

**ANNUAL REPORT - 2016**  
**NATIONAL RESEARCH COUNCIL**

**NATIONAL RESEARCH COUNCIL**  
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## **VISION & MISSION**

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### **Vision**

**“Enable Sri Lanka to achieve science and knowledge based developed country status”**

### **Mission**

**“To 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

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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

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- ❖ 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** (FROM 2013-09-09 TO 2016-08-29)

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### Chairman

1. Prof. Hithanadura Janaka de Silva Esquire

### Other Members

2. Prof. Kamini Nirmala Mendis
3. Prof. Ananda Rajitha Wickremasinghe
4. Prof. Hema Malinie Kumbalgoda Kankanam Pathirana
5. Prof. Hemanthi Ranasinghe
6. Prof. Wijerupage Sandhya Sulochana Wijesundera
7. Prof. Lakshman Lloyd Ratnayake
8. Madam Prof. Aurelia Jennifer Perera
9. Prof. Delgahawaththage Raj Kumar Somadeva Delgahawatta
10. Prof. Wiranjith Priyan Solomon Dias
11. Prof. Kathiragamanathan Kandasamy
12. Prof. Aruni Tilakaratne
13. Dr. Nanda Amarasekera
14. Dr. P. Nandalal Weerasinghe
15. Dr. Galbada Arachchige Sirimal Premakumara
16. Prof. Weerathunga Arachchige Janendra Mathalee De Costa
17. Eng. Moksevi Prelis

### Treasury Representative

18. Ms. Noor Rizna Aneez

## **COUNCIL** (FROM 2016-08-30 TO PRESENT)

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### 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

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

As at 31.12.2016



## **CHAIRMAN'S MESSAGE**

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It is with pleasure that I submit the Annual Report of the National Research Council (NRC) of Sri Lanka for the year 2016 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.

This year the NRC was established as statutory body by an Act of Parliament, which is a great encouragement to our dedicated and loyal staff. We funded three more Target Oriented Multidisciplinary Research Programmes, two of them for research into water safety and the other on eco-friendly farming. We have continued the Private-Public Partnership Programme, and in 2016 we funded three new projects. The NRC also awarded 34 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. Minister and State Minister of Science, Technology and Research also graced the event. 232 scientists were given awards for their publications in 2014. A further 436 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 unwavering support and encouragement.

Vidyajyothi Professor H. Janaka de Silva  
Chairman

# **EXECUTIVE SECRETARY'S REPORT**

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The year 2016 has been a special year for the NRC; it being enacted as a statutory body by a parliament act in July 2016. The NRC, founded in 1999 as a special unit at the Presidential Secretariat, was made a special agency in July 2007 by H.E. the President of Sri Lanka under the Article 33 of the Constitution. In July 2016, the Act No. 11 provided the establishment of National Research Council of Sri Lanka for fostering and sustaining a Science and Technology research culture and community in Sri Lanka and facilitating research programmes that will contribute to the National Development Agenda.

The NRC primary objectives as given 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.

It is a privilege to present the Annual Report for the FY 2016 and hope that it provides you with an insight into the activities of National Research Council during the year.

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 2016; Investigator Driven Research Grant Programme, Private-Public Partnership Programme, Target Oriented Multi-disciplinary Research Grant Programme, President's Awards for Scientific Publications, 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 2016, 152 applications were received from which 34 were funded offering 19 postgraduate fellowships. There were over 150 grants in operation

during the year. The final evaluation was completed in 31 grants, with 23 SCIE publications and 26 post graduates obtaining their degrees (07 PhDs and 19 MPhils) and research findings disseminated at 76 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 activities, and products were launched during the year; on formulating a para-pheromone from local varieties of *Ocimum sanctum* to control fruit and melon flies and locally developed respiratory care products. New EoI were called during the year, and 12 EoI were received and evaluated; four were selected for funding, and three were awarded. A total of 06 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. Pre-proposals were called from 13 identified areas, and fifty pre-proposals were received, out of which 21 were selected for submission of detailed proposals. Of the detailed proposals, three were selected for funding; one project dealing with eco-friendly farming technology and two projects on improving water quality. Progress review meetings were held during the year to evaluate and monitor the five ongoing projects.

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 2014 took place on 22<sup>nd</sup> November 2016, H.E. the President Maithripala Sirisena gracing the occasion; 232 scientists were felicitated.

Four Outreach Programmes were conducted to disseminate the findings of Investigator Driven grants, machine vision based intelligent surveillance, use of geo-information in elephant management, promotion of nitrogen fixing in rice plant roots through the introduction of *Azorhizobium caulinodans*, and pomegranate cultivation.

Over 50 newspaper articles were published to make the public aware of valuable research findings.

The NRC Secretariat was shifted to Vidya Mawatha in October 2016, offering easy access and excellent facilities to all stakeholders. As always the NRC strive to deliver the best to our scientists to ensure a good return on investment from the research projects we fund.

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	2014	2015	2016	2014	2015	2016
General administration of NRC					14.87	16.85	17.6
Development Assistance for below Programmes					232.89	268.52	230.00
Target Oriented Multi-disciplinary Research Programme (Programme started in 2014)	No. of Programmes	5 Programmes commenced		2 Programmes commenced			
Private Public Partnership Programme (Programme started in 2013)	No. of Programmes	2 Programmes commenced	1 Programmes commenced	3 Programmes commenced. 2 Products were launched.			

Investigator Driven Grants Programme ( Programme started in 1999)	No. of research grants awarded	23 Investigator Driven Grants were awarded	61 Investigator Driven Grants were awarded	34 Investigator Driven Grants were awarded	-	-	-
	No. of PhD/MPhil fellowships awarded.	17 PhD /M Phils fellowships	46 PhD /M Phils fellowships were awarded	19 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	Two PASP functions covering year 2007,2008,2009 (451 scientists) and 2010,2011,2012 (236 scientists) were completed.	PASP function was held for year 2013 publication, and 211 scientists were awarded	PASP function was held for year 2014 publications and ,232 scientists were awarded	-	-	-
Other Programs : Outreach/ Public Awareness Programme	Activities completed	25 Newspaper articles were published on research conducted by the NRC	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.	-	-	-
Total					238.58	285.37	247.60

# **NRC PROGRAMMES**

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## **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, irrigations 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 14000 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 2016, 232 scientists were awarded for the publications in indexed journals for year 2014.

### **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 programmes 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 - 2016

### TARGET ORIENTED MULTI DISCIPLINARY RESEARCH GRANTS

In May 2016, NRC advertised for new grant applications and funded three applicants after comprehensive evaluation process.

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

*“Development of eco-friendly farming technologies to minimize inorganic fertilizer usage while maintaining adequate productivity and improving soil fertility”*. Principal Investigator: Dr. Saman Dharmakeerthi, University of Peradeniya.



