ANNUAL REPORT - 2017

NATIONAL RESEARCH COUNCIL

NATIONAL RESEARCH COUNCIL
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Contents

Contents 1
Vision & Mission 2
Objectives 3
Functions 4
Council 5
Staff 6
Chairman's Message 7
Executive Secretary's Report 8
Financial highlights in the preceding 3 years 10
NRC Programmes 12
Highlights - 2017 16
Target Orinted multi disciplinary research grants 16
Investigator Driven Research Grants 21
President's Awards for Scientific Publication 25
Private Public Partnership program 27
Other Programmes 28
Annual Accounts - 2017 32
Auditor General's Report 33
Contact Information 34

VISION & MISSION

Vision

"**E**nable Sri Lanka to achieve
science and knowledge based
developed country status"

Mission

"**T**o promote, fund and facilitate and monitor
fundamental and applied research and
enhance human resource of Sri Lanka
to achieve science and technology based
developed country status"

OBJECTIVES

According to the Act No.11 of 2016 of the Parliament of Sri Lanka, objectives of the National Research Council shall be;

- To assist the Government to facilitate research relating to science and technology in order to build a vibrant scientific and technological community in the country;
- To promote and facilitate research relating to science and technology in higher educational institutions and public sector research institutes and other governmental institutes so as to develop a research base that will contribute to national needs; and
- To solicit the co-operation of the private sector in the enhancement of research relating to science and technology.

FUNCTIONS

- To provide grants for the conduct of research relating to science and technology for the purpose of achieving the objectives of the Council;
- To facilitate, coordinate, supervise and monitor research relating to science and technology in respect of grants provided to higher educational institutions, public sector research institutes and other governmental institutions so as to ensure the efficient utilization of government investments in research;
- To import, plant, machinery and equipment required for the purpose of the Council and to receive equipment, funds and any other assistance from recognized local or foreign sources for the efficient conduct of the Council;
- To collect, print and publish reports, periodicals and papers on research relating to science and technology and related subjects;
- To award scholarships and fellowships for scientific study or scientific work at science and technology institutions local or foreign;
- To develop a national system to recognize and grant awards for research and innovations relating to science and technology; and
- To conduct lectures, seminars and workshops on research relating to science and technology and related subjects.

COUNCIL

Chairman

1. Prof. Hithanadura Janaka de Silva Esquire

Other Members

2. Prof. Upali Amarasinghe
3. Prof. Weerathunga Arachchige Janendra Mathalee De Costa
4. Prof. Wiranjith Priyan Solomon Dias
5. Prof. Lakshman Dissanayake
6. Prof. Veranja Karunaratne
7. Prof. Kamini Nirmala Mendis
8. Eng. Moksevi Prelis
9. Dr. Galbada Arachchige Sirimal Premakumara
10. Prof. Aruni Tilakaratne

Representative from the Ministry of Science, Technology and Research

11. Mrs. Himali Athaudage

Treasury Representative

12. Mr. E.A. Rathnaseela

STAFF

Executive Secretary:	M. C. Rajapakse
Accountant:	N. S. Hewagama
Scientific Officer:	P. K. A. S. R. Nonis
Scientific Officer:	N. K. Dissanayake
Scientific Officer:	W. K. N. Hansana
Scientific Officer:	S. S. Katugampala
Accounts Officer:	A. K. D. M. Perera
Account's Assistant:	A. E. K. Dayarathne
Program Assistant:	M. W. C. Madumani
Program Assistant:	S. H. S. Priyankara
Program Assistant:	M. D. T. Madhushani
Driver:	K. K. T. Sandaruwan
Driver:	H. M. S. Premakumara

As at 31.12.2017

CHAIRMAN’S MESSAGE

It is with pleasure that I submit the Annual Report of the National Research Council (NRC) of Sri Lanka for the year 2017 for tabling in Parliament. The NRC’s main functions are to call for, assess and fund research proposals, and develop systems of national recognition and awards for successful research and innovations by Sri Lankan scientists.

The NRC was established as statutory body by an Act of Parliament in 2016, and steps are being taken to absorb the staff in to the permanent cadre of the NRC. We have continued our funding for the Private-Public Partnership Programme, and in 2017 we funded two new projects. The NRC also awarded 32 Investigator Driven Research Grants for innovative research projects.

The ceremony for President’s Awards for Scientific Publication was held in November this year. H. E. The President was our chief guest and the Hon. State Minister of Science, Technology and Research also graced the event. 295 scientists were given awards for their publications in 2015. A further 503 scientists were given the NRC Merit Awards for Scientific Publication, a second tier of awards, meant mainly to encourage younger scientists.

The NRC would like to express its gratitude to the Hon. Minister and State Minister for Science, Technology and Research and the Secretary to the Ministry for their support and encouragement.

Vidyajyothi Professor H. Janaka de Silva
Chairman

EXECUTIVE SECRETARY'S REPORT

I am pleased to have this opportunity to provide a message to the NRC Annual Report 2017 and hope that it provides you with an insight into the activities of National Research Council during the year. The Annual Report is an important part of reporting and providing a record of the activities undertaken during the year.

The NRC primary objectives as give in the Act No. 11 of 2016, being to assist the government to facilitate research relating to science and technology to build a vibrant national scientific and technological community in the country, to promote and facilitate research relating to science and technology in the higher educational institutions and public sector research institutes and other government institutes, so as to develop a research base that will contribute to national needs; and to solicit co-operation of the private sector in the enhancement of research relating to science and technology.

The NRC's main function is to provide grants to researchers in scientific Research and Development (R & D) Organizations and the Higher Education Institutes, to conduct research and to develop a national system to recognize and grant awards for research and innovations relating to science and technology.

To achieve these important objectives, the NRC conducted following programmes during the year 2017; Investigator Driven Research Grant Programme, Private-Public Partnership Programme, Target Oriented Multi-Disciplinary Research Grant Programme, Presidential Awards for Scientific Publication, Outreach Programme, and the Public Awareness Programme.

The Investigator Driven Research Grants (ID) Programme, started in 1999, is a competitive grant scheme, which facilitates scientists to conduct their research with minimum administrative procedures. During FY 2017, 105 applications were received from which 32 were funded offering 27 postgraduate fellowships. There were over 150 grants in operation during the year. The final evaluation was completed in 17 grants, with 23 SCIE publications and 15 post graduates obtaining their degrees (07 PhDs and 08 MPhils) and research findings disseminated at 73 international conferences.

The Private-Public Partnership (PPP) programme started in 2012 facilitate partnerships between scientists in public R & D Institutions and Universities, and the private sector. These projects clearly identify the research areas to be addressed and their commercial potential. Two projects completed its activities during the year. New EoIs were called and 10 EoI were received and processed. Two were selected for funding, one was awarded from that and one more project from 2016 scheme was also awarded, during the year. A total of 08 PPP projects were in operation.

In 2013, the Target Oriented Multi-disciplinary (TO) Research Programme was initiated to find long-term solutions through R & D intervention for critical national issues. One proposal selected during 2016 was awarded during the current year, on development of advanced materials based filters for water purification. Progress review meetings were held during the year to evaluate and monitor the five ongoing projects.

It was a new initiative to call for application for 2018 for all three granting schemes in September/ October 2017, so that processing time will be advanced and grants could be awarded at the beginning of the year.

The President's Award for Scientific Publication (PASP) scheme was formulated mainly to extend due recognition to scientists who succeeded in reaching the international standard in their research. The PASP is an annual event in the NRC calendar, held during the month of November alongside with the Science Day which falls in November. The awards for the year 2015 publications took place on 06 November 2017, with H. E. the President Maithripala Sirisena gracing the occasion; 295 scientists were felicitated.

The Outreach Programmes conducted during 2017 was on "Sustainable Management of Polythene" in approximately 800 Schools in the North Central Province.

Over 40 newspaper articles were published to make the public aware of valuable research findings.

As always the NRC strive to fund high quality research across all disciplines, that will advance knowledge and benefit the community at large.

I wish to thank the Chairman and Council Members for their valuable contribution in our effort to take NRC to greater heights and all officials of the Treasury and Ministry of Science, Technology & Research for all the support extended to us during this year. I also wish to thank the staff for their unstinted support throughout the year.

Manisha C. Rajapakse
Executive Secretary

FINANCIAL HIGHLIGHTS IN THE PRECEDING 3 YEARS

Programs(Strategies)		Physical Progress			Financial Progress Rs. Mn		
	Indicator	2015	2016	2017	2015	2016	2017
General administration of NRC					16.85	17.6	20.99
Development Assistance for below Programmes					268.52	230.00	178.63
Target Oriented Multi-disciplinary Research Programme (Programme started in 2014)	No. of Programmes		2 Programmes commenced				
Private Public Partnership Programme (Programme started in 2013)	No. of Programmes	1 Programme commenced	3 Programmes commenced. 2 Products were launched.	2 Programmes commenced.			

Investigator Driven Grants Programme (Programme started in 1999)	No. of research grants awarded No. of PhD/MPhil fellowships awarded.	61 Investigator Driven Grants were awarded 46 PhD /M Phils fellowships were awarded	34 Investigator Driven Grants were awarded 19 PhD /M Phils fellowships were awarded	32 Investigator Driven Grants were awarded 27 PhD /M Phils fellowships were awarded	-	-	-
President's Awards for Scientific Publication Program(PASP). (Programme started in 2001)	Functions held and No. of Scientists awarded	PASP function was held for year 2013 publications and 211 scientists were awarded	PASP function was held for year 2014 publications and 232 scientists were awarded	PASP function was held for year 2015 publications and 295 scientists were awarded	-	-	-
Other Programs : Outreach/ Public Awareness Programme	Activities completed	4 Outreach programmes were held. 11 Newspaper articles were published on research conducted by the NRC.	4 Outreach programmes were conducted. 50 Newspaper articles were published on research conducted by the NRC.	6 Outreach programmes were conducted. 40 Newspaper articles were published on research conducted by the NRC.	-	-	-
Total					285.37	247.60	199.62

NRC PROGRAMMES

Target Oriented Multi-Disciplinary Research Grants

Isolated research is only rarely able to advance the understanding of, or solve complex problems. A multidisciplinary approach involves drawing appropriately from multiple disciplines to redefine problems outside of normal boundaries and reach solutions based on a new understanding of difficult issues.

This programme was started in 2013, aligned with the Ministry of Technology & Research, and proposed the Ten Thrust Areas on which R & D intervention are immediately needed.

Pre-proposals were invited from groups of researchers in public scientific research and development organizations and universities. The Target-Oriented Multi-Disciplinary research projects were aimed at solving nationally relevant issues targeting economic development, social welfare, and environmental sustainability of the country.

These projects will aim to address major gaps in knowledge for policy/strategy or product development, or solving problems, which impede, or present a challenge to the nation. The path for translating research outcomes into policy, strategy, product/process development, and its uptake should be clearly identified.

