

Annual Report 2016



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NATIONAL
SCIENCE
FOUNDATION

Chairperson's Message

It gives me great pleasure to present the annual report of National Science Foundation (NSF) for the year 2016. As we look back at the evolution of NSF since its inception in 1994 after its predecessors; National Resources, Energy and Science Authority (NARESA) and National Science Council (NSC), we can be pleased with the many achievements NSF has made. NSF has carried out many activities successfully during the year 2016 in order to achieve its objectives.

I proudly mention here that NSF strengthen bilateral cooperation with two foreign countries by signing two MoUs with Pakistan Science Foundation (PSF) in early January and the National Natural Science Foundation of China (NSFC) in April 2016, and organizing 'NSF Global Partnerships' with scientists from USA, Canada, Germany, China and Japan.

NSF organized a science dialogue with Ms Irina Bokova, the Director General of UNESCO to identify opportunities for the Sri Lankan Scientific Community to collaborate and participate in UNESCO Science Programme.

I am happy to announce that NSF supported local scientists in achieving foreign training during the year under review, by providing 48 grants worth LKR 11.75mn to them under highly popularized NSF Overseas Special Training Programme (OSTP) Scheme. I should mention here that NSF is the only organization which provides travel grants for local scientists to participate at foreign conferences, seminars and workshops to share their research findings, upgrade knowledge and establish linkages with the scientists working in similar areas across the globe for future collaborative activities. During 2016, 63 travel grants (LKR 17.8mn) were awarded.

For the first time, NSF successfully organized "NSF Research Summit - Empowered by Research & Innovation" in July 2016 at BMICH, Colombo with the participation of over 500 scientists / industrialists, undergraduates and top performers of the 2015 A/L examination. As a result, a special project on "Research Programme on Health Science (RPHS)" was commenced to support and assist research in Diabetics, Dengue, CKDu and Cancer, and awarded 24 research grants amounting LKR 45.9mn during the year under review.

Another special project on Cinnamon in collaboration with Ministry of Primary Industries was commenced to upgrade the cinnamon production industry of Sri Lanka to enable it to be internationally competitive.

I am happy to mention that one hundred and sixteen (116) ongoing research grants (including 24 new grants) were funded, strengthening the research base in the country and facilitating scientists to engage in research, thereby contributing to national development. From 2016, scientists can apply for grants at any time of the year, and there are no deadlines to meet for this activity. This is applied for all the grant schemes implemented by NSF.

NSF initiated two new grant schemes to support scientists, and school and university communities. "Grants for Page Charges" was on such scheme to meet the publication costs of Sri Lankan Scientists whose papers have been accepted by reputed journals indexed in the Science Citation Index, Science Citation Index expanded and Social Science Citation Index as an encouragement for them, to ensure greater visibility for their R & D activities. "Overseas Science Education Programme (OSEP)" was the second scheme initiated to provide financial support to school children, teachers, and university students to participate at science education and popularization programmes in foreign countries.

I express my best wishes to the scientists who were nominated for the SUSRED Awards and TWAS/NSF Young Scientists Awards. These awards will boost research spirit of scientists and increase their contribution to the national development.

In November 2016, NSF being the focal point of celebrating World Science Day declared UNESCO in 2001, organized the World Science Day School Programme successfully with the participation of school community and undergraduates. Various activities and competitions in school and undergraduate level were organized to cultivate interest on science among the younger generation. The theme of the programme was “Science for Healthy Living”, which was beautifully explained by Prof. Narada Warnasuriya, Senior Professor of Paediatrics, Faculty of Medicine, General Sir John Kotelawala Defense University, Rathmalana.

I am delighted to mention here that for the first time in the history of Science Research Projects Competition (SRPC), it was able to produce a special award winner at the Intel International Science & Engineering Fair 2016 which was in held in Phonix, Arizona, USA from May 08-13, 2016.

It is a pleasure to mention here that the Journal of the National Science Foundation of Sri Lanka (JNSF) is the only journal in Sri Lanka, currently indexed in Thomson Reuters Science Citation Index Expanded. During 2016, all four (04) issues of JNSF volume 44 (issues 1, 2, 3, 4) were published on time.

NSF supported Technology research in Sri Lanka by providing funds for eight (08) new Technology grants valued LKR 23.6mn in 2016 and six (06) projects were completed with tangible outputs during the year under review.

I am happy to mention that dedicated service of the Board of Management, Working Committees, Advisory Boards and Research Panels led the Foundation in a strategic direction to be the premier driving force in promoting science, technology and innovation of the country.

I express my sincere gratitude to all of the staff members of NSF, especially to Ms H A U Amarasinghe, Director-General, Dr Seetha I. Wickramasinghe who acted for Director General, and Dr Thamara F. Dias who covered the duties of the Director General taking the responsibilities of executing the activities under taken in achieving the goals of NSF during the year 2016.

Prof. Sirimali Fernando
Chairperson, National Science Foundation

Director General's Report

This review focuses on the performance of the National Science Foundation for the year 2016 (01st January – 31st December).

Financial Review

The NSF was allocated Rs. 250Mn as capital to deliver outputs according to the functions as stipulated in the Science & Technology Development Act No. 11 of 1994. Accordingly, the NSF staff worked hard and made a significant progress achieving the set targets stipulated in the 2016 Action Plan. The total capital budget spent on the activities was Rs. 243Mn. Some work had been completed and there was a financial commitment over Rs. 117.45Mn by the end of 2016. However, due to various reasons the total capital approved for the NSF was not received by 31st December, 2016.

Besides the activities stipulated in the Action Plan of 2016, the NSF initiated a Special Project in 2016; Research Project on Health Science (RPHS) with the approval of the National Budget. The National Budget allocated Rs. 250Mn for this project in order to implement the activities as approved by the National Budget. However, only Rs 50Mn was released during this year hence, a significant component of the project was brought forward to the year 2017.

In addition, the NSF implemented another special project on “Cinnamon Research and Related Activities” together with the Ministry of Primary Industries (MPI). The capital for this project Rs. 40Mn was transferred to the NSF by the MPI and the project was being handled by the NSF as per the MOU signed with the MPI successfully. The project activities are being continued in 2017.

Delivering the outputs as stipulated in the Action Plan 2016

The NSF faced challenges and was affected by the staff constraints due to high turnover experienced over several years. However, applying various mechanisms and strategies, the NSF was able to make continuous progress throughout the year. Highlights of the progress are given in a separate section and a complete review of all the activities performed by the NSF is given under main sections with analyses. A brief is given below.

Supporting Basic & Applied Research and Scientific Conferences

In the competitive arena, out of 129 applications, 24 research grants were awarded in this year and 11 selected and approved grants were brought forward for award in 2017. Proposal writing workshops and grant orientation seminars were held as is done annually enhancing the knowledge of grant recipients about NSF procedures and grant attracting effective proposal writing. Progress of R & D projects were being monitored continually throughout the year. A few R & D out puts are elaborated in the report with pictures. The financial support for R & D under the Competitive Research Grant Scheme for this year was Rs.68.87Mn. The NTRP programme initiated in 2012 was being continued efficiently in 2016 under the themes “Food Security” and, “Climate Change and Natural Disasters”.

The other support schemes, “Research Equipment Grant Scheme, Spare Parts Scheme for Research Equipment and ‘Grants for Page Charges’” were being implemented with financial contribution of Rs. 72.06Mn.

Technology Support

Technology support was provided under two separate grants schemes, “Support for Technology Development” and “Support for Start-up Business Based on New Technologies”. Applications were called at two occasions by open advertisements and eight grants worth of Rs. 25.6Mn were awarded. Some tangible grant outputs are elaborated with pictures in the relevant section. Reviews on the grant outputs were published in the newspapers with the objective of disseminating information on new local technological advances attracting investors. The work on formulation of the policy on University-Institute-Industry Partnerships was revived and being progressed.

Rewarding for research and technological excellence

The work on the award scheme to confer national recognition to the scientists & technologists who have excelled in their fields was completed by calling and evaluating applications. However, no applicants had reached the required standards. Therefore, no national awards were granted in 2016. However, NSF awards and other awards were conferred at a ceremony held with the presence of the Hon. Minister of Science, Technology & Research.

Safeguarding people and environment

Sri Lanka’s Man and the Biosphere programme (MAB) was a direct outcome of the UNESCO-Biosphere Conference of 1968 and was launched in Sri Lanka in 1971. Activities pertaining to the year 2016 were carried out with success. The activities pertaining to the International Biosphere Reserves (IBRs) viz, implementation of recommendations of periodic reviews is considered important and is mentioned in the relevant section of this report.

Sponsoring scientific meetings

The scheme of “Sponsoring Scientific Events and Training Programs” was in progress. Forty one (41) Sponsorships worth of Rs. 16,9Mn were provided during 2016 covering various disciplines in Basic and Applied Sciences including Social Science. Graphical presentation provides the information on subject fields covered and the allocation.

Providing a source for policy formulation on science and technology

The National Research Development and Innovation Survey 2014 was continued with data collection and data analysis. Preparation of the S & T indicators was completed. The “Sri Lanka Science and Technology Statistical Handbook 2014” will be published in 2017. Taking into account the importance of social science, a survey was conducted to investigate the factors affecting social science research in Sri Lanka. Data collection was completed.

The NSF being the key funding body it was suggested to carry out an impact assessment of research funded by the NSF since its inception. However, limiting to the data available currently, a review was undertaken to access the impact of Competitive Research Grants awarded since 1971. The NSF had awarded 2,472 grants up to 2012 and the study was in progress.

The updating of the STMIS database that provides information on the S & T personnel, institutions, equipment and services available in the country was in progress and currently contains information of more than 6131 S & T personnel. Plans were underway to upgrade the database with more features.

A few seminars and workshops were held facilitating collection of up-to-date information for preparing policy recommendations.

Science & Technology Information Gateway

The NSF continues to provide an efficient information dissemination service to the scientific community using information communication technologies. In view of this, the NSLRC has made continuous effort to foster the interchange of scientific information among scientists in Sri Lanka and abroad, by serving as the National repository of Science & Technology Literature. It has also been a continuous effort to provide an efficient Science and Technology information services through various databases, e-repositories etc and by training of library professionals and technical personnel. A detailed account of updates of various databases and improvement are provided under the relevant section.

The National Digitization Project which was commenced in 2013 as phase 1 and continued in 2015 as phase II. The Phase III of the project commenced in 2016 and was being progressed with identification of institutional collections to be digitized, selecting a suitable service provider to undertake phase III of the project and signing the contracts for implementation.

Work on publishing the two journals was in progress and accordingly, all four (04) issues of the JNSF volume 44 were published. One issue of 2015 (Volume 38, No.1) and one issue of 2016 (Volume 39 No.1) of the Journal of the Social Science of Sri Lanka were published. The work on volume 39 No.2, the December 2016 issue was in progress.

Popularizing science

The NSF continued to progress with delivering its service for science popularization throughout the year. It included conducting a series of activities for the school science community and the general public under the theme "Science for All" during this year. Production of video programmes was continued under "Mihimandala" programme, Phase II. A description of work performed highlighting major inputs is given under the relevant section of this report.

Gateway for international collaboration

The NSF maintains international liaison with research organizations and universities abroad with the objective to foster scientific research collaboration among the local and foreign bodies as well as capacity and capability building of scientific personnel in the country. Accordingly, the NSF continued to conduct the activities relating to international cooperation to ensure the enhancement of contribution towards S & T development through bilateral and multilateral scientific cooperation. Several meetings, workshops were held with foreign and related local experts attracting new ideas for cooperation and establishing new links for research cooperation. A few MOUs were signed and work was being progressed in connection with signing new MOUs.

The programmes and schemes to deliver support to local scientists for international cooperation and exposure were implemented in 2016 as was being done in the previous years.

Workforce and infrastructure development

The NSF made a continuous effort during the whole year to improve the infrastructure facilities and to create an efficient human resource pool that provides a base for effective performance of the institution towards achieving institutional goals. Many staff development programmes and training in subject fields were provided to the staff through the Staff Development Committee.

Two new programmes viz, providing physical training and language training (English) were initiated and implemented in order to passionate the staff and self-identification of their strengths and also to improve their health. These two programmes are highly acknowledged by the staff. Especially, the physical training programme is highly respected by the staff due to lot of health improvements and physical performance enhancement.

Special projects implemented

Under the Special projects “Research Project on Health Sciences” was successfully initiated with the “Research Summit 2016”. Expressions of interests (EsOI) were called from the scientists in relevant fields under four identified themes, Cancer, Dengue, CKDu and Diabetes. This project was initiated with a view to ensure that significant amount of the sparse research funds are diverted to the areas of national importance and to promote need based research. Thirty eight (38) EsOI were received and based on the discussions 24 full proposals were developed and grants were awarded.

Based on the MoU signed between the NSF and Ministry of Primary Industries (MPI), the project on “Cinnamon and Cinnamon Related Activities” was launched with the objective to best utilize the allocated funds, Rs. 50Mn, to leverage the cinnamon industry and grasp the global market effectively. Twenty two (22) applications were evaluated and developed into five main proposals through discussions and implemented by inter-disciplinary research teams.

As the CEO covering the duties of the Director General of the NSF, I wish to thank the entire staff and the Board of Management of the NSF for giving me all the support since August 01, 2017 in the execution of the Action Plan 2016 delivering the expected outputs as specified in same. The contributions and the role of the Advisory Boards, Research and other Committees were of immense help in obtaining suitable recommendations for obtaining necessary approvals for implementation. Hence, I wish to express my sincere gratitude to all the Members of the Advisory Boards and the Committees for rendering their services to the NSF. I also wish to sincerely acknowledge the hard work of the NSF staff amidst all constraints and the inputs and the valuable time of the Members of the Advisory Boards and Committees on behalf of the Board of Management of the NSF. I wish 2017 also will be glamorous for NSF in carrying out mandatory tasks efficiently and effectively with the support of the entire scientific community and the NSF will be able to deliver its best towards the socio-economic growth through the development of S & T.

Dr Thamara F. Dias
Director General (Covering)

Table of Contents

Chairperson’s Message	I
Director General’s Report	III
Table of Contents	VII
Overview, Values, Vision, Mission and Mandate	1
Key Philosophy	2
Board of Management	3
Organizational Structure	5
NSF National Committees	6
Highlights 2016	7
Enriching Welfare of the People by Supporting Basic & Applied Research and Scientific Conferences	11
Maintaining a Current Register of Scientific and Technical Personnel	33
Fostering Interchange of Scientific Information between Sri Lanka and Abroad	37
Popularizing Science amongst School Children and the General Public	47
Promoting and Enhancing Capacity Building of Sri Lankan Scientists through the award of Scholarships and Fellowships for scientific work at science and technology institutes	57
Enhancing Infrastructure Facilities and Improving the Working Environment	65
Financial Statements	
Observations of the Accounting Officer on Performance 2015	70
Statement of Financial Position as at 31 st December 2016	73
Statement of Cash Flow	74
Notes on Accounts	75
Audit Report 2016	
Report of the Auditor General	83
NSF Comments of the Audit Report	91
Annexes	
Annex 1 - Research Grants Awarded - 2016	122
Annex 2 - Research Grants Completed during - 2016	126
Annex 3 - Summary of Research Grants Scheme - 2016	131
Annex 4 - Ongoing Projects of the National Thematic Research Programme on Food Security - 2016	132
Annex 5 - Research Equipment Grants - Awarded - 2016	133
Annex 6 - Technology Grants Awarded in year 2016	137
Annex 7 - Projects selected for NSF Technology Awards/ Certificate of Commendation 2015	138
Annex 8 - SUSRED AWARDS - 2016	139
Annex 9 - NASTA Awards/ Certificate of Merit Recipients under different Categories and their Projects	142
Annex 10 - Grants for Scientific Meetings and Training Programmes 2016	143
Annex 11 - Research Scholarships Awarded in 2016	146
Annex 12 - Research Scholarships Completed in 2016	148
Annex 13 - Travel Grants Awarded 2016	149
Annex 14 - OSTP Grants Awarded 2016	158
Annex 15 - IPSAT Award - 2016	164
Annex 16 - Participation of NSF staff at Conferences / Meetings / Lectures (Foreign & Local) - 2016	168
Annex 17 - Principal Staff - 2016	170

OVERVIEW

The National Science Foundation, which functions under the purview of Ministry of Science, Technology and Research completed 48 years of dedicated service to the nation in May, 2016. It was initially established as the National Science Council (NSC) in 1968 (by Act No. 09 of 1968). NSC was restructured as the Natural Resources, Energy and Science Authority (NARESA) in 1982 (by Act No. 78 of 1981). After 16 years of service, NARESA was reorganized as the National Science Foundation in 1998 (by Act No. 11 of 1994).

VALUES

While upholding the two principles: universality of science and the freedom in the pursuit of knowledge, NSF is committed to observe and uphold the freedom of scientists, as individuals, to communicate and associate with other scientists, globally, in the furtherance of their knowledge without discrimination on grounds other than scientific merit. Furthermore, in pursuing its objectives in respect of the rights and responsibilities of scientists, NSF opposes any discrimination based on age, ethnic origin, gender, language, physical disability, political stance and religion.

VISION

“To be the nation’s premier driving force in promoting Science, Technology and Innovation for economic and social prosperity of Sri Lanka”

MISSION

Initiate, facilitate and support research development, innovations and technology transfer through funding, knowledge creation, capacity building, partnerships, information dissemination and popularizing science so as to;

- Create a knowledge driven economy and well informed society efficiently and effectively, and
- Contribute to improve the quality of life and standard of living of our people,

by nurturing a competent staff and ensuring transparency, accountability, fairness, equality and principles of sustainability.

MANDATE

NSF is mandated to function in accordance with the provisions of the Science and Technology Development Act No. 11 of 1994 as follows:

- a) to initiate, facilitate and support basic and applied scientific research by universities, science and technology institutions and individual scientists, with a view to:
 - Strengthening scientific research potential, including research in the social sciences, and science education programmes

- Developing the natural resources of Sri Lanka
 - Promoting the welfare of the people of Sri Lanka
 - Training research personnel in science and technology
- b) to foster the interchange of scientific information among scientists in Sri Lanka and abroad.
 - c) to award scholarships and fellowships for scientific study or scientific work at recognized science and technology institutions.
 - d) to maintain an updated register of scientific and technical personal in Sri Lanka, and to make available policy related information and data on the projected needs of human, physical and financial resources for scientific research and advancement.
 - e) to popularize science amongst the people by funding programmes for the purpose.

KEY PHILOSOPHY

NSF abides by two principles.

Universality of Science

NSF observes and upholds the freedom of scientists as individuals, to communicate and associate with other scientists globally, in the furtherance of their scientific knowledge without discrimination on grounds other than scientific merit. Furthermore, in pursuing its objectives in respect of the rights and responsibilities of scientists, NSF opposes any discrimination based on age, ethnic origin, gender, language, physical disability, political stance, and religion. NSF shall not accept disruption of its own activities by statements or actions that intentionally or otherwise prevent the application of this principle.

Freedom in the Pursuit of Science

NSF observes and upholds the rights of scientists to freely pursue science, provided it is in accordance with accepted scientific process and is undertaken responsibly. NSF recognizes that individual scientists have a responsibility to conduct their work with honesty, integrity, openness ethical norms and respect, and with a collective responsibility to maximize the benefits of science and to dispel the misuse of science for society as a whole.

BOARD OF MANAGEMENT OF NSF

NSF is governed by a Board of Management, which consists of the Chairperson; the Director General; a Member each representing the University Grants Commission (UGC), the Sri Lanka Association for the Advancement of Science (SLAAS), the Institution of Engineers of Sri Lanka (IESL), the National Institute of Education (NIE), and the Ministry of Finance, and four other members appointed by the Honorable Minister of Science, Technology and Research.

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(w.e.f. January - December 2016)

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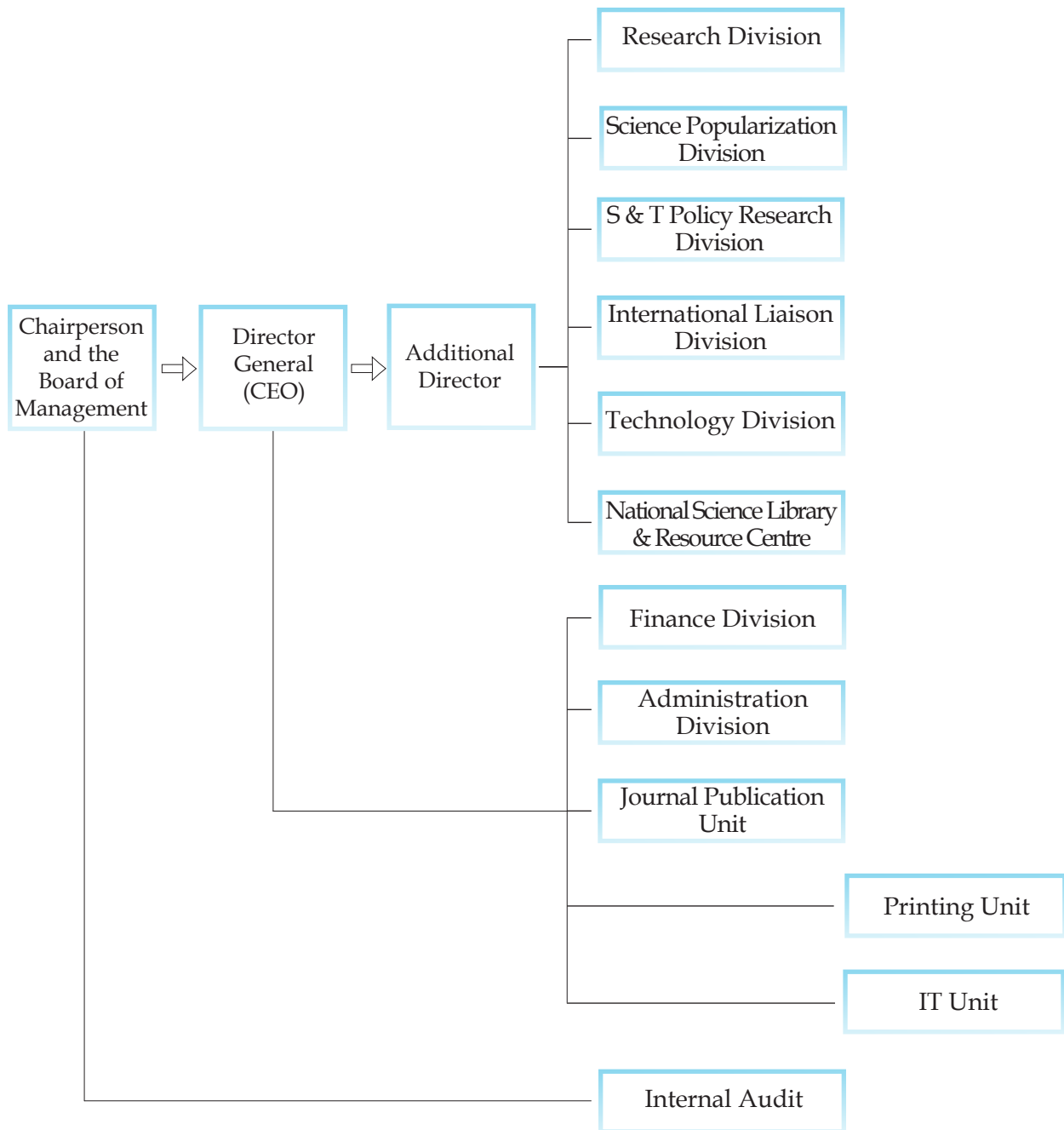
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Organization structure



NSF Committees

- **NSF Working Committees**

NSF has established expert Working Committees with a view to meet the requirements stated in the Science and Technology Development Act No.11 of 1994, and to act in accordance with the National Science and Technology Policy for Sri Lanka. The members of the Committees are selected according to their expertise in the relevant fields. The main responsibility of the above Committees is to advise the Board of Management (BoM) on development and implementation of its plans and programmes based on the NSF mandate while ensuring alignment with the National Science and Technology Policy of Sri Lanka with an orientation towards national development objectives.