*“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”*. Principal Investigator: Prof. Rohan Weerasooriya, University of Peradeniya.



“Development of advanced materials based filters for water purification”. Principal Investigator: Dr Rohini de Silva, University of Colombo.



Five Target Oriented Multi-Disciplinary Grants, which were awarded in 2014, were in operation during the year 2016 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)

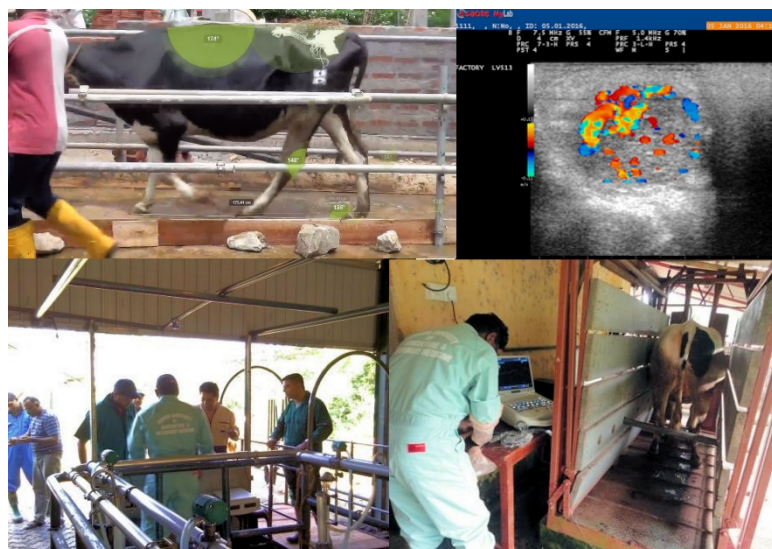
The objectives include collection and analysis of venom of medically important snakes of Sri Lanka by developing a state of art serpentarium; develop a polyvalent anti-venom for snakebite in Sri Lanka, and establishment of a horse facility to produce anti-venom in Sri Lanka.



■ **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, Mahailuppallama)

The aim is to develop high yielding, pest and disease tolerant/resistant varieties of Chilli, 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.



# INVESTIGATOR DRIVEN RESEARCH GRANTS

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The year 2016 started with calling for applications for NRC Investigator Driven Research Grants Programme by paper advertisement, which was circulated to all universities, faculties, and all the government R & D institutes.

Applications closed on 28<sup>th</sup> February 2016 and 157 applications were received. During the first quarter, the annual progress reports of the ongoing grants were send for evaluations.

The applications (2016) 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	2014	2015	2016
No. of Applications selected for funding after evaluation	21	53	36
No of Grants Funded	21+2*	50+11*	34
Total value of grants awarded through treasury funding	Rs. 84.2 Mn	Rs. 218 Mn	Rs. 107.6 Mn

\*previous year selected grants

Only 23% (36/157) of the applicants were selected and the designated applications were forwarded to the treasury for funding.

During the year, 34-research grants were funded from the applications of 2016, and the grant activities commenced.

By end of the year, evaluations completed for 31 grants.

## Funded Research Grants 2016

Grant No.	Principal Investigator & Institution	Title
16-001	Prof. Anuja P. Premawardhena University of Kelaniya	The Genetic origin (s) and distribution of the sickle cell gene and the clinical description of the sickle cell disease in Sri Lanka
16-012	Dr. G.D.K. Mahanama University of Ruhuna	Establishment of a wide field telescopic system compatible with the all sky camera network for observing Near Earth Objects (NEO) entering into the atmosphere near Sri Lankan Sky
16-016	Prof. N.S. Kottearachchi Wayamba University of Sri Lanka	QTL map based candidate gene discovery for salt tolerance in rice ( <i>Oryza sativa</i> )
16-020	Dr. J.A.B. Alawatugoda University of Peradeniya	Implementing server/client- side countermeasures against compression based side- channel attacks
16-022	Dr. J.R.S.S. Kumara University of Peradeniya	Condition Assessment of Generators using online partial discharge measurements
16-023	Dr. Gayani H. Galhena University of Colombo	A population genetic study of 12 X-STR loci in Sri Lankan population and its applicability in forensic and kinship analysis purposes
16-024	Dr. Andralal Balasuriya Sir John Kotelawala Defence University	Dating violence among undergraduates in Western Province: Magnitude, types, associated factors and effectiveness of an intervention in reducing violence
16-025	Dr. P.A.B.N. Perumpuli University of Ruhuna	Studies on thermos tolerant acetic acid bacteria from Sri Lanka and production of fermented healthy non-alcoholic beverages
16-029	Prof. D.K. Weerakoon University of Colombo	Impact of linear developments on ecology of wildlife with special reference to roads, railways and power lines in Sri Lanka
16-031	Prof. D.R. Wickramasinghe University of Sri Jayawardenepura	A sero-epidemiological study to provide supportive evidence to establish malaria elimination in Sri Lanka
16-033	Dr. N.S. Aratchige Coconut Research Institute	Assessment of behavioral and reproductive responses of coconut mites to coconut varieties and relationship of volatile organic compounds, lipid profiles and phenolic compounds of coconut varieties with their susceptibility levels to coconut mite
16-038	Dr. P.S. Fernando Veterinary Research Institute	Identification of reliable method for laboratory diagnosis of tuberculosis using nasopharyngeal swabs and saliva of PPD positive cattle and buffalo
16-044	Dr. J.P. Wansapura University of Colombo	A novel ultrasound technique to detect early chronic kidney disease
16-052	Dr. T.N. Rajapakse University of Peradeniya	A brief intervention for prevention of non-fatal self- poisoning delivered primary care nurses -a randomized controlled trial