Proposals were invited from several priority areas associated with the National Research and Development Policy Report (Ten Thrust Areas) of the Ministry of Science Technology & Research. The value of a grant would be up to Rs. 50 million, over a 5-year period. As the NRC would invest a substantial sum of public money on these projects, funding would be on a highly competitive basis. NRC will select most appropriate and capable researchers with the ability to work together as a team on projects that the NRC consider likely to have a tangible outcome in five years. These multi-centered projects will have the advantage of its team members working concurrently on different aspects of the research.

Operation aspects of the grant will be identical to the Investigator Driven Grant. However, in addition to the Principal Investigator, a deputy leader will be appointed. Once the grant is provided, these projects will be regularly and rigorously scrutinized, monitored, and evaluated to ensure the achievement of stated outcomes.

Investigator Driven Research Grants Programme

The R&D activities in Sri Lanka are mainly conducted by public institutes and universities, and are funded from various sources such as government institutional funds, competitive grants and research contracts. The NRC Research Grants programme was initiated for scientists to conduct research with minimum bureaucracy.

NRC Research Grants programme provides competitive grants to public institutes for R & D activities. This programme has been streamlined over years of its implementation and now is more or less perfected. The grants are advertised annually, evaluations are based on scientific aspects, relevance to national development, and the findings are published in international journals.

The applications undergo a strict evaluation process. For the proposals selected, the Council will decide on an appropriate allocation of funds that will be channeled from the Treasury, directly to the Principal Investigator, who will be solely responsible for project implementation. Funds are considered for equipment, consumables, etc. A bank account is opened for each project and the NRC monitors all transactions. This allows a considerable flexibility to scientists to utilize the funds with minimum red tape. The Council and the NRC Secretariat monitor and evaluate the process.

It should be mentioned here that the present grants are diversified in nature. Other than funding research on pure science and on food, water, environment and energy, the NRC has lately been funding research on national surveillance, irrigation systems, wildlife and ecotourism, speech translations, construction and architecture, railway traffic, sports and many other areas.

A simple but comprehensive single set of applications are available for all programmes. The number of applications NRC receives has increased over the years, which is a positive sign. Challenges for this programme are to assure the momentum that NRC has already achieved.

The Council introduced many new regulations and guidelines to monitor and evaluate the progress of these grants, in order to derive the best outputs from them.

President's Awards for Scientific Publication

The programme of President's Awards for Research was started in year 2001, to honor scientists reaching international standards, to increase national scientific production. The national statistics of publication output from 1991 to date reveals what could perhaps be the beginning of an upward trend.

This scheme is based on the Science Citation Index Expanded (SCIE). SCIE is a database of the world's scientific periodicals judged to be the topmost by its publisher, with respect to quality and impact on science. Thus the SCIE analyses about 14,000 periodicals in a given year.

The compilation prepared for the Research Award Scheme comprises all the "hard science" titles (excluding social science) with a Sri Lankan address against at least one author as given in the SCIE.

During the year 2017, 295 Scientists were awarded for the publications in indexed journals for the year 2015.

Public Private Partnership Programme

Advances in R&D in Science and Technology (S&T) will pave the way to development of value-added products and services that are competitive in the global market, and which will form an essential pillar of Sri Lanka's envisaged economic development. To accomplish this goal, research performed in Sri Lanka needs to be demand-driven by addressing the needs of key industries of the country, which are expected to drive the economy forward.

The Public R&D Private Industry-Partnership (PPP) programme is to build on local strength by networking key players in R&D activities and industries to contribute towards the economic development of the country. Promoting R&D in S&T should lead to economic development by way of increasing exports, diversifying exports, and promoting import substitutes. All innovative research leading to the development of new or better products, processes, services, value addition and solving technical problems with commercial potential will be considered for this programme. Meaningful partnerships between the different sectors will enable us to share our research expertise, cost, services and facilities more effectively to develop solutions for industry R&D needs. The partnerships will also improve efficiency of public R&D activities and reduce the time horizon. The Private sector participation is encouraged by providing tax concessions in relation to R&D expenditure undertaken by an enterprise with public sector partnership. The NRC will interface between government - local institute - ministries - University - R&D Institutes - corporate sector - SME sector, in providing research based solutions to national needs.

Other Programmes

Outreach Programmes: With the direction of Ministry of Science, Technology and Research, one outreach programme was conducted in each quarter to highlight the output of research grants to the public.

Public Awareness Programme: Grantees are encouraged to publish their research in peer-reviewed journals. At the same time, NRC facilitates scientists to publish their findings in newspapers to make the public aware of the research performed by scientists.

HIGHLIGHTS - 2017

TARGET ORINTED MULTI DISCIPLINARY RESEARCH GRANTS

In October 2017, NRC advertised for new grant applications for year 2018.

	2014	2016	2018
No of applications received	60	50	25
No of applications short listed for detailed proposal	21	11	06
No of applications short listed for presentation	11	06	In-progress
No of grants awarded	05	03	In-progress

Eight Target Oriented Multi-Disciplinary Grants, which were awarded in 2014 and 2016, were in operation during the year 2017 and Prof. R. B. Mapa, Project Monitoring Consultant of National Research Council, monitored the progress for the second year.

Ongoing Target Oriented grants:

- **Comprehensive research proposal on an operational model to control dengue in Sri Lanka using multiple vector control intervention, new product development and community engagement**

  (PI: Dr. M. Hapugoda and Deputy PI: Prof. Nilmini Gunawardene, University of Kelaniya)

  This project aims at controlling dengue vector agents chemically and biologically, reducing natural breeding habitats, minimizing biting incidences using insecticide treated window curtains and net covers using nanotechnology, and improving community participation in dengue control.

- **Developing a polyvalent anti-venom for snake bite in Sri lanka**

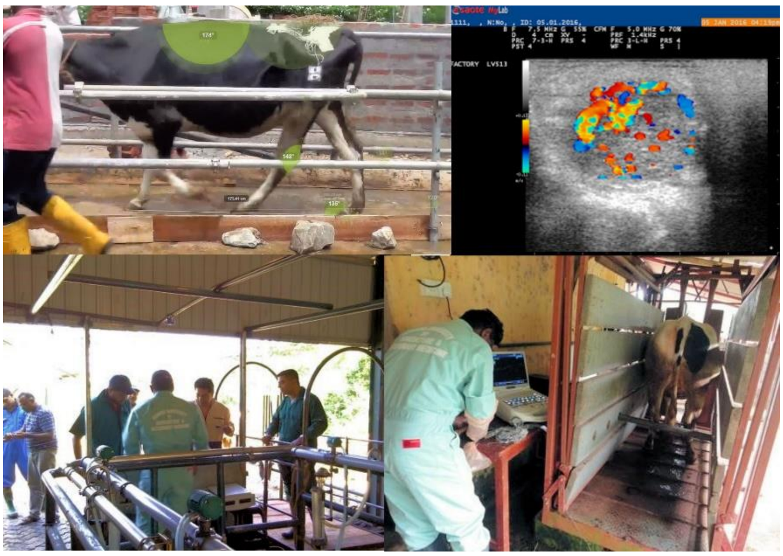
  (PI: Prof. I. B. Gawarammana and Deputy PI: Dr. A. Dangolla, University of Peradeniya)

  The objectives include collection and analysis of venom of medically important snakes of Sri Lanka by developing a state of art serpentarium; develop a polyvalent anti-venom for snakebite in Sri Lanka, and establishment of a horse facility to produce anti-venom in Sri Lanka.

- **Improving dairy industry to achieve self-sufficiency in milk**

  (PI: Mr. K. Mahipala and Deputy PI: Dr. Thusith Samarakoone, University of Peradeniya)

  Objective of this project is to increase milk yields in all agro-climatic areas by improving nutritional management, using better ration formulas, improving reproduction efficiency, synchronization protocol to achieve maximum conception rate, introducing an economical field kit for early pregnancy detection at day 18-20, identifying most common causes of mastitis, and treating with suitable antibiotics to reduce the incidence and spreading and improving animal welfare.



- **A comprehensive study on chronic kidney disease of uncertain etiology in Sri Lanka**

  (PI: Prof. R. L. R. Chandrajith and Deputy PI: Prof. J. G. S. Ranasinghe, University of Peradeniya)

  The major objective is to address various aspects of CKDu of which, the knowledge is lacking at present. Blood and urine samples from CKDu patients are analysed to identify factors for disease progression and mortality. Comprehensive Geo-environmental study conducted in affected areas as Girandurukotte and Wilgamuwa where water samples from wells, lakes, and paddy fields were analysed for heavy metals using ICPMS, GIS Mapping to reconstruct the pollution history of the Mahaweli areas, and conducting public awareness programmes.

- **Ensuring food security through developing climate smart crop varieties and cultivation techniques in Sri Lanka**

  (PI: Dr. W.M.W. Weerakoon and Deputy PI: Dr. D. M. J. B. Senanayake, Field Crop Research and Development Institute, Mahailluppallama)

  The aim is to develop high yielding, pest and disease tolerant/resistant varieties of Chili, Maize, Mungbean and Rice, tolerant to high temperature and water stress; To propose climate smart agricultural practices; Identify and map the most drought prone areas on severity and time using soil moisture indices.

- **Development of eco-friendly farming technologies to minimize inorganic fertilizer usage while maintaining adequate productivity and improving soil fertility**
  (PI: Dr. Saman Dharmakeerthi, Dr. W. S. Dandeniya, University of Peradeniya)

The major objective is to develop eco- and farmer-friendly technologies to increase use efficiency of chemical fertilizers in rice cultivation of Sri Lanka and thereby to reduce the chemical fertilizer usage in the country. It is also intended to investigate the effectiveness of such technologies to improve plant health and to reduce the usage of other agrochemicals in the rice fields. The developed technologies will be introduced to growers through possible partnership with private sector investors.

- **Development of a Model Treatment Facility for Remediation of Total Dissolved Solids and Fluoride in Groundwater – A Sustainable Solution for Dry Zone Drinking Water Problems**
  (PI: Prof. Rohan Weerasooriya, Dr. S. K. Weragoda, National Institute of Fundamental Studies)

This project aims to provide a sustainable solution to resolve the water quality problems in the dry zone. It is proposed to fabricate a mobile treatment facility with appropriate technology to regulate excess fluoride and total dissolved solids employing electro-coagulation and nano membrane filtration. The proposed water treatment module/s will initially be restricted to a small village. The clean water will be distributed under the control of NWSDB to village consumers in the vicinity of water source for their routine consumption. This will provide the essential first step for a leaf frog solution to thirst community.

- **Development of advanced materials based filters for water purification**

(PI: Dr. Rohini de Silva, Prof. Nalin de Silva, University of Colombo)

The ultimate aim is to provide the rural community with a low cost and effective point of use water filter, which requires no electricity for the water purification process. This sustainable water purification system will be produced by a local manufacturer. The designed multiple systems will remove bacteria, organic pollutants, turbidity, heavy metals and other contaminated inorganic substances.

INVESTIGATOR DRIVEN RESEARCH GRANTS

The year 2017 started with applications in hand for NRC Investigator Driven Research Grants Programme. From paper advertisement, which was circulated to all universities, faculties, and all the government R & D institutes, researchers were invited to apply.