Following NSF Working Committees actively provided their service to the NSF during the year under review.

- NSF Working Committee on Basic Sciences
- NSF Working Committee on Biotechnology & Bioethics
- NSF Working Committee on Agriculture & Food Sciences
- NSF Working Committee on Oceanography & Marine Resources
- NSF Working Committee on Health Sciences
- NSF Working Committee on Environment & Biodiversity
- NSF Working Committee on Engineering, Architecture and ICT
- NSF Working Committee on UNESCO Participation Programme
- NSF Working Committee on Science, Mathematics and Engineering Education
- NSF Working Committee on Science Popularization
- NSF Working Committee on Library & Information Sciences
- NSF Working Committee on Social Sciences
- NSF Working Committee on S & T Policy Studies
- NSF Working Committee on Indigenous Knowledge
- NSF Working Committee on International Liaison

- **National Committees :**

- National Committee on Man and the Biosphere

- **Special Committees :**

- Editorial Board – Journal of National Science Foundation of Sri Lanka (JNSF)
- Editorial Board – Sri Lanka Journal of Social Sciences (SLJSS)
- Research Advisory Board (RAB)

- **Steering Committees :**

- Steering Committee on Climate Change & Natural Disasters



Highlights 2016

- ❖ Signing of a Memorandum of Understanding (MoU) on Bilateral Scientific Cooperation between National Science Foundation of Sri Lanka (NSF) and Pakistan Science Foundation (PSF) (in early January, 2016).
- ❖ Signing of a Memorandum of Understanding (MoU) on Bilateral Scientific Cooperation between the National Science Foundation of Sri Lanka (NSF) and the National Natural Science Foundation of China (NSFC) (08th April 2016).
- ❖ Strengthen the Bilateral Scientific Cooperation with some eminent scientific institutions of USA, Canada, Germany, China and Japan by conducting a series of meetings under the theme 'NSF Global Partnerships' arranged back-to-back with the 'STS Forum Sri Lanka' Conference (6-7 September 2016 in Colombo).
- ❖ National Science Foundation co-organized the Sixteenth Science Council of Asia Conference (Theme : 'Science for the People: Mobilizing Modern Technologies for the Sustainable Development in Asia') along with its National Focal Point; National Academy of Sciences of Sri Lanka (NASSL) with the active support of the Science Council of Japan (SCJ) (30 May to 01 June 2016 in Colombo).
- ❖ NSF organized a science dialogue on the directives of the Hon. Minister of Science, Technology and Research, with Ms Irina Bokova, the Director General of UNESCO for the Sri Lankan scientists (16th August 2016 in Colombo) to appraise the Director General UNESCO of Science Programme in Sri Lanka that would complement the UNESCO Science activities and also to identify opportunities for the Sri Lankan Scientific Community to collaborate and participate in UNESCO Science Programme.
- ❖ NSF in concord with the Third World Academy of Sciences (TWAS) has instituted the annual award of prizes for talented young scientists who have attained a high level of excellence in research work, in the fields of Biology, Chemistry, Mathematics and Physics. NSF recommended the nomination from the fields of Chemistry and Biology subsequently TWAS Secretariat approved these two nominations.
- ❖ The National MAB Committee identified the mechanism, recommendations and the main agencies that should take the responsibility to coordinate the issue on human-monkey conflict.
- ❖ Forty-eight (48) grants Under the NSF Overseas Special Training Programme (OSTP) Scheme were awarded.
- ❖ Fifteen (15) IPSAT grants under the International Partnerships for Science and Technology (IPSAT) Scheme were awarded.
- ❖ NSF awarded sixty-three (63) Travel Grants to participate at international conferences to share their research findings, upgrade knowledge and establish linkages with the scientists working in similar areas across the globe for future collaborative activities.
- ❖ The newly upgraded platform for Sri Lanka Journals Online (SLJOL) marked its official release in Sri Lanka on 10th March 2016 NSF in the presence of the Minister for Science, Technology and Research Hon. Susil Premajayantha with a vast gathering of scientists, information professionals and local media.
- ❖ Sri Lanka Journals Online (SLJOL) published 69 journals of local origin.
- ❖ Phase III of the National Digitization Project started to digitize local S&T literature available in fifteen (15) institutions in Sri Lanka.

- ❖ All the online databases available at the NSLRC were configured to the environment of a newly developed multiplatform free open source software named JISIS.
- ❖ NSF Research Summit “Empowered by Research & Innovation” held was successfully conducted with the participation of over 500 Scientists/Industrialists, Undergraduates and top performers of the 2015 A/L examination (7th & 8th July 2016 at BMICH, Colombo).
- ❖ Twenty-four (24) grants were awarded under the Research Programme on Health Science (RPHS) to support and assist research in Diabetics, Dengue, CKDu and Cancer.
- ❖ Results of the Food Security Programme under the NTRP were taken up by the government and the private sector.
- ❖ One hundred and sixteen (116) ongoing research grants (including 24 new grants) were funded, strengthening the research base in the country and facilitating scientists to engage in research, thereby contributing to national development.
- ❖ Assisted the development of the National Research and Innovation System (NRIS) by Human Resources Capacity Building as follows.
 - ☆ Postgraduate degrees completed - 15
 - ☆ Graduate Research Students registering for postgraduate degrees - 16
 - ☆ Supervisory teams of PhD and MPhil degrees winning SUSRED Awards - 24
 - ☆ New Research Scholarships awarded to outstanding graduates to read for postgraduate degrees - 06
 - ☆ Scholarships completed - 04 (01 PhD and 03 MPhils)
- ❖ For the first time in the history of Science Research Projects Competition (SRPC), it was able to produce an international winner at the Intel International Science & Engineering Fair 2016 which was held in Phoenix, Arizona, USA from May 08-13, 2016.
- ❖ A Grant Scheme named “Overseas Science Education Programme (OSEP)” was initiated to provide financial support to school children, teachers, and University students to participate at science education and popularization programmes in foreign countries.
- ❖ An initiative has been taken to promote usage of big data for national policy analysis by organizing the first seminar on ‘Trends and Prospects of Big Data in National Policies’ (20th December 2016).
- ❖ The Science and Technology Management Information System (STMIS) database recorded information on more than 6,131 personnel by December 2016.
- ❖ A discussion was held with intellectual property rights professional to advise and device appropriate measures to ensure the protection and sustainable use of indigenous knowledge.
- ❖ Very valuable findings have been discovered from the archeology excavations carried out under the NSF Competitive Research Grants in the area of Indigenous Knowledge. Excavations were done in the caves in Balangoda area that yielded plant seeds which were carbon dated to 4350 BC and several animal and human bones, sophisticated ornaments of quarts and hunting tools used by people who lived in the country several thousand years ago. The findings confirmed the continuity of the developed Holocene culture in Sri Lanka.
- ❖ Commercialization of the output of the Project on developing intelligent textiles (stain resistant, anti-microbial, super-hydrophobic textile etc.- Technology Grant TG/2014/Tech-D/04 awarded to University of Peradeniya) commenced with signing of a MoU between University of Peradeniya and Textured Jersey (Pvt.) Ltd, Awissawella EPZ.

- ❖ A Soldering Robot System with Automated Optical Inspection (AOI) was developed within Sri Lanka under the Technology Grant TG/2013/Tech-D/07 for advancement of the electronic manufacturing industry.
- ❖ NSF signed a MoU with the Ministry of Primary Industries (MPI) towards implementation of a special project on cinnamon worth of Rs. 50 million allocated by the government under the MPI in which NSF provides technical support for project appraisal, fund disbursement and progress monitoring of the project.
- ❖ Grantee of the NSF Technology Grant TG/2016/Tech-D/01 won the first place in the John Keels Innovation Challenge 2016, for their work on development of a device for monitoring cardiovascular system, and thereby to detect severity of diseases like dengue and CKDu. For this competition, they have produced two prototypes developed through the project.
- ❖ An Initiative was taken to formulate a policy to promote University - Institute - Industry Partnerships.
- ❖ The Impact Factor of the JNSF for 2016 was 0.277.



Enriching Welfare of the People by Supporting Basic & Applied Research and Scientific Conferences

Mandate: to initiate, facilitate and support basic and applied scientific research by universities, science and technology institutions and scientists



Research Grants

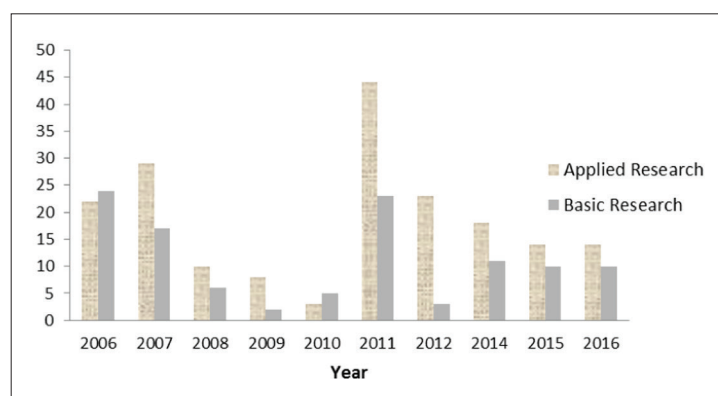
Competitive Research Grants Scheme

NSF Competitive Research Grants Scheme provides assistance to supplement the financial, physical and manpower resources available in S & T Institutions in Sri Lanka for scientific research. It facilitates to harness independent, individual and intellectual capacity of scientists and encourages them to carry out research of high standard directed towards socio-economic development of the country. Competitive Research Grants are awarded in all fields of science and technology.

One hundred and four (104) applications received in 2015 in response to the advertisement calling for applications for 2016, were processed and 24 new Research Grants were awarded in the year 2016. Details of grants awarded in 2016 are given in *Annex 1*. In response, a directive issued by the Board of Management, research grant applications for the second half of 2016 were entertained throughout the remaining period of the year. A total of 25 new applications were considered for the 2nd round and processed according to the NSF approved procedure. Eleven (11) of them were approved and will be awarded in early 2017.

An awareness seminar for the new grants recipients was held on 31st of August, giving an opportunity for them to get familiar with the services provided by NSF. Thirty-seven (37) scientists attended this seminar.

An Effective Research Proposal Writing Workshop to create awareness on submitting research proposals of high standard to the NSF Competitive Research Grants scheme was held on 7th of October at the NSF with the participation of 104 prospective applicants. Three presentations



Competitive Grants awarded during 2006-2016

were made by eminent scientists on various aspects of formulation of research proposals, followed by an active discussion.

Funds were released for 74 projects based on good progress and financial needs. During the year, six (6) Progress Review Seminars were held at NSF to assess progress of ongoing projects. A total of 33 grants were completed in 2016. Details are given in *Annex 2*. During the year, 16 Research Students have registered for postgraduate degrees and 15 postgraduate degrees have been completed. Status of Competitive Research Grants as at 31.12.2016 is given in *Annex 3*.

Highlights of the Competitive Research Grants

Project Title : Development of a molecular detection system of causal agents for controlling virus and virus-like diseases of chilli (*Capsicum annum L.*) in Sri Lanka. (RG/2011/BT/01)

Investigator : Prof. Devika M. De Costa,
Dept. of Agricultural Biology, Faculty of Agriculture,
University of Peradeniya, Peradeniya



The research findings through this project will be useful mainly to control a major disease threat to chilli plants by accurate and efficient detection at early stage. These results will be useful in plant breeding, plant pathology, plant quarantine and seed certification and also for personnel involved with chilli cultivation. The findings of this study will contribute to national economic development, poverty alleviation and improvement of the well-being of the people and in environmental sustainability.

Project Title : Molecular mapping for improved salinity tolerance in rice (RG/2011/BT/02)

Investigators : Dr N.S. Kottearachchi,
Dept. of Biotechnology Faculty of Agriculture and Plantation
Management Wayamba University, and

Dr Gamini Samarasinghe,
Biotechnology Unit,
Rice Research and Development Institute, Batalegoda

The demand for rice is increasing year by year. Usage of marginal lands like saline affected areas is important to withstand the challenges in rice production. Salinity is considered as a serious constraint that reduces growth and productivity of rice. Most of the rice varieties are sensitive to salinity during young seedling stage and early development stage. This study was conducted with the objective of developing salinity tolerant cultivars which can be used in marginal land that are abundant due to salinity. A cross between At354, a salt tolerant parent, and Bg352, a salt susceptible parent was made. A homogenous population was produced to be used as the mapping population for salinity tolerance. Six quantitative trait loci (QTLs) for salinity tolerance were found in At354 x Bg352 mapping population. This will be useful for introgression into other varieties by backcross breeding to make them salt tolerant. This project has launched the foundation steps to develop salt tolerant varieties. Further, this project generated enormous

knowledge in QTL mapping, and this information was disseminated to Sri Lankan scientists via a 2 day national workshop.

Project Title : Characterization of mutations and sequence variants of Growth Hormone (GH) and Growth Hormone Releasing Hormone Receptor (GHRH-R) in a cohort of Sri Lankan children with GH deficiency (RG/2011/BT/03)

Investigators : **Prof. Kamani Tennekoon**,
Inst. of Biochemistry Molecular Biology and Biotechnology (IBMBB),
Dr Shamy de Silva, Dept. of Paediatrics, Faculty of Medicine, and
Dr Faiz Marikar, IBMBB, University of Colombo

Growth hormone deficiency (GHD) leads to short stature. The genetic causes of GHD have not been studied in Sri Lankan children previously. In the present study, mutations and sequence variants of *GH1* and *GHRHR* (growth hormone releasing hormone receptor) genes were characterized in a cohort of children who have been biochemically and clinically confirmed to have GHD.

In the cohort it was observed: *GH1* gene deletion in two children, reported pathogenic mutations in *GH1* gene in two children, codon 72 mutation of *GHRHR* gene in eight children and another pathogenic mutation in codon 71 of *GHRHR* gene in one child. In addition several sequence variants/ polymorphisms in the *GH1* gene and *GHRHR* gene were also observed.

Establishment of genetic screening for *GH1* and *GHRHR* genes will facilitate screening of affected children and their parents. In the event the mutations detected are hereditary, genetic counseling can be offered to parents to minimize birth of the affected children.

Currently screening of children with short stature for *GH1* gene deletion, mutations in the *GH1* gene and *GHRHR* codon 72 mutation, are available at the IBMBB at cost price.

Project Title : Development of *Bacillus thuringiensis* (*Bt*) microbial pesticide with enhanced and broad spectrum activity to control rice and vegetable pests (RG/2011/BT/05)

Investigator : **Dr Radhika Samarasekera**,
Herbal Technology Section Industrial Technology Institute

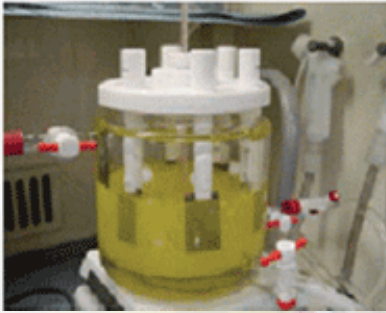
Bacillus thuringiensis (*Bt*) is a naturally occurring soil borne Bacilli which produces insecticidal crystal proteins that are toxic to different insects. This study was conducted with the aim of developing activity enhanced, broad spectrum *Bt* pesticides to control vegetable and rice pests. Two *Bt* strains with higher insecticidal activity against rice pests were identified. Another two *Bt* strains with good insecticidal activity against root pests were also identified. It is recommended that this technically feasible technology of insecticidal *Bt* be transferred to industry for large-scale field trials.

The microbial pesticides developed based on the output of this study will have applications in agriculture to control lepidopteran and coleopteran pests attacking rice and vegetables as well as root pests of vegetables and fruits thus contributing to increase the crop productivity by minimizing pest damage.

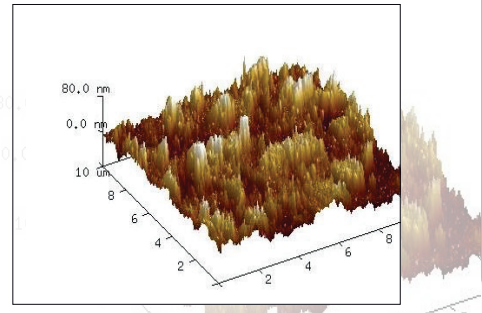
Project Title : Optimization of the growth process of Cadmium Sulfide (CdS) semiconductor thin films for efficiency enhancement in CdS/ CdTe solar cells (RG/2012/BS/04)

Investigators : Prof. M.A.K.L. Dissanayake,
National Institute of Fundamental Studies, Hantana Road, Kandy, and

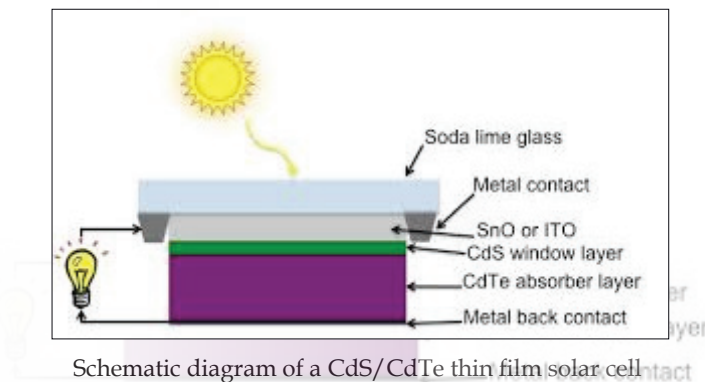
Dr G. K. R. Senadeera,
The Open University of Sri Lanka Polgolla, Kandy



Preparation of cadmium sulfide (CdS) thin films on FTO glass substrates using an especially designed multiple sample holder



Atomic Force Microscopic image of surface morphology of Cadmium Sulfide (CdS) film formed on FTO glass substrate



Schematic diagram of a CdS/CdTe thin film solar cell

In line with Sri Lanka's national policy to increase the contributions from renewable energy, research and development of low cost and high efficiency solar cells is vital. This project focused on optimizing the cadmium sulfide (CdS) window layer for CdS/CdTe thin film solar cells for improving their efficiency.

Under this project, the CdS window layer grown by chemical bath deposition method was optimized by controlling the film thickness, thermal annealing time, doping with indium (In) and by introducing a TiO₂ buffer layer. After fabrication, the full CdS/CdTe solar cell with optimized CdS layers and CdTe layer deposited by physical vapour deposition method, and subjected to CdCl₂ treatment, the best solar cells showed an efficiency of 7 %.

Research findings on optimizing conditions for the CdS window layer available from this research project will be useful as a prototype for commercial scale solar cell/ panel fabricating plants in Sri Lanka.

Project Title : Identification and isolation of potential antidiabetic compounds from Sri Lankan medicinal plants (RG/2012/BS/01)

Investigators : **Dr H.K.I. Perera,**
Dept. of Biochemistry, Faculty of Medicine University of Peradeniya,

Prof. U.L.B. Jayasinghe,
Natural Products Division National Institute of Fundamental Studies, Hantana Road, Kandy, and

Prof. R. Sivakanesan,
Dept. Biochemistry, Faculty of Medicine, University of Peradeniya

Diabetes mellitus causes millions of deaths each year as a result of associated complications. Natural remedies which lower blood glucose, plasma lipids and protein glycation will be able to reduce the burden of diabetic complications without side effects at a low cost.

In this study, twenty medicinal plants were screened for the in vitro inhibitory activities on α -glucosidase, lipase and protein glycation. Isolation of inhibitors was carried out using solvent fractionation and chromatography. Structures of inhibitors were elucidated based on NRM data.

Eleven plants showed strong hypoglycemic effects while six of those plants had antidiabetic activity. Three of the five plants from lipid lowering formula showed high lipase inhibitory effects. Six of the twenty plants showed strong protein glycation inhibition. Promising results on the in vitro hypoglycemic and protein glycation inhibitory effects were revealed, with five antidiabetic plants; *F. racemosa*, *P. emblica* (fruit), *P. debilis* (plant), *P. marsupium* (latex), and *S. cumini*, and the two species; *C. sativum* (seed) and *S. aromaticum* (flower).

Three apigenin C- glycosides with lipase inhibitory activity were purified and two of them were identified from *Trigonella foenum-graecum* seeds. Two isomers of a pentacyclic triterpenoid with amylase inhibitory effects namely, ursolic and oleanolic acid were isolated and identified from *Syzygium cumini* leaves. These plants could be used to alleviate chronic diabetic complications among persons affected by the disease.



F. racemosa



P. emblica



P. marsupium



P. debilis plant



S. cumini

Project Title : Preliminary investigation of Rickettsial infections in humans in Sri Lanka: Special reference on species identification, diagnosis, transmission and reservoir animals studies (RG/2009/HS/01)

Investigators : **Prof. R.P.V.J. Rajapakse**,
Dept. of Veterinary Pathobiology, Faculty of Veterinary Medicine & Animal Science, and

Dr. S.A.M. Kularathne,
Dept. of Medicine, Faculty of Medicine, University of Peradeniya

Rickettsia, a group of alpha-proteobacteria are obligate intracellular parasites of eukaryotic cells. Three recognized rickettsial disease entities; Spotted fever group (SFG), Typhus group and Scrub typhus group are prevalent in different regions of the world including Sri Lanka. Wider clinical spectrum of rickettsioses has been described in Sri Lanka.

This study reaffirmed the presence of rickettsioses in the study region with predominance of SFG. It is likely that the prevailing environmental conditions and the host or vector factors are more conducive for infections by SFG in the region. Either the brown dog tick or ticks in wild animals including wild boar could be the possible vectors of SFG. Present findings would assist in clinical diagnosis, prevention and control of the disease. Understanding the molecular phylogeny would enrich the global knowledge on rickettsioses.

Project Title : *Helicobacter pylori* detection by histology in endoscopic biopsy specimens: assessment of the detection rate and an analysis of associated problems (RG/2011/HS/11)

Investigators : **Dr Sulochana Wijetunga**,
Department of Pathology, and

Dr K.B. Galketiya,
Department of Surgery, Faculty of Medicine, University of Peradeniya

Helicobacter pylori is regarded as a common cause of gastric inflammation. The most commonly used *H. pylori* detection method in Sri Lanka is histology. However, the general experience is that the detection rate of *H. pylori* with histology is low. Therefore, this study was conducted to determine the prevalence of *H. pylori* infection in a cohort of dyspeptic patients with endoscopic gastric inflammation. The results indicate that the low *H. pylori* detection rate is not due to a fault with the method. One day rapid urease test is recommended as a reasonably good screening test method for *H. pylori* infection in selecting patients to treat with eradication therapy, where histology services are not available.