16-054	Dr. H.M.S.P. Madawala University of Peradeniya	Investigation on ecological and socio- economic impacts of bamboo ( <i>Bambusa bambos</i> L. Voss ) in dry zone forests in Sri Lanka
16-059	Dr. W.A.P.P. de Silva University of Peradeniya	Species diversity and the potential vector status of Ornithophilic mosquitoes in Sri Lanka
16-071	Dr. R. Kapilan University of Jaffna	Characterization and purification of bacteriocin produced by lactic acid bacteria isolated from natural fermented food products
16-072	Dr. R.J.K.U. Ranatunga University of Peradeniya	Optimizing Dendrimer Architecture for Drug Entrapment
16-075	Dr. W.S. Dandeniya University of Peradeniya	Developing botanical nitrification inhibitors to reduce nitrogen fertilizer wastage in vegetable crop cultivation
16-078	Dr. M.M. Pathmalal University of Sri Jayawardenepura	Cyanotoxins: Hidden cause of Chronic Renal Disease in Sri Lanka
16-080	Dr. I. Premathilake University of Colombo	Sero-prevalance of anti-varicella IgG and factors associated with immunity in pregnant mothers attending antenatal clinics of De Soysa Maternity Hospital, Sri Lanka
16-086	Prof. P.S. Wijesinghe University of Kelaniya	Cost-effectiveness of three approaches to hysterectomy for benign uterine conditions: a multicenter randomized controlled trial
16-087	Dr. S.M.C. Himali University of Peradeniya	Novel approach to improve the omega 6: omega 3 fatty acid ratio in Sri Lanka diets: Eggs and broiler chicken meat
16-094	Prof. J.K.D.S. Jayanetti University of Colombo	Metal oxide nanocomposites supported on reduced graphene oxide for enhanced photocatalytic reactions
16-098	Prof. K.P.S.C. Jayaratne University of Colombo	Establishment of geomagnetic field measuring station in Sri Lanka
16-101	Dr. W.P.S.K. Perera University of Moratuwa	Application of nano-clay on polyester fabric as a bio-inspired approach to improve moisture management
16-123	Dr. P.G. Manthilaka SLINTEC	Synthesis of Value-added Products including Nanomaterials from Sri Lankan Laterite for Industrial Applications
16-128	Dr. K.P. Perera University of Sri Jayawardenepura	Ecotourism in Coastal Wetlands: Meeting the Dual Mandates of Recreation and Conservation
16-129	Dr. H.L.T.U. Ariyadasa University of Moratuwa	Investigation of the potential of employing indigenous microalgae for third generation biofuel production
16-138	Dr. I.R.M. Kottegoda Industrial Technology Institute	Further work on production of high quality graphene based materials from local graphite for high-tech application
16-142	Dr. P.A.D.H.N. Gunathilaka University of Kelaniya	Establishment of insectary facilities for the maintenance of potential leishmaniasis vectors and study on systematics, biology and bionomics of sandflies in Sri Lanka

16-144	Dr. K. Masakorala University of Ruhuna	Phytoremediation of used lubricating oil contaminated soils by <i>Impatiens balsamina</i> L. and <i>Crotalaria retusa</i>
16-149	Dr. K.S. Wanniarachchi University of Ruhuna	Investigation of flexural and shear behavior of innovative Cold-formed steel beams with web openings
16-152	Prof. Periyathamby Vinobaba Eastern University of Sri Lanka	Multivariate geo-statistical analysis of heavy metals in biotic and abiotic factors in Batticaloa lagoon.

# **PRESIDENT’S AWARDS FOR SCIENTIFIC PUBLICATION**

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The President’s Awards for Scientific Publication programme was held at Water’s Edge, Battaramulla, on 22<sup>th</sup> November 2016 for the ninth time.

232 Scientists with publications in indexed journals (in year 2014) were awarded. Over 300 publications involved in disciplines including medicine, agriculture, and engineering during the year 2014 received the awards.

The occasion was graced by H.E. the President, Maithripala Sirisena as the Chief Guest. The Minister of Science, Technology and Research, Mr. Susil Premajayantha, State Minister of Science, Technology and Research, Mr. Lakshman Senewiratne and the Secretary of Science, Technology and Research, Mrs. R. Wijjaludchumi 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.

# PRIVATE PUBLIC PARTNERSHIP PROGRAMME

The PPP Program is continued during the period.

Activities	2014	2015	2016
No of Expression of Interest (EOI) received for PPP	9	6	12
No of EOI's Selected to submit detail proposals	4	4	9
No. of Partnerships with Private Sector	1	1	3
Total Funds required	Rs. 20.2 Mn	Rs. 12.27 Mn	Rs. 56.687 Mn
Funds Provide buy the Private Sector (Approx. 50%)	Rs. 10.1 Mn	Rs. 6.17 Mn	Rs. 28.343 Mn

## Ongoing Private Public Partnerships...

Research Partner	Project Title
Dr. Anil Goonatilleke University of Sri Jayewardenepura	Locally developed respiratory care products
Mr. R. M. Dharmadasa Industrial Technology Institute	Formulation of a Para- pheromone from local varieties of Ocimum sanctum for the control of fruit and melon flies
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

# OTHER PROGRAMMES

Five Outreach Programs were conducted during the period.

## ■ Seminar on Machine Vision Based Intelligent Surveillance

(PI: Dr. Ajith Pasqual, University of Moratuwa)

The First quarter outreach programme of the National Research Council was held on 29th April 2016 at the Royal College Skills Center, Colombo 7, organized by Dr. Ajith Pasqual. Traffic police officers, security personnel at banks, other key organizations where security is a concern (participants were at the management level), planners of building complexes and smart cities represented the 100 participants. The main objective of the programme was to transfer techniques that can make the analysis efficient.

**Resource persons** were Dr. Ajith Pasqual, Dr. Jayathu Samarawickrama, and Dr. Ranga Rodrigo (NRC Grant No: 12-018, University of Moratuwa, Department of Electronics and Telecommunication Engineering.)

**Summary:** In the workshop, they first presented an overview of a good CCTV system, and the important aspects to consider when procuring an effective CCTV system. The next part was about intelligent surveillance methods. They discussed how to detect and enumerate Sri Lankan license plates using feeds from regular CCTV cameras and how activity recognition can make a CCTV system effective. The final session was on the future of networking infrastructure needs for building complexes and smart cities.



■ **Use of Geo-informatics in Wild Elephant Management.**

(PI: Dr. N.D.K. Dayawansa Department of Agricultural Engineering, University of Peradeniya)

The second quarter outreach programme on Use of Geo-informatics in Wild Elephant Management which was held at the National Wildlife Training and Research Center – Giritale, on 22<sup>nd</sup> July 2016. There were over 65 participants, including the decision makers at all levels in the Department of Wildlife Conservation involved in the management of the "human-elephant conflict": Park Wardens of National Parks, Regional Assistant Directors, Head office Divisional Heads of the Department of Wildlife.

**Resource person:** Mr. Ranjan Marasinghe (Deputy Director, Department of Wildlife Conservation)

**Summary:** The program was delivered as a workshop, and knowledge generated through research was transferred to potential users. Methodologies to determine elephant migratory routes for establishment of "elephant corridors" were presented. In addition, basic skills in the use of geo informatics, such as, the use of GPS, Satellite Remote Sensing and GIS were introduced.



■ **A bio-fertilizer which could reduce urea fertilizer usage for rice by 50%**

(PI: Prof. T. L. S. Tirimanne, Department of Plant Science, University of Colombo)

National Research Council has successfully conducted and completed the third quarter outreach programme for 2016, "A bio-fertilizer which could reduce urea fertilizer usage for rice by 50%" which was held at the Rice Research and Development Institution (RRDI), Bathalagoda, on 22<sup>nd</sup> August 2016.

