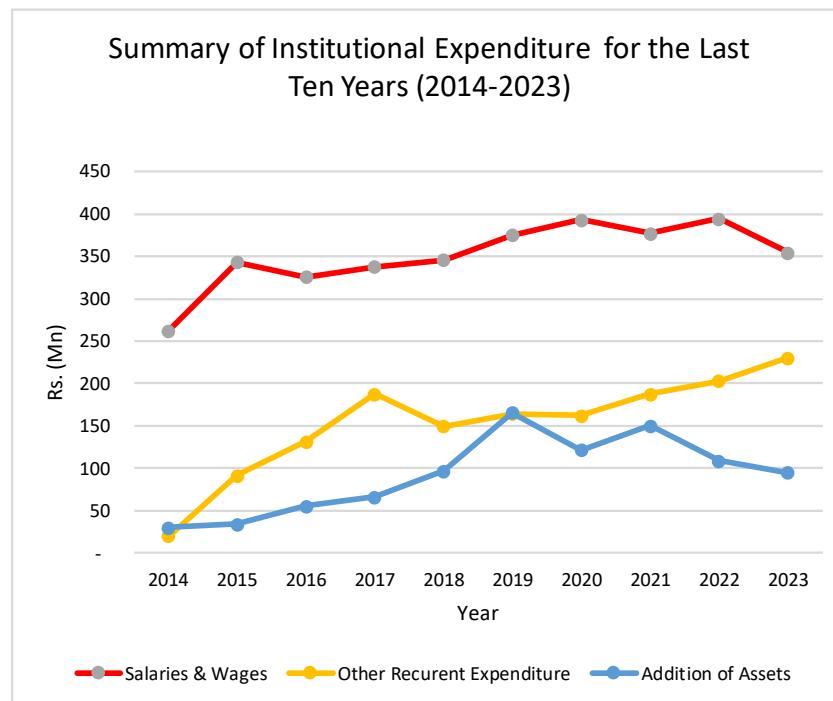
Summary of Institutional Income and Expenditure for the Last Ten Years (2014-2023)

Year	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	Rs.Mn
<u>Receipts</u>											
Capital	124.10	57.87	285.28	159.89	157.87	178.91	172.99	97.76	76.43	68.57	
Recurrent	407.25	394.65	423.49	414.00	403.70	372.30	386.78	359.81	342.30	252.50	
Estates & Other Generated Income	162.12	154.39	129.28	105.78	81.97	102.93	94.98	78.46	78.11	88.03	
<u>Expenditure</u>											
Salaries & Wages	354.45	394.19	377.22	392.82	375.03	345.56	337.84	325.96	342.94	262.60	
Other Recurrent Expenditure	230.11	203.10	187.55	162.26	164.43	149.78	187.71	131.34	91.31	20.10	
Addition of Assets	95.12	109.08	150.51	121.42	165.53	96.67	66.55	55.37	34.22	30.36	

Summary of Institutional Receipts for the Last Ten Years (2014-2023)



Year	Capital	Recurrent	Estates & Other Generated Income
2014	69	253	88
2015	76	342	78
2016	98	360	78
2017	173	387	95
2018	179	372	103
2019	158	404	82
2020	160	414	106
2021	285	423	129
2022	58	395	154
2023	124	407	162



Year	Salaries & Wages	Other Recurrent Expenditure	Addition of Assets
2014	263	20	30
2015	343	91	34
2016	326	131	55
2017	338	188	67
2018	346	150	97
2019	375	164	166
2020	393	162	121
2021	377	188	151
2022	394	203	109
2023	354	230	95