Project Title : Chemistry and bioactivity of some popular edible fruits: Studies on possible application in health and agriculture (RG/2012/AG/01)

Investigators : **Prof. U L B Jayasinghe**, and
Prof. N.S. Kumar
National Institute of Fundamental Studies

Natural products are chemical compounds produced by plants, fungi and other microorganisms, as well as lichens and marine organisms. These compounds often display a range of biological

activity and may be used to improve the quality of human life. The use of natural products in the management and treatment of diseases in human beings and plants is more acceptable and offer less risks than the use of synthetic compounds. Hence the identification of environmentally friendly bioactive compounds from plant sources is of importance. Accordingly, this study was carried out with the objective of identification and characterization of environmentally friendly bioactive compounds from Sri Lankan fruits with special reference to their antifungal, antioxidant, phytotoxic, brine shrimp lethality and enzyme inhibitory properties. Several bioactive compounds which have been identified showed antifungal, cytotoxic and phytotoxic activities.

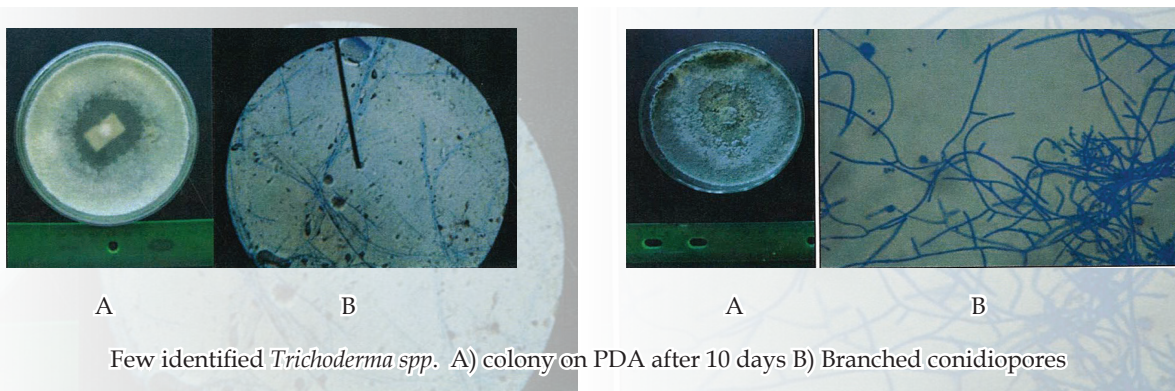
Project Title : Damping off disease of big onions in Sri Lanka and its biological control using *Trichoderma* spp. (RG/2011/AG/03)

Investigators : **Prof. (Mrs.) Nelum Deshappriya**,
Department of Botany University of Kelaniya

Dr R.G.A.S. Rajapakse,
Plant Pathology Division, Horticultural Crop Research and
Development Institute (HORDI), Gannoruwa, and

Dr D.L. Jayaratne, Department of Microbiology University of
Kelaniya

Onion is a condiment grown for its flavorful bulbs in Sri Lanka as well as a number of other countries in the world. One of the problems associated with big onion cultivation is yield reduction due to infectious diseases that occur during various stages of growth. Some of the more economically important diseases are caused by fungal pathogens and thus studying these diseases will enable the development of strategies for their management. As *Trichoderma* spp. is a widely used bio control agent for many fungal pathogens, *Trichoderma* spp. were isolated from the soil in local onion growing areas and characterized with a view to using the more effective isolates as biological control agents of the more important fungal pathogens of onion. Introduction of *Trichodermainocula* reduced disease incidence and severity of damping off disease significantly indicating that *Trichodermainocula* prepared in the manner this study can be used effectively against damping off disease of onion in the field.



National Thematic Research Programme (NTRP)

NSF initiated this novel contract research programme to address national research priorities and to get tangible outputs for socio-economic development of the country.

Theme: Food Security

The Thematic Research Programme on Food Security was initiated to address major issues related to the theme through research, and thereby attempt to ensure food security of the nation. There are five (05) research programmes, that are multidisciplinary and collaborative in nature, which are expected to provide tangible positive result that would ensure food security of the country.

Nine (09) projects were awarded under these five (05) Programmes, which continued during 2016.

These projects were monitored very closely by the Research Division with the guidance of the Steering Committee on Food Security. As a mechanism for progress monitoring, discussions with research teams were held regularly through three (03) progress review meetings and seven (07) Steering Committee meetings. When necessary, they were invited to do presentations and highlight any constraints impeding the progress. One onsite field visit was made to Jaffna and Kilinochchi for verification purposes and to provide feedback for improvement.

The fourth Research Coordination Meeting (RCM) was held in order to see whether the projects have progressed according to the activity plans provided. All nine (09) Project Leaders made presentations at the RCM. Five (05) projects completed their project periods and presented their outputs. The extensions of periods of other four (04) ongoing projects were approved.

The details of the nine (09) projects are given in *Annex 04*.



Project Leader - Prof. G Mikunthan, University of Jaffna
Photo location - Field evaluation visit to Kilinochchi and Jaffna

Theme : Climate Change and Natural Disasters

The Thematic Research Programme on Climate Change & Natural Disasters was implemented to address major issues through research, with a view to minimize hazards of climate change and natural disasters through mitigation and adaptation.

The Theme Paper developed to facilitate the activities of this Thematic Research Programme was further modified to accommodate the policy changes that took place in 2016 related to Environment. After discussions held at the NSF Research Summit 2016, with stakeholders in Energy and Environment, fourteen projects have been identified under seven Strategic Thrust Areas – as follows:

1. Mainstreaming Climate Change Concerns into National Planning and Development Processes
2. Ensuring Climate change resilience on Settlements, Human Health and Infrastructure
3. Minimizing Climate Change Impacts on Food Security
4. Safeguarding Natural Resources and Biodiversity from Climate Change Impacts
5. Preparedness for Future Climate, Climate Scenarios and Natural Disasters and Early Warning
6. Formulation of Mitigation and Environmental sustainability measures
7. Data Management

Expressions of Interest (EsOI) on fourteen projects were called through a paper advertisement for which 41 EsOI were received. After two levels of screening with the recommendations of the Steering Committee, 13 EsOI have been selected to call for presentations and discussions in January, 2017. The research projects would be implemented through institutional partnerships, engagement of research institutions, government institutions and the private sector which would facilitate the integration of information and knowledge in decision making.

Research Equipment Grant Scheme and Spare Parts for Research Equipment

Laboratories with modern infrastructure facilities are needed for research to be on par with the quality of global S&T research. These schemes are intend to assist the acquisition of equipment and spare parts for research equipment that are generally; too costly to be purchased by individual Research Institutions and Universities. Further, these schemes are meant to facilitate and support infrastructure development of research laboratories in order to create a favourable research culture. 27 Equipment Grants worth LKR 69.81 mn, and 06 Spare parts grants worth LKR 2.25 mn were awarded in 2016. The details of these grants are given in *Annex 5*.

Grants for Page Charges

Funding the page charges for research publications enable the sharing of the findings with others so that they can benefit from the new knowledge which has been generated. It also provides an opportunity for research findings to be critically evaluated, re-examined and validated. Publishing the finding in a reputed journal ensures the widest at possible dissemination of new knowledge. However, some reputed journals charge publication fees, or a fee to make it available for rapid access or open access (OAC). Hence NSF initiated this new grant scheme to meet the publication costs of Sri Lankan Scientists whose papers have been accepted by reputed journals indexed in the Science Citation Index, Science Citation Index expanded and Social Science Citation Index as an encouragement for them, to ensure greater visibility for their R & D activities.

The Board of management relaxed the criteria for such funding by introducing a reimbursement scheme for papers published in Journals cited in the SCI, SCIE and Social Science Citation Index. One application was received and processed in 2016.

Technology Grants

Technology grants are provided under two schemes as follows.

- (a) Support for Technology Development
- (b) Support for Start-up Business based on new technologies

Twenty-nine (29) applications received at the close of applications on 31st May, 2016 (first call, 2016) were evaluated and 03 grants were awarded (see *Annex 06*). In addition, five (05) more grants were awarded from the 2015 second call. Accordingly, eight (08) grants in all were awarded during the year 2016. Twenty applications were received at the 2nd call, for 2016, which was closed on 30th November, 2016. Preliminary screening of applications was carried out and arrangements were made to interview the applicants.

Monitoring of Twenty-nine (29) ongoing projects were in progress. Thirty-two (32) site visits and two meetings were held to monitor the progress of projects.

Four articles on completed technology grants were published in the business section of “Sunday Times” newspaper on 14th February, 06th March, 17th April, and 12th June, 2016, providing wide publicity to attract potential investors.

Completed projects with tangible outputs

Six projects were completed during the year 2016.

- Project Title** : Modification of All in One Mathematic Board
(TG/2013/Tech-D/09)
- Grantee** : Mr Azmeer Ahamed
- Category** : Individual
- Allocation** : LKR 307,375/-

A Mathematic Board which could be used as a practical tool to teach mathematical theories was developed by the Grantee. The Board could be used to explain mathematical theories that are being taught from grade 6 - grade 11. Mathematical theories are explained by different zones. The major zones include; probability zone, Graph zone, Geometry zone, Trigonometry zone, circular geometry zone, Algebraic zone *etc.* The inventor intends to introduce this Mathematic Board to the Ministry of Education for their recommendation in order to use it in mathematical laboratories in schools.

- Project Title** : Establishment of a business for manufacturing and marketing of an integrated solid state fan controller for speed and time regulation
(TG/2012/Start-Up/01)
- Grantee** : Prof. K. K. Y. W. Perera

Category : Individual
Allocation : LKR 2,891,000/-

The project output is a novel energy saving fan controller. It is hum-free, continuously variable speed cum time controller for ceiling fans. Controller can be used to regulate the speed and automatically switch off the fan after a pre-set time. Before development of this product, there were no solid-state timers which can be fitted with conventionally wired ceiling fans. This new product has been developed using micro power technologies to be used for domestic and institutional applications resulting in a significant amount of energy saving. According to a study carried out with users, approximately 50% energy saving has been achieved. The energy saving is achieved through three separate mechanisms. The product was commercialized and is currently available in the market. One thousand five hundred (1500) units were sold during year 2016.



Solid state fan controller

Socio-economic gain

- Energy saving by Auto-stop and low loss features of the controller.
- Cost saving to the user, through reduction of electrical energy consumed.
- The overall loss reduction saves fossil fuel burnt at the power stations and helps environment, though in a marginal manner.

Project Title : High performance lighter weight prosthetic foot based on hybrid nanomaterial filled natural rubber nano composite (TG/2012/Tech-D/04)

Grantee : Dr Upul Ratnayake, Rubber Research Institute

Category : State-Sector

Allocation : LKR 5,283,625/-



Prosthetic foot developed

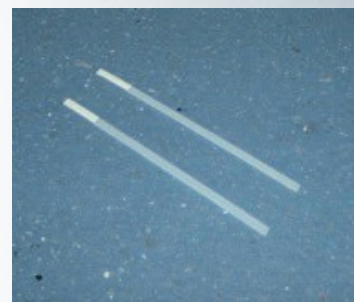
A new prosthetic foot based on rubber nano-composite material with improved properties was developed under this project. Long life span is a feature compared to imported prosthetic feet at a higher cost. New processes have been developed to produce nano-composite material and to manufacture the prosthetic foot. Test trials were carried out at the collaborator's (Ranaviru Sevana, Ragama) premises with promising results. The project output is a locally developed prosthetic foot with improved performance, low cost and enhanced durability compared to imported prosthetic foot hence saving foreign exchange within the country. Negotiations were in progress to transfer the know-how to the collaborator.

Project Title : Scaling up, stability testing and product testing of urinary glucose strips (TG/2013/Tech-D/01)

Grantee : **Prof. C.P.W. Mathew**,
Dept. of Biochemistry & Molecular
Biology, Faculty of Medicine,
University of Colombo

Category : State-Sector

Allocation : LKR 967,590/-



Glucose strips developed

Dry reagent elements for quantitative and qualitative determination of urinary glucose were developed as an import substitute. Production of glucose stripes, stability testing and performance and sensitivity analysis with real biological samples was completed. Objective of this project was to produce low cost urinary glucose strips locally affordable to diabetic patients to monitor their glucose levels. Negotiations with potential private sector partners were in progress to fine tune the product and commercialization.

Project Title : Design and fabrication of pilot-scale moulding machine for continuous production of dry rubber open cell products (TG/2013/Tech-D/05)

Grantee : **Samson International (PLC).**

Category : Non-State Sector

Allocation : LKR 1,703,320/-

Demand for dry rubber open cell products such as yoga mats have been rapidly increasing in the international market especially in European countries, Australia and Japan *etc.* As a result, the local dry rubber industry is receiving frequent requests for open cell dry rubber products from international market. Sri Lanka as a country having quality raw natural rubber has the potential to cater to this global requirement, and be the global leader in production of open cell dry rubber products. To achieve this objective, a continuous moulding process is needed instead of batch moulding processes which are more time, labour and energy consuming. A pilot scale continuous batch moulding machine was designed and developed under the above project to produce dry rubber open cell products with promising test trial results. The company was in the process of developing a commercial scale plant based on pilot scale study results.



Continuous batch moulding machine developed at the grantee's factory premises

Project Title : Soldering Robot System with Automated Optical Inspection (AOI)" (TG/2013/Tech-D/07)

Grantee : **Mr C.L.S.C. Fonseka**

Category : Individual

Allocation : LKR 358,400/-

There is no automated optical inspection feature integrated into soldering machines to inspect the soldering quality which are imported to the country. The AOI system has to be purchased

separately and installed in the assembly line. A Soldering Robot System with AOI was developed locally under the above project to improve efficiency and productivity of the electronics manufacturing industry. Development of the entire system and carrying out of test trials were completed and the product was ready to be deployed for commercial operation subject to fine tuning.

This is an entirely new development in the electronic manufacturing industry to enhance efficiency. Cost of an imported soldering machine (without optical inspection feature) is approximately Rs. 10 mn, but this machine can be developed within Sri Lanka at a cost of Rs. 5mn.



Soldering Robot System with AOI developed under the project.

Intellectual Property and management

Follow up on outcome of research performed by universities and research institutes

Research scientists who have submitted for publication articles on technically feasible research findings with potential commercial viability, were contacted and encouraged to submit Technology Grant applications, in order to enable them to not only to carry out economic feasibility studies, but also to scale-up and demonstrate their bench-scale findings through pilot plant studies or field demonstrations.

Winners of Sahasak Nimawum exhibition were contacted and requested to submit technology grant applications from suitable projects. Winners of the Merrill . J. Fernando Eco - Innovation Award (organized by Dilmah Conservation), were contacted and publicity was given for the Technology Grant Scheme. Accordingly, five (05) responses were received and follow up action was being taken to obtain Technology Grant Applications.

Follow up of recommendations that surfaced at the Industry - Interaction Session held in 2016

Prospective applicants were encouraged to submit technology grant applications addressing the industry needs identified at the industry interaction session.

Facilitating public - private partnership (PPP) building - Facilitating policy formulation

Consultancies in patent drafting, filing and awareness building activities

The Technology Transfer Facilitating Cell continued its functions. Infrastructure facilities required to cater to the needs of the inventors (patent information search, guidance on patenting process and applying under PCT) were developed. Ten (10) inventors were supported by providing consultancies on how to obtain a local / foreign patent. Consultancies were also provided on filing of patent applications under PCT. The Center continued its functions as the Technology and Innovation Support Center (TISC Center) under the World Intellectual Property Organization. Staff participated in discussions with WIPO delegates on the following.

- i. Discussion on IP hub project with WIPO delegates - 17th June, 2016 at NIPO
- ii. Follow up programme on IP hub project - 10th September, 2016
- iii. Review of TISC Project Document - Round table discussion - 15th September, 2016

Database updating for Industry Need Assessment

Formulation of Policy and regulatory operational systems conducive for encouraging and establishing partnerships

GIZ has extended its cooperation to provide the services of a Consultant to formulate a Policy for University - Institute - Industry Partnership. Accordingly, Prof. Frank Ebinger, a GIZ Consultant initiated a work programme in July, 2016. Four meetings were held during the period September - December 2016. In addition two mission documents were presented to the NSF Board of Management.

Rewarding scientists, engineers and technical personnel

Local scientists, engineers and technical personnel who had made outstanding contributions for the development of science and technology in the country are rewarded by NSF under different Awards Schemes as follows, in recognition of their contributions.

National Awards for Science and Technology Achievements (NASTA)

National Awards for Science and Technology Achievements are granted in recognition of at exclusively significant contributions made by Sri Lankan scientists, engineers, technologists and entrepreneurs towards the economic and social development of Sri Lanka. Objectives of this award scheme are to translate knowledge into products, processes, services and enhanced innovative capacity and capability for economic progress through broad-based application of Science and Technology. Applications were called for NASTA awards 2016, with the deadline fixed for 30th June, 2016. Twenty-eight applications were received and evaluated by a Panel of Judges. Seven review meetings were held during the period August, 2016 to October, 2016. Although five applicants were nominated to the final round, only one applicant was successful in receiving a Merit Award. Hence, the NASTA Ceremony was postponed, but the winner of the Merit Award is expected to be felicitated at a future awards ceremony.

NSF Research Awards

NSF Research Awards are given annually to scientists who have made outstanding contributions for the advancement of science through NSF funded research projects. The purpose of the award is to bestow on researchers the recognition they deserve for the contribution made for the advancement of science, and thereby helping to achieve one of the main objectives of the National Science Foundation. The award is also meant to motivate recipients of competitive research grants to conscientiously maintain high standards of scientific research while at the same time helping them to enhance their own career prospects as recognized scientists.

There were no applicants who satisfied the eligibility criteria for NSF Research Awards for 2016.

NSF Technology Awards

The objectives of this award scheme are to bestow on grantees the recognition they deserve for the contribution made for the enhancement of innovation activities thereby contributing directly or indirectly to achieve the NSF goals, and it is also mean to motivate technology grant recipients to conscientiously maintain high standards of partnerships with the public and private sectors. Three final reports accepted by NSF upto June 2016, were considered for NSF Technology awards. One project was selected for the Technology award, while another project was recommended for the award of a certificate of commendation *Annex 07*. The winners will be felicitated at a ceremony to be held in January, 2017.

Support Scheme for Supervision of Research Degrees (SUSRED)

The awards for the Support Scheme for Supervision of Research Degrees (SUSRED) was initiated in 2011 to motivate, support and recognize the scientists/engineers engaged in supervising postgraduate students conducting research in all areas of Science and Technology. This scheme also encouraged universities and research institutions to promote and facilitate postgraduate research training.

Twenty-four (24) supervisory teams were successful in securing SUSRED awards for 15 PhD and 09 MPhil degrees completed during 2014 and 2015. The details of the recommended award winners are given in *Annex 08*.

Third World Academy of Sciences/ National Science Foundation (TWAS/ NSF) Young Scientist Award

Two winners in the fields of Chemistry and Biology will be awarded the TWAS/ NSF Young Scientist Award 2016 at the same ceremony based on the recommendations made by the Research Advisory Board. The details of the award winners are given in *Annex 09*.

Annual TWAS/NSF Prize for Young Scientists

NSF in association with The World Academy of Sciences (TWAS) has instituted a scheme for the annual award of prizes for talented young scientists who have attained a high level of excellence in research work, in the fields of Biology, Chemistry, Mathematics and Physics. The award consists of a cash prize equivalent of US\$ 2000 granted by The World Academy of Sciences (TWAS), and a certificate from the NSF. The cash prize of US\$ 2000 will be shared between a maximum of two winners only. The prizes are intended to provide an incentive to talented young scientists to attain high levels of excellence in their research work, and to reward such attainments. NSF received five (05) applications for consideration of TWAS/NSF Prize for Young Scientists - 2016. Out of these applications NSF subsequently recommended the nomination from the fields of Chemistry and Biology.

Dr K.M.G. Gehan Jayasuriya, Senior Lecture, Department of Botany, University of Peradeniya and Dr M.S. Vithanage, Senior Research Fellow, National Institute of Fundamental Studies (NIFS), Hanthana Road, Kandy were awarded the TWAS /NSF Young Scientists Award - 2016 from Sri Lanka in the fields of Biology and Chemistry respectively.

NSF Awards Ceremony 2016

The NSF Awards Ceremony 2016 was planned to be held on 31st January 2017 at the BMICH to confer awards under the following schemes of the NSF:

- Support Scheme for Supervision of Research Degrees (SUSRED)
- Third World Academy of Sciences (TWAS)/ NSF Young Scientist Award

Review of International Biosphere Reserves in Sri Lanka through Man and the Biosphere Programme (MAB)

The Man and the Biosphere (MAB) Programme is an Intergovernmental Scientific Programme that aims to establish a scientific basis for enhancing the relationship between people and their environment. It integrates natural and social sciences with a view to improve human livelihoods, and to safeguard natural and managed ecosystems, thus promoting innovative approaches to economic development that are not only socially and culturally appropriate, but are also

environmentally sustainable. It proposes an interdisciplinary research agenda and capacity building that target the ecological, social and economic dimensions of biodiversity loss, as well as the reduction of this loss. It predicts the consequences of today's actions on tomorrow's world, and thereby increases people's awareness to efficiently manage natural resources for the well-being of both human populations and the environment.

Sri Lanka's MAB programme was a direct outcome of the UNESCO-Biosphere Conference of 1968 and was launched in 1971. Activities pertaining to the year 2016 are given below.

Follow-up activities of the Periodic Reviews of International Biosphere Reserves (IBRs) of Sri Lanka

UNESCO recommended Periodic Reviews (PRs) every ten years for 669 IBRs in 120 countries to determine whether these IBRs meet with the UNESCO criteria and continue to be recognized for further period of time (ten years).

Work on the Periodic Review of four International Biosphere Reserves (IBRs) in Sri Lanka, namely, Sinharaja, Bundala, Hurulu and Kanneliya, Dediyaigala and Nakiyadeniya (KDN) Complex were completed and reports have been submitted to UNESCO in 2015. UNESCO approved the continuation of their IBRs status in Sri Lanka in 2016. Further, UNESCO reported that Hurulu Periodic Review Report has been selected as a model for the use by the members of the World Network of Biosphere Reserves (WNBR). The following activities were conducted as follow - up activities of PR process.

Bundala IBR - MAB Committee together with NSF officers had several discussions with District Secretary, Hambantota to identify suitable measures to facilitate managing the Bundala IBR timely and effectively as per the report submitted to UNESCO. Several site inspections and monitoring of activities in Bundala IBR were made.

Identification of a mechanism to resolve Human-monkey conflict

The Sri Lanka Red Cross Society in partnership with the Man and the Biosphere National Committee of NSF looked at this multi-faceted problem which needs excellent coordination, innovative solutions, and varied responses from a host of stakeholders.