The awareness programme targeted Representatives from the Government of Sri Lanka (Secretary, Department of Agriculture), Representatives of the Govi Niyamaka (Extension Officer), Govi Jana Sewa and AGA offices, Paddy Farmers, Economists, Environmentalists, Representatives of Fertilizer Companies.

**Resource person:** Prof. T.L.S. Tirimanne, Ms. Thilini Perera (Post Graduate Student) (NRC Grant No: 11-021, University of Colombo, Department of Plant Science) News paper and media representatives farmers and agriculture officers. The key resource person was Dr. Anura Dissanayake of the Rubber Research Institute, Agalawatte. Approximately 150 participants graced this occasion.

**Summary:** The purpose of the programme was to introduce the developed bio-fertilizer to relevant authorities and farmers and to explain its advantages, both economic and environmental.

The program compared rice crops grown with 100% urea fertilizer application and 50% urea application with the bio-fertilizer. Statistical comparisons of parameters such as 100 grain weight, total filled grain weight, Filled/Non Filled grain ratios of the different applications were explained.





■ **Proper management and cultivation practices to increase quality and quantity of pomegranate yield**

(PI: Dr. Pradeepa Bandaranayake - University of Peradeniya)

National Research Council has successfully conducted and completed the fourth quarter outreach programme for 2016, "Proper management and cultivation practices to increase quality and quantity of pomegranate yield" which was held at the Department of Agriculture Training Center, Vaddakachchi, Kilinochchi, on 15<sup>th</sup> September 2016.

**Resource person:** Dr. Pradeepa Bandaranayake

(NRC Grant No: 12-113, University of Peradeniya, Department of Agriculture)

**Collaborators of the project:** Prof. Palitha Weerakkody & Dr. R. H. G. Ranil together with Ms. Muditha Kumari, Mr. Ananda, and Mr. Ikram from DOA Kalpitiya who served as resource persons.

**Translator:** Ms. Saruja Selvascandan (lecturer - University of Jaffna)

**Target Audience:** Farmers and Agriculture Officers from Kilinochchi & Mullativu Districts. More than 75 participants.

**Summary:** The programme was delivered as a one-day workshop, and knowledge generated through research was transferred to potential users (selected farmers who were interested in large-scale cultivation). The programme consisted of videos with a field practice session on cultivation and management of pomegranates. This was followed by a question and answer session. Mr. S. Sivakumar, Provincial Director of Agriculture, Department of Agriculture, Northern Province, and other personnel from DOA helped to organize and conduct the programme. A booklet was published in both Sinhala and Tamil languages and a booklet (Tamil) together with a pomegranate plant was given to every participant.





■ **Training Workshop on Identification of fresh and processed sea cucumbers**

A training workshop on “Identification of fresh and processed sea cucumbers” organized by National Research Council (NRC 15-50 Research Grant) and the University of Sri Jayewardenepura with the collaboration of National Aquatic Resources Research and Development Agency (NARA) and Sri Lanka Association for Fisheries and Aquatic Resources (SLAFAR) was successfully held at NARA auditorium on 28th October 2016.

Through this workshop, around 110 participants represented from following different government organizations and private sector were trained on “how to identify fresh and processed sea cucumbers”.

1. Sri Lanka Navy
2. Sri Lanka Police
3. Department of Coast Guard
4. Sri Lanka Customs
5. Academics from Different Universities (University of Jaffna, University of Ruhuna and Ocean University)
6. Sri Lanka Standard Institute (SLSI)

7. Export Development Board (EDB)
8. Department of Fisheries and Aquatic Resources (DFAR)
9. National Aquaculture Development Authority (NAQDA)
10. National Aquatic Resources Research and Development Agency (NARA)
11. Sea cucumber exporters

**The resource persons of this workshop were;**

1. Dr. D.C.T. Dissanayake, Senior Lecturer, Department of Zoology, University of Sri Jayewardenepura and the PI of NRC 15-50 grant
2. Mr. Ganeshan Nishanthan, Postgraduate Student of NRC 15-50 grant, Department of Zoology, University of Sri Jayewardenepura
3. Mr. P.A.D. Ajith Kumara, Senior Scientist, Inland Aquaculture Resources Division, NARA

A booklet titled as “Fresh and Processed Sea Cucumbers of Sri Lanka – Identification Guide (ISBN 978-955-0263-07-3)” was produced as a training material and distributed among trainees.

# **ANNUAL ACCOUNTS - 2016**

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# AUDITOR GENERAL'S REPORT

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# CONTACT INFORMATION

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**National Research Council**

**120/7, Vidya Mawatha, Colombo 07.**

**Telephone General:** 011-2675176

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**Email:** [admin@nrc.gov.lk](mailto:admin@nrc.gov.lk)

**Website:** [www.nrc.gov.lk](http://www.nrc.gov.lk)



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# **ANNUAL ACCOUNTS - 2016**

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## **NATIONAL RESEARCH COUNCIL**



**MAY 17, 2017**  
**NATIONAL RESEARCH COUNCIL**  
120/07, Vidya Mawatha, Colombo 07  
Web: [www.nrc.gov.lk](http://www.nrc.gov.lk) E-mail: [nrc@sltnet.lk](mailto:nrc@sltnet.lk)

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# **Financial Statements for Year 2016**

*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, 2016

	Notes	2016 Rs.	2015 Restated Rs.
<b>ASSETS</b>			
<b>Current assets</b>			
Cash and cash equivalents		29,549,046.18	32,471,135.64
Special Advance		178,500.00	172,500.00
Prepayments	1		332,516.00
TO Program	9	220,027,094.40	197,822,716.55
NRC grants	9	289,141,670.91	319,838,192.21
NRC PPP Program	9	35,687,146.05	10,966,597.24
Other current assets			
		<b>574,583,457.54</b>	<b>561,603,657.64</b>
<b>Non-current assets</b>			
Receivables			
Investments in associates			
Other financial assets	2	1,971,000.00	390,000.00
Property, plant and equipment	8	281,483,722.71	250,932,933.43
Land and buildings			
Intangible assets			
Other non-financial assets			
		<b>283,454,722.71</b>	<b>251,322,933.43</b>
<b>Total assets</b>		<b>858,038,180.25</b>	<b>812,926,591.07</b>
<b>LIABILITIES</b>			
<b>Current liabilities</b>			
Payables	3	401,342.20	250,733.50
		401,342.20	<b>250,733.50</b>
<b>Non-current liabilities</b>			
Gratuity provision		242,185.00	197,755.00
			-
<b>Total liabilities</b>		643,527.20	448,488.50
<b>Net assets</b>		<b>857,394,653.05</b>	<b>812,478,102.57</b>
<b>NET ASSETS/EQUITY</b>			
Capital contributed by;			
Capital Grant		806,562,010.26	761,481,101.49
Reserves			
Accumulated surpluses/(deficits)		50,832,642.79	50,997,001.08
Minority interest			
<b>Total net assets/equity</b>		<b>857,394,653.05</b>	<b>812,478,102.57</b>

Note: From 1999, depreciation of all grantee's equipment has been transferred from Accumulated fund to Capital Account.