Application calling closed on 31st January 2017 and 105 applications were received. During the first quarter, the annual progress reports of the ongoing grants were send for evaluations.

The applications (2017) were sent to evaluators who were experts in the subject field. The Council, through panel discussions, further screened the applications and selected applications with high scientific merit and national relevance.

ACTIVITY	2015	2016	2017
No. of Applications selected for funding after evaluation	53	36	33
No of Grants Funded	50+11*	34	32
Total value of grants awarded through treasury funding	Rs. 218.0 Mn	Rs. 107.6 Mn	Rs. 128.7 Mn

*previous year selected grants

Only 31% (33/105) of the applicants were selected and the designated applications were forwarded to the treasury for funding.

During the year, 32-research grants were funded from the applications of 2017, and the grant activities commenced.

By end of the year, evaluations completed for 16 grants.

Funded Research Grants 2017

Grant No.	Principal Investigator & Institution	Title
17-006	Prof. G. A. K. S. Perera Wayamba University of Sri Lanka	Value addition to Sri Lankan natural rubber in the field of Power and Energy
17-007	Dr. R. T. De Silva Sri Lanka Institute of Nanotechnology	Using Nano/micro-capsules for Self-healing Epoxy Composites
17-008	Dr. J. M. K. J. K. Premarathne Wayamba University of Sri Lanka	Risk assessment of foodborne pathogens in food commodities available in the Sri Lankan market and application of biocontrol measures to ensure food safety
17-010	Prof. D. M. De Costa University of Peradeniya	Analysis of pesticide residues and evaluation of some beneficial effects along with farmer perception of an eco-friendly crop management package for chili and tomato in comparison to existing commercial cultivation practices conducted in Sri Lanka
17-011	Dr. R. R. Ratnayake National Institute of Fundamental Studies	Development of baseline soil information system for soil C and other nutrients for paddy growing soils in Sri Lanka
17-017	Prof. J. P. Eeswara University of Peradeniya	Rapid multiplication and Production of Agarwood Fragrant Constituents by Plant Cell and Tissue Culture of *Gyrinopsis walla*
17-018	Dr. K. V. D. S. Chathuranga University of Moratuwa	Design and Development of a Soft Orthotic Device for Lower Limb and Spinal Assistance
17-019	Dr. Chamindu Deepagoda University of Peradeniya	Launching a Greenhouse Gas Emissions Technology Evaluation Center (GRETEC)
17-020	Prof. Kamani Tennekoon Institute of Biochemistry Molecular Biology and Biotechnology (IBMBB)	Mutations and polymorphisms of mitochondrial genes as risk factors for sporadic breast cancer in Sri Lankan patients of Sinhalese ethnicity
17-025	Dr. A. M. C. P. K. Attanayake University of Peradeniya	Baseline concentrations, solubility and spatial variability of potentially toxic trace elements in soils in Up- and Mid-country Wet zone in Sri Lanka
17-027	Prof. S. P. Benjamin National Institute of Fundamental Studies	Taxonomic revisions of jumping spider subfamilies Ballinae and Spartaeinae of Sri Lanka based on morphology and DNA barcodes
17-028	Dr. D. M. U. A. K. Premarathne University of Ruhuna	Igneous rocks in the Mannar Basin as potential evidence from Sri Lanka for the juxtaposition of the Reunion Hotspot and the impacts of the igneous rocks on the hydrocarbon exploration in the Mannar Basin
17-029	Dr. A. P. Attanayake University of Ruhuna	Development of an antidiabetic agent from *Coccinia grandis* (L.) Voigt (Cucurbitaceae) for diabetes mellitus

17-033	Dr. Susanthi Jayasinghe University of Peradeniya	Combined therapeutic drug leads for antidiabetic and anti-hyperlipidaemic treatments from the selected combined medicinal plants
17-037	Prof. A. L. T. Hewawasam University of Peradeniya	Investigation of Weathering and Erosional Processes in the Catchment of the Ma Oya Tributary of the Mahaweli River
17-038	Dr. D. D. C. Wanniarachchi University of Sri Jayewardenepura	An automated system to quality control the fermentation stage in black tea manufacturing process
17-042	Dr. Ruwandi Ranasinghe Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB)	Insight for molecular Anthropology of early people in Sri Lanka: Ancient human mtDNA and Molecular sex analysis of archeological skeletal remains at Udupiyangalge and Alugalge caves
17-047	Dr. H. D. Yapa University of Peradeniya	Optimization of shear retrofilling of RC beams via non-linear numerical analysis
17-054	Prof. U. L. B. Jayasinghe National Institute of Fundamental Studies	Bioactive metabolites of endophytic fungi from the medicinal plants *Coccinia grandis, Costus speciosus and Gymnema sylevestre* used in indigenous medicine for treatment of diabetes mellitus and possible commercial applications
17-055	Dr. Y. S. Wijayasinghe University of Kelaniya	Molecular characterization of carbapenemase producing enterobacteria (CPE) isolated from a tertiary care teaching hospital in Sri Lanka & validation of a rapid CPE detection protocol
17-058	Dr. B. L. W. K. Balasooriya Wayamba University of Sri Lanka	Temporal variation of cyanobacterial community in fertilized and long-term unfertilized tropical rice fields
17-060	Prof. W. K. Mampearachchi University of Moratuwa	Adaptation of Mechanistic Pavement Design Guide for Road Designed based on Empirical Design Methods.
17-064	Dr. M. S. D. Fernando University of Moratuwa	Improving effectiveness of Massive Open Online Courses (MOOCs) to meet the 21st century challenges
17-065	Dr. K. T. M. U. Hemapala University of Moratuwa	Adaptive Protection of Microgrids Using Graph theory and Optimization algorithms
17-066	Dr. P. I. A. Gomes Sri Lanka Institute of Information Technology	Ecological rehabilitation of canals in Colombo: a design to harmonize flood control and physical heterogeneity
17-069	Dr. A. G. Buddhika P. Jayasekara University of Moratuwa	Intelligent wheelchair robot with human like interactive features for domestic environments
17-072	Dr. Susantha Siriwardana Rubber Research Institute of Sri Lanka	Evaluation of structural, rheological and mechanical properties of ternary composites of filled Thermoplastics (TP) and Skim Natural Rubber (SNR) blends: a novel route for value addition to skim natural rubber
17-074	Dr. M. A. P. C. Piyathilaka Wayamba University of Sri Lanka	Molecular phylogeny of marine macro algae (sea weeds) present in Sri Lankan coasts and isolation of anti-cancer compounds to target oral cancers from marine macro algae

17-086	Dr. T. S. Palihawadana University of Kelaniya	The steroid profile of follicular fluid in In Vitro Fertilization (IVF) treatment cycles with a standard controlled ovarian stimulation GnRH antagonist regimen and with adjuvant of Letrozole among women with polycystic ovary syndrome and non-PCOS, and its relationship with oocyte number, quality, fertilization rate and implantation rate
17-094	Dr. N. U. A. Jayasena University of Peradeniya	Avian feathers as bio indicators of exposure to toxic trace elements and links between trophic position, genetic diversity and reproductive success
17-095	Dr. K. M. G. G. Jayasuriya University of Peradeniya	Seed storage behaviour of fifty keystone rainforest species from Sri Lanka: Towards Conservation of Biodiversity
17-098	Prof. Shiroma Handunnetti Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB)	Detection of genotypes and serotypes of Leptospira isolated from severe leptospirosis patients

PRESIDENT’S AWARDS FOR SCIENTIFIC PUBLICATION

The President’s Awards for Scientific Publication programme was held at Taj Samudra Hotel, Colombo, on 06th November 2017 for the tenth time.

295 Scientists with publications in indexed journals (in year 2015) were awarded. Over 500 publications involved in disciplines including medicine, agriculture, and engineering during the year 2015 received the awards.

The occasion was graced by H.E. the President, Maithripala Sirisena as the Chief Guest. The State Minister of Science, Technology and Research, Mr. Lakshman Senewiratne and the Secretary of Science, Technology and Research, Mr. Udaya Seneviratne were the Guests of Honor, with distinguished invitees from Research and Development institutions, universities and the awardees.

National Research Council organized the function and convened in collaboration with the Presidential secretariat and the Ministry of Science, Technology and Research.





for Scientific Publication

President's Awards for Scientific





President's Awards for Scientific
விஞ்ஞான, தொழில்நுட்பவியல் மற்றும் ஆராய்ச்சி அமைச்சு
Ministry of Science, Technology and Research


PRIVATE PUBLIC PARTNERSHIP PROGRAMME

The PPP Program is continued during the period.

Activities	2015	2016	2017
No of Expression of Interest (EOI) received for PPP	6	12	10
No of EOI's Selected to submit detail proposals	4	9	4
No. of Partnerships with Private Sector	1	3	2
Total Funds required	Rs. 12.27 Mn	Rs. 56.687 Mn	Rs. 6.84 Mn
Funds Provide buy the Private Sector (Approx. 50%)	Rs. 6.17 Mn	Rs. 28.343 Mn	Rs. 3.42 Mn

Ongoing Private Public Partnerships…

Research Partner	**Project Title**
Dr. S. M. C. U. P. Subasinghe University of Sri Jayewardenepura	Variation of naturally and artificially induced agarwood resin content and quality of *Gyrinops walla* for commercial extraction and its nursery establishment
Prof. Saroj Jayasinghe University of Colombo	Investigation into the effect of drinking and cooking water with reduced fluoride content and hardness, on the prevalence, incidence and severity of chronic kidney diseases of uncertain aetiology (CKDu) in a selected G.N. Division in Vavuniya District
Dr. Shantha Walpalage University of Moratuwa	Development of a material using natural rubber and polyethylene as a substitute to conventional roofing sheets
Mr. G. L. C. Galahitiyawa Tea Research Institute	Development of Self-Cleaning Sifter with multiple mesh frames for grading long leafy & wiry type tea
Dr. Anil Goonatilleke University of Sri Jayewardenepura	Locally Developed Sustained Release Tablets
Mr. R. M. Dharmadasa Industrial Technology Institute	Extraction and formulation of plant protection products from endemic plants for healthy growth of crops free from sucking insects(mealybugs, aphids, whiteflies and thrips) causing yellowing, wilting and leaf-curl
Dr. N. M. S. Sirimuthu University of Sri Jayewardenepura	Nanomaterials for improved electrical conductivity of natural rubber compound for non-marking solid tires
Prof. N. K. B. Adikaram National Iinstitute for Fundamental Studies	Study of a postharvest disease and disorders adversely affecting the export potential of mango var. TomEJC and their management

OTHER PROGRAMMES

One Outreach Program was conducted during the period.

1st Outreach Programme 2017 NRC Grant No: 11-056	**“Biofilm Bio fertilizer: Towards a greener Sri Lanka (with special reference to vegetable cultivation in Nuwara Eliya)”**
	Resource persons: Prof. Gamini Seneviratne (NRC Grant No: 11-056, National Institute of Fundamental Studies (NIFS) and Eng. Samuditha Kumarasinghe, Director Operations, Lanka Bio Fertilizers (Pvt) Limited.
	Target Audience: Farmers and Agriculture Officers from Nuwaraeliya, Seethaeliya, and Kandapola areas.