For many years, the human-monkey conflict was just "monkey business" in Sri Lanka, with both humans and monkeys suffering without any long-term solutions in sight. The problem was considered simply a 'wildlife problem' ignoring the varied dimensions of this issue. This situation changed when the Sri Lanka Red Cross Society (SLRCS) and the Man and the Biosphere (MAB) Committee of the NSF joined forces to bring together all relevant stakeholders to a common platform at a workshop held in April 2014 to discuss this multi-faceted matter holistically and to identify the way forward to a lasting solution.

The 2014 Workshop Report and Recommendations were discussed at a subsequent meeting organized by the National MAB Committee of NSF in April 2016. This served to identify the main agencies that should take the responsibility to coordinate the process that would take the recommendations forward. It was agreed that this issue was not entirely a "wildlife problem" and that quick fixes were not generally acceptable. The ground-work has now been done to set up the appropriate mechanism with general agreement. It is now up to the identified relevant state agencies to institutionalize the proposed multi-stakeholder mechanism, and ensure that the coordination works to address "Sri Lanka's monkey-business" in all its varied dimensions for an enduring and long-term solution are satisfactory implemented.

Eighth (8th) South and Central MAB Network (SACAM) held in Almaty, Kazakhshtan - 24th to 25th October 2016

The meeting was organized by Kazakhstan National Commission for UNESCO, the Islamic Educational, Scientific and Cultural Organization (ISESCO) and Kazakhstan National MAB Committee, in association with SACAM Secretariat, UNESCO New Delhi, and the Economic Cooperation Organization Science Foundation (ECOSF). The theme of the meeting was "Biosphere Reserves and Sustainable Development". There were representatives from MAB Programme in the South and Central Asian region, including MAB National Committees, and biosphere reserve (BR) managers and experts from national and international organizations.

Sri Lanka's two member delegation, nominated by the National Science Foundation (NSF), comprised Ms H.A.U. Amarasinghe, Secretary, of the National Committee of the MAB programme of the NSF, and Mr B.D.C.G Priyantha, Regional Forest Officer, Forest Department.

With reference to the MAB Strategy 2016 to 2025, it is imperative that Sri Lanka should adhere to the Lima Action Plan (LAP) which is very comprehensive. The knowledge gained by participating at the meeting would be used to prepare an action plan of the MAB Committee of NSF using the LAP as a supportive document.

Nominating Usangoda National Park as a Geopark

The Sub-Committee working on the nomination of Usangoda National park to be declared as a Geopark, finalized the first draft of the nomination dossier for submission to UNESCO for their consideration. Schematic design of the proposed Geopark was developed in collaboration with the Department of Archaeology and with the members of the Subcommittee of Usangoda Geopark.

Follow-up activities of the National Symposium on Biogeography and Biodiversity Conservation in Sri Lanka in a Changing Climate, 12-13 November 2015, National Science Foundation

The MAB Committee has identified the need to provide a platform to re-examine the biogeographic issues of Sri Lanka's biota. Accordingly, the above Symposium was organized by the National MAB Committee of NSF with the objective to provide a baseline on our current knowledge on the biogeography of Sri Lanka and to identify gaps that need to be addressed in the future to offer biogeographic underpinning for conservation planning in the face of rapid decline in Sri Lanka's biodiversity in a changing climate.

The Editorial Committee of the Proceedings of Biogeography Symposium had received a positive response from the Ceylon Journal of Science for publishing selected manuscripts of the presentations made at the Symposium.

Updating the publication "Natural Resources of Sri Lanka - Conditions, Trends and Prospects"

NSF decided to update the publication on Natural Resources of Sri Lanka 2000 as many developments have occurred affecting natural resources during the last decade. The publication focused on the current conditions and trends affecting the resources, sustainable use of the resources for economic development, potential investment opportunities, prospects for the industry and tourism etc.

The publication consists of eighteen (18) chapters written by well recognized and nationally reputed experts in the relevant fields. Reviewing process has been completed and the designing and printing of the publication would be done during the year 2017.

Commemorating the World Environmental Day – 2016

A programme was organized to commemorate the World Environmental Day -2016 with participation of the Director General and the staff of the NSF.

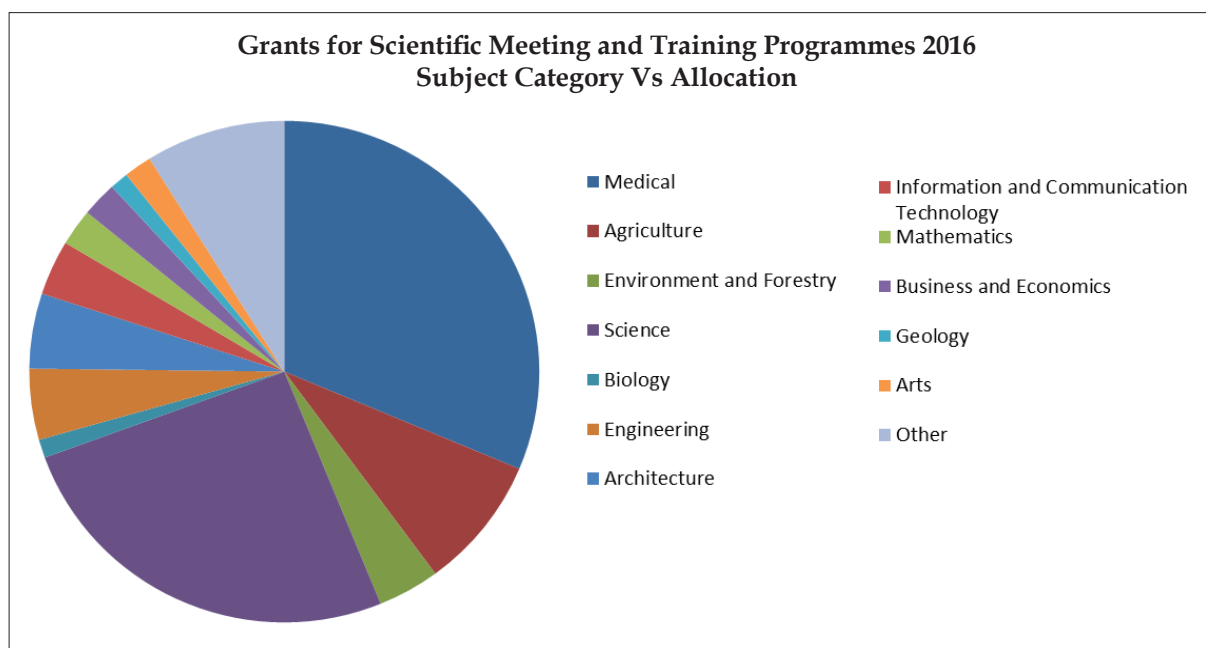
Dissemination of knowledge and skills

Following programmes were organized successfully and grants for scientific meetings and training programmes were provided by NSF to disseminate knowledge and skills among the relevant stakeholders.

- Two successful workshops on “Effective proposal writing” for intended technology grant applicants were held on 17th of May, 2016 and 16th of November, 2016.
- Two grant orientation seminars were held on 25th of May, 2016 and 07th of December, 2016.
- Three progress review seminars were conducted, and at these seminars, grantees presented their findings to the Technology Working Committee, and feed back information to improve the projects were given.

Grants for Scientific Meetings and Training Programmes

The scheme of ‘Grants for Scientific Events and Training Programmes’ was intended to provide assistance to both state and non state research institutes, educational institutes, universities and well established S & T associations to conduct scientific meetings, training programmes, workshops and conferences. This enhances opportunities for Sri Lankan scientists to interact with local and eminent foreign scientists in their respection fields creating opportunitees to develop Science and Technology in the country. Forty one (41) Grants worth Rs. 16,927,526/- were provided during 2016 covering various disciplines in Basic and Applied Sciences, and in Social Science. Out of these, NSF co-organized 08 events at the request of the organizing committees. Details of the grants are given in *Annex 10*. The diagram below depicts the distribution of grants given under different disciplines.



Special Projects / Programmes Coordinated by NSF

NSF Research Programme on Health Science

The Government recognizing the importance of Research and Development in the Health Sector, allocated Rs 250mn to NSF in the budget proposals for 2016 to carry out research on Cancer, Dengue, CKDu and Diabetes.

This scheme will ensure that a significant amount of the sparse research funds are diverted to areas of national importance. It will also promote need based research (initially) and create dedicated research teams to enhance a vibrant research culture entrenching international best practices supported by world class research infrastructure and skills enriched with strong partnerships and collaborations, in Sri Lanka

A Steering Committee to provide necessary guidance/advice to the NSF Research Programme on Health Science (RPHS), two NSF Research Fellows, a Postdoctoral Research Scientist and a Research Scientist were appointed to implement the programme.

Based on NSF Research Summit 2016 held in July 2016 the priority research issues in the four areas were discussed in detail among experts, and Expression of Interest briefs were prepared. Call for Expressions of Interest (EsOI) was advertised as the next step. Thirty eight (38) Expressions of Interest (EsOI) were received in response to the advertisement (Diabetes - 06, Dengue - 06, CKDu - 15, Cancer - 11). The Steering Committee initially screened the EsOI. The selected applicants were invited to make presentations on their proposed projects. Based on these presentations and several other criteria, 27 EsOI were selected to call for full proposals.

An Evaluation and Monitoring Committee was appointed to review full proposals. After reviewing and harmonizing, 24 proposals were selected. After obtaining Board approval these 24 grants were awarded. At the end of 2016, arrangements were made to transfer the available funds.

Special project on Cinnamon in collaboration with the Ministry of Primary Industries

NSF signed a MoU with Ministry of Primary Industries (MPI) to implement a programme to facilitate research work on cinnamon and cinnamon related activities. The objective of this activity was to ensure optimal utilization of the allocated financial resources to upgrade the cinnamon production industry to enable it to be internationally competitive.

The MPI advertised the project in the newspapers and received 22 applications for consideration. A ten member Review Panel was appointed by the NSF Board to evaluate and recommend suitable applicants for award of grants, and to monitor the progress of the funded projects until completion of the projects. A Project Coordinator was also appointed to help in the monitoring process.

Five projects were recommended for funding based on scientific merit, multidisciplinary nature of projects, profile of project teams, relevance to project scope, and the expected quality of outputs. Grant Contractual Agreements were signed by the grantees.



Brainstorming session for successful applicants of the Cinnamon Project

NSF Research Summit 2016

“Empowered by Research and Innovation”

Research and innovation is the ongoing process of aligning and addressing values, needs and expectations of the society. It delivers smart, inclusive and sustainable solutions to the societal challenges. Accordingly, in keeping with this vital need, National Science Foundation organized the “Research Summit 2016: Empowered by Research and Innovation”, the summit was successfully held on 07th and 08th of July 2016 at the BMICH, Colombo. The Summit was a joint effort of the Ministry of Science, Technology and Research (MoSTR) and the NSF.

The objective of the Summit was to draw up an agenda for research, innovation, and commercialization, and to map out the future strategy NSF towards the socio-economic development of the country. Further, it was expected to provide a common platform for professionals, scientists, policy makers and representatives from state and private sector institutions to discuss and exchange experiences, recent advances in the identified fields and explore commercialization opportunities. In order to achieve the above objectives, the Summit was held under three (03) main themes and 12 Sub themes as follows.

- A. Food and Agriculture
 - Food Security
 - NSF Programme on Cinnamon
 - Natural Products
 - Agro-technology

- B. Energy and Environment
 - Sustainable Energy
 - Climate Change and Natural Disasters
 - Solid Waste Management
 - Water Security

- C. Health
 - Diabetes
 - Dengue
 - Chronic Kidney Disease of unknown etiology (CKDu)
 - Cancer

These being the identified priority areas under the National Thematic Research Programmes of NSF, Food Security and Climate Change and Natural Disasters, as well as the special research activities entrusted to NSF by budget proposals 2016, the NSF Research Programme on Health Science and Cinnamon Research Programme, received great attention.

The Summit Inauguration was graced by the presence of the Chief Guest, Hon. Minister of Science, Technology and Research (ST&R), Susil Premajayantha the Hon. State Minister of (ST&R), Lakshman Senewirathna, the Secretary to the Ministry of ST&R, Mrs. R. Wijaludchumi and other distinguished guests attended the inauguration. Dr. Sumedha Jayasena, former Vice President, Translational Research, TransDerm Inc., Santa Cruz, California, USA delivered the Keynote address on Biotechnology.

Abstracts were invited openly and a total of 52 abstracts were received in three broad themes. After the reviewing process, 32 abstracts were selected for the poster presentations.

The Summit brought together, around 500 of the country’s leading scientists, researchers, industry personnel, policy makers, users of research outputs as well as Advanced Level top Performing Students and Undergraduates. The latter two groups, were given an opportunity to get an awareness on science as well as to meet and talk to Sri Lanka’s top scientists.

Successful conclusion of the Summit and the recommendations made, paved the way to facilitate the follow up activities for NSF. The Summit brought together an array of 44 invited speeches on present scenario, the critical issues that needed urgent attention, future research needs and strategic implementation of multidisciplinary and collaborative research that will ultimately bring practical benefits to the nation.

Maintaining a Current Register of Scientific and Technical Personnel

Mandate: to maintain a current register of scientific and technical personnel, and in other ways to provide a central clearing house for the collection, interpretation and analysis of data, on the availability of, and the current and projected need for, scientific and technical resources in Sri Lanka, and to provide a source of information for policy formulation on science, technology and other fields



Design and conduct of the National R&D Survey, other STI policy studies including NSF/ Contract Research on Policy Research

NSF functions as a research arm in the area of S&T Policy by providing evidence based policy recommendations for the policy formulation and addressing the gaps in the existing policies, aiming towards rapid socio-economic development in the country through Science, Technology and Innovation.

By doing so, science, technology and innovation (STI) policy research in the areas of importance to make recommendations towards policy formulation are conducted by the NSF as follows.

1. Developing various databases relevant to all sectors of STI that will be useful for decision making.
2. Undertaking public awareness programmes and public discourses on nationally important issues related to the areas of STI.
3. Retrieving, collecting, researching and validating components of Indigenous knowledge that needs to be conserved, sustainably utilized, and where ever possible mainstreaming into the national planning process.
4. Undertaking capacity building of human resources especially in the areas of Social Sciences and Indigenous Knowledge.

National Research Development and Innovation (RDI) Survey

NSF has conducted National Research, Development and Innovation (RDI) Surveys once in two years since the year 2004 with the objective of measuring and reporting the status of the science and technology sector of the country in terms of investment needs for Research, Development and Innovation (RDI), engagement of Human Resources in Science, Technology and Innovation (STI) and measuring output of the STI sector in terms of publications, patents, technologies, innovations etc.

The Survey is conducted following international standards laid out by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and Organization for Economic Co-operation and Development (OECD). The scope of the Survey encompasses the higher education sector, S&T institutions, R&D institutions, industrial sector and the local and foreign non- government organizations (NGOs).

The National RDI Survey 2014 which commenced during in the latter part of the year 2015, and continued during the early part of the year 2016. The data analysis and preparation of the S&T indicators were completed in 2016. Accordingly the “Sri Lanka Science and Technology Statistical Handbook 2014” will be published in early 2017.

Survey on Social Science Research in Sri Lanka

This survey was conducted to investigate the factors affecting social science research in Sri Lanka, and to propose recommendations to uplift social science research in the country in order to create a culture that may facilitate the development of national policies based on evidence yielded in research studies. The data collection was completed during 2016.

The impact assessment of NSF research grants awarded since 1971 -2012

A study was initiated during the year under review to assess the impact of Competitive Research Grants awarded during 1971 - 2012. NSF and its predecessors had awarded 2,472 grants under the Competitive Research Grant Scheme, and a study was developed to capture the output, outcome and impact of these grants in relation to the inputs made by NSF.

Study on Status of Postgraduates that passed out from the local Universities

A study was initiated to collect information on Postgraduates who passed out from the local universities and their engagement in employment after obtaining the degree. The aim of this study is to find out the employability of the postgraduates produce by the local universities, the usage of the knowledge gained in their job activities and gaps in the knowledge related to the labour market in the country. The findings and conclusions based on this study could be utilized for policy recommendations to improve the knowledge economy, and hence for national planning.

Maintain a current register of data on scientific and technical personnel and capacity through STMIS

NSF develops and maintains various databases relevant to all sectors of STI that will be useful for decision making.

National Science and Technology Management Information System (STMIS)

STMIS is a computerized information system developed and maintained by NSF since 2004. The online search and registration activities are available on its website: <http://mis.nsf.gov.lk/> The STMIS database contains information on scientists; S&T related institutions; advanced scientific equipment available in the institutions; information on services and training programmes offered by the S&T institutions; research publications and information on ongoing research in the country. The STMIS database is being updated regularly and the database has recorded information on more than 6,131 personnel by December 2016. Considering the structural and functional limitations of the existing STMIS, it was planned to upgrade and to expand the system during the year 2016.

Directory of Social Scientists

An initiative has been taken to prepare a directory of social scientists in the country. The main purpose of preparing this directory is to keep records on social scientists working in different areas of social sciences with a view to getting their service and expertise for the various events and activities conducted nationally and internationally that falls into the areas of social sciences.

Provide a source for policy formulation on science, technology and other fields

NSF organizes public awareness programmes and public discourses on nationally important issues related to the areas of STI, and events related to investigations, collect and conservation of Indigenous Knowledge (IK) existing and practiced in Sri Lanka.

Following programmes were organized during the year under review.

Seminar on “Trends and Prospects of Big Data in National Policies”

A seminar was held on 20th December 2016 at the Sankathani Hall, Sri Lanka Institute for Development Administration (SLIDA) with the participation of around 120 personnel who showed interest on usage of big data that include government institutions, private sector organizations, non-governmental Institutions and individual scientists. The aim of this seminar was to create a dialogue on possible avenues for usage of big data, opportunities available and policy interventions needed for better application of big data and usage of them in evidence based policy research.

Seminar on Indigenous Knowledge for Sustainable Development

Biodiversity, indigenous knowledge, and sustainable development are very closely linked. Indigenous knowledge systems of people of the world embodies a reservoir of knowledge of the diverse species of plant, animal and life on earth. The Scientific Advisory Board to the Secretary-General of the United Nation decided at its Third session in May 2015” to prepare a policy brief for the attention of the Secretary- General recognizing the important role of indigenous Knowledge for sustainable development and providing recommendations for enhancing the synergies of IK and Science’ (UNESCO Science Report, 2015).

Accordingly, NSF has planned to initiate a dialogue among the scientific community; relevant policy authorities, administrators and the general public on the use of IK prevalent in Sri Lanka for sustainable development activities. The 1st programme in this direction was conducted on “Indigenous Knowledge for Sustainable Development” on 22nd July 2016 at NSF Auditorium.

Intellectual Property (IP) Rights on Indigenous Knowledge

A series of meetings were conducted with the objective of discussing with lawyers and policy authorities working in the area of IP with expertise especially in the areas of IK on how to protect the intellectual property rights on indigenous knowledge.

During the discussion, the expert group identified the objectives to be looked at, the steps to be taken for IP protections, gaps in existing regulations and constitution related to protection of Indigenous Knowledge. NSF decided to have a brainstorming session and a seminar for a larger group of stakeholders to finalize the decisions taken at the expert groups meetings and pursue the matter further during mid-2017.



Fostering Interchange of Scientific Information between Sri Lanka and Abroad

Mandate: to foster the interchange of
scientific information among
scientists in Sri Lanka and foreign
countries



Strengthening Library Resources

NSF continues to provide an efficient information dissemination service to the scientific community using information communication technologies through strengthening of linkages and networks, by carrying out necessary programmes to foster the interchange of scientific information among scientists in Sri Lanka and foreign countries. NSF serves as the National repository of Science and Technology Literature by facilitating an efficient Science and Technology information service through training of library professionals and provision of technical assistance. The following activities were conducted in 2016 to meet the above requirements.



Maintenance and Updating of Library Software

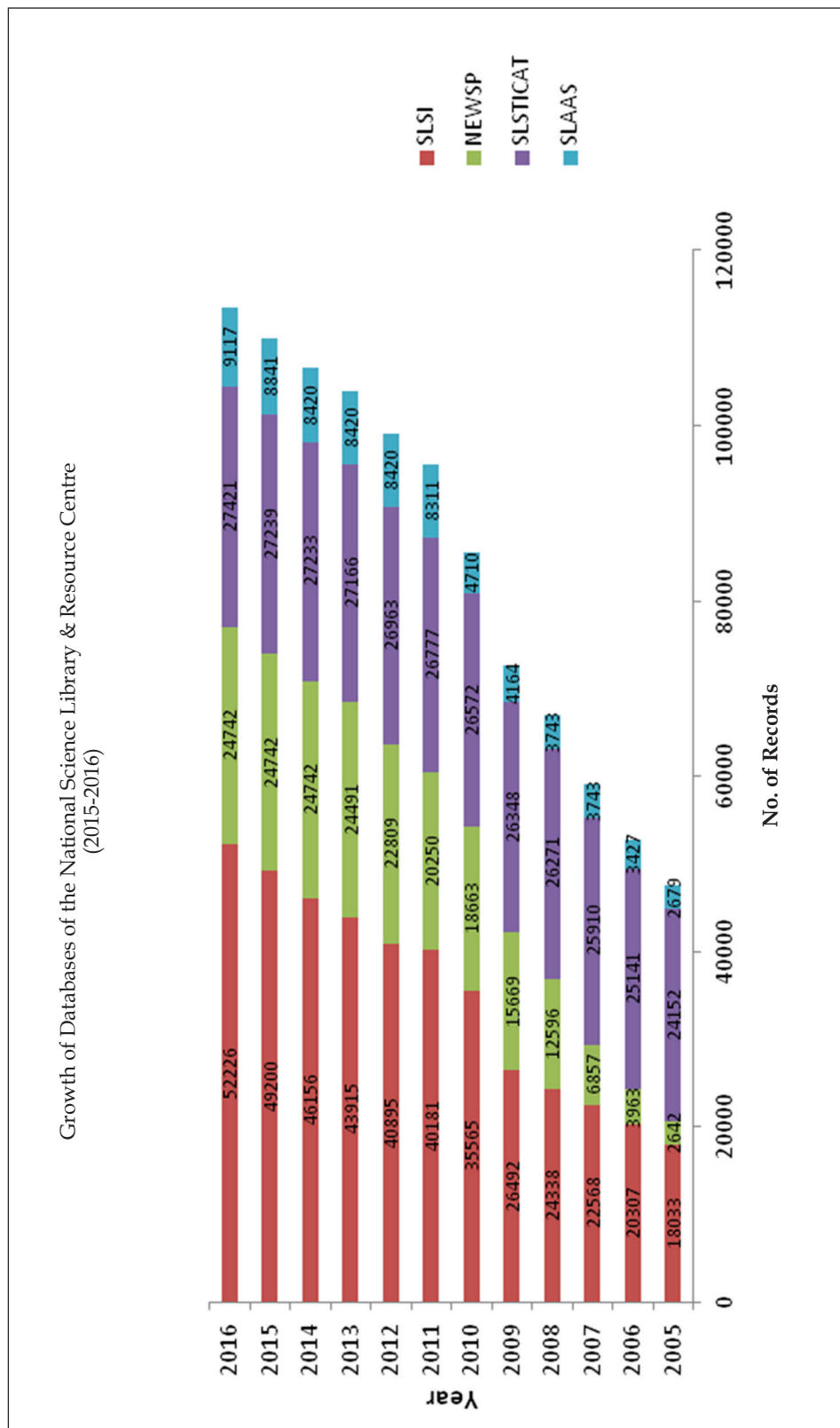
National Level Databases available at NSLRC

NSF by mandate maintains several national level databases to cater to Sri Lankan researchers and the academia to access information on current and past researches conducted in the country. Progress of the databases during the year under review is illustrated below.