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  
Chairman/NRC

M. R. Prelis  
Member of the Council  
Chairman/ AMC

M. C. Rajapakse  
Executive Secretary

A. E. K. Dayarathna  
Acting Accountant



NATIONAL RESEARCH COUNCIL -SRI LANKA  
STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED DECEMBER 31, 2016

	Notes	2016 Rs.	2015 Restated Rs.
<b>Revenue</b>			
Recurrent receipts – NRC Administration	6	16,679,325.00	16,749,411.09
Capital Grant		927,914.07	828,478.98
Recurrent receipts – Research and development	6	183,220,198.13	150,973,964.80
Other receipts		1,582,120.00	1,580,669.39
Transfer proceeds- NRC		759,634.55	
House Rental Settlement		707,516.00	
<b>Total revenue</b>		<b>203,876,707.75</b>	<b>170,132,524.26</b>
<b>Expenses</b>			
Personal emoluments		9,000,840.96	8,721,587.92
Research & development	4	142,530,222.32	115,427,507.10
Supplies, consumables & Rent	10	7,771,512.33	7,498,529.83
Depreciation expense –NRC Grants	5	40,689,975.81	35,546,457.70
Depreciation – NRC office equipment's	8	927,914.07	828,478.98
Other expenses		1,637,200.00	871,200.00
Finance costs		16,250.00	13,850.00
Transfer Proceeds - NRC		759,634.55	
<b>Total expenses</b>		<b>203,333,550.04</b>	<b>168,907,611.53</b>
<b>Total expenses</b>			-
Share of surplus of associate's		<b>543,157.71</b>	<b>1,224,912.73</b>
<b>Surplus/(deficit) for the period</b>			
Attributable to:		<b>543,157.71</b>	1,224,912.73
Owners of controlling entity			-
Minority interest		<b>543,157.71</b>	<b>1,224,912.73</b>

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, 2016

	Notes	2016 Rs.	2015 Restated Rs.
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
<b>Receipts</b>			
Taxation			
Receipt from treasury (Recurrent)		16,679,325.00	16,749,411.09
Receipt from treasury (Development Assistance)		230,000,003.00	277,024,703.94
Sales of goods and services			
Receipts from closed grants		28,984,225.21	24,080,982.72
Interest received			
Other receipts		1,592,792.52	1,164,600.00
<b>Payments</b>			
Cash payment to employees		(10,577,070.96)	(9,516,352.92)
Superannuation			
Suppliers			
Research grants and Other Programs	7	(251,527,781.17)	(267,732,717.79)
Interest paid			
Other payments		(12,067,700.31)	(15,926,023.69)
<b>Net cash flows from operating activities</b>		<b>3,083,793.29</b>	<b>25,844,603.35</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
Purchase of plant and equipment		(5,999,882.75)	(876,448.00)
Proceeds from sale of plant and equipment			2,155.00
Proceeds from sale of investments			
Purchase of foreign currency securities			
<b>Net cash flows from investing activities</b>		<b>(5,999,882.75)</b>	<b>(874,293.00)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>			
Proceeds from borrowings			
Repayment of borrowings			
Distribution/dividend to government			
<b>Net cash flows from financing activities</b>		<b>-</b>	<b>-</b>
<b>Net increase/(decrease) in cash and cash equivalents</b>		<b>-2,916,089.46</b>	<b>24,970,310.35</b>
<b>Cash and cash equivalents at beginning of period</b>		<b>32,643,635.64</b>	<b>7,673,325.29</b>
<b>Cash and cash equivalents at end of period</b>		<b>29,727,546.18</b>	<b>32,643,635.64</b>

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, 2016

	Accumulated Surplus or Deficit Restated	Capital Grant Restated	Total Net Assets/Equity
	Rs	Rs	Rs
<b>Balance as at 01/01/2015</b>	<b>49,772,088.35</b>	<b>636,285,414.65</b>	<b>686,057,503.00</b>
Adjustment to 01/01/2015 balance		(26,571.51)	(26,571.51)
<b>Balance as at 01/01/2015</b>	<b>49,772,088.35</b>	<b>636,258,843.14</b>	<b>686,030,931.49</b>
Change in net asset/equity for 2015			
Capital Grant Received During the year 2015		277,024,699.44	277,024,699.44
Capital Grants identify as income for the year 2015		(97,685,553.30)	(97,685,553.30)
Depriciation in respect of Capital Assests & Loss on Disposal		(54,116,888.84)	(54,116,888.84)
	49,772,088.35	761,481,100.44	811,253,188.79
Surplus/ (deficit) for the period 2015	<b>1,224,912.73</b>		<b>1,224,912.73</b>
Balance as at 31/12/2015	<b>50,997,001.08</b>	<b>761,481,100.44</b>	<b>812,478,101.52</b>
<b>Balance as at 01/01/2016</b>	<b>50,997,001.08</b>	<b>761,481,100.44</b>	<b>812,478,101.52</b>
Rent and rental deposits transfer as revenue adjustment 13-108 grant	(707,516.00)		(707,516.00)
Capital Grant Received During the year 2016	-	(11,347.50)	(11,347.50)
Provision for gratuity	-	230,000,003.00	230,000,003.00
Adjustment IFS rent	-		
Adjustment to 31/12/2016 Bank balance	-		
Capital Grants identify as income for the year 2016	-	(120,787,705.56)	(120,787,705.56)
Depriciation in respect of Capital Assests & Loss on Disposal	-	(64,120,041.17)	(64,120,041.17)
	50,289,485.08	806,562,010.26	856,851,495.34
	50,289,485.08	806,562,010.26	856,851,495.34
Surplus/ (deficit) for the period 2016	<b>543,157.71</b>	-	<b>543,157.71</b>
<b>Balance as at 31/12/2016</b>	<b>50,832,642.79</b>	<b>806,562,010.26</b>	<b>857,394,653.05</b>

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

## NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

### 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 29<sup>th</sup> 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 31<sup>st</sup> 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 29<sup>th</sup> 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 31<sup>st</sup> December 2016 is Rs. 6,254,356.71

##### *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 31<sup>st</sup> December 2016

**NATIONAL RESEARCH COUNCIL -SRI LANKA  
NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016**

were authorized for issue by the Board of Council Members on 19/05/2017

**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 causing 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.

# NATIONAL RESEARCH COUNCIL -SRI LANKA

## NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

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

### **3.1 FOREIGN CURRENCY TRANSLATION**

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:

**NATIONAL RESEARCH COUNCIL -SRI LANKA**  
**NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016**

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

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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%
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**3.3.2. TRADE AND OTHER PAYABLES**

Trade and other payables are stated at their cost.