Sustainable Management of Polythene	As part of our outreach programme for 2017, the NRC, together with the Presidential Secretariat, Ministry of Science, Technology and Research, Ministry of Sustainable Development and Wildlife and the Central Environmental Authority will launch a programme for sustainable management of polythene
	Resource Persons: Mr. H.M.P. Bandara, Chief Secretary, North Central Province, Prof. Janaka de Silva, Chairman NRC, Mr. K.H. Muthukudaarachchi, Director General, Central Environment Authority, Dr. Wimal Wimaladasa, Project Director of Re-resource Project, Mrs. E.M.N.W. Ekanayake, Provincial Director of Education, North Central Province and Ms. M. Kodippili Arachchi, Local Government Commissioner, North Central Province.

	Target Audience: 120 North Central Province- Provincial Council officials

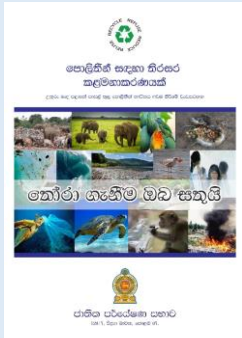
Training of Trainers (TOT) Programme in Anuradhapura and Polonnaruwa	NRC has organized two TOT programme for the North Central Province Teacher advisories and Assistant Directors of Education.
	Resource persons: Prof. Sarath Kotagama, Prof. Jagath Premachandra, Dr. Waruna Gunathilake, Mr, Bandula Sarath Kumara
	Target Audience: Teacher advisories and Assistant Directors of Education.

Training of Trainers (TOT) Programme in Polonnaruwa	NRC has organized two TOT programme for the NCP Teacher Advisories and Assistant Directors of Education.
	Resource persons: Prof. Sarath Kotagama, Prof. Ajith de Alwis, Prof. Anuja Premawardhane, Dr. Wimal Wimaladasa, Prof. Janaka de Silva
	Target Audience: Teacher advisories and Assistant Directors of Education.




ITN Media workshop	**NRC Join with ITN 'Maadya Pradeepa' programme held on Hingurakgoda Ananda Balika Vidyalaya.**
	Resource persons: Dr. Hasantha Hettiarachchi / ITN, Chief Executive Officer. Mr. Chandana Thilakarathne
	Target Audience: 850 School children in Polonnaruwa District.


Dimbulagala TOT Programme	NRC has organized a TOT programme for the Teachers in Dimbulagala Educational zone.
	Resource persons: Mr. Sampath Nonis, Ms. Nadeeka Dissanayake
	Target Audience: 50 Teachers in Dimbulagala educational zone.



ANNUAL ACCOUNTS - 2017

AUDITOR GENERAL'S REPORT

CONTACT INFORMATION

National Research Council

120/7, Vidya Mawatha, Colombo 07.

Telephone General:	**011-2675176**	**Fax:**	**011-2675136**
Email:	admin@nrc.gov.lk	**Website:**	www.nrc.gov.lk

ANNUAL ACCOUNTS - 2017

NATIONAL RESEARCH COUNCIL

FEBRUARY 8, 2018

NATIONAL RESEARCH COUNCIL
120/07, Vidya Mawatha, Colombo 07
Web: www.nrc.gov.lk   E-mail: nrc@sltnet.lk

Financial Statements for Year 2017

Statement of financial position

Statement of financial performance

Cash flow statement

Statement of changes in net Assets/Equity

Notes to the financial statements

NATIONAL RESEARCH COUNCIL -SRI LANKA
STATEMENT OF FINANCIAL POSITION AS AT DECEMBER 31, 2017

	Note	2017 Rs.	2016 Rs. (Restated)
ASSETS			
Current assets			
Cash and cash equivalents		33,704,772.25	29,549,046.18
Special Advance		-	178,500.00
TO Program	1	219,639,605.12	220,027,094.40
NRC grants	1	269,097,441.61	289,141,670.91
NRC PPP Program	1	33,593,592.26	35,687,146.05
Other current assets			
		556,035,411.24	**574,583,457.54**
Non-current assets			
Other financial assets	2	1,971,000.00	1,971,000.00
Property, plant and equipment	*3*	297,079,066.65	281,483,722.71
		299,050,066.65	**283,454,722.71**
Total assets		**855,085,477.89**	**858,038,180.25**
LIABILITIES			
Current liabilities			
Payables	4	609,881.78	372,759.95
		609,881.78	372,759.95
Non-current liabilities			
Gratuity Provision		343,145.00	242,185.00
		343,145.00	242,185.00
Total liabilities		953,026.78	614,944.95
Net assets		**854,132,451.11**	**857,423,235.30**
NET ASSETS/EQUITY			
Capital contributed by;			
Capital grant		802,186,494.40	806,562,010.26
Reserves			
Accumulated surpluses/(deficits)		51,945,956.71	50,861,225.04
Minority interest			
Total net assets/equity		854,132,451.11	**857,423,235.30**

The Accounting policies are on the pages 06 to 11 and Notes on pages 12 to 19 from an integral part of these financial statements. The council is responsible for the preparation and presentation of these financial statements. These financial statements were approved by the council and signed on their behalf.

Prof. H. J. De Silva	E. A. Rathnaseela	M. C. Rajapakse	M.G.R.N. Samankumari
Chairman/NRC	Member of the Council	Executive Secretary	Accountant

NATIONAL RESEARCH COUNCIL -SRI LANKA
STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED DECEMBER 31, 2017

	Notes	2017 Rs.	2016 Rs. (Restated)
Revenue			
Recurrent receipts – NRC Administration	*5*	20,981,436.00	16,679,325.00
Capital Grant		1,378,411.25	927,914.07
Recurrent receipts – Research and development	*6*	181,404,230.42	183,220,198.13
Other receipts		1,424,599.24	1,590,522.25
Transfer proceeds - NRC		133,526.19	759,634.55
House Rental settlement			707,516.00
Total revenue		**205,322,203.10**	**203,885,110.00**
Expenses			
Personal emoluments		8,507,396.03	9,000,840.96
Research & development	7	135,594,587.30	142,530,222.32
Supplies and consumables	8	11,238,737.54	7,751,332.33
Depreciation expense –NRC Grants		45,809,643.12	40,689,975.81
Depreciation – NRC office equipment’s		1,378,411.25	927,914.07
Other expenses		1,558,920.00	1,637,200.00
Finance costs		16,250.00	16,250.00
Transfer Proceeds - NRC		133,526.19	759,634.55
Total expenses		**204,237,471.43**	**203,313,370.04**
Share of surplus of associate’s			
Surplus/(deficit) for the period		1,084,731.67	**571,739.96**
Attributable to:			
Owners of controlling entity		1,084,731.67	**571,739.96**
Minority interest			
		1,084,731.67	**571,739.96**

*Notes from the pages **06 to 19** form an integral part of these financial statements.*

Figures in brackets indicate deductions

NATIONAL RESEARCH COUNCIL -SRI LANKA
CASH FLOW STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2017

	Notes	2017 Rs.	2016 Rs. (Restated)
CASH FLOWS FROM OPERATING ACTIVITIES			
Receipts			
Taxation			
Receipt from treasury (Recurrent)		20,981,436.00	16,679,325.00
Receipt from treasury (Development Assistance)		178,540,652.00	230,000,003.00
Sales of goods and services			
Receipts from closed grants		23,874,574.56	28,984,225.21
Interest received			
Other receipts		1,389,125.00	1,592,792.52
Payments			
Cash payment to employees		(9,974,356.03)	(10,577,070.96)
Superannuation			
Suppliers			
Research grants and Other Programs	9	(190,841,467.00)	(251,527,781.17)
Interest paid			
Other payments		(15,994,526.18)	(12,067,700.31)
Net cash flows from operating activities		**7,975,438.35**	**3,083,793.29**
CASH FLOWS FROM INVESTING ACTIVITIES			
Purchase of plant and equipment		(3,998,212.28)	-5,999,882.75
Net cash flows from investing activities		**(3,998,212.28)**	**-5,999,882.75**
Net increase/(decrease) in cash and cash equivalents		3,977,226.07	-2,916,089.46
Cash and cash equivalents at beginning of period		29,727,546.18	32,643,635.64
Cash and cash equivalents at end of period		**33,704,772.25**	**29,727,546.18**

Notes from the pages 06 to 19 form an integral part of these financial statements.

Figures in brackets indicate deductions

NATIONAL RESEARCH COUNCIL -SRI LANKA
STATEMENT OF CHANGES IN NET ASSETS/EQUITY FOR THE YEAR ENDED DECEMBER 31, 2017

	Accumulated Surplus or Deficit Restated Rs	Capital Grant Restated Rs	Total Net Assets/Equity Rs
Balance as at 01/01/2016	**50,997,001.08**	**761,481,100.44**	**812,478,101.52**
Rent and rental deposits transfer as revenue adjustment	(707,516.00)		(707,516.00)
13-108 grant		(11,347.50)	(11,347.50)
Capital Grant Received During the year 2016	-	230,000,003.00	230,000,003.00
Capital Grants identify as income for the year 2016	-	(120,787,705.56)	(120,787,705.56)
Depreciation in respect of Capital Assets & Loss on Disposal	-	(64,120,041.17)	(64,120,041.17)
	50,289,485.08	806,562,009.19	856,851,495.34
	50,289,485.08	806,562,009.19	856,851,495. 34 -
Surplus/ (deficit) for the period 2016	**571,739.96**	**-**	**571,739.96 -**
Balance as at 31/12/2016	**50,861,225.04**	**806,562,010.26**	**857,423,235.30**
Balance as at 01/01/2017	**50,861,225.04**	**806,562,010.26**	**857,423,235.30**
Capital Grant Received During the year 2017		178,540,652.00	178,540,652.00
Capital Grants identify as income for the year 2017	-	(120,856,628.86)	(120,856,628.86)
Depreciation in respect of Capital assets & Loss on Disposal	-	(62,059,539.00)	(62,059,539.00)
	50,861,225.04	802,186,494.40	853,047,719.44
	50,861,225.04	802,186,494.40	853,047,719.44 -
Surplus/ (deficit) for the period 2017	**1,084,731.67**	**-**	**1,084,731.67**
Balance as at 31/12/2017	**51,945,956.71**	**802,186,494.40**	**854,132,451.11**

Notes from the pages 06 to 19 form an integral part of these financial statements. Figures in brackets indicate deductions.

1. CORPORATE INFORMATION

1.1 GENERAL

National Research Council ("NRC") which was formed as a special agency by a Presidential Directive under the article 33 of the constitution by the extra ordinary gazette notification No. 1514/28, was established as the National Research Council of Sri Lanka by Act, No. 11 of 2016, by the Parliament of Democratic Socialist Republic of Sri Lanka by gazette notification on 29th July 2016.

The National Research Council is a public organization located at 120/7, Vidya Mawatha, Colombo 07.

The financial statements are prepared for a common financial year, which ends on 31st December.