- *Sri Lanka Science Index Databases (SLSI)*

The SLSI database currently accommodates 52,226 documents of which online access is provided to the full text for over 60% of the items. This database had shown a significant progress during the year with an addition of 3,026 records. The online access provided to the documents (90%) was severely affected due to the replacement of the Server in

which the full text files were stored. Editing the link of full text field was expedited as a corrective measure to rectify this issue and the link was edited in 15,422 records. Transferring data from the SLSI database in WINISIS to new integrated database system (viduketha.nsf.ac.lk), was developed using open source software, while JISIS was further continued in order to overcome the problems encountered with WINISIS. The SLSI database in Viduketha Server was updated with 3,026 records.



- **Research Grants Database (RGRA)**

This database was updated with the incorporation of information on 43 final reports and post graduate theses received during the year resulting from NSF funded projects.

- **SLAAS Database**

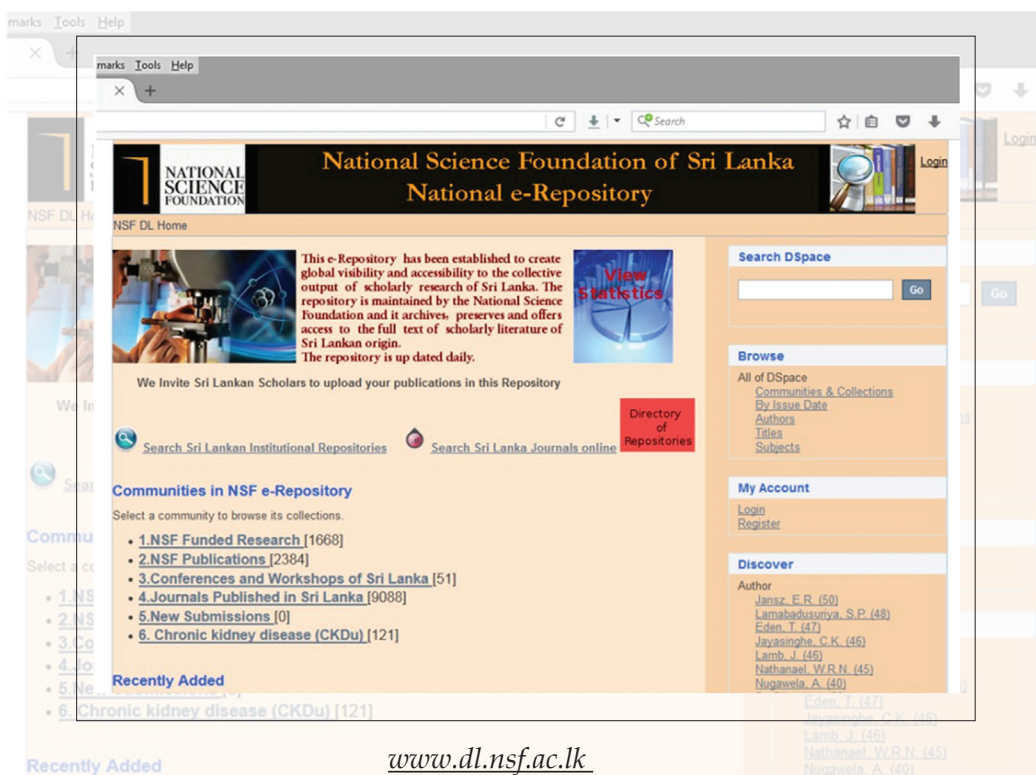
The SLAAS database includes complete references and abstracts to all papers presented at SLAAS annual sessions during the period 1976 -2015. The database has shown a growth of 276 records. These records were also transferred to the SLAAS database in JISIS server. The database can be searched and abstracts can be downloaded/printed on line.

Collection Development: National e-Repository

It is extremely important to provide the best possible services to the local scientific community by using the latest information dissemination technologies. Accordingly, transferring the contents in the conventional SLSI database to the National e-Repository launched in 2009 on D-space software was further continued. Total number of items transferred during the year from SLSI to the National e-Repository was 3,101 and the number of scholarly journals of which full text is accessible through the National e-Repository was 26. The community on 'research publications arising from research grants funded by NSF' was updated with 379 published material based on research outputs. The total number of items recorded in the National e-Repository as at 31st December 2016 was 14,244.

Collections Development: Reference Collection, Special subject collections

Nine (09) new books were added to the collection to cater to the reference requirement of the scholarly community. The Centre continued to receive copies of new issues (over 20 titles) of scholarly journals published within the country and copies of new issues (over 20 titles) of foreign journals. Number of foreign journal titles subscribed was 8.



Collection Development: strengthening access to global literature

During the year access to the following international databases, a prime requirement of the research community was enabled within the NSF premises. The databases were utilized by academics and researchers for literature searches and for citation information on their publications.

- o ***SCOPUS Citation & Abstracting Database***: The SCOPUS is a comprehensive information source for literature searches covering peer-reviewed literature in over 21,500 journals from over 5,000 publishers with smart tools that track, analyze and visualize research. It is an ideal source to conduct literature searches.
- o ***TEEAL (The Essential Agricultural Library)***: The TEEAL provides access to the full text articles in over 425 Agriculture Journals by leading publishers.
- o ***A minicomputer*** with full text and searchable database of articles from 325 high quality research journals in agriculture and related sciences from 1993-2013, was gifted by Cornell University and was successfully installed on the Server and added to the resource collection.
- o ***HINARI (Access to Research in Health) full text journal database***: The HINARI together with major publishers provides online access to the major journals (15,000 titles and 47,000 e-books) in the fields of biomedical and related social sciences.
- o ***AGORA (Access to Global Online Research in Agriculture)***: The AGORA programme, set up by the Food and Agriculture Organization (FAO) of the UN together with major publishers, enables access to an outstanding digital library collection in the fields of food, agriculture, environmental science and related social sciences. It covers contents of 5,900 key journals and 21,000 books.
- o ***ARDI (Access to Research & Development Information) Database***: The ARDI is a database of scholarly literature which provides free online access to Sri Lanka from diverse fields of Science and Technology. It provides access to 5,100 Journals, 19,000 e-Books and 20 other Information Resources.
- o ***NSLRC Web site***: The NSLRC web site was incorporated with 30 useful links to both local and international resources. Special focus was given to provide links to Open Access Journals, Institutional Repositories and other free resources to compensate the very limited access to subscription based international journals and databases within the country.

National Digitization Programme

National Digitization Project (NDP)

The objective of the National Digitization Project at NSF is to digitize local S&T literature available in research and academic libraries in the country to facilitate easy and quick online access to the full text through a national network of Institutional repositories.

Digitizing was completed in nine (09) institutions in 2013 under the Phase I. Digitization of the collection of nine institutions (National Library of Sri Lanka, South Eastern University, Irrigation Department, Mahaweli Authority, Department of Census & Statistics, Geological Survey & Mines Bureau, National Institute of Fundamental Studies, National Science Foundation, Tea Research Institute) was completed under the Phase II in 2015. The Phase III of the project which commenced in 2016 completed the following activities.

- Identification of institutional collections to be digitized
- Visiting the libraries to supervise the collections and guiding the library staff on preparation of documents (tagging) for digitization
- Selection of suitable supplier through a tender procedure
- Recruitment of supporting staff (05 persons) to facilitate the participating libraries in preparation of documents for digitization and data entry
- Preparation of Agreements to be signed between NSF and the Participating Organizations, and the Contract Agreement, that NSF had to be sign with the service provider.
- Promote and support the development of institutional e-repositories in universities and S&T libraries for effective resource sharing

In order to provide necessary knowledge and training on the maintenance of Institutional Repositories, following services were provided to the library professionals of the participating institutions of the National Digitization Project.

DSpace software was installed in the servers of Central Environmental Authority (it was hosted in the NSF Server as a virtual repository) & the Department of Irrigation, and Institutional Repositories were established in the respective Servers. The necessary guidance & instructions were provided to the staff of the participating libraries of the NDP on data entry & uploading of documents to their respective IRs.

The growth of the contents in IRs was significant. The total number of full text documents added to institutions' IRs in 2016 by the NSLRC staff was 4,832.

Sri Lanka Journals Online (SLJOL) Database - Online Platform for Publishing Scholarly Sri Lankan Journals

◆ Sri Lanka Journals Online (SLJOL)

The SLJOL of NSF is currently operating successfully publishing 71 journals of local origin. Eight new journals were set up and 168 journal issues were published on the SLJOL in 2016. Batch files of metadata of 1,305 articles were submitted to crossref.org in order to register digital object identifier (DOI) for each article. The database was added with eight new editorial boards and four author guidelines. Thirty-seven (37) troubleshooting of 22 journals were successfully handled with the support of Programme Manager (Journals Online), International Network for the Availability of Scientific Publications (INASP). The usage of the SLJOL has also been increased tremendously as per the statistics maintained by UK. The total number of full text downloaded was 64,826 and average monthly views was 18,000 in 2016.

In March 2016, the newly upgraded website of SLJOL was successfully launched by Hon. Susil Premajayantha, the Minister of Science, Technology and Research amidst a gathering comprised of senior scientists, journal editors, local media, staff of the NSF, Ms Sioux Cumming (Programme Manager, SLJOL Project) and Mr Brian Hole (Researcher and Publisher, Ubiquity Press, UK). Wide media coverage was provided to the event through local media channels in collaboration with the Science Popularization Division.

A two-day workshop was organized jointly by NSF and the INASP for editors of the journals on SLJOL with the primary objective of handing over the responsibility of uploading their own journals' content on this platform. The number of participants of the workshop was 55. Demonstrations to four editorial teams were also conducted with regard to uploading of journals.



Journal editors attended at the workshop in 2016

The promotional tools were distributed among the research and academic community in all state universities and fourteen research institutions in Sri Lanka as a promotional strategy of SLJOL.

The second Journal Managers' Meeting organized by the INASP to review the progress of SLJOL was held in Colombo from 2015 August to 2016 August. The meeting was attended by two representatives from NSF. New strategies for the growth and development of SLJOL were identified at the meeting.



Workshop on SLJOL, 2016 - www.sljol.info

Provision of Scientific Information to the Scientific Community, Undergraduates, Students and General Public

NSF continued to cater to the information needs of the scholarly community. Requests received for literature searches, copies of documents and journal articles were successfully fulfilled.

Informetric usage of Scopus Citation and Abstracting databases was 15,037, and the total number of abstracts downloaded from Scopus was 8,617. The total number of searches made

on local databases maintained by the NSLRC was 203. The total number of searches made on international full text databases namely HINARI, TEEAL, AGORA, Bio-Med Central and ARDI etc. was 295, and the number of full text articles provided to users was 1,196. Two hundred and sixty-seven (267) users who visited NSLRC were successfully catered to during the year. In addition, it fulfilled 535 inquiries made over the phone and through e-mails.

Capacity Building of Library Professionals/Academics in Other S & T Institutions

NSF is responsible for providing technical support for IT based services in other libraries and training of library professionals. During the year under review the following services were provided to the staff of the NSLRC and other libraries in the country.

- **Technical assistance**

- All the online databases available at the NSLRC were configured to the environment of the newly developed multiplatform free open source software named JISIS. One hour training session on JISIS was conducted to the NSLRC staff from 11th -25th November 2016.
- Technical assistance was provided on 69 occasions to the libraries of the participating institutions of NDP and the libraries which use WINISIS as the software for library automation.

- **Sri Lanka Science and Technology Information Network (SLSTINET) Seminars**

Following seminar was organized during the year with the objective of keeping scientists, academia and library and information professionals abreast of the new developments in the field of information dissemination.

- Seminar on Scientometric Indicators: evaluation of research publications, individual scientist and research institutions through Scopus – 6th October 2016 (NSF Auditorium). No. of participants attended was 57.

- **Awareness Programmes on NSLRC Activities**

- A presentation on “SLSTINET” was made by a NSLRC staff member at the seminar on “Information Networks” conducted by the National Library and Documentation Services Board.
- An awareness programme on “Activities and Services of the NSLRC” was conducted for 58 undergraduates of University of Kelaniya.
- An in-house training was provided to two undergraduates of University of Kelaniya on NSLRC activities and services.
- An awareness programme on “Databases Available at NSLRC” was conducted for 08 undergraduates of Horizon Campus.

Publishing Journal of National Science Foundation (JNSF)

The Journal of National Science Foundation of Sri Lanka (JNSF) has been publishing the results of research in all aspects of Science and Technology since 1973. Four issues of the journal are published per year in March, June, September and December. Contents of the journal are peer reviewed and are currently indexed in Thomson Reuters Science Citation Index Expanded, Chemical and Biological Abstracts, BIOSIS Previews, Zoological Records, SCOPUS, TEEAL, Ulrich's and AGRICOLA. The journal is published both online and in print form.

During 2016, all four (04) issues of JNSF volume 44 (issues 1, 2, 3, 4) were published on time. The Journal has a wide circulation both locally and overseas and the full text of JNSF can be accessed through the Sri Lanka Journals Online (SLJOL) website <http://jnsfsl.sljol.info/> free of charge.



Publishing Sri Lanka Journal of Social Sciences (SLJSS)

The Sri Lanka Journal of Social Sciences (SLJSS) is published twice a year in June and December. The journal publishes articles in Sinhala, Tamil and English languages covering the entire range of Social Sciences,

All papers are peer-reviewed. The full texts of the Journal articles are accessible through the Sri Lanka Journals Online (SLJOL) web site, <http://www.sljol.info/index.php/SLJSS>. The status of the Journal publication during 2016 was as follows;

- Volume 38 No.2 Dec (2015) - Published
- Volume 39 No.1 June (2016) - Published
- Volume 39 No.2 Dec (2016) - will be published in January 2017





Popularizing of Science amongst School Children and General Public

Mandate: to popularize science amongst the people by funding programmes for that purpose



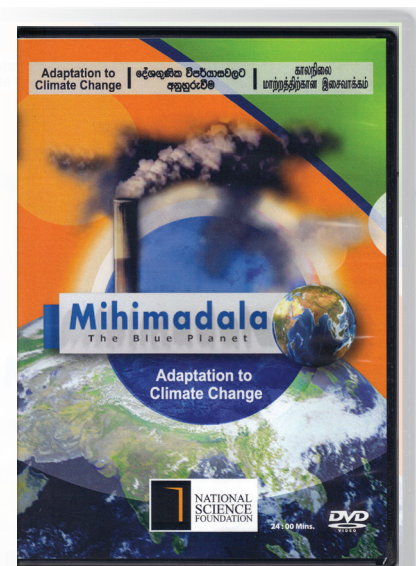
Production of Video/TV/Radio Programmes and Use of Mass Media (print & Electronic) to Take Science & Technology to the General Public

NSF continued to disseminate a series of activities to the school community and the general public under the theme “Science for All” during the year under review. Production of video programmes was continued during the year under review as “Mihimandala” Phase II. The Phase I of this programme won a local award and an international award in the year 2011 and brought an honour to NSF.

‘Mihimandala’ Video Programme and telecast over TV channels - Phase II

The ‘Mihimadala’ NSF Science Magazine on TV is a series of video programmes produced in docudrama format on currently important Science and Technology related topics to be telecast via National Channels. The programme is aimed to create awareness among the general public in science and technology and its practical application in building life skills, improving living standards and in socio-economic development.

Under phase I of Mihimandala, 12 video programmes on current scientific issues which are of importance to the general public have been produced in all three languages during 2006/2007, and telecast through national T.V. Channels. As an extension of the phase I, another 15 Science video programmers (20 - 25 minutes long; docudrama format) were planned to be produce in all three languages under Phase II of the Mihinmandala.



During 2016, following video programmes were produced in all three languages (English, Sinhala and Tamil) on the following topics under the Phase II.

- Safe Use of Ground Water (Prof. Pathmalal Manage)

- Evolution of Astronomy (Mr Joe Fernando)
- Power of Modern Science (DrJayantha Wattavidanage)
- Diabetes (Dr Prasad Katulanda)
- Coping with Stress (Dr Neil Fernando)
- Anger Management (Dr Neil Fernando)

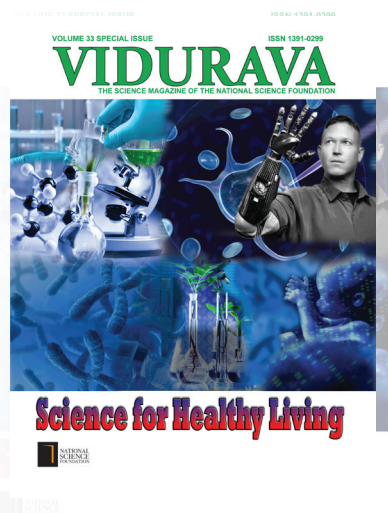
Production of 09 programmes (Lifestyle and Health - Dr Prasad Katulanda, Robotics and its Future - Prof. Rohan Munasinghe, Biomimicry- Dr Kumari Thilakaratne, Resilience to Climate Change - Prof. W.L. Sumathipala, Oral Health – Dr Jayasundara Bandara, Wise Use of Medicine - Dr Chamari Lochana Weeraratne, Household Energy Conservation - Dr A.G.T. Sugathapala, Genetically Inherited Diseases - Prof. Vajira Dissanayake, and Renewable Energy - Mr Asoka Abeygunawardhana) under the Phase II was completed in 2015. Selection of a suitable TV Channel was in progress at the latter part of the year 2016.

Popularization of Science and Technology through Publications: Vidurava and Vidya News Letter

Vidurava Science Magazine

The Vidurava Science Magazine is the Science Magazine of the National Science Foundation. It was initially published as a Science Bulletin starting from 1976, and is one of the oldest Science Magazines in the arena. At present, three issues of the Magazine in three language versions (Sinhala, Tamil and English) are published in January, June and November (Special issue) each carrying a specific theme.

All the issues are distributed among the schools registered with NSF, Vidatha Centres, University Science Libraries, Provincial Science Coordinators, and Zonal Science Directors free of charge. The Special issue is distributed free of charge among the participants of the World Science Day Schools Programme.



Following issues were published during the year 2016.

- January 2016 Issue, Vol. 33, No 1.
Theme: Internet of Things (Sinhala, Tamil & English versions)
- June 2016 Issue, Vol. 33, No 2.
Theme: Cosmetics, Perfumes and Detergents (Sinhala & English versions)
- November 2016 Issue, Vol.33, Special Issue
Theme: Science for Healthy Living (Sinhala & Tamil versions)

Publicity to NSF Activities

“Vidya” Newsletter

The “Vidya” Newsletter reports information on various activities organized by NSF such as seminars, workshops, conferences etc. It also provides information on research grants and travel grants administered by NSF. This Newsletter is a quarterly publication and published as January, April, July and October issues.

October 2015 issue and (January and April 2016 issues were printed during the year reviewed and distributed among the members of the NSF Committees, Research and Development institutes and University Libraries.

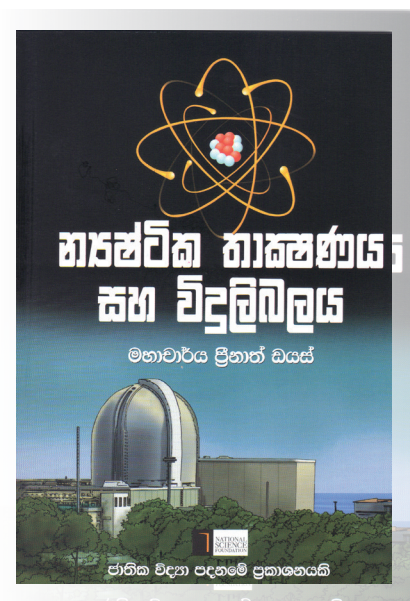
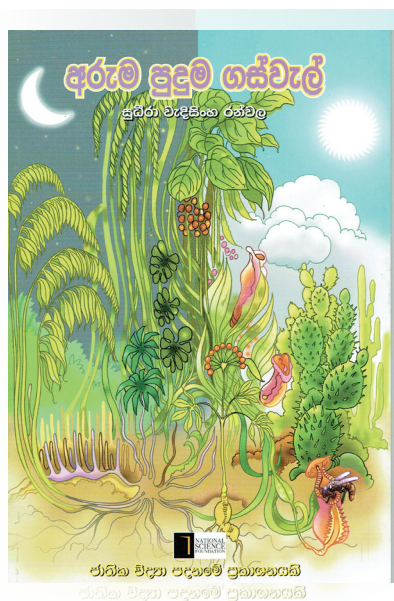
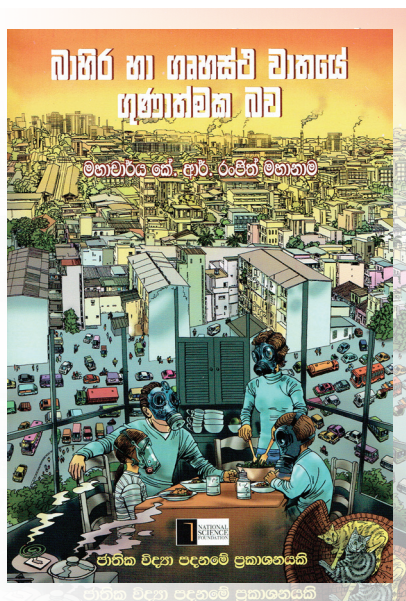
Popularization of Science and Technology through Publications - Science Booklets

Publication of science booklets to improve the readership and knowledge on scientific concepts among school children and the general public was continued during the year under review.

Science Booklets are publications on scientific concepts explained in simple language, and printed in local languages (Sinhala and Tamil) for the easy understanding of school children. Booklets published under this activity would be distributed among the school children of underprivileged schools.

Five thousand (5,000) copies each from of the booklets on “Outdoor and Indoor Air Quality” (by Prof. Ranjith Mahanama) and “Invasive Plants” (by Dr Sudheera Ranwala) were printed during 2016.

Outstanding balance of 2,500 copies of the booklet on “Nuclear Technology” was also published. The first and the last booklets were distributed to the school science societies and to under privileged schools in the country.



Grant Scheme for promoting Science Books

Science Books are published is another publications under a special scheme on books publishing. Authors are encouraged in writing scientific books on current topics by providing financial support for printing. During the year under review, there were no applications received from authors.

Establish a National Platform with School Community for Popularization of Science: School Science Society Programme

NSF established a School Science Society Programme in 2005 with the objective of fostering school children in improving their science literacy and scientific knowledge on modern science, and to inculcate a science culture in the use of scientific knowledge in their day to day life.

As at 31 December 2016, representing all the districts of the country, 814 schools were registered free of charge with NSF under the School Science Society Programme. NSF supports these societies in many ways to achieve the objectives of the Programme as follows.

❑ Free distribution of NSF publications to the registered school science societies

NSF publications including Vidurava Science Magazine, and science booklets are distributed free of charge to the school science societies. The Vidurava Science Magazine is distributed three times per year, where each society receives two copies of the local language version and one copy of the English version.