**3.4. STATEMENT OF FINANCIAL PERFORMANCE**

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.

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 NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

**01 PREPAYMENTS**

	2016 Rs.	2015 Restated Rs.
Building Rent	-	332,516.00
<b>Total</b>		<b>332,516.00</b>

**02 OTHER FINANCIAL ASSETS**

	2016 Rs.	2015 Restated Rs.
Building Rental Deposit	1,950,000.00	375,000.00
Telecommunication Deposit	15,000.00	15,000.00
Container deposit (American Water)	6,000.00	-
<b>Total</b>	<b>1,971,000.00</b>	<b>390,000.00</b>

**03 PAYABLES**

	2016 Rs.	2015 Restated Rs.
Telecommunication Payable	29,043.62	11,954.46
Electricity Charges Payable	40,000.00	18,013.50
Water Charges Payable	1,000.00	316.42
Other Payables	122,272.98	120,913.00
Audit Fees Payable	209,025.60	99,536.00
	-	-
	-	-
<b>Total</b>	<b>401,342.20</b>	<b>250,733.38</b>

NATIONAL RESEARCH COUNCIL -SRI LANKA  
 NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

	2016 Rs.	2015 Restated Rs.
<b>(04) RESEARCH &amp; DEVELOPMENT</b>		
Grantees' Consumable	41,012,302.07	37,661,094.70
TO Program Expenses	31,637,579.65	19,473,604.10
Grantees' PhD Stipend	32,558,589.64	25,180,577.83
Grants & Programs Administration	3,627,574.32	2,398,908.00
Transfer Proceeds	21,742,516.76	17,741,952.16
PPP Prog. Expenses	2,587,594.90	2,636,605.69
PASR Prog. Expenses	3,390,511.59	2,757,208.82
Grantee's Travelling.	3,301,999.88	3,516,913.03
Other	2,671,553.51	4,060,642.77
	<b>142,530,222.32</b>	<b>115,427,507.10</b>
Depreciation of Major and Minor Equipment <b>(05)</b>	40,689,975.81 <b>183,220,198.13</b>	35,546,457.70 <b>150,973,964.80</b>
<b>(06) TREASURY RECURRENT RELEASE</b>		
January to December	16,679,325.00	16,749,411.09
	16,679,325.00	16,749,411.09
<b>Total Amount</b>	<b>199,899,523.13</b>	<b>167,723,375.89</b>

**07. Research Grants and Other Programs**

	2016 Rs.	2015 Restated Rs.
ID Grants	115,251,397.00	218,975,666.25
PPP Grants	28,798,702.91	6,100,000.00
TO Grants	99,820,000.00	36,853,288.72
Evaluation and project monitoring	3,580,574.32	2,398,908.00
PASP	3,390,511.59	2,757,208.82
Other program	686,595.35	647,646.00
<b>Total</b>	<b>251,527,781.17</b>	<b>267,732,717.79</b>

NATIONAL RESEARCH COUNCIL -SRI LANKA  
NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

8. PROPERTY, PLANT AND EQUIPMENT  
GROSS CARRYING AMOUNTS

Cost	Balance as at 31.12.2015 Rs.	Transfers Rs.	Additions /Transfers Rs.	Disposals Rs.	Balance as at 31.12.2016 Rs.
NRC Office Assets	11,235,073.58	44,890.00	6,358,555.15	3,374,381.23	14,264,137.50
Grants' Major Equipment	282,516,642.42		73,880,321.23	34,063,842.44	322,333,121.21
Grants' Minor Equipment	46,168,032.99	(44,890.00)	14,431,954.07	4,421,506.15	56,133,590.91
<b>Total - Assets</b>	<b>339,919,748.99</b>	<b>-</b>	<b>94,670,830.45</b>	<b>41,859,729.82</b>	<b>392,730,849.62</b>

DEPRECIATION

	Balance as at 31.12.2015 Rs.	Transferred Rs.	Additions /Transfers Rs.	Disposals Rs.	Balance as at 31.12.2016 Rs.
<b>Less : Provision for Depreciation</b>		-			
NRC Office Assets	7,775,417.56	34,158.14	927,914.07	2,614,746.68	6,122,743.09
Grants' Major Equipment	65,235,747.55		32,064,640.27	14,078,478.35	83,221,909.47
Grants' Minor Equipment	15,975,650.43	(34,158.14)	8,625,335.54	2,664,353.48	21,902,474.35
<b>Total - Provision for Depreciation</b>	<b>88,986,815.55</b>		<b>41,617,889.88</b>	<b>19,357,578.52</b>	<b>111,247,126.90</b>

NET BOOK VALUES OF PPE

	2016 Rs.	2015 Rs.
NRC Office Assets	8,141,394.41	3,459,656.02
Grants' Major Equipment	239,358,228.84	217,527,911.97
Grants' Minor Equipment	33,984,099.46	29,945,365.45
<b>Total</b>	<b>281,483,722.71</b>	<b>250,932,933.43</b>



09. NRC Grants, TO Program and NRC PPP Program

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
14-016	705,276.89	-
14-019	171,019.29	-
14-023	200,000.00	-

NRC Grant	Balances as at 31 st December 2015	
	Bank Rs	Cash Rs
08-043	23,884.00	-
11-011	111,666.83	-
11-013	-	0.50
11-018	259,696.61	-
11-022	-	108.00
11-040	366,217.72	-
11-049	510,593.91	-
11-086	9,764.01	-
11-100	282,107.56	-
11-107	225,177.37	-
11-113	7,388.47	-
11-120	809,974.00	-
11-122	34,209.52	15,000.00
11-124	41,900.82	-
11-125	501,773.50	20,000.00
11-149	447,403.35	-
11-178	2,551,597.97	-
11-195	330,910.49	20,000.00
12-003	521,216.40	-
12-012	1,275,685.97	-
12-017	109,310.00	-
12-018	825,286.30	20,000.00
12-020	1,021,898.09	20,000.00
12-022	26,839.93	20,000.00
12-023	601,248.10	-
12-032	790,687.73	-
12-037	655,340.09	-
12-043	760,564.33	20,000.00
12-054	434,466.85	-
12-074	465,754.80	-
12-075	329,948.13	20,000.00
12-077	92,434.30	-
12-081	720,119.81	20,000.00
12-082	260,922.04	-
12-086	84,095.04	-
12-093	2,784,636.96	1,750.00
12-100	2,983,184.61	20,000.00
12-102	790,551.95	-
12-104	1,185,500.00	-
12-106	1,226,370.40	-
12-109	336,160.60	-