1.2 THE PRINCIPAL ACTIVITIES AND NATURE OF OPERATIONS

The functions of NRC set out in the Presidential Directive under the article 33 of the constitution by the extra ordinary gazette notification No. 1514/28, was reformed to the function of the National Research Council of Sri Lanka by Act, No. 11 of 2016, by the Parliament of Democratic Socialist Republic of Sri Lanka by gazette on 29th July 2016.

The following main programs carried out during the year to fulfil the stated objectives.

Research Grants & PhD Program

- Funding for research in public R & D institutions and post graduate fellowships. The Program Combined to one Program during the Year as "Investigator Driven Research Grants Program"

Presidential Awards for Scientific Research

- Recognition to researchers and research institutions of Sri Lanka

The name of the program is changes during the year to "President's Awards for Scientific Publication"

Private Public Partnerships Program

- Funding for research needs of private sector/public in a combined approach

The private sector partnership program keeps the investment by the private sector and there are eight PPP projects ongoing during the year, thus the balances in these private partners' accounts at 31st December 2017 is Rs. 11,782,215.49

Other Development Programs

- Other programs necessary to fulfill the objectives of NRC

Target Oriented Multi-Disciplinary Mega Projects Program

NRC council has revised its funding policy, and from 2014, the major thrust of funding will be for target-oriented research projects. Each year, pre-proposals will invited from groups of researchers of public scientific R & D organizations and universities for possible funding of target-oriented multi-disciplinary research projects aimed at solving nationally-relevant issues aiming at economic development, social welfare and environmental sustenance of the country. The value of a grant would be up to Rs. 50 million, over a 5 year period. Proposals will be invited from several priority areas in keeping with the National Science and Technology Policy Report.

1.2 DATE FOR AUTHORIZATION FOR ISSUE

The Financial Statements of National Research Council, for the year ended 31st December 2017 were authorized for issue by the Board of Council Members on 16/02/2018

2. ACCOUNTING POLICIES

2.1 BASIS FOR PREPARATION

The financial statements have been prepared in accordance with Sri Lanka Public Sector Accounting Standards (SLPSAS) as issued by the Institute of Chartered Accountants of Sri Lanka.

2.1.1 STATEMENT OF COMPLIANCE

The financial statements of the NRC have been prepared in accordance with the Sri Lanka Public Sector Accounting Standards (SLPSAS) as issued by the Institute of the Chartered accountants of Sri Lanka.

2.1.2 GOING CONCERN

The Council of NRC is satisfied that the NRC has recourse to continue in its activities for the foreseeable future. Furthermore, the Council is not aware of any material uncertainty.

2.1.3 BASIS OF MEASUREMENT

The financial statements of NRC have been prepared on the basis of historical costs and no adjustment has been made for inflationary factors affecting these accounts.

2.1.4 FUNCTIONAL AND PRESENTATION CURRENCY

The financial statements are presented in Sri Lankan Rupee, is the functional currency of NRC.

All financial information presented in Sri Lankan rupee has been given to the nearest cent, unless stated otherwise.

2.4 SIGNIFICANT ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUMPTIONS

The financial statements are sensitive to assumptions and estimates made in measuring certain carrying amounts represented in the statements of financial position and amounts charges to the statement of financial performance. These could result in significant risk of casing material adjustments to the carrying amounts of assets and liabilities which are disclosed in the relevant notes to the financial statements.

The presentation of financial statements in conformity with SLPSAS, requires managements to make judgments, estimates, and assumptions that affect the application of accounting policies and reported amounts of assets, liabilities, income and expenses. Judgments and estimates are based on historical experience and other factors, including expectations that are believed to be reasonable under circumstances. Hence actual experience and results may differ from these judgments and estimates.

Estimates and underlying assumptions are reviewed at an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised if the revision affects only that period and any future periods affected

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accounting policies set out below are consistent with those used in previous year.

Certain comparative information has been reclassified wherever necessary to conform to the current year's presentation.

3.1 FOREIGN CURRENCY TRANSLATON

All foreign exchange transactions have been converted in to functional currency at the rates of exchange prevailing at the date of the transactions.

3.2 ASSETS AND BASES OF THEIR VALUATION.

Assets classified as current assets on the balance sheet are cash and bank balances and those which are expected to be realized in cash during the normal operating cycle or within one year from the reporting date, whichever is shorter.

3.2.1 PROPERTY PLANT AND EQUIPMENT

3.2.1.1 INITIAL RECOGNITION

All Items of property plant and equipment are measured at cost less accumulated depreciation. They are initially recognize at cost. The cost of property plant and equipment includes the cost of purchase or construction together with any incidental expenses that are directly attributable to the acquisition or construction of assets and to bringing any assets to a working condition for its intended use, and cost of dismantling and removing the items and restoring the site on which they are located. Purchased software that is integral to the functionality of related equipment is capitalized as a part of that equipment. When parts of an item of property plant and equipment have different useful lives, they are accounted for as separate items of property plant and equipment.

Property plant and equipment purchased from NRC research grants are identified as part of property plant and equipment of NRC temporarily until they transferred or disposed**.**

The accumulated depreciation is provided for, on the basis specified in 3.2.1.3 below

3.2.1.2. SUBSEQUENT EXPENDITURE

The cost of replacing part of an item of property, plant & equipment is recognized in the carrying amount of the item if it is probable that the future economic benefits are embodied within the part will flow to the NRC/NRC grants and its cost can be measured reliably. This includes major inspection and overhaul expenditure and accounted separately.

The cost to day to day servicing of property plant and equipment are recognized in profit and loss as incurred.

All other expenses include repairs or maintenance of property, plant and equipment in order to restore or maintain the future economic benefits expected from the originally assessed standard of performance, is recognized as an expense when incurred.

3.2.1.3 DEPRECIATION

The depreciation is recognized in profit and loss calculated on the cost of fixed assets in order to write off such cost over the estimated useful life provided. The depreciation is recognized in profit and loss on straight line basis over estimated useful lives of assets from the date on which they are available to use.

The estimated useful lives and annual rates of depreciation generally used by NRC for current and comparative periods are as follows:

Sundry assets	2 years	50.00%
Cutlery & Crockery	3 years	33.33%
Room linen	3 years	33.33%
Safety Equipment	3 years	33.33%
Library books	3 years	33.33%
Computers, Printers, and Accessories	5 years	20 %
Calculators & Clocks	5 years	20 %
Power supply equipment	5 years	20 %
Brass item	5 years	20 %
Motor vehicles	5 years	20 %
Air conditioners/Safes	10 years	10 %
Building	10 years	10 %
Expandable assets	10 years	10 %
Machinery & Tools	10 years	10 %
Office equipment	10 years	10 %
Refrigerators	10 years	10 %
CCTV System	5 years	20 %
Internet installation	0	

The estimated useful values of property plant and equipment purchased from research grants are depreciated until they are transferred or disposed based on following useful lives and percentages for current and comparative periods.

Lab equipment (Section 1)	10 years	10 %
Lab equipment (Section 2)	5 years	20%

Depreciation methods, useful lives and residual values are reassessed at the reporting date.

3.2.1.2. DERECOGNITION

The carrying amount of the property plant and equipment's or any subsequent expenditure is derecognized upon disposal or when no future economic benefits are expected from its use or disposal. Any Gains and losses arising of such de recognition of assets (calculated as the difference between the net disposal proceeds and carrying amount of the assets) are recognized in profit and losses (in the statements of financial performance) in the year the assets are derecognized and gains are not classified as revenue.

3.2.2. INTANGIBLE ASSETS AND AMORTIZATION

An intangible asset is recognized if it is probable that future economic benefits that are attributable to the assets will fall to the NRC and the cost of the asset can be measured reliably. These assets are stated in the in balance sheet at cost less accumulated amortization. Amortization is recognized in profit and loss on straight line basis over the estimated useful lives of intangible assets from the date on which they are available to use.

3.2.3. INVENTORIES

Inventories are measured at historical cost basis.

3.2.4. TRADE AND OTHER RECEIVABLES

Trade and other receivables are stated at their estimated realizable amounts.

3.2.5. NRC GRANTS

NRC grants represent the total amount accumulated over the years of awarded research grants.

Expenditure incurred from NRC grants are recognized as an expense in the income statement in the period in which they are incurred, except to the extent that they are directly attributable to acquisition, construction or production of assets, in which case they are identified as part of property plant and equipment until they are transferred or disposed

The funds received for research grants are capitalized directly to accumulated funds and the expenditure incurred except to acquisition, construction or production of assets are recognized in the income statement in year in which the expenses are incurred.

The expenditure from NRC grants identify as expenses incurred are recognized as part of recurrent receipt in income in the income statement in the respective periods in which the expenses are recognized.

3.3 LIABILITIES

Liabilities classified as current liabilities on the balance sheet are those which fall due to payments on demand or within one year from the reporting date. Noncurrent liabilities are those balances fall due for payment later than one year from the reporting date.

All known liabilities as at the date of the Balance Sheet have been accounted for in preparing the financial statements.

3.3.1. EMPLOYEE PROVIDENT FUND AND EMPLOYEE TRUST FUND

Employees are eligible for Employees Provident fund contributions and Employees trust fund contributions in line with respective statues and regulations. These are recognized as an expense in the statement of financial performance as incurred.

EPF deductions from the gross emoluments are as follows:

Employer	12%
Employee	8%

ETF deduction from the gross emoluments is as follows:

Employer	3%

3.3.2. TRADE AND OTHER PAYABLES

Trade and other payables are stated at their cost.

3.4. STATEMENT OF FINANCIAL PREFORMANCE

For the purpose of presentation of the statement of financial performance (statement of income), the nature of expenses method is adopted.

3.4.1 REVENUE

Government Grants received during the year under review towards recurrent and capital expenditure of NRC administration have been recognized to income statement and accumulated funds respectively. The expenditure from NRC grants as expenses incurred identify, annual depreciation of equipment, and loss on transferring equipment to Research Centers are recognized as part of recurrent receipt in income in the income statement in the respective periods in which the expenses are recognized.
Losses on disposal or transfer of items of property plant and equipment are determined by comparing the net sales or transfer proceeds with carrying amounts of property, plant and equipment and are recognized in statement of financial position as a loss and the impact to revenue is also identify as income to reflect the true nature of operations in the statement of financial position. The gains are adjusted vice versa.

3.4.2. EXPENDITURE

All expenditure incurred NRC operations has been charged to income in arriving at the profit /loss of the year. Repairs and renewals are charges to profit and loss in the year in which the expenditure is incurred.

Expenditure from NRC grants is also recognized as research and development expense in the income statement in the period in which they are incurred, except to the extent that they are directly attributable to acquisition, construction or production of assets, in which case they are identified as part of property plant and equipment.

Finance income and expenses comprises of gains and losses of translation of foreign currency are recognized in profit and loss as it occurs.

Rental income is recognized on an accrual basis. Other income is recognized on an accrual basis.

3.5. EVENTS AFTER THE BALANCE SHEET DATE

All material post balance sheet events have been considered and where appropriate adjustments or disclosures have been made in the respective notes in the financial statements.