❑ Providing resource persons for the Science Days organized by the School Science Societies

When requests are made by the registered school science societies for providing resource persons (local scientists) to deliver guest lectures at the science days organized by them during the year 2016, services of the following resource persons were provided free of charge by NSF. The cost for transport, honorarium, and refreshments for the resource person was borne by NSF.

School	Date	Resource person's name and institute
1. Yasodara Devi Balika Vidyalaya, Gampaha	19.02.2016	Dr Jayantha Wattavidanage, Senior Lecturer, Open University of Sri Lanka
2. Gankanda Central College, Pelmadulla	06.04.2016	Dr Predeepika Saputhanthri, Senior Lecturer, University of Colombo
3. St. Anne's Balika M.V., Kelaniya	13.05.2016	Dr Priyantha Epa, Senior Lecturer, University of Kelaniya
4. Tholangamuwa Central College, Tholangamuwa	06.06.2016	Prof. Hiran Amarasekara, Senior Lecturer, University of Sri Jayawardhanapura

5. Karandeniya Central College, Karandeniya	08.07.2016	Prof. Chandana Jayarathna, Senior Professor of Physics, University of Colombo
6. Gurukula College, Kelaniya	20.10.2016	Dr Jayantha Wattavidanage, Senior Lecturer, Open University of Sri Lanka
7. Lakdasa De Mel College, Kurunegala	27.10.2016	Prof. Upali Chandrasekara, Senior Lecturer, University of Kelaniya

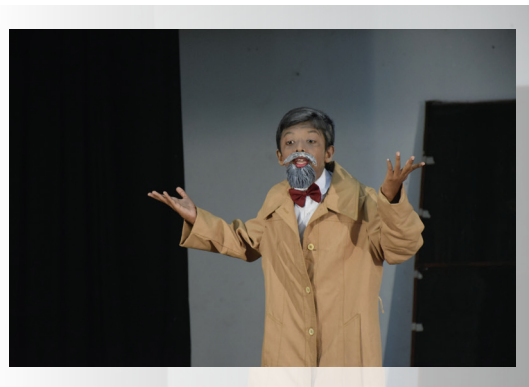
Inter School Science Society Competition (ISSSC)

NSF had organized annually the Inter School Science Society Competition under a selected scientific theme from 2006 onwards to encourage school children to participate at the competitions and to improve their scientific knowledge on the theme. The ISSSC targets the World Science Day Schools Programme, which is also organized by NSF. The Winners of the competition comprising Short Science Drama, Viridu, Role Play, Manual Posters and Digital Story telling *etc.* are felicitated at the World Science Day Programme.

The ISSSC 2016 was organized from September to October 2016.

For the Manual Posters competitions around 200 posters were received while there were 22 creations for the Digital Story Telling Competition.

Short Science Drama, Viridu and Role Play competitions were held in two rounds. The first round was in Kandy and Colombo. There were around 400 participants at the first round of the above competitions. The final round of the competition was held on 12.10.2016 at the Sri Lanka Mahabodhi Society Hall, Colombo 10 with the participation of about 241 participants who were the winners of the regional competitions. All competitions were evaluated by a veteran panel of judges approved by the Board of Management. All winners of the competition were felicitated at the World Science Day Schools Program 2016.



World Science Day Schools Programme

In the year 2001, United Nations' Education, Science, and Cultural Organization (UNESCO) declared the 10th of November as the World Science Day for Peace and Development. From 2002 onwards Sri Lanka started celebrating the World Science Day, and NSF was selected as

the focal point for celebrating the World Science Day. From 2004, onwards NSF opened this programme to school children and named the programme as the “World Science Day Schools Programme”. It has been organized in November each year under different scientific themes.

The World Science Day 2016 Schools Programme was held on 10.11.2016 at the Main Hall of the BMICH under the theme “Science for Healthy Living”. School children and teachers of the school science societies registered with NSF, the winners of the competitions conducted by NSF, scientists, academics, and media personnel were invited for the event, and around 1400 personnel participated. Hon. Minister of Technology and Research participated as the Chief Guest, and Hon. State Minister of the Ministry of Science and Technology participated as the guest of honor, while the Keynote Address was delivered by Prof. Narada Warnasuriya, Senior Professor in Paediatrics, Faculty of Medicine, General Sir John Kotelawala Defense University.

The winners of the following competitions were felicitated at the World Science Day Programme.

- Inter School Science Society Competitions
- NSF Award for Teachers in Promoting Science
- Prof. M.T.M. Jiffry Memorial Award for Popularization of Science
- Star Rating (the best performing School Science Societies which are registered with the NSF)
- Science Research Project Competition (SRPC) and Sri Lanka Science and Engineering Fair
- Award winners of the Intel International Science and Engineering Fair
- Digital Story Telling Competition for undergraduates registered under NSF University Science Society Programme

Science Research Projects Competition (SRPC)

National Science Foundation has organized the Science Research Projects Competition (SRPC) annually starting from 2008, with the objective of enhancing the innovative thinking, creativity and the investigative ability amongst the school children in the country.

Schools registered with the National Science Foundation are eligible to participate in this competition. School children who are in Grades 9-12 are eligible to participate at the SRPC.



Introductory Workshops on SRPC are organized prior to the commencement of the Competition. Use of the scientific method for research projects has been familiarized among participants at these introductory workshops. After commencing the competition two progress review workshops are held to see the progress of the research projects and to help them to improve their research work.

In the year 2016 NSF has conducted four introductory workshops, in Colombo, Kandy, Mathara and Batticaloa.

Project proposals once forwarded are followed up by introductory workshops. A panel identified by the NSF selected the best project proposals (55). Academic persons were appointed for each project. Progress of the research projects were evaluated by conducting progress review workshops in Colombo and Batticaloa.

Sri Lanka Science and Engineering Fair (SLSEF)

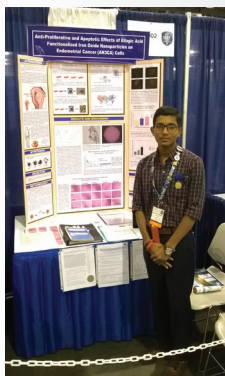
NSF in collaboration with the Ministry of Education, Institution of Engineers Sri Lanka (IESL) and Intel® organizes the Sri Lanka Science and Engineering Fair (SLSEF) with the objective of enhancing the innovative thinking, creativity and the investigative ability of the school children in the country.

The competition has been organized from 2008 onwards. National winners of the Sri Lanka Science and Engineering Fair are nominated to represent Sri Lanka at the Intel International Science and Engineering Fair annually held in the USA.

Winners of the Science Research Projects Competition (SRPC) 2015 organized by NSF (10 research projects) and winners of the Junior Inventor of the Year Competition (JIY) 2015 organized by the Institution of Engineers Sri Lanka (10 inventions) contested at SLSEF 2016.

Following students were selected as the winners of SLSEF 2016 to represent Sri Lanka at the Intel International Science and Engineering Fair (Intel ISEF) which was held in Phonix, Arizona, USA from May 08-13, 2016.

- ◆ Abishek Stenush Gomes at Belvoir College International, Colombo 04
- ◆ T.D. Chamindu Jayasanka at Rajasinghe Central College, Hanwella
- ◆ P. M. Lochana Piyumantha Fernando, Senanayake Central College, Madampe.



For the first time in the history of SRPC, P. M. Lochana Piyumantha Fernando of Senanayake Central College, Madampe, was able to win a special award worth US\$ 1000 from the Qatar Foundation, for Research and Development, for his project titled “Anti Proliferative and Apoptotic Effects of Ellagic Acid Functionalized Iron Oxide Nano Particles on Endometrial Cancer (AN3CA) Cells”.

Establishment of a National Platform with University Community for Popularization of Science: University Science Society Programme

University Science Society Programme was established in 2014 at NSF creating a platform for science undergraduates to develop their knowledge and skills in national activities, to enhance their skills in scientific communication and writing, and utilizing the knowledge of science undergraduates to popularize science for the well-being of the citizens in Sri Lanka. University Science Societies in different Universities were registered at NSF under this Programme. There were 47 Societies representing 11 Universities registered as at 31 December 2016.



A Digital Story Telling Workshop was conducted for University undergraduates on August 24th, 2016 for 40 participants from 05 Universities. A competition on Digital Story Telling was conducted for undergraduates following the workshop. Winners were felicitated at the World Science Day 2016 Schools Programme.

Grant Scheme to Support Science Education and Popularization Programmes organized by Schools and Universities

NSF established a Grant Scheme to provide financial support to science education and popularization programmes organized by schools and universities.

Chemical Society of University of Colombo was granted Rs.125,000/- for their annual “SAHAS Community project” which was planned to increase the standard of education of schools in rural areas. The programme was held on 08-09 October 2016 at Mihinthale M.V.

Overseas Science Education Programme (OSEP)

NSF initiated a Grant Scheme named “Overseas Science Education Programme (OSEP)” in 2016, to provide financial support to school children, teachers, and University students to participate at science education and popularization programmes in foreign countries.

The objective of this programme is to provide an international exposure on trends in modern science, technology, research and innovation to Sri Lankan school children, teachers (Science, Technology, Engineering and Mathematics; STEM) and University Undergraduates in order to upgrade and improve their knowledge on science, technology and innovation to face the challenges of the modern world. The scheme is designed to facilitate and grant assistance to Sri Lankan school children, teachers, and University Undergraduates of science societies registered with NSF to participate in internationally organized competitions (ex. Intel International Science and Engineering Fair- ISEF, International Olympiad *etc.*), seminars, conferences and training programmes related to science popularization and science education, and thereby to actively contribute in enhancing the quality of science and technology in Sri Lanka.

Under the OSEP, during the year 2016, financial support was provided to the following institutes.

- ❖ Institute of biology for International Biology Olympiad 2016
- ❖ University of Colombo School of Computing for International Olympiad in Informatics 2016
- ❖ Institute of Physics Olympiad for International Olympiad on Astronomy and Astrophysics 2016

Arrangements were made to provide funds to the University of Colombo for International Physics Olympiad 2016.

Strengthening STEM education with Ministry of Education and other Ministries

NSF organizes programmes in collaboration with Ministries of Education and Science, Technology and Research to strengthen the STEM Education of the country. During the year under review, the following activities were carried out.

Capacity building of teachers on good laboratory practices

NSF prepared “Training Manuals for Science Teachers” for Chemistry, Physics, Zoology, and Botany based on a request made by the Science Branch of the Ministry of Education to train their 450 Master Trainers. Considering the importance of this activity, a contract was awarded to the Open University of Sri Lanka in 2015. Cost for preparation and printing was borne by NSF. These Manuals were published in 2016 (450 copies from each discipline) and sent to the Science Branch of Ministry of Education.



Promoting and Enhancing of Capacity Building of Sri Lankan Scientists

Mandate: to award scholarships and
fellowships for scientific study
or scientific work at science and
technology institutes



Grant Schemes for capacity building of Local Scientists

Research Scholarships

At present, there is a very low output of postgraduate research degrees by the Sri Lankan Universities. It is important to attract and encourage science/engineering graduates to conduct fulltime research leading to research degrees. This programme provides financial support to science and engineering graduates to conduct fulltime research (within Sri Lanka) leading to MPhils and PhDs. Six (06) new Scholarships were awarded in the year 2016 *Annex 11*. Sixteen (16) ongoing Research Scholarships were monitored and four Scholarships were completed (*Annex 12*) and theses submitted (01 PhD and 03 MPhils).

The NSF International Travel Grants

The objectives of this programme are to provide an opportunity for Sri Lankan scientists and technologists to present their research findings at International fora, and to acquire scientific knowledge on new discoveries, achievements, and developments in order to experience the global efforts. Grantees have the opportunity to participate at international conferences to share their research findings, upgrade knowledge and establish linkages with the scientists working in similar areas across the globe for future collaborative activities.

In 2016, NSF awarded 63 Travel Grants, the details of which are summarized in *Annex 13*.

Overseas Special Training Programme (OSTP)

The objective of the Overseas Special Training Programme (OSTP) is to enhance national capacities of Sri Lankan scientists by providing training opportunities at centers of excellence abroad. Under the OSTP scientific and technical personnel such as full time research students, science administrators, science educators, S&T policy makers and science communicators are financially supported to acquire overseas training up to a period of 12 months. They have provided the opportunity to obtain advanced laboratory and research skills, industrial and technical experience and science communication and teaching skills that would not be available in Sri Lanka in the foreseeable future.

In 2016, NSF awarded forty eight (48) OSTP Grants, (*Annex 14*).

International Partnerships for Science and Technology (IPSAT)

The International Partnerships for Science and Technology (IPSAT) is a programme to obtain services of high caliber scientists and technologists working abroad. It is directed at promoting international research collaborations, technology transfer, and at obtaining expertise towards developing a globally-engaged community of scientists and technologists in Sri Lanka. This programme was initiated in year 2012.

Fifteen (15) IPSAT grants were awarded in the year 2016 and the details of these are given in *Annex 15*.

Establishment of STI and Research collaboration between Sri Lankan institutes and institutes abroad

NSF maintains International Liaison with the objective of fostering interchange of scientific information amongst scientists in Sri Lanka and abroad. Accordingly, NSF continued its activities to ensure Sri Lanka's contribution towards International Science and Technology activities through Bilateral and Multilateral Cooperation, to establish and maintain liaison with individuals, associations or institutions in other countries, and to promote the visibility of Sri Lankan scientists internationally.

Following bilateral and multilateral scientific cooperation activities were performed during 2016.

Collaboration with the Pakistan Science Foundation

A Memorandum of Understanding (MoU) on Bilateral Scientific Cooperation was signed between NSF, Sri Lanka and the Pakistan Science Foundation (PSF) on 05th January 2016 during the visit of HE Navaz Sharif, the Prime Minister of Pakistan, to Sri Lanka. Hon. Rana Tanveer Hussain, Minister for Defense Production and the Minister for Science and Technology of Pakistan, and Hon. Susil Premjayantha, Minister of Science, Technology and Research of Sri Lanka signed this MoU.

In order to initiate the cooperative scientific activities under this MoU, a Joint Committee was established with membership from both PSF and NSF. The first Joint Committee Meeting of this MoU was held at NSF on 18th November 2016. A major outcome of this discussion was the decision to initiate a Collaborative Joint Research Programme where scientists from both countries can liaise and form joint research groups and conduct collaborative research. NSF and the PSF are expected to fund successful local counterparts in this regard. This programme is scheduled to be initiated during the first quarter of 2017.

Collaboration with the National Natural Science Foundation, China

A delegation of Chinese scientists including some members from NSFC visited NSF on 14th March 2016 and had discussions on signing a Memorandum of Understanding (MoU) on Bilateral Scientific Cooperation between NSF, Sri Lanka and National Natural Science Foundation of China (NSFC), and the scientific cooperative activities which should be followed after signing the MoU. The MoU was signed on 08th April 2016 during the visit of the official Sri Lankan delegation to China, between Prof. Sirimali Fernando, Chairperson, NSF and Prof. Yang Wei, President, NSFC.

It was decided to host joint workshops both in China and Sri Lanka during the first half of 2017 to identify the areas of mutual interest for further cooperation.

A Series of Meetings on Bilateral Scientific Cooperation: 'NSF Global Partnerships', 6-7 September 2016, Colombo

Several meetings under the theme; 'NSF Global Partnerships' were held with the participation of scientists from USA, Canada, Germany, China and Japan to strengthen Bilateral Scientific Cooperation with some eminent scientific institutions of these countries. These meetings were arranged back-to-back with the 'STS Forum Sri Lanka' Conference with the objective of initiating discussions on research systems and opportunities to be collaborated with the above countries.

Some local scientists who have already established collaborations with these countries as well as some Expatriate Scientists who came for the STS Forum from the respective countries participated at the above meetings.

The guest scientists who participated at these meetings were from the German Research Foundation (DFG), Natural Sciences and Engineering Research Council of Canada (NSERC), National Science Foundation - USA (NSF), Japan Science and Technology Agency (JST) as well as the National Natural Science Foundation, China (NSFC). Hon. Susil Premjayantha (Minister of Science, Technology and Research) graced the meeting which was held with the participation of distinguished guests such as the Her Excellency Shelley Whiting (High Commissioner of Canada to Sri Lanka), His Excellency Kenichi Sukanuma (Ambassador of Japan to Sri Lanka), Dr Michael Dohmen (Deputy Ambassador of Germany to Sri Lanka) as well as the officials from the Ministry of Foreign Affairs.

These meetings which were very productive and well attended by the invitees resulted in an initial discussion on Bilateral Scientific Cooperation programmes with the above institutions by means of signing of MoUs, organizing collaborative workshops to identify areas of scientific cooperation, and sharing of best practices on research management.

Collaborations with the Global Research Council (GRC)

Global Research Council (GRC) is a virtual organization, comprised of the Heads of Science and Engineering funding agencies in the world, dedicated in promoting the sharing of data and best practices for high quality collaborations among research funding agencies worldwide. The fifth Annual Meeting of the GRC was held in New Delhi, India from 25-27 May 2016 hosted by the Science and Engineering Research Board (SERB) of India and Research Councils UK (RCUK). This meeting was attended by more than hundred participants comprising heads of the research funding bodies and delegates from 52 countries around the world. Prof. Sirimali Fernando, Chairperson/NSF and Ms Thilina Kumari Kandana Kumara, Scientific Officer/International Liaison Division represented Sri Lanka at this meeting. As a result of that participation, discussions were initiated to have Bilateral Scientific Cooperation with the heads of the institutions such as German Research Foundation (DFG), Natural Sciences and Engineering Research Council of Canada (NSERC), National Science Foundation - USA (NSF), and Japan Science and Technology Agency (JST) which later paved way to the series of meetings called 'NSF Global Partnerships'. Also, as per one of the themes of that meeting, the 'Women in Science' programme was suggested to be initiated at NSF. The next Asia Pacific Regional Meeting of the Global Research Council in 2017 will be organized by NSF.

Collaborations with the International Council for Genetic Engineering and Biotechnology (ICGEB)

Out of the eleven applications received for the ICGEB CRP Grants programme, three were recommended by NSF. Since the success rates of securing CRP grants the Sri Lankan scientists

have been low during the recent past, arrangements were made to have a proposal writing workshop with expertise from ICGEB for the local scientists and researchers. Head/International Liaison Division represented Sri Lanka at the Board of Governor's Meeting of ICGEB held in Cape Town, South Africa on 25 May 2016. The suggestion to hold a Workshop for local researchers and scientists on writing proposals for ICGEB CRP Grants had been suggested at that meeting.

Knowledge sharing workshops, seminars and conferences between the local and expatriate scientists

Following workshops, seminars and conferences between local and expatriate scientists were organized during the year under review.

Peer Review Workshop on Reducing Enteric Fermentation for Improving Food Security and Livelihood, 01-02 February 2016, Colombo

This was a follow up workshop of "Technical Workshop to Identify the Opportunities and Interventions to Address Enteric Fermentation in South Asia"; the regional workshop with the Global Research Alliance on Agricultural Greenhouse Gases which was held in August 2015.

This programme was held in collaboration with the University of Ruhuna and the Livestock Research Group of the Global Research Alliance on Agricultural Greenhouse Gases, of which National Science Foundation is the National Focal Point.

About twenty (20) participants including scientists, industrialists, policy makers and academics from institutions such as the Faculties of Agriculture of the Universities of Peradeniya, Ruhuna and Sabaragamuwa, Climate Change Secretariat of the Ministry of Mahaweli Development and Environment, Coordinating Secretariat for Science, Technology Innovation (COSTI), Veterinary Research Institute (VRI), Department of Animal Production and Health, National Livestock Development Board (NLDB), Milco (Pvt.) Ltd. and CIC Dairy Farms Ltd. participated at this workshop.

Dr Harindar Makkar, Animal Production and Health Division, Food and Agriculture Organization (FAO) attended this workshop as the main Resource Person. Prof. Thakshala Serasinghe, contact scientist of the Livestock Research Group of the Global Research Alliance on Agricultural Greenhouse Gases also made her contributions to this.

Finalization of the animal production systems' data related to Sri Lanka and identifying any data gaps as well as identifying appropriate interventions for the reduction of Methane gas emissions from the local production systems were the main issues addressed. Further, it was decided to continue research collaboration in these areas.

The 13th International Convention of the Federation of Asian Biotech Associations (FABA): 'BioAsia 2016', 08-10 February 2016

Hon. Susil Premajayantha, Minister of Science, Technology and Research and the Official Delegation including Dr Sirimal Premakumara, Director General, Industrial Technology Institute (ITI) and Mr Wasantha Anuruddha, Head/International Liaison Division participated at the 'BioAsia 2016' Conference of the Federation of Asian Biotech Associations (FABA).

As an outcome of this visit the Hon. Minister of Science, Technology and Research suggested that a School of Life Sciences, similar to that of the University of Hyderabad - Faculty of Life

Sciences should be established in Sri Lanka. A team of six experts comprising scientists and academics, and including those from State Pharmaceutical Cooperation/Medical Supplies Department of Ministry of Health visited the University of Hyderabad in a study tour for further studies in this regard.

Sixteenth Science Council of Asia Conference, 30 May to 01 June 2016, Colombo

National Science Foundation co-organized the above Conference along with its National Focal Point; National Academy of Sciences of Sri Lanka (NASSL) with the active support of the Science Council of Japan (SCJ). The theme of the Conference was 'Science for the People: Mobilizing Modern Technologies for the Sustainable Development in Asia'. The sub-themes of the Conference included mobilization of modern technologies: Biotechnology, Information Technology, Nanotechnology and Renewable Energy Technologies for National Development and the social aspects including challenges faced by Asian nations in mobilizing such technologies. The Conference also dealt with the recurrent themes of Science Council of Asia Conferences, Climate Change and the Prevention of Natural Disasters.

The Conference was inaugurated by the Hon. Lakshman Seneviratne, State Minister of Science Technology and Research. Keynote Presentation was made on Photonics Polymers at the Inauguration by Prof. Yasuhiro Koike. In addition, a dialogue between the SCA and Hon. Ranil Wickramasinghe, Prime Minister and Hon. Susil Premajayantha, Minister of Science Technology and Research was organized on the second day of the Conference. The Conference consisted of plenary presentations (of which Sri Lanka had nine), oral presentations (around one hundred) and poster presentations (of which Sri Lanka had twelve). The Conference attracted 120 papers of which 12 were poster presentations. There were 79 foreign participants and 73 local participants.

Dialogue with the UNESCO Director General, 16 August 2016, Colombo

On the directives of the Hon. Minister of Science, Technology and Research, NSF organized a science dialogue with Ms Irina Bokova, the Director General of UNESCO for the Sri Lankan scientists on 16th August 2016 in Colombo. The objective of this meeting was to appraise the Director General UNESCO of Science Programmes in Sri Lanka that would complement the UNESCO Science activities and also to identify opportunities for the Sri Lankan Scientific Community to collaborate and participate in UNESCO Science Programmes.