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	-
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	-

12-110	2,338,395.40	20,000.00
12-113	1,321,545.45	20,000.00
12-114	1,687,535.18	-
12-115	549,625.00	-
12-121	1,700,968.82	-
12-122	811,428.92	-
12-130	259,994.27	-
12-133	111,669.52	-
12-140	2,684,738.69	-
12-145	852,025.00	-
12-148	1,008,355.88	-
13-015	2,077,159.27	-
13-031	3,164,183.70	-
13-032	985,214.34	-
13-033	3,040,698.53	-
13-042	583,051.99	-
13-050	391,886.98	-
13-059	4,714,740.69	-
13-062	2,459,975.91	-
13-087	517,849.89	-
13-088	3,681,627.66	-
13-095	1,581,047.10	0.79
13-108	3,657,597.21	20,000.00
13-109	1,527,220.31	-
13-115	174,515.58	-
13-121	1,518,611.00	20,000.00
13-122	1,214,908.00	-
13-130	1,061,801.39	20,000.00
13-134	244,155.02	-
13-152	1,083,712.57	10,000.00
13-156	595,290.00	20,000.00
13-158	642,860.65	-
13-159	112,987.00	-
13-160	442,432.82	-
13-164	234,625.00	-
14-013	478,405.82	-
14-015	1,219,894.70	-
14-016	2,013,485.87	-
14-019	510,219.29	-
14-023	200,000.00	-
14-027	586,371.28	-
14-038	1,190,444.96	-
14-043	142,045.56	-
14-045	704,062.30	-
14-061	1,105,450.00	-
14-067	2,423,351.29	-
14-069	1,638,345.33	-
14-072	1,577,218.84	44,000.00
14-079	641,780.26	-
14-094	2,632,919.02	-

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	-
16-078	5,869,625.00	-
16-080	1,828,275.00	-
16-086	1,596,681.00	20,000.00
16-087	7,064,625.00	-
16-094	5,929,690.00	-
16-098	1,341,525.00	-
16-101	2,799,700.00	-
16-123	2,582,958.37	-
16-128	2,329,625.00	-

14-105	877,933.33	20,000.00
14-117	2,307,275.08	-
14-123	3,791,026.66	-
14-125	44,563.79	-
14-134	1,636,375.82	-
14-139	3,481,048.60	-
15-004	4,880,000.00	20,000.00
15-007	2,489,625.00	-
15-008	8,022,325.00	-
15-013	1,308,841.00	-
15-017	899,625.00	-
15-020	3,859,625.00	-
15-022	2,918,325.00	-
15-023	547,015.00	-
15-024	2,084,625.00	-
15-027	4,714,625.00	-
15-028	7,189,843.00	-
15-030	1,839,625.00	-
15-032	4,949,625.00	-
15-033	4,809,137.00	-
15-036	4,765,125.00	-
15-041	2,335,000.00	-
15-043	3,893,099.20	-
15-045	1,814,958.56	20,000.00
15-048	2,841,138.00	-
15-050	3,361,976.57	-
15-056	4,464,025.00	-
15-057	5,510,000.00	-
15-058	4,704,475.00	24,000.00
15-063	3,989,625.00	-
15-068	3,699,625.00	-
15-069	1,183,725.00	-
15-070	4,846,275.00	-
15-071	1,994,158.44	20,000.00
15-074	1,419,625.00	-
15-075	4,994,625.00	-
15-078	5,000,000.00	-
15-084	3,293,375.00	20,000.00
15-087	3,355,545.00	-
15-089	4,907,821.00	-
15-096	4,990,000.00	-
15-097	1,559,625.00	-
15-106	4,999,625.00	-
15-108	4,999,625.00	-
15-109	6,810,625.00	-
15-110	4,049,625.00	-
15-111	3,365,835.00	-
15-113	4,330,125.07	-
15-114	3,489,100.07	-
15-116	1,534,291.73	-



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	
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
	<b>288,492,389.41</b>	<b>649,281.50</b>
<b>Total</b>		<b>289,141,670.91</b>

15-119	3,283,375.00	-
15-124	554,625.00	-
15-127	4,889,625.00	-
15-128	399,625.00	-
15-139	1,080,195.00	-
15-144	559,625.00	-
15-145	6,998,725.00	-
15-146	4,944,625.00	-
15-147	3,785,105.00	-
15-148	4,989,107.00	-
15-149	3,263,100.00	-
15-150	3,699,625.00	-
15-151	2,939,625.00	-
15-152	1,579,625.00	-
15-153	5,369,625.00	-
15-154	2,929,225.18	-
15-155	2,029,200.00	-
<b>Total</b>	<b>319,343,332.92</b>	<b>494,859.29</b>
<b>Total</b>		<b>319,838,192.21</b>

TO Program	Bank	cash
14-004	18,686,872.56	111,000.00
14-005	9,329,620.97	-
14-010	11,746,507.80	-
14-018	40,364,552.40	-
14-024	39,948,540.67	20,000.00
16-007	49,920,000.00	-
16-015	49,900,000.00	-
<b>Total</b>	<b>219,896,094.40</b>	<b>131,000.00</b>
<b>Total</b>		<b>220,027,094.40</b>

TO Program	Bank	Cash
14-004	33,691,941.06	31,000.00
14-005	47,890,923.40	
14-010	22,617,154.63	
14-018	45,722,276.16	
14-024	47,849,421.30	20,000.00
-	-	-
-	-	-
<b>Total</b>	<b>197,771,716.55</b>	<b>51,000.00</b>
<b>Total</b>		<b>197,822,716.55</b>

PPP - NRC	Bank	cash
12-057	1,527,387.50	-
14-001	4,276,575.10	-
14-008	1,341,294.57	-
15-003	198,000.00	-
16-003	2,688,888.88	-
16-007	655,000.00	-
16-011	25,000,000.00	-
<b>Total</b>	<b>35,687,146.05</b>	<b>-</b>
<b>Total</b>		<b>35,687,146.05</b>

PPP- NRC	Bank	Cash
12-018	1,146,514.11	-
12-026	1,088,802.41	-
12-057	1,652,312.50	-
14-001	5,672,907.00	-
14-008	1,406,061.22	-
-	-	-
-	-	-
<b>Total</b>	<b>10,966,597.24</b>	<b>-</b>
<b>Total</b>		<b>10,966,597.24</b>

NATIONAL RESEARCH COUNCIL -SRI LANKA  
 NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2016

**(10) Supplies, Consumables & Rent**

	2016 Rs.	2015 Restated Rs.
Diets & Conferences	437,467.52	359,362.71
Fuel and Lubricants	650,067.44	510,388.00
Stationary	102,094.35	467,724.44
Travelling	267,628.85	201,306.55
Electricity	344,612.55	252,649.35
Water	5,843.18	14,687.84
Postal	346,599.79	452,317.50
Telecommunication	394,378.26	313,651.67
Rents	2,410,208.00	1,962,580.00
License and Insurance	243,893.37	199,644.57
Printing & Advertising	700,617.50	395,118.50
Building Structures	979,998.49	1,096,689.18
Audit Fee	109,489.60	95,000.00
PPE Maintenance	620,843.51	532,307.02
Vehicle Maintenance	157,769.92	274,200.57
Other	-	370,901.93
<b>Total</b>	<b><u>7,771,512.33</u></b>	<b><u>7,498,529.83</u></b>



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கணக்காய்வாளர் தலைமை அபிபதி திணைக்களம்  
**AUDITOR GENERAL'S DEPARTMENT**



මගේ අංකය  
எனது இல.  
My No.