3.6 CASH FLOW STATEMENT

Cash flow statement has been prepared using the direct method.

NATIONAL RESEARCH COUNCIL -SRI LANKA
NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2017

1. NRC ID Grants, TO Program and NRC PPP Program

ID Grants	Balance as at 31st December 2017	
	Bank	Cash
11-013	-	0.50
12-012	41,624.67	-
12-114	-	20,000.00
12-140		-
13-033	1,203,096.72	-
13-088	1,432,301.34	-
13-130	206.09	20,000.00
14-019	107,449.29	-
14-023	200,000.00	-
14-045	173,826.95	-
14-067	862,661.78	-
14-069	341,753.60	-
14-072	579,048.82	-
14-094	975,330.24	-
14-117	1,611,718.62	-
14-123	2,264,354.52	-
14-134	237,246.82	-
14-139	917,180.64	-
15-004	1,816,274.94	-
15-007	1,132,055.20	-
15-008	3,513,569.44	-
15-013	503,841.00	-
15-017	449,264.00	-
15-020	550,475.34	-
15-022	369,784.04	-
15-023	96,755.00	-
15-024	884,153.25	-
15-027	830,504.56	-
15-028	1,320,954.99	-
15-030	1,107,753.52	-
15-032	1,038,931.81	-
15-033	2,611,539.95	-
15-036	1,903,490.47	-
15-041	90,750.00	-
15-043	1,552,513.71	-
15-048	1,542,883.62	-
15-050	1,484,476.19	-
15-056	770,018.54	-
15-057	2,346,096.87	-

ID Grants	Balance as at 31st December 2016	
	Bank	cash
11-013	-	0.50
11-122	-	350.00
11-178	2,229,592.97	-
12-012	532,143.19	-
12-018	-	20,000.00
12-020	361,183.10	-
12-023	-	20,000.00
12-043	-	20,000.00
12-054	257,203.00	-
12-075	-	20,000.00
12-077	-	20,000.00
12-081	69,040.80	-
12-093	1,524,636.96	1,750.00
12-100	1,818,304.42	20,000.00
12-106	946,933.66	20,000.00
12-110	-	20,000.00
12-113	-	20,000.00
12-114	966,633.18	20,000.00
12-115	549,625.00	-
12-121	562,783.04	-
12-140	875,555.96	-
12-145	852,025.00	-
12-148	143,741.54	-
13-015	1,615,077.45	20,000.00
13-031	362,783.70	-
13-032	621,363.84	-
13-033	2,211,799.72	-
13-062	1,538,427.02	20,000.00
13-088	2,069,237.50	50,000.00
13-095		20,000.00
13-115	104,140.58	-
13-121	-	20,000.00
13-122	557,809.48	-
13-130	339,439.55	-
13-152	0.93	55.00
13-156	396,136.00	20,000.00
13-158	171,995.02	5,000.00
14-013	93,405.82	-
14-015	374,330.31	20,000.00

15-058	2,473,161.20	-
15-063	1,936,602.32	-
15-068	3,072,002.00	-
15-069	1,183,725.00	-
15-070	4,039,528.80	-
15-071	758,149.34	-
15-074	303,625.00	-
15-078	466,115.00	-
15-084	291,371.00	-
15-087	2,043,446.06	-
15-089	572,024.00	-
15-096	2,140,363.17	-
15-097	545,125.00	-
15-108	152,010.19	-
15-109	3,826,765.00	-
15-110	1,783,559.73	-
15-111	974,284.54	-
15-113	624,822.51	-
15-114	940,800.65	-
15-116	135,538.21	-
15-119	2,879,504.10	-
15-127	863,687.57	-
15-128	240,725.00	-
15-139	579,804.00	-
15-144	190,835.00	-
15-145	5,510,121.60	-
15-146	1,413,538.69	-
15-147	1,339,274.37	-
15-148	1,695,085.02	20,000.00
15-149	448,723.09	-
15-150	1,571,300.00	-
15-151	68,972.72	-
15-152	761,626.00	-
15-153	2,966,939.95	-
15-154	298,276.48	-
15-155	300,100.37	-
16-001	1,917,099.75	-
16-012	884,626.47	-
16-016	1,407,935.50	-
16-022	1,002,980.00	-
16-023	2,752,616.70	-
16-024	782,505.00	-
16-025	859,403.35	-
16-029	4,258,250.00	-
16-031	3,805,678.25	-
16-033	869,205.00	-
16-038	2,874,973.75	-

14-016	705,276.89	-
14-019	171,019.29	-
14-023	200,000.00	-
14-027	120,511.66	-
14-038	590,844.96	-
14-045	704,062.30	-
14-067	1,880,578.84	-
14-069	648,703.81	20,000.00
14-072	879,123.07	20,000.00
14-079	2,100.72	-
14-094	2,085,147.48	-
14-117	1,784,952.08	-
14-123	3,483,445.30	-
14-134	783,410.82	-
14-139	1,157,360.64	-
15-004	2,152,688.55	-
15-007	1,982,958.40	-
15-008	5,805,255.29	-
15-013	888,841.00	-
15-017	469,229.00	-
15-020	2,577,564.13	-
15-022	2,266,659.68	-
15-023	117,015.00	-
15-024	1,699,625.00	-
15-027	1,779,877.84	20,000.00
15-028	12,854,008.85	20,000.00
15-030	1,622,623.09	-
15-032	1,038,931.81	-
15-033	3,932,546.80	-
15-036	3,192,124.65	-
15-041	480,900.76	-
15-043	2,745,501.25	-
15-045	382,029.56	618.00
15-048	2,039,186.12	-
15-050	2,089,317.94	-
15-056	3,160,178.54	-
15-057	3,933,398.00	-
15-058	2,952,353.20	-
15-063	2,356,602.32	-
15-068	3,459,625.00	-
15-069	1,183,725.00	-
15-070	4,846,275.00	-
15-071	1,153,597.34	26,400.00
15-074	803,625.00	-
15-075	4,994,625.00	-
15-078	4,999,625.00	-
15-084	619,021.00	-

16-044	906,421.81	-
16-052	596,145.00	15,578.00
16-054	1,344,163.38	-
16-059	841,708.50	-
16-071	867,951.00	-
16-072	580,375.00	-
16-075	2,107,979.55	-
16-078	518,629.65	-
16-080	1,084,944.50	-
16-086	303,913.10	-
16-087	2,064,625.00	-
16-094	2,652,349.43	-
16-098	741,525.00	-
16-101	1,801,784.75	-
16-123	1,727,175.37	-
16-128	1,310,030.57	-
16-129	2,526,176.84	-
16-138	4,004,479.00	-
16-142	2,386,333.81	-
16-144	740,076.86	-
16-149	603,530.00	-
16-152	5,585,750.84	-
17-006	3,535,950.00	-
17-007	2,860,000.00	-
17-008	4,900,000.00	-
17-010	4,977,908.00	-
17-011	4,694,973.00	-
17-017	4,129,916.00	-
17-018	3,600,000.00	-
17-019	4,067,200.00	-
17-020	5,259,555.60	-
17-025	4,881,000.00	-
17-027	4,824,600.00	25,000.00
17-028	3,624,661.00	-
17-029	4,392,610.00	-
17-033	4,763,800.00	-
17-037	4,880,000.00	-
17-038	3,866,375.04	-
17-042	4,967,647.00	-
17-047	1,500,000.00	-
17-054	4,628,552.00	-
17-055	2,706,771.64	-
17-058	1,652,402.00	-
17-060	1,410,000.00	-
17-064	1,400,000.00	-
17-065	1,740,000.00	-
17-066	3,060,000.00	-

15-087	2,676,642.97	20,000.00
15-089	3,177,510.00	-
15-096	3,866,979.55	-
15-097	860,125.00	-
15-108	552,010.19	-
15-109	6,810,625.00	-
15-110	2,726,580.00	20,000.00
15-111	1,866,836.54	-
15-113	1,371,741.12	20,000.00
15-114	1,539,907.67	-
15-116	554,731.73	-
15-119	3,083,375.00	-
15-124	354,452.33	-
15-127	2,217,458.00	-
15-128	240,725.00	-
15-139	617,279.00	-
15-144	190,835.00	-
15-145	6,852,830.60	20,003.00
15-146	2,535,692.77	-
15-147	2,768,481.78	20,000.00
15-148	3,384,481.83	-
15-149	1,862,219.37	-
15-150	3,699,625.00	-
15-151	809,143.93	20,000.00
15-152	1,244,625.00	-
15-153	3,930,310.18	-
15-154	777,001.88	-
15-155	999,414.82	-
16-001	2,607,860.00	-
16-012	3,675,055.00	-
16-016	2,864,625.00	-
16-020	839,947.60	-
16-022	3,889,625.00	-
16-023	3,271,293.00	-
16-024	782,505.00	-
16-025	2,762,755.00	-
16-029	4,623,350.00	-
16-031	5,849,447.00	-
16-033	2,235,441.00	-
16-038	2,999,625.00	-
16-044	2,691,199.00	-
16-052	1,189,625.00	-
16-054	2,314,118.48	5,105.00
16-059	1,467,625.00	-
16-071	2,448,625.00	-
16-072	580,375.00	-
16-075	2,986,125.00	-

17-069	4,850,000.00	-	16-078	5,869,625.00	-
17-072	5,310,000.00	-	16-080	1,828,275.00	-
17-074	4,685,000.00	-	16-086	1,596,681.00	20,000.00
17-086	4,974,154.35	-	16-087	7,064,625.00	-
17-094	4,846,686.00	-	16-094	5,929,690.00	-
17-095	4,095,888.53	-	16-098	1,341,525.00	-
17-098	4,944,451.00	-	16-101	2,799,700.00	-
-	-	-	16-123	2,582,958.37	-
-	-	-	16-128	2,329,625.00	-
-	-	-	16-129	3,929,625.00	-
-	-	-	16-138	5,928,100.00	-
-	-	-	16-142	4,892,625.18	20,000.00
-	-	-	16-144	1,968,574.96	-
-	-	-	16-149	999,625.00	-
-	-	-	16-152	5,858,850.84	-
	268,996,863.11	**100,578.50**		**288,492,389.41**	**649,281.50**
Total		**269,097,441.61**	**Total**		**289,141,670.91**

TO Program	Balance as at 31st December 2017		TO Program	Balance as at 31st December 2016	
	Bank	**Cash**		**Bank**	**Cash**
14-004	12,918,054.99	-	14-004	18,686,872.56	111,000.00
14-005	4,942,204.30	-	14-005	9,329,620.97	-
14-010	6,798,998.23	-	14-010	11,746,507.80	-
14-018	38,829,862.45	-	14-018	40,364,552.40	-
14-024	26,339,959.44	-	14-024	39,948,540.67	20,000.00
16-007	40,777,687.92	-	16-007	49,920,000.00	-
16-015	43,627,071.56	-	16-015	49,900,000.00	-
16-018	45,405,766.23	-	**Total**	**219,896,094.40**	**131,000.00**
Total	**219,639,605.12**	-	**Total**		**220,027,094.40**