This event was chaired by Hon. Susil Premajayantha, Minister of Science, Technology and Research, and Ms S.L.D.K. Wijayasinghe, Secretary General/ Sri Lanka National Commission for UNESCO, and Prof. Sirimali Fernando, Chairperson/ National Science Foundation participated as panel members of the Dialogue. The discussion was moderated by Prof. Samantha Hettiarachchi, Member of NSF Working Committee on International Liaison. There were 194 participants including Ministry of Science, Technology and Research officials, NSF Board of Management, Members of different scientific committees at NSF, scientists, researchers, academics and NSF Staff.

Representation of Sri Lanka by the local scientists in International Fora as per NSF nominations

- o Prof. Anoja Fernando who was nominated by NSF for the membership of the UNESCO International Bioethics Committee (IBC), had been awarded with that membership.
- o Prof. Saroj Jayasinghe, Department of Clinical Medicine, University of Colombo who was nominated by NSF for further three years of membership at the ICSU 'Scientific Committee for Health and Wellbeing in the Changing Urban Environment: a Systems Analysis Approach', has been awarded with that membership.

Dr Meththika Vithanage, Senior Research Fellow, National Institute of Fundamental Studies (NIFS) who was nominated by NSF represented the country at the 'Future Leaders' Programme of the STS Forum, Japan from 04 -07 October 2016.

The background features a large, abstract graphic on the right side, composed of several overlapping, curved, yellow and white shapes that create a sense of depth and movement. The text is positioned on the left side of the page, centered vertically relative to the graphic.

**Enhancing
Infrastructure
Facilities and
Improving
the Working
Environment**



Enhancing Infrastructure Facilities and Improving the Working Environment

NSF strives to strengthen linkages and communication between the relevant government and statutory bodies in the external environment. During 2016, efforts were made to develop the skills and productivity of our staff to maintain a result oriented open culture, which helped to uplift the employee contribution effectively to achieve the mission of NSF. Supporting Divisions liaise with the Scientific Divisions in executing their core functions for the smooth flow and sustainability of the organization.

Administration Division

For the purpose of providing the services required to fulfill the core functions of NSF at optimum level, the Administration Division discharged the following key activities; during the year under review.

- ❖ General Administration
- ❖ Human Resource Management
- ❖ Asset Management
- ❖ Logistical Requirements of NSF

NSF has a staff strength of 121 members including 24 Scientific Officers. A list of the principal staff as at 31.12.2016 is given in *Annex 16*.

During the year 2016, one (01) new staff member was recruited, four (04) members resigned and three (03) members retired.

Finance Division

The Finance Division administers all the financial activities, to provide an efficient financial service ensuring prompt and timely action relating to all financial activities of the institute, within the prevailing Financial Regulations. The following activities were performed during the year with up to date information.

- Maintenance of Books of Accounts, Fixed Asset Register, General Ledger, Grant Ledger, Stock books *etc.*
- Preparation of all financial reports including annual financial statements, estimates, and submitting to the relevant authorities on due dates.
- Setting payments in relation to all activities conducted by the divisions of the Institution.

- General payments such as salaries, overtime *etc.*
- Maintenance of the stores.

Printing Unit

The Printing Unit continued to support the activities and printing requirements of all the Divisions of NSF. Twenty-eight (28) publications, namely books, Magazines and 67 other printing works were printed during the year.

Improve and strengthen information technology facility

Information Technology Unit

The IT Unit is responsible to maintain the organizational ICT infrastructure facilities and provide end-user IT supports to NSF Staff.

Replacing of obsolete local area network devices, staff computer facilities and upgrading of internet bandwidth can be highlighted as key activities that have been successfully completed during 2016. Replacing of outdated voice communication platform with modern technology was also started and expected to be finalized in 2017.

Corporate Communications for upgradation of systems / procedures, legal draftsmanship and setting targets and monitoring progress

Financial and Physical Progress of NSF was reported monthly, quarterly and mid yearly. Scientific Operational Committee Meetings were organized each month to evaluate and regulate Scientific Work.

Work was conducted in accordance with the Action Plan prepared at the beginning of the year, and midyear revisions were executed to re-allocate the capital budget based on the progress made in different mandatory activities.

Women in Science Programme

A programme on 'Women in Science' was initiated by the National Science Foundation during the latter part of 2016. with the following objectives:

1. To identify the gender wise involvement in various activities of NSF
2. To collaboratively liaise with the local government institutions dealing with women's affairs to increase the awareness and participation of women in science in various activities
3. To collaboratively liaise with the international organizations in this field to increase the awareness and participation of women in science in various activities

4. To come up with an NSF stand on Women in Science in Sri Lanka similar to other members of the Global Research Council
5. To provide inputs to policy formulation on women in science

This is in line with the 'Statement of Principles and Actions Promoting the Equality and Status of Women in Research' by the Global Research Council, of which NSF is the national focal point. Some surveys on the gender-wise application and success rates of applicants of different grants schemes of NSF and the gender-wise composition of the Boards of Management of the institutes coming under the Ministry of Science, Technology and Research were done by the NSF Group on Women in Science.



Financial Statements



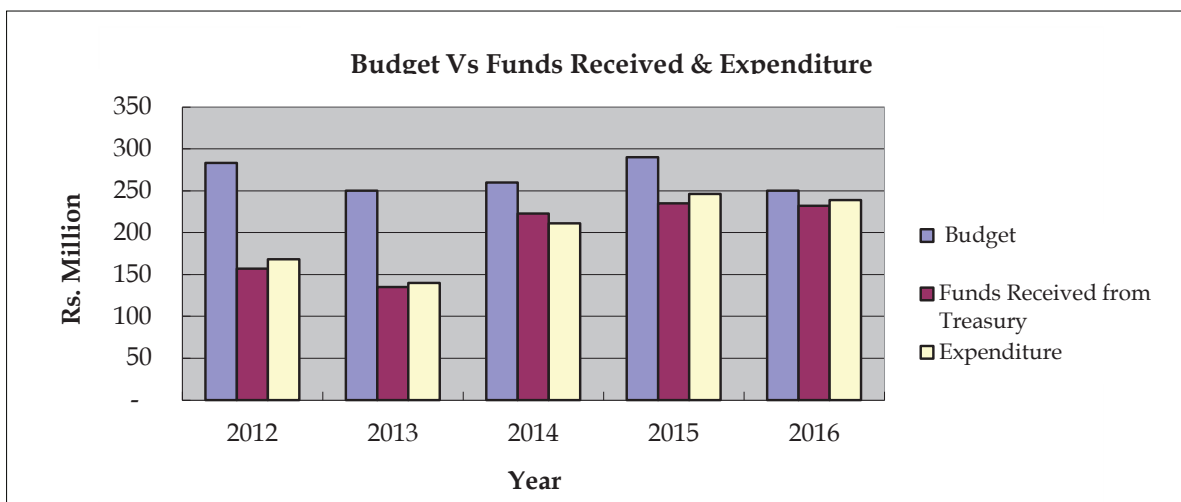
Observations of the Accounting Officer on Performance 2016

NSF is a funding organization which is solely dependent on government funds. Amounts recommended by the Department of National Budget to be released for “Recurrent” and “Capital” expenditure for NSF for the year 2016 were Rs. 113.2mn and Rs. 236.8mn respectively. Accordingly Rs. 113.2mn and Rs. 231.8mn were released by the Department of Treasury Operations for Recurrent and Capital Expenditure.

	<i>Estimate</i>	Rs.'000 <i>Expenditure</i>
Recurrent Expenditure		
Personal Emoluments	83,450	82,958
Other Recurrent	52,550	47,708
Total	<u><u>136,000</u></u>	<u><u>130,666</u></u>

	<i>Estimate from the treasury</i>	Rs.'000 <i>Expenditure</i>
Capital Expenditure		
Object Code - 133-02-05-3-2201	250,000	239,393

The following graph provides information on the annual expenditure against the capital funds received during 2012 - 2016.



Details of Capital Expenditure against the funds received during the year

	Description	Rs.000' Expenditure 2016
1.	Grants for Research & Other Scientific Work	121,209
2.	Science & Technology Policy Research Division	5,050
3.	Technology Division	26,913
4.	National Science Library & Resource Centre	4,984
5.	Science Popularization Division	17,828
6.	International Liaison Division	24,889
7.	Information Technology Division	9,927
8.	Office Furniture Fittings & Equipment	1,913
9.	Rehabilitation of Capital Assets	-
10.	Director's Office Vote	14,337
11.	Overseas Special Training Programme	12,343
	TOTAL	239,393

Management Issues

The first installment of the capital funds allocated for the year was released in March instant making all the activities planned for the first quarter of the year impossible and resulted in non release of Rs. 23mn allocated for the year. Both delay and non release of funds allocated for the year affected adversely in achieving annual planned activities, however, NSF was able to spend 100% of total released capital for Research Grants.

Research Grants are carried out under the supervision of the respective Heads of departments of the respective research institutes. In spite of the strong grants scheme conditions in force, timely implementation of projects is adversely affected to some extent due to procedures and systems within grantees' institutions. However, with appropriate management approaches in place NSF achieved significant success over the programmes scheduled to the previous years.

Statement of financial performance for the year ended 31st December 2016

			Rs.000
	2016	2015	
Revenue			
Government Grant	113,250	106,032	
Other Income			
Interest received	227	238	
Sundry Income	36	115	
Profit/(Loss) Sale of Publications	326	377	
Photocopy receipts	3	2	
NSLRC Income	1	5	
Profit/(Loss) Sale of Fixed Assets	-	(28)	
Exchange Gain/(Loss)	94	243	
Other Income	237,966	228,474	
Differed Revenue	<u>13,255</u>	<u>10,622</u>	
	365,159		346,080
Expenditure			
Personal Emoluments			
Salaries & allowances	66,830	68,196	
Employees Provident Fund	7,771	7,086	
Employees Trust Fund	1,551	1,415	
Provision for retiring gratuity	5,774	2,143	
Overtime	958	1,033	
Holiday payment	73	45	
Uniforms	304	247	
Sraff training	<u>629</u>	<u>768</u>	
	83,890	80,933	
Travelling	766	483	
Supplies	3,714	3,923	
Maintenance	3,361	2,736	
Contractual Service	10,219	8,634	
Others	12,925	10,321	
Depreciation	15,791	14,608	
Capital Expenditure	<u>237,481</u>	<u>245,914</u>	
	284,257	286,619	367,552
Surplus Deficit over the income			
before extraordinary items		(2,988)	(21,472)
Extraordinary items (Net Profit or loss)		<u>-</u>	<u>-</u>
Net Surplus/ (Deficit) for the period		<u>(2,988)</u>	<u>(21,472)</u>

Statement of Financial Position as at 31st December 2016

	Rs.'000		
	2016	2015	2014
ASSETS			
Current Assets			
Cash & Cash Equivalents	22,680	13,495	17,929
Receivables	5,905	9,703	11,884
Stocks	2,217	1,521	1,509
Pre Payments	1,492	4,726	3,450
Other Current Assets	3,408	3,408	3,408
Total Current Assets	<u>35,702</u>	<u>32,853</u>	<u>38,180</u>
Non-Current Assets			
Receivables	3,507	3,464	3,415
Property, plant & Equipment	450,592	446,993	447,157
Investments	560,975	560,975	560,975
Total Non-current Assets	<u>1,015,074</u>	<u>1,011,432</u>	<u>1,011,547</u>
Total Assets	<u>1,050,776</u>	<u>1,044,285</u>	<u>1,049,727</u>
Liabilities			
Current Liabilities			
Accrued Charges	6,091	4,443	10,286
Creditors	7,274	3,933	2,097
	<u>13,365</u>	<u>8,376</u>	<u>12,383</u>
Non-Current Liabilities			
Provision for Retiring Gratuity	25,405	22,533	21,413
Deffered Revenue	44,078	37,944	34,083
	<u>69,483</u>	<u>60,477</u>	<u>55,496</u>
Total Liabilities	<u>82,848</u>	<u>68,853</u>	<u>67,879</u>
Net Assets	<u>967,928</u>	<u>975,432</u>	<u>981,848</u>
Equity and Reserves			
Accumulated Fund	(13,896)	(8,092)	(1,676)
Revaluation Reserve	420,849	422,549	422,549
Government Grant	560,975	560,975	560,975
Total Equity	<u>967,928</u>	<u>975,432</u>	<u>981,848</u>

Statement of Cash Flow

Rs'000

	2016	2015	
<u>Cash flows from operating Activities</u>			
Net excess of expenditure over income	(2,988)	(21,472)	
Add: NSF fund prior year adjustments	<u>(2,816)</u>	<u>15,019</u>	
	(5,804)	(6,453)	
<u>Adjustments for</u>			
Depreciation	15,790	14,608	
Gratuity paid during the year	(2,903)	(1,023)	
Provision for Gratuity	5,774	2,143	
Exchange Gain/(Loss)	(94)	(243)	
Profit/(Loss) Sale of Fixed Assets	-	28	
Over Provision of Doubtfull Debtors	(87)	-	
Revaluation Reserve of Disposal Vehicles	(1,700)	-	
Deffered Revenue	(13,255)	(10,622)	
Debtor Written off	10	-	
Stock of Magazines & Journals written off	<u>94</u>	<u>173</u>	
Operating profit/loss before working capital changes	(2,175)	(1,390)	
Net increase/decrease in trade other receivables	6,988	856	
Net increase/decrease in inventories	(695)	(12)	
Net decrease/increase in trade payables	4,989	(4,007)	
Cash generated from operations	<u>11,282</u>	<u>(3,163)</u>	
Net cash from operating activities	9,107	(4,553)	
<u>Cash flows from Investing Activities</u>			
Outflow from activities	-	-	
Purchase of assets	(11,999)	(8,093)	
Proceeds from sale of books	<u>78</u>	<u>119</u>	
Net cash used in investing activities	(11,921)	(7,974)	
<u>Cash Flows from Financial Activities</u>			
Contribution from Government	11,999	8,093	
Foreign Aid	<u>-</u>	<u>-</u>	
Net cash from financing activities	11,999	8,093	
Net cash from financing activities	9,185	(4,434)	
Cash & cash equivalent at beginning period	<u>13,495</u>	<u>17,929</u>	
Cash & cash equivalent at end of period	<u>22,680</u>	<u>13,495</u>	

1 General Accounting

The Financial Statements have been prepared in accordance with Sri Lanka Public Sector Accounting Standards (SLPSAS) and presented in accordance to Sri Lanka public sector Accountnig Standards SLPSAS 01 - Presentation of Financial Statements.

2 Grants for Research & Other Scientific Work

Our policy in funding research grants as formulated in the Research Grants contractual agreement is to transfer the funds to the Institution where the grantee is employed in installments. If there is an unused balance of funds with the relevant Institution, after completion of the project, the balance has to be refunded to NSF. Hence we treat the funds transferred to the Institution as expenditure. At the end of the project if there is remaining unutilized funds, we create a debtor.

3 Assets & the basis of their valuation

Depreciable assets & Depreciation

Depreciation has been provided on original cost or at valuation on a straight line basis from the date of purchase of the assets and is calculated to write off the assets over their estimated useful lives.

Depreciation Rates as Follows

Building	5%
Office Equipment & Furniture	20%
Motor Vehicles	20%
Accessories & Miscellaneous	20%
Library Books	5%
Scientific & Laboratory Equipment out on loan	10%
Documentation Equipment	10%

4 Publications

These are published mainly to disseminate Scientific Knowledge to school children in particular & the society in general as well as to impart knowledge to the scientific community, policy makers, funding agencies *etc.*

Therefore in many occassions publications have to be given free of charge to schools & other relevant various organisations specially as prizes/ awards for science related activities. *Eg.* Competitions. Such releases are effected always with Director General approval.

The Journals and Magazines over six months were written down by 50% and the value of Journals and Magazines which are over an year were written down to zero as per the decision of the Board of Management on 15th November 2010.

The value of books/any other publications other than Journals & magazines were written down to Zero value after five years of printing as per the decision of the Board of Management on 12th August 2011.

The Cost of the Publications is treated as an expenditure to the relevent Division as per the decision of the Board of Management on 13th August 2015.

5 Presentation of Grants related to assets and income

Grants related to assets

The treatment of depreciation related to assets have been dealt as deffered income which is recognized as income on a systematic and rational basis over the useful life of the asset in accordance to LKAS 20

Grants related to income

Grants reletaed to income are presented as a credit in the statement of comprehensive income and alternatively they are deducted in reporting the related expense.

6 Investment - Investment of Rs. 560,974,852 represents the NSF investment in SLINTEC

7 Debtors - NSF provides doubtful debts for debts which are outstanding for more than 3 years

8 Employees benefit

All employees are covered by EPF & ETF. An approved Medical Scheme is provided in addition to the normal Welfare facilities available.

9 Retiring gatuity

Provisions have been made in the accounts in respect of liability for retiring gratuity for the employeess who have completed one year of Service.

	Rs.	cts
Amount paid for the year	2,902,580.50	
Provision for the year	5,774,458.00	

10 NSF owns 07 vehicles as at 31.12.2016

Two motor vehicles have been disposed during 2016

1	Motor Car	19-6809
2	Double Cab	50-8507

11 Funds drawn from the Treasury during - 2016

		Rs.
Consolidated Funds	Rs.	<u>231,815,425.00</u>
Recurrent Funds	Rs.	<u><u>113,249,500.00</u></u>

Note A

Capital Funds Allocation to Relevent Units

1	Research Grants	114,000,000.00
2	Science Library & Resource Centre	3,000,000.00
3	Miscellaneous - Other Divisions	102,815,865.55
4	Acquisition of Assets	11,999,559.45
		<u><u>231,815,425.00</u></u>

Funds drawn from the Treasury from 1968 to 2016

		Rs.
Consolidated funds	Rs.	<u>1,985,112,551.45</u>
Foreign Aids	Rs.	<u><u>338,908,549.60</u></u>

Note No 12

12.1 National Science Library & Resource Centre

	2016	2015	
	Rs.	Rs.	
1	NSLRC Books	6,450.00	39,300.25
2	National Digitization Project	672,220.49	2,179,612.29
3	International Database	4,797,776.40	3,197,122.96
4	NSLRC workshops & Seminars	(574,716.00)	132,410.97
5	National Repository S & T Literature	45,241.00	12,064.42
6	Seminars Workshops & Other Support to Library	37,083.00	98,599.00
7	Honararium Payments for Committee Members	-	36,004.00
8	SLSI Database	-	11,774.30
9	Open Access to Research Information	-	2,640.00
		<u><u>4,984,054.89</u></u>	<u><u>5,709,528.19</u></u>

12.2 Research Grant Expenditure

	2016	2015
	Rs.	Rs.
1 Research Grants & Other Scientific work expenditure	115,056,022.94	144,848,405.93
2 Research Scholarships & Fellowships	<u>5,902,257.16</u>	<u>8,115,905.00</u>
3 Actual expenditure for the year	120,958,280.10	152,964,310.93
4 Accrued expenditure	<u>251,000.00</u>	<u>41,550.00</u>
	<u>121,209,280.10</u>	<u>153,005,860.93</u>

12.3 Other Capital Units Expenditure

	2016	2015
	Rs.	Rs.
1 International contacts	20,466,293.87	11,744,239.53
2 Science Popularization Division	17,828,081.98	18,271,609.47
3 Information Technology Unit	9,927,207.59	1,672,614.26
4 Rehabilitation & Improvements for assets	-	46,061.10
5 Director's Office Vote	14,336,966.15	5,423,856.00
6 Science & Technology Policy Research Division	5,049,906.74	6,918,041.51
7 Technology Division	26,913,239.22	37,235,708.87
8 International Liasion Division	4,422,937.79	2,217,602.10
9 International Contacts OSTP	<u>12,343,163.80</u>	<u>3,669,002.69</u>
	<u>111,287,797.14</u>	<u>87,198,735.53</u>

Note No 11

11.1 <u>Net Profit/(Loss) Sale of Publication</u>	2016
	Rs.
1 Other Publications	1,895.00
2 Sri Lanka Journal of Social Sciences Vol 37	(200.00)
3 Sri Lanka Journal of Social Sciences Vol 38	8,900.00
4 Sri Lanka Journal of Social Sciences Vol 39	3,900.00
5 Vidurava	100.00
6 MAB Publications	50.00
7 MAB Checklist - 24	(180.46)
8 Medicinal Plants used in Sri Lanka	7,500.00
9 Ground Water Conditions in Sri Lanka	1,500.00
10 JNSF Vol. 38	2,500.00
11 JNSF Vol. 42	(1,500.00)
12 JNSF Vol. 43	28,892.50
13 JNSF Vol. 44	84,861.25
14 Vidurava Vol. 31-1 (E)	100.00
15 Vidurava Vol. 31-2 (T)	100.00
16 Vidurava Vol. 31 Special (S)	(5,250.00)
17 Vidurava Vol. 31 Special (E)	950.00
18 Vidurava Vol. 32-1 (S)	(1,650.00)
19 Vidurava Vol. 32-1 (E)	100.00
20 Vidurava Vol. 32-1 (T)	(500.00)
21 Vidurava Vol. 32-2 (S)	(164,900.00)
22 Vidurava Vol. 32-2 (E)	(125,800.00)
23 Vidurava Vol. 32-2 (T)	24,800.00
24 Vidurava Vol. 32 Special (E)	5,950.00
25 Vidurava Vol. 32 Special (S)	58,050.00
26 Vidurava Vol. 32 Special (T)	100.00
27 Vidurava Vol. 33-1 (E)	15,750.00
28 Vidurava Vol. 33-1 (S)	14,700.00
29 Vidurava Vol. 33-1 (T)	69,900.00
30 Vidurava Vol. 33-2 (E)	129,700.00
31 Vidurava Vol. 33-2 (S)	166,100.00
	<hr/> <hr/> 326,418.29

11.2 National Committee Expenditure

	2016	2015
	Rs.	Rs.
1 National Committee on the MAB Programme	152,500.00	171,500.00
2 National Committee on Social Sciences	55,000.00	93,070.00
3 Editorial Board of JNSF	244,405.00	269,817.35
	<u>451,905.00</u>	<u>534,387.35</u>

11.3 National Science Library & Resource Centre

	2016	2015
	Rs.	Rs.
1 Maintenance & Repairs	35,365.16	7,356.90
2 Periodicals Local & Foreign	302,848.59	911,195.35
3 Consumables	33,257.00	56,122.82
	<u>371,470.75</u>	<u>974,675.07</u>

11.4 Printing Unit

	2016	2015
	Rs.	Rs.
1 Consumables & Chemicals	927,871.45	707,072.84
2 Paper & Boards	(41,354.66)	(47,710.36)
3 Maintenance & Repairs	94,389.85	291,538.34
	<u>980,906.64</u>	<u>950,900.82</u>

Note No 01 - Cash and Cash Equivalents

	2016	2015
	Rs.	Rs.
Bank Accounts		
1 BOC - 0002323269	10,466,195.60	4,110,525.92
2 BOC - 0002323270	2,084,869.10	146,623.26
3 BOC - 0002322471	2,910,025.37	2,849,489.12
4 BOC - 0002323376	-	5,110.55
5 BOC - RFC/USD 2872719	-	15,646.05
6 BOC - RFC/USD LOICZ 2872732	-	3,242,430.52
7 Special cash imprest	50,000.00	50,000.00
8 Petty cash	5,000.00	5,000.00
9 Cash & Cheques in hand	7,164,301.97	3,069,945.87
	<u>22,680,392.04</u>	<u>13,494,771.29</u>