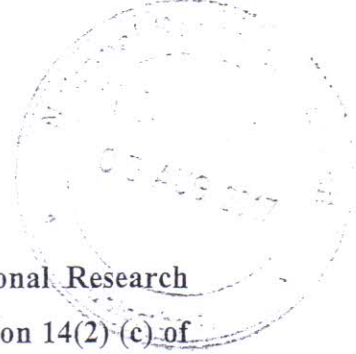
TEC/B/NRC/1/16/42

ඔබේ අංකය  
உமது இல.  
Your No.

දිනය  
திகதி  
Date

30 June 2017

The Chairman,  
National Research Council of Sri Lanka.



**Report of the Auditor General on the Financial Statements of the National Research Council of Sri Lanka for the year ended 31 December 2016 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 2016 comprising the statement of financial position as at 31 December 2016 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. A detailed report in terms of Section 13 (7) (a) of the Finance Act, was issued to the Chairman of the Council on 26 April, 2017.

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

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



### 1.3 Auditor's Responsibility

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatements of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Council's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the 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.

## 2. Financial Statements

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### 2.1 Opinion

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In my opinion, 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 2016 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 Non-compliances with Laws, Rules, Regulations, and Management Decisions

The following instances of non-compliance were observed.

Reference to Laws, Rules, and Regulations	Non-compliances
(a.) Guideline 6.3.3 of the Procurement Guidelines - 2006	The bids for procuring equipment valued at Rs. 5,537,748 for 03 research projects in the year under review, had not been opened by a committee appointed by the Procurement Committee to do so. Instead, the bids had been opened by the Technical Evaluation Committee itself.
(b.) Regulation 371 of the Financial Regulations of the Democratic Socialist Republic of Sri Lanka.	Action had not been taken even up to 31 December, 2016 to settle the imprest balance totalling Rs. 775,278 granted for 37 research projects in the years 2015 and 2016.

## 3. Financial Review

### 3.1 Financial Results

According to the financial statements presented, the financial result of the Council for the year ended 31 December, had been a surplus of Rs. 543,158 as compared with the surplus of Rs.1,224,913 for the preceding year, thus indicating a deterioration of Rs. 681,755 in the financial result of the year under review as compared with the preceding year. Although the income had increased by a sum of Rs. 33,744,183 in the year under review as compared with the preceding year, the increase in the expenditure by a sum of Rs. 34,425,938 had attributed to the said deterioration.

The analysis of the financial results of the year under review and 04 preceding years revealed that a surplus had resulted in for the year 2012, whereas a deterioration had resulted in for the year 2013. However, a surplus had occurred in the financial result

from the year 2014 up to the year under review. Considering the employee remuneration and depreciation on the non-current assets, the contribution of the Council in the year 2012 amounting to Rs. 26,390,369 had continuously improved and reached Rs. 51,868,747 in the year under review.

#### 4. Operating Review

##### 4.1 Performance

The Objectives of the Council in terms of Section 03 of the National Research Council of Sri Lanka Act, No. 11 of 2016, 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;
- To solicit the co-operation of the private sector in the enhancement of research relating to science and technology.

The following observations are made in achieving the said objectives.

- a) Eighty two research projects valued at Rs. 303,080,868 had been concluded from the year 2012 up to the year 2016. The following observations are made in that connection.
  - (i) Although a sum of Rs. 127,079,375 had been incurred on 41 projects, no publication had been made locally or internationally.
  - (ii) Although a sum of Rs. 160,178,293 had been incurred on 51 research projects, no goods or service had been invented. Of the 31 projects in

which goods or a service had been invented, patent rights had been obtained only for 02 projects.

- b) The funds amounting to Rs. 33,535,475 as at the commencement of the year under review that had been granted in the year 2015 in respect of 07 research projects, had remained idle without being incurred despite a lapse of over a year.

## 4.2 Management Activities

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The following observations are made.

- (a.) The final report should be presented within a period of 03 months since the conclusion of the research project. Although a period ranging from 02 months to 01 year had elapsed since the conclusion of 22 projects valued at Rs. 78,706,331, the final reports had not been furnished. Furthermore, despite a period ranging from 02 months to 02 years elapsed since the final reports of 30 research projects valued at Rs. 124,201,840 had been furnished, action had not been taken to evaluate those final reports.
- (b.) When research projects were granted provisions by the Research Council, the total of the provisions for a period of 03 years had been credited to a current account being maintained under each project, at the time of commencing the project. As funds had been released in its entirety without identifying the financial requirements, a sum of Rs. 504,134,943 in respect of 138 research projects launched from the year 2011 to 2016, had remained idle in the current accounts as at 31 December, of the year under review without any benefit.

## 5. Accountability and Good Governance

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### 5.1 Action Plan

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Although the projects being implemented by the Research Council are mainly of the types: individual research projects, objective multi-disciplinary research projects, and private-public partnership projects, the provisions allocated for each research project had not been shown separately in the Action Plan prepared for the year under review.

## 6. Systems and Controls

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

Area of Systems and Controls	Observations
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(a) Financial Management and Assets Management	(i) Delays in purchasing equipment, and due to that reason, the funds remained idle in the current accounts.  (ii) Incompatibilities between the inventory numbers shown in the registers, and the values when handing over the equipment.  (iii) Failure to maintain the inventory in an up to date manner by recording the information relating to the assets purchased for research projects, or handed over to the research institutions.  (iv) Failure to take action to take over the equipment pertaining to the research projects that had become unsuccessful thereby assigning such equipment to other projects without delay.
(b) Project Management	(i) Non-verification of the places where programmes on dengue had been held, and the participation therein.  (ii) Supporting documents relating to the direct settlement of the school programmes.

H.M. Gamini Wijesinghe.  
 Auditor General

**Sgd./ H.M. GAMINI WIJESINGHE**  
**Auditor General**