PPP Program	Balance as at 31st December 2017		PPP Program	Balance as at 31st December 2016	
	Bank	**Cash**		**Bank**	**Cash**
14-001	1,866,437.07	-	12-057	1,527,387.50	-
14-008	1,278,456.28	-	14-001	4,276,575.10	-
16-003	2,434,099.60	-	14-008	1,341,294.57	-
16-005	979,344.66	-	15-003	198,000.00	-
16-007	400,615.47	25,000.00	16-003	2,688,888.88	-
16-011	24,902,899.71	-	16-007	655,000.00	-
17-001	1,706,739.47	-	16-011	25,000,000.00	-
	33,568,592.26	**25,000.00**	**Total**	**35,687,146.05**	
Total		**33,593,592.26**	**Total**		**35,687,146.05**

02 OTHER FINANCIAL ASSETS

	2017 Rs.	2016 Rs.
Building Rental Deposit	1,950,000.00	1,950,000.00
Telecommunication Deposit	15,000.00	15,000.00
Container deposit (American Water)	6,000.00	6,000.00
Total	**1,971,000.00**	**1,971,000.00**

03. PROPERTY, PLANT AND EQUIPMENT

GROSS CARRYING AMOUNTS

Cost	Balance as at 31.12.2016 Rs.	Transfers Rs.	Additions /Transfers Rs.	Disposals Rs.	Balance as at 31.12.2017 Rs.
NRC Office Assets	14,264,137.50		4,193,212.28	4,443,718.23	14,013,631.55
Grants' Major Equipment	322,333,121.21		53,998,382.06	26,711,665.98	349,619,837.30
Grants' Minor Equipment	56,133,590.91		19,463,288.59	3,265,770.72	72,331,108.78
Total - Assets	**392,730,849.62**	-	**77,654,882.93**	**34,421,154.93**	**435,964,577.63**

	Balance as at 31.12.2016 Rs.	Transferred	Additions /Transfers Rs.	Disposals Rs.	Balance as at 31.12.2017 Rs.
Less : Provision for Depreciation					
NRC Office Assets	6,122,743.09		1,378,411.25	4,310,192.04	3,190,962.30
Grants' Major Equipment	83,221,908.61		35,225,645.93	12,836,370.89	105,611,183.60
Grants' Minor Equipment	21,902,475.21		10,583,997.19	2,403,107.37	30,083,365.07
Total - Provision for Depreciation	**111,247,126.90**		**47,188,054.38**	**19,549,670.30**	**138,885,510.97**

DEPRECIATION

NET BOOK VALUES OF PPE

	2017 Rs.	2016 Rs.
NRC Office Assets	10,822,669.25	8,141,394.41
Grants' Major Equipment	244,008,653.70	239,358,228.84
Grants' Minor Equipment	42,247,743.71	33,984,099.46
Total	**297,079,066.65**	**281,483,722.71**

04 PAYABLES

	2017 Rs.	2016 Rs.
Telecommunication Payable	36,837.40	29,043.62
Electricity Charges Payable	135,000.00	19,320.00
Water Charges Payable	4,500.00	1,500.00
Other Payables	87,656.78	113,870.73
Audit Fees Payable	345,887.60	209,025.60
Total	**609,881.78**	**372,759.95**

(07) RESEARCH & DEVELOPMENT

	2017 Rs.	*2016 Rs.*
ID Grantees' Consumable	34,386,953.66	41,012,302.07
ID Grantees' PhD Stipend	33,049,901.72	32,558,589.64
ID Grantees' Travelling	2,319,402.89	3,301,999.88
ID Grants Publication Cost	227,610.27	-
TO Program Consumable and Other Exp.	11,860,995.29	11,776,794.90
TO Grantees' PhD Stipend	18,532,034.33	15,402,053.75
TO Grantees' Travelling	2,320,259.00	4,458,731.00
PPP Prog. Consumable	470,530.72	245,488.00
PPP Grantees' PhD Stipend	330,526.83	-
PPP Grantees' Travelling	1,137,457.25	289,960.40
PPP Grants Outsourcing	1,285,930.78	2,052,146.50
Grants & Programs Administration	2,459,960.00	3,627,574.32
Transfer Proceeds	14,737,958.44	21,742,516.76
PASP Prog. Expenses	4,151,517.61	3,390,511.59
Other	8,323,548.51	2,671,553.51
	135,594,587.30	**142,530,222.32**
Depreciation of Major, Minor Equipment	45,809,643.12	40,689,975.81
06	**181,404,230.42**	**183,220,198.13**
(05) TREASURY RECURRENT RELEASE	20,981,436.00	16,679,325.00
January to December		
	20,981,436.00	**16,679,325.00**
Total Amount	**337,980,253.72**	**199,899,523.13**

NATIONAL RESEARCH COUNCIL -SRI LANKA
NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2017

08.Supplies, consumables & Rent

	2017 Rs.	2016 Rs.
Travelling	159,630.95	267,628.85
Stationery and Office requisites	591,659.35	102,094.35
Fuel & Lubricants	602,624.77	650,067.44
Diets & Conference	571,090.56	437,467.52
Vehicles-Repairs & Maintenance	480,705.40	157,769.92
Building Maintenance	1,155,581.99	979,998.49
Audit fee	136,862.00	109,489.60
Postal	273,156.66	346,599.79
Electricity	540,404.08	323,932.55
Water	18,000.00	6,343.18
telecommunication	490,296.34	394,378.26
Licence and Insurance	233,113.75	243,893.37
Rents	3,932,500.00	2,410,208.00
Printing and advertising	1,554,413.39	700,617.50
PPE maintains	498,698.30	620,843.51
Total	**11,238,737.54**	**7,751,332.33**

09.Research Grants and Other Programs

	2017 Rs.	2016 Rs.
ID Grants	129,315,241.65	115,251,397.00
PPP Grants	3,421,110.00	28,798,702.91
TO Grants	48,523,985.00	99,820,000.00
Evaluation and project monitoring	2,459,960.00	3,580,574.32
PASP	4,151,517.61	3,390,511.59
Other Program	2,969,652.74	686,595.35
Total	**190,841,467.00**	**251,527,781.17**

ජාතික විගණන කාර්යාලය
தேசிய கணக்காய்வு அலுவலகம்
NATIONAL AUDIT OFFICE

මගේ අංකය எனது இல. My No.	මබේ අංකය உமது இல. Your No.	දිනය திகதி Date
ටීඊසී/බී/එන්ආර්සී/1/17/23		2018 ඔක්තෝබර් 05 දින

සභාපති,

ශ්‍රී ලංකා ජාතික පර්යේෂණ සභාව

ශ්‍රී ලංකා ජාතික පර්යේෂණ සභාවේ 2017 දෙසැම්බර් 31 දිනෙන් අවසන් වර්ෂය සඳහා වූ මූල්‍ය ප්‍රකාශන පිළිබඳව 1971 අංක 38 දරන මුදල් පනතේ 14(2)(සී) වගන්තිය ප්‍රකාර විගණකාධිපති වාර්තාව

මාගේ සමාංක හා 2018 අගෝස්තු 31 දිනැති ලිපියට යොමුවේ.

02. ඉහත සඳහන් ලිපිය සමඟ එවන ලද මාගේ වාර්තාවේ ඉංග්‍රීසි අනුවාදය මේ සමඟ එවා ඇත.

ඊ.ඒ.පී.ආනන්ද
නියෝජ්‍ය විගණකාධිපති
විගණකාධිපති වෙනුවට

පිටපත් - 1. ලේකම්, විද්‍යා, තාක්ෂණ, පර්යේෂණ, නිපුණතා සංවර්ධන හා වෘත්තීය පුහුණු අමාත්‍යාංශය

2. ලේකම්, මුදල් හා ජනමාධ්‍ය අමාත්‍යාංශය

අංක 306/72, පොල්දූව පාර, බත්තරමුල්ල, ශ්‍රී ලංකාව   இல. 306/72, பொல்தூவ வீதி, பத்தரமுல்லை, இலங்கை.   No. 306/72, Polduwa Road, Battaramulla, Sri Lanka.
+94 11 2 88 70 28 - 34   +94 11 2 88 72 23   ag@auditorgeneral.gov.lk   www.auditorgeneral.gov.lk

ජාතික විගණන කාර්යාලය
தேசிய கணக்காய்வு அலுவலகம்
NATIONAL AUDIT OFFICE

මගේ අංකය / எனது இல. / My No. TEC/B/NRC/1/17/23

ඔබේ අංකය / உமது இல. / Your No.

දිනය / திகதி / Date 31 August 2018

The Chairman

National Research Council of Sri Lanka

Report of the Auditor General on the Financial Statements of National Research Council of Sri Lanka for the year ended 31 December 2017 in terms of Section 14 (2) (C) of the Finance Act No. 38 of 1971

The audit of financial statements of the National Research Council of Sri Lanka for the year ended 31 December 2017 comprising the statement of financial position as at 31 December 2017 and the statement of financial performance, statement of changes in equity and cash flow statement for the year then ended and a summary of significant accounting policies and other explanatory information, was carried out under my direction in pursuance of provisions in Article 154 (1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with Section 13 (1) of the Finance Act, No. 38 of 1971 and Section 19 of the National Research Council of Sri Lanka Act, No. 11 of 2016. My comments and observations which I consider should be published with the Annual Report of the Council in terms of Section 14(2) (c) of the Finance Act appear in this report.

1.2 Management's Responsibility for the Financial Statements

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

අංක 306/72, පොල්දූව පාර, බත්තරමුල්ල, ශ්‍රී ලංකාව   இல. 306/72, பொல்தூவ வீதி, பத்தரமுல்லை, இலங்கை.   No. 306/72, Polduwa Road, Battaramulla, Sri Lanka.
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1.3 Auditor's Responsibility

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

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

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

1.4 Basis for Qualified Opinion

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

2. Financial Statements

2. 1 Qualified Opinion

In my opinion, except for the matters described in paragraph 2.2 of this report the financial statements give a true and fair view of the financial position of the National Research Council of Sri Lanka as at 31 December 2017 and its financial performance and cash flows for the year then ended in accordance with Sri Lanka Public Sector Accounting Standards.

2. 2 Comments on Financial Statements

2.2.1 Accounting Deficiencies

The following observations are made.

(a) Three equipment amounted to Rs. 2,448,971 acquired for the projects but not the payments made had not been taken in to accounts as fixed assets in the year under review and 05 equipment amounted to Rs. 2,521,362 not acquired but payments made in the year under review had been brought to accounts as fixed assets.

(b) Forty five returned cheques totalled to Rs. 136,000 had been credited to the relevant expenditure account in the year under review.

2.3 Non- compliance with Laws, Rules, Regulations and Management Decisions

Although the advances obtained should be settled just after the completion of the activity in terms of the Public Finance Circular No. 03/ 2015 of 14 July 2015, a period from 20 days to 287 days had lapsed for the settlement of advances obtained in 07 instances totalled to Rs. 581,000 in the year under review. Similarly, the imprests provided for 06 Research Projects in the years 2015 and 2016 amounted to Rs. 125,578 had not been settled even by the 31 December 2017.

3. Financial Review

3.1 Financial Results

According to the financial statements presented, the financial result of the Council for the year under review had been a surplus of Rs. 1,084,732 as compared with the corresponding surplus of Rs. 571,740 for the preceding year thus indicating an improvement in the financial result by Rs. 512,992 in the year under review as compared with the preceding year. Even though supplies and consumables had increased by Rs. 3,487,406 as compared with the preceding year, the increase in recurrent grant by Rs. 4,302,111 had mainly attributed to the above increase.

Even though a deficit had been seen in the financial result of the Council in the year 2013 a surplus in financial result had been shown even by the year under review from the year 2014. Nevertheless, after taking into consideration the employees' remuneration and depreciation for non-current assets, the contribution amounted to Rs. 33,450,089 in the year 2013 had continuously improved up to Rs. 56,780,182 by the year 2017.

4. Operating Review

4.1 Performance

4.1.1 Planning

Even though the Individual Research Projects, Target Oriented Multidisciplinary Research Projects and Private-Public Partnership Research Projects are being implemented by the Research Council mainly, the provisions made for the each of Research Projects had not been shown separately in the Action Plan prepared for the year under review.

4.1.2 Activities and Review

The following observations are made.

(a) Even though facilitating for the development of a research base for contributing to the national needs is an objective of the Research Council in terms of Section 03 (b) of the National Research Council Act, while evaluating the final result of the " Investigator Driven Research" projects the ability of publishing a paper in Science Citation Index (SCI) is being considered as the success determining criteria of that and the Research Council does not express an opinion or give a recommendation in that connection by drawing attention regarding the outcome of the research , its impact and practical usage.

(b) The Final Reports Evaluations of 45 projects of " Investigator Driven Research" with a grant value of Rs. 171,915,712 had been carried out in the years 2016 and 2017 and it had been mentioned that the projects were completed successfully according to the Evaluation Reports of 21 Research Projects with a grant value of Rs. 88,386,921 out of that. Nevertheless, a judgement had not been given regarding the improvement of a good or a process by improving the research by conducting an evaluation with regard to the possibility of applying the results of those researches to national needs . Similarly, Out of these Research Projects the Patent had been obtained for only one Research Project with a grant value of Rs. 5,323,000 .

(c) Out of the on going Research Projects by the 31 December in the year under review, it was observed that the financial progress of 32 Research Projects which were given a provision amounted to Rs. 110,233,227 in the years 2014, 2015 and 2016 exists in between 7 per cent and 50 per cent .

(d) Even though the Final Report should be furnished within 03 months from the completion of the Project in terms of the General Rules and Regulations No. 21 of Guidelines for the Research Projects, the Research Reports relating to 11 Research Projects with a grant value of Rs. 29,419,455 completed in the years 2016 and 2017 had not received even by the date of audit in July 2018 . The delayed period of that was in between 03 months to 19 months.

(e) The Evaluation Reports related to the Final Report of a Research Project with a grant value of Rs. 2,635,000 commenced on 31 August 2012 and completed on 30 August 2015 had been handed over on 25 February 2017 . It had been mentioned that the Research was" satisfactory" as per the Evaluation Report. Nevertheless, it had failed to achieve 03 objectives out of 05 expected objectives mentioned in the Project Proposal, even though more than 2 years period had lapsed after completion of the Project.

(f) The Research Project commenced in the year 2013 at a cost of Rs. 11,583,792 with a private company to improve the resin of agarwood plants as suitable for commercialization and establish plant nurseries had been successfully completed by the December 2017. The Research Council had spent a sum of Rs. 5,687,500 for this Project . Although it was expected to create direct and indirect job opportunities , earn an income through the export, it had failed to obtain the necessary approval from the Department of Wildlife Conservation for the exportation of the parts of the agarwood plant even by the date of audit in July 2018 . Therefore it had not been able impossible to achieve the expected objectives of the Project.

(g) The Research Council had commenced a Research Project for an estimated value Rs. 20,218,000 in the year 2014 together with a private company for the identification of the impact for the minimization of kidney infection through the reduction of fluoride level and the concentration in the drinking water and the domestic water in a selected Grama Niladhari Division in the Vavuniya District. Scientific Examination of the ability of avoiding and minimizing the kidney infectious conditions had been included through supplying water with lower fluoride level and concentration the whole Grama Niladhari Division through positioning a water filter as the main objectives of this Project Proposal. Following observations are made in this regard.

(i) Even though a water purifier had been purchased in the month of August 2014 by incurring Rs. 2,403,925 or 24 per cent out of a sum of Rs. 10,109,000 which was the contribution of the Research Council for the whole project, a place for positioning this equipment had not been identified properly before purchasing the equipment. Even though it was positioned in a private land owner's land in the month of August that purify equipment had been removed from that place in the month of May because of the land owner had requested his land. As a result of that, the purified water had been taken from alternative places for the continuation of the project activities.

(ii) This equipment had been sold for Rs. 78,000 in the month of March 2018 assessed for Rs. 300,000. As a result of not commencing the Project after conducting a feasibility study, the purchase of the equipment was observed as an uneconomic transaction. Further it could not be able to fulfill the positioning of a water purifier which was a main objective of the Project.

(iii) The project period had ended on 11 August 2017 as per the Project agreement and even though an Analysis Report regarding the Project should be handed over to the Research Council before 03 months lapsed , the Final Project Report had not been handed over to the Council even by the date of audit in July 2018 .

4. 2 Management Activities

The following observations are made.

(a) The total provision relating to the Researches is being credited to a current account under the each project at the time of commencement instead of providing provisions from time to time by examining the progress of the

Researches when providing the provisions for the research projects by the Research Council. Out of the grants so credited to the accounts amounted to Rs. 897,277,751 relating to 155 projects commenced during the period from 2013 to 2017 , a sum of Rs. 522,205,060 had been in idle in the current accounts as at 31 December in the year under review.

(b) Even though 42 months to 06 months had elapsed since the final reports of 55 Research Projects which were completed during the period from 2008 to 2017 with a grant value of Rs. 223,136,633 had been furnished as at the date of audit in July 2018, the evaluations of Research Projects had not been carried out. Due to the delays in the evaluations as such, the practical importance of the outcomes of the Researches could have been minimized.

5. Sustainable Development

5.1 Sustainable Development Objectives and Achieving Goals

Every public institution should act in compliance with the United Nations Sustainable "Agenda" for the year 2030 for the Sustainable Development and the National Research Council of Sri Lanka had been aware as to how to take measures relating to the activities under purview of their scope relating to the year under review. The following observations are made in that connection.

(a) The objectives such as promotion of sustainable agriculture, promotion of healthy and well-being in every age , promotion of sustainable industrialization, sustainable consumption and confirmation of production and sustainable use of marine resources had been identified by the National Research Council as the objectives which should be achieved as per the scope.

Since the objective of promoting of a sustainable industrialization is relevant to the scope of the Research Council directly out of those objectives even though it could be identified that the encouragement of innovations and increasing the number of engaged in the research and development activities and increasing the expenditure for the research and development in the public and the private sector as main targets under that and the number of Researchers available for a million of the population, the percentage of the public - private partnership Research projects , the number of innovations forming annually and the number of commercialized, the number of Patents obtained, the number of national and international publications conducted and the number of problems occurred as national where as remedies applied through the researches as indicators for the measuring the achievements based on those targets had not been so identified.

(b) Even though the Research Council had identified the goals and the targets concerning its scope, the indicators relating to that had not been clearly identified. The indicator identified with regard to the objective of " Promoting the Sustainable Industrialization" was the value of the grants or the percentage provided by the each sector. Though that was accurate as the final indicator of measuring the progress of achieving the goals, while confirming the optimum utilization of government grants relating to the national needs, actions had not been taken to identify the problems at present in the Sectors identified, accurately determine what the problems which need prime solutions are and to identify the important indicators relating to each Sectors for that in collaborate with the organizations such as Ministry of Health, Ministry of Agriculture and the Department of Census and Statistical .

(c) Since the development of a research base contributing to the national needs is a main objective of the Research Council in addition to the above mentioned Sustainable Development Goals the ability of indirectly contributing for the " Obtaining water and sanitation facilities for all and ensure the sustainable management of them" had not been identified. Therefore, actions had not been taken to identify the goals relating to that , based data, milestones whereas the Goals accessible as well as the indicators exist for measuring the progress.

(d) Although it is essential to have an accurate database for measuring the correct performance (based on indicators) of any activity, the Council had not drawn attention on the facts such as making financial provisions, determination of a trained employee and fulfilling of enough physical facilities to generate an accurate data base for measuring the achievement of Sustainable Development Goals.

6. Accountability and Good Governance

6.1 Procurement and Contract Procedure

The following observations are made.

(a) Since a plan should be prepared for carrying out the purchasing of equipment to confirm the completion of the Research Projects efficiently and during the expected period, even though the a procurement plan / time frame should be obtained from the Researcher consisting basic components of a procurement procedure such as type of procurement, method of procurement, preparation of bid documents and time taken for approval, time taken for calling quotations , Evaluations of Technical Committee, required time period for the approval of the Procurement Committee when obtaining the Research Project Proposals, it had not been functioned in that manner.

(b) Equipment amounted to Rs. 73,461,671 had been purchased during the year under review for 52 Research Projects and since the awarding grants for those purchases had been done during the period from the year 2014 to the year 2016 , it was observed that if the procurement was properly planned there would be a possibility to purchase without delay.

7. Systems and Controls

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

Area of Systems and Controls	Observations
(a) Management of Research Projects	(i) Not obtaining the progress reports on time and taking a long time to do evaluations. (ii) Even though the Researcher is made aware of the evaluators' comments in respect of the progress reports, non-availability of a methodology to obtain responses immediately with regard to that . (iii) The Research Institute which represents the Researcher does not engage with the evaluation of the project . (iv) While evaluating of the progress of the "Investigation Driven Research Projects" only the progress reports provided by the Researchers are evaluated and not reviewed the progress by examining physically. (v) Non- availability of a methodology to get confirmed of the commencement of the research just after providing the funds.

	(vi)	Not Obtaining a statement as there were no any personal interests to the evaluators in respect of the research or the researcher.
(b) Procurement Management	(i)	Non- expression of a statement by the members of the Procurement Committees and the Technical Evaluation Committees regarding the confidentiality, impartiality and absence of personal interests.
	(ii)	Not maintaining a Register for Attendance for the bidders at the bid openings.
(c) Fixed Assets Control	(i)	Not issuing the Good Received Notes in respect of the purchasing of fixed assets.
	(ii)	Delays exists in recording purchased assets in to the Register of Fixed Assets and avoiding recording certain assets taken into books , not including all the required information .
	(iii)	Non- reconciliation of Register of Fixed Assets and the entries in the Ledger Accounts and non- supervision by a supervising officer.
(d) Petty cash Expenditure Control		Not approved the Registers of Petty Cash Expensed by an Authorized Officer .

Sgd./ H.M. GAMINI WIJESINGHE
Auditor General

H.M. Gamini Wijesinghe

Auditor General