Note No 02 - Receivables

Cash Advances

1 Miscellaneous	Schedule 1	3,446,192.33	759,860.00
2 Research	Schedule 1	100,000.00	100,000.00
3 Loans to Staff			
i. Distress loan	Schedule 2	5,062,875.00	4,959,964.00
ii. Motorbicycle loan	Schedule 3	-	833.00
iii. Combined loan	Schedule 4	123,008.00	189,251.00
iv. Bicycle Loan	Schedule 5	-	-
4 Festival Advance	Schedule 6	22,500.00	36,250.00
5 Staff Debtors	Schedule 7	73,921.83	63,013.08
6 Sundry Debtors	Schedule 8	584,202.31	7,146,132.76
Less : Provision for Doubtfull Debts		-	(87,399.42)
		<u><u>9,412,699.47</u></u>	<u><u>13,167,904.42</u></u>

Note 02.1 - Staff Loan Payments	<u>Amount</u>	<u>With in one Year</u>	<u>After one year</u>
Combined Loan	123,008.00	46,128.00	76,880.00
Distress Loan	5,062,875.00	1,632,384.00	3,430,491.00
Motor Bicycle Loan	-	-	-
	<u><u>5,185,883.00</u></u>	<u><u>1,678,512.00</u></u>	<u><u>3,507,371.00</u></u>

Note No 03 - Stocks

1 Stationery and Consumables	Schedule 9	1,524,614.43	982,850.11
2 Publications	Schedule 9	692,114.38	538,467.24
		<u><u>2,216,728.81</u></u>	<u><u>1,521,317.35</u></u>

Note No 04 - Other Current Assets

1 Treasury Deposit		3,298,965.20	3,299,030.09
2 Refundable Deposit		108,650.00	108,650.00
		<u><u>3,407,615.20</u></u>	<u><u>3,407,680.09</u></u>

Note No 06 - Investments

1 SLINTEC		560,974,852.00	560,974,852.00
		<u>560,974,852.00</u>	<u>560,974,852.00</u>

Note No 07 - Accrued Expenses

1 Accrued Expenses	Schedule 10	6,091,227.02	4,443,574.93
		<u>6,091,227.02</u>	<u>4,443,574.93</u>

Note No 08 - Creditors

Creditors amounting to Rs.7,274,437.84 represents monies held by NSF as given below,

1 Staff Creditors	Schedule 11	54,405.00	50.00
2 Stephan Workshop		-	1,436,573.03
3 National Science Centre		1,968,000.00	2,496,000.00
4 Health Science Project		4,066,155.54	-
5 Cinemon Project		1,185,877.30	-
		<u>7,274,437.84</u>	<u>3,932,623.03</u>

Note No 09 - Provision for Retiring Gratuity

Balance as at 01.01.2016		22,533,284.50	21,413,460.08
(+) Provision for the year		<u>5,774,458.00</u>	<u>2,143,414.42</u>
		28,307,742.50	23,556,874.50
(-) Paid during the year		<u>(2,902,580.50)</u>	<u>(1,023,590.00)</u>
Balance as at 31.12.2016		<u>25,405,162.00</u>	<u>22,533,284.50</u>

Note No 10 - Deffrede Revenue

1 Deffred Revenue - Assets	Note A	44,078,213.07	37,943,804.12
		<u>44,078,213.07</u>	<u>37,943,804.12</u>

Note A - Deffered Revenue - Assets

Balance as at 01.01.2016		37,943,804.12	34,082,742.40
(+) Assets Capitalized		<u>19,389,559.45</u>	<u>14,483,007.61</u>
		57,333,363.57	48,565,750.01
(-) Depreciation Deffered		<u>(13,255,150.50)</u>	<u>(10,621,945.89)</u>
Balance as at 31.12.2016		<u>44,078,213.07</u>	<u>37,943,804.12</u>

The background features a large, abstract graphic on the right side. It consists of several overlapping, curved shapes in shades of purple and white. The top right corner is a solid dark purple. Below it, a large white shape curves from the top left towards the bottom right. Overlapping this white shape is a large, light purple shape that also curves from the top right towards the bottom left. The overall effect is a dynamic, modern design.

Report of the Auditor General



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கணக்காய்வாளர் தலைமை அ்திபதி திணைக்களம்
AUDITOR GENERAL'S DEPARTMENT



මගේ අංකය
எனது இல. } TEC/B/NSF/1/16/44
My No. }

මබේ අංකය
உமது இல. }
Your No. }

දිනය
திகதி } 28 July 2017
Date }

The Chairperson,
National Science Foundation

Report of the Auditor General on the Financial Statements of the National Science Foundation 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 Science Foundation 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 40 of the Science and Technology Development Act, No. 11 of 1994. 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 Chairperson of the Foundation on 02 June 2017.

1.2 Management's Responsibility for the Financial Statements

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

1.3 Auditor's Responsibility

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Sri Lanka Auditing Standards consistent with International Auditing Standards of Supreme Audit Institutions

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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(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 Foundation'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 internal control of the Foundation. 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 the 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

2.1 Opinion

In my opinion, the financial statements give a true and fair view of the financial position of the National Science Foundation 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 the Financial Statements

2.2.1 Accounting Deficiencies

Even though 02 Technical Grants Projects provided from the year 2012 to the year 2014 had been wound up in the year under review, a sum of Rs.840,089, the total of the remaining money of those projects had not been brought to account as receivables.

3. Financial Review

3.1 Financial Results

According to the financial statements presented, the financial result of the Foundation for the year ended 31 December in the year under review had resulted in a deficit of Rs.2,988,509 as compared with the corresponding deficit of Rs.21,472,454 for the preceding year, thus indicating an improvement of Rs.18,483,945 in the financial result in the year under review as compared with the preceding year. The increase of the Government Recurrent provisions by a sum of Rs.7,217,500, capital provision amortization by a sum of Rs.3,621,777 and Other Income by a sum of Rs.8,416,573 in the year under review had been the main reasons for this improvement.

In analyzing the financial results of 04 preceding years and in the year under review, a deficit had indicated except in the years 2013 and 2014. However, after adjusting personnel emoluments and depreciation on non-current assets again, the contribution of the Foundation had been a sum of Rs.60,737,204 and it had been improved to a sum of Rs.96,693,217 in the year 2016.

4. Operating Review

4.1 Performance

The functions of the National Science Foundation in terms of Section 10 of the Science and Technology Development Act No.11 of 1994 had been stated as,

- Initiating, facilitating and supporting scientific research by universities, science and technology institutions and scientists

- Fostering the interchange of scientific information among scientists in Sri Lanka and foreign countries
- Awarding scholarships and fellowships for scientific work
- Maintaining a current register of scientific and technical personnel and
- To popularize science amongst the people by funding programmes by that purpose

The following observations are made in the test on the execution of the above functions.

- (a) Sixty- four research projects valued at Rs.111.29 million had been wound up during the period from the year 2014 to the year 2016 and even though the objectives of publishing the local and foreign scientific publications, deploying for M.Phil., Ph.D. Degrees and nominating for Presidential Awards as the final results of those projects had been executed, providing technical assignments (development for commercialization) for any project out of those 64 projects or obtaining patents for any projects had not been conducted.
- (b) A single research project out of the 21 research projects valued at Rs.27.53 million wound up in the year 2015 had not been qualified for awarding Annual Research Awards in the year 2016.

4.2 Management Activities

The following observations are made.

- (a) The following observations are made in terms of obtaining the final reports the conducting evaluation of the research projects.
 - (i) Even though the report should be furnished within 3 months after completing the project in terms of Section 5.1 of the Agreement relating to providing research grants, it was revealed in the audit that the final reports for 10 research projects completed by spending a sum



of Rs.18,714,921 had been issued after a delay between a period ranging from 3 months to 02 years.

(ii) Even though the period that the final reports of 02 research projects amounting to Rs.2,649,000 which had been wound up in the years 2014 and 2016 had been delayed 29 months and 10 months respectively, proper steps had not been taken to obtain final reports.

(b) Even though the granted money should be recovered if the equipment were not purchased within 5 months after providing money in terms of Section 4(b) of the Guidelines for providing grants for equipment, delays ranging from 03 months to 10 months had been occurred in purchasing equipment valued at Rs.4,727,219 relating to 07 grants.

5. Accountability and Good Governance

5.1 Budgetary Control

The budget approved for the year under review had been revised in 02 instances and, variances ranging from 20 per cent to 92 per cent between the finally furnished revised budgeted expenditure and the actual expenditure were observed, thus indicating that the budget had not been made use of as an effective instrument of control.

6. Systems and Controls

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

Areas of Systems and Controls

Observations

(a) Human Resources Management

Not including in the personal files the certified copies of the certificates, oaths or affirmation and medical reports necessary for ensuring qualifications and experience.



- | | |
|--|---|
| (b) Providing research grants and control of supervision | (i) Not updating the Grants Ledger by obtaining the financial reports relating to grants on time. |
| | (ii) Not expeditiously vesting the remaining money of the wound up research projects and not updating the evaluation activities expeditiously. |
| (c) Control of providing the grant of equipments | (i) Taking a long time for the purchase of equipments. |
| | (ii) Not ensuring existence by obtaining a copy of the Inventory Register, the Goods Receiving Notes and the Maintenance Agreement of two years of the Institution which awarded Inventories and not obtaining the relevant copies expeditiously. |

H.M Gamini Wijesinghe

Auditor General

Sgd./ H.M. GAMINI WIJESINGHE
Auditor General



**NSF Comments
on the
Audit Report**

Reference the Draft Report of Auditor General as per Section 14 (2) (c) of the Finance Act No 38 of 1971 in connection to the Financial Statement of National Science Foundation for the year ended 31st December 2016.

2. Financial Statements

2.1 Opinion

2.2 Comments on Financial Statements

2.2.1 Accounting Deficiencies

As requested by the Audit Report, corrected statement of changes in Net Assets/ Equity was submitted within 03 days, indicating separately the Income and Expenditure. Which were received within the year. (*Annexure 1*)

2.3 Accounts Receivable

After the completion of the research project, the balance of Rs. 452,360/- to be received related to 6 projects which were not settled now stands at Rs. 65,377/-. Accordingly, except for the balances for two projects- Rs, 48,837/- for RG/2012/ESA/01 and Rs. 16,540/- for RG/2014/SS/01, all other balances were paid and completed.

2.4 Noncompliance to Rules & Regulations and Management Decisions

- a) Though a one- member Inquiry Board was appointed for this inquiry on 13th November 2015, the Prosecuting Officer was appointed on 28.01.2016. Arrangement has been made to schedule the first session of the formal inquiry on 11.02.2016.

While 33 sessions were planned from the date of commencement, 11.02.2016 to 01.06.2017, upon request from both parties, 10 inquiry sessions had to be postponed and cancelled. While the Preliminary Inquiry report is a detailed report and it is consisting of 200 pages, it took a considerable long time for the Defence Officer to raise 11 formal objections extensively and raise further objections and extended cross examination of the Preliminary Investigation Officer. Inquiry, cross inquiry and further inquiry regarding the Preliminary Investigation Report from the Preliminary Investigation Officer concluded in April 2017.

Inquiring of evidence from other witnesses had also been made. While an interim report regarding this was received on 01.06.2017, it was submitted to the Board of Management on 20.06.2017 and further activities will be conducted according to the directives of the Board of Management.

3. Financial Review

3.1 Financial Results

4. Operational Review

4.1 Performance

- a) i) According to the Act, the National Science Foundation is mandated to provide funds for both Basic and Applied research grants.

While all such funded research cannot be directed to be developed for commercialization, the Grantees are made aware to include possible development of research findings for commercialization in Section 4 of the Final Report.

While all Research Grants do not produce final results that can be presented to file patents, of the Research Grants that can be presented, only those Grantees who express willingness can apply for patent through Technology Division of the National Science Foundation.

In order to encourage Research Grants to obtain patents, arrangements have been made to obtain all information pertaining to obtaining patents from the Research Division through application for research grant, before awarding Research Grants and through Biannual Progress Reports, after the award of Grants. In the future, special attention will be paid to research that have the potential to obtain patent at the time of evaluation of application for research grants. In addition, to help those who are willing to obtain patents to do so, a Patent Help Desk is maintained by the Technology Division from its inception.

While at the same time, separate awards have been made by the Technology Division of the NSF to technology developments that can be commercialized and new businesses based on novel technology, final results have been obtained from these. (*Annexure 02*).

In the programme of award of research grants under the National Thematic Research Programme (NTRP), the research projects that would produce final results have been introduced by the NSF from 2012. The final results obtained from these grants are presented in *Annexure 03*.

NSF has identified the necessity of Grants with final results that can be improved for commercialization and promotion of application for patents it has been systematically directing towards it.

- ii) Though certain fundamental research projects were successfully concluded, there are limitations to its practical application. However, by the results of such research grants such as publications, post graduate, M.Phil and Ph.D degrees and recommendations for Awards, they serve as long- term investment to reach the country's economic development goals through human resource development.
- b) In the years 2012, 2013, and 2014, one Research Award each and in the year 2013 03 Certificates of Commendation were presented.

The aim of presenting this Award is to appreciate researcher's contribution towards of development of science and to give due recognition. By these Award nominations, the researchers who received Research Grants from the NSF are commended and it is hoped to encourage the Grantees for conducting scientific research at a high standard.

Therefore, to maintain a high standard in Research Awards, the following criteria are maintained by the NSF:

For the preliminary selection for Awards, the Final Report should have the following:

- Recognized with Grades: 'Very Good' or 'Good'
- Should be submitted within 03 months (or according to the Agreement) after the completion of the project period including approved extension
- Recommendation of the relevant Committee

To have agreement on the decisions made by different Committees, to make the final decision to select the nominated Reviewers to continue to evaluate, the Final Reports selected for Awards were submitted to Research Advisory Board.

After recommendation of two local Reviewers and one Foreign Reviewers by the Research Advisory Committee, it is submitted to the NSF Board of Management. After the recommendation by the Board of Management, the Final Report will be sent for evaluation to be carried out in accordance with the criteria in *Annexure 04*.

Finally, when Review reports are received, the Grantees of the selected Final Reports will be invited for an interview before the Research Advisory Board. Based on Review reports and presentations, the decision on the suitable Final Report will be made by the Research Advisory Board.

Since the selection for Awards is based on the above criteria, in certain years there are no Final Reports qualified for the Awards. This confirms not that the completed grants do not have social or economic returns, but the Final Reports of the completed projects failed to fulfil one or many of the designated criteria for Awards.

However, according to the facts pointed out by the Audit Report, more attention of the Working Committee will be paid to the fact that the Researchers did not possess qualifications for the Awards and attention will be paid by the NSF to maintain standards of research.

4.2 Management Activities

a) Final Reports submitted within 3 weeks from the scheduled date or without delay

Grant No.	Scheduled date for submission of Final Report	Submitted date
RG/2012/BS/02	10/02/2016	18/12/2015
RG/2012/BS/03	15/02/2017(period extended until 15/11/2015)	05/12/2016
RG/2011/ES/04	21/05/2015	18/12/2014
RG/2011/BT/09	19/10/2016	19/10/2016
RG/2012/AG/03	08/11/2015	11/11/2015 (delayed by 03 days)
RG/2012/BT/01	08/08/2015	26/08/2015 (delayed by 15 days)

The following Final Reports were delayed due to problematic conditions faced by Grantees. Financial limitations, previously not anticipated, Institution's procurement problems and certain technical problems were the reasons for this. Certain Grantees requested for extension for research without funds even after the designated date for submission of Final Report. According to the Rules & Regulations of the NSF, this request cannot be approved and this was communicated to the Grantees. Meanwhile they completed the Final Report and submitted.

The details of delays in Final Report submission are given below:

Grant No.	Scheduled date for submission of Final Report	Date submitted	Justification
RG/2011/NRB/01	28/07/2014	31/12/2015	The Grantee submitted the Final Report on 31/12/2015. The Research Assistant was a Probationary Lecturer and leave was approved for two years only. Further, the Grantee also received a scholarship and was out of the island. Upon return, the Grantee with his own expenses recruited a Technical Officer and completed the remainder of research work and submitted on 15/02/2016.
RG/2011/ES/03	29/05/2015	15/02/2016	The Grantee submitted Final Report on 15/02/2016 and according the decision of the Working Committee, decided to revise and re- submit this report (according to Reviewer's comments).
RG/2012/EB/02	16/03/2016	19/09/2016	This project ended on 16/12/2015 and the Final Report was due to be submitted on 16/03/2016. After reminders, it was submitted by the Grantee on 19/09/2016.
RG/2011/AG/03	30/07/2015	20/09/2016	An extension for submission of Final Report was requested by the Grantee after the date on which it was to be submitted. According to the Rules & Regulations, this cannot be fulfilled and this was informed to the Grantee. Final Report was submitted on 20/09/2016.
RG/2011/AG/04	01/02/2015	04/11/2015	The Grantee had to re-establish research sites
RG/2011/AG/07	30/07/2016	30/11/2016	Actual delay in one month. After 02 reminders the Final Report was received.
RG/2011/AG/08	30/06/2015	11/08/2015	Actual delay is one month and 11 days, The Final Report was sent on 11/08/2015 while sent for evaluation on 25/08/2015.
RG/2011/AG/11	04/08/2014	26/10/2016	Final Report was due on 04/08/2014. 04 reminders including one signed by the Additional Director General were sent. One month period was given to submit the Final Report (08 th June 2016). After 02 further reminders the Final Report was submitted on 26/10/2016.

Grant No.	Scheduled date for submission of Final Report	Date submitted	Justification
RG/2012/AG/05	01/05/2015	11/03/2016	The Grantee was not able to carry out research activities in proper time frame because a Technical Assistant was used in place of a Research Assistant. Because the Grantee was a first- time applicant and a short period such as 2 years elapsed after completing Ph.D, according to NSF Rules & Regulations, funds could not be provided for a Research Assistant. However, Final Report was submitted on 11/03/2016.
RG/2011/BS/05	21/08/2015	10/10/2016	Several reminders were sent to the Grantee and on 09/11/2015 an official letter was sent. The delay in completion of Final Report due to the fact that the undergraduate student who had in possession the data became critically ill was informed by the Grantee. The Final Report was submitted on 10/10/2016 and it was approved by the Working Committee after evaluation.
RG/2012/ESA/01	09/07/2016	15/11/2016	Real delay is one month. An extension was requested by the Grantee after the date on which the Final Report was due to be submitted. This request cannot be fulfilled according to the Rules and Regulations of NSF and this was communicated to the Grantee. Final Report was submitted on 15,11,2016 and was subjected to further evaluation.
RG/2011/BT/11	30.09.2015	04.01.2016	After 04 reminders and a few calls, the Final Report was presented. It was evaluated and the project completed.

However, the NSF systematically sent reminders in order to receive Final Reports so delayed. In order to minimize delays in receiving Final Reports in this manner, a new methodology (*Annexure 05*) is being implemented by the NSF.

- (ii) Final Reports of grants, RG/2011/AG/06, RG/2011/AG/10, RG/2011/NRB/02, RG/2012/CSIT/01 have been submitted by 14.06.2017 while soft copies of Final Reports for Grants, RG/2011/NRB/08 and RG/2011/ES/01 have been received by 14. 06. 2017.

Final Reports of grants RG/2011/NRB/04 and RG/2012/AG/08 should have been submitted and reminders were sent to submit the same before 30. 06.2017.

(iii) Evaluation reports of the following Final Reports were not delayed.

Grant No.	Date of submission of Final Report	Date of receipt of Evaluation Report
RG/2011/NRB/06	03/12/2014	29/01/2015
RG/2011/ES/03	15/02/2016	22/04/2016
RG/2012/EB/02	19/09/2016	18/11/2016

Similarly, evaluation of Final Reports of Grants

RG/2012/EB/03
 RG/2011/AG/09
 RG/2012/AG/07
 RG/2011/AG/08
 RG/2012/AG/04 had been completed by 14.06.2017.

Revised Final Report after receiving comments forwarded by Reviewers upon evaluation of Grants RG/2012/AG/02 is awaited.

Dispatch of Final Reports of Grants for review is not delayed while certain Final Reports need to be revised upon Reviewer's comments and then re-evaluated and the recommendation of the Working Committee should be obtained. Completion of Evaluation Reports is delayed for this reason.

However, according to the facts shown in the Auditor's report, attention will be paid and in the future necessary action will be taken.

b)(i) Purchase of equipment should take place within 05 months from the date of release of funds to the relevant institution, as mentioned in the 5th condition of the Grant Agreement. According to the Audit query, the delays in purchase of equipment was calculated from the date on which the Grant was awarded; therefore, actual delay should be calculated from the date funds were released to the institution.

Accordingly, the delay time is as given below.

Grant No.	Date of exchange of funds	Date of purchase of equipment	Delay according to Audit query	Actual delay
RG/2015/EQ/02	31.12.2015	14.06.2016	1 year	14 days
RG/2015/EQ/03	31.12.2015	25.08.2016	1 year and 2 months	3 months
RG/2015/EQ/08	31.12.2015	05.07.2016	1 year and 1 month	1 Month and 5 days
RG/2015/EQ/11	29.04.2016	31.11.2016	04 months	2 months
RG/2015/EQ/12	31.12.2015	18.07.2016	04 months	1 month and 18 days
RG/2015/EQ/15	31.12.2015	29.06.2016	03 months	1 month

Agree with the delay related to the remaining 07 Equipment Grants.

Also the Equipment Grants were closely monitored while regularly sending reminders to the Grantees. Accordingly the reasons for delays were given by them as suppliers and delays in shipping.

After release of funds to the Grantees' institutions, the relevant procurement process needs to be completed by the institution. Accordingly, delays in Technical Evaluation Committees (TEC) and Procurement processes are the reasons for the delays in purchase of equipment.

Considering such delays in procurement process, the NSF, upon the recommendation of the Board Sub- Committee, extended the recommended time period for purchase of research equipment by 06 months upon the 10th November 2016 NSF Board of Management decision and included it in the 2016 Grant Agreement.

- (ii) Of the reports not in the approved format, the records of the following Grants were updated and action will be taken to obtain the remaining reports within one month.

RG/2014/EQ/01, RG/2014/EQ/02, RG/2014/EQ/07, RG/2015/EQ/14, RG/2015/EQ/15

However, until installation of equipment is complete, Goods Received Note (GRN) will not be issued. In such instances, GRN cannot be obtained within one month of purchase.

- (iii) RG/2014/EQ/05 - This equipment was purchased as 04 parts. There is warranty period for its 02 main parts: Rotary Evaporator- 01 year; Vacuum pump- 36 months. The other 02 equipment parts are 02 small parts such as vacuum duct and Round Bottom flask. Warranty certificate are not generally issued for these.

Service/Maintenance Agreements with Suppliers were also not possible in some instances for the following reasons:

1. Absence of local Agent
2. Extra charges requested by the Supplier for the Service Agreement
3. Equipment not requiring extra regular maintenance

Therefore the Grantees are content with the warranty period provided by the Supplier, without obtaining extra Service Agreement. This warranty period is often limited to 01 year.

- c) The NSF has a successful methodology to evaluate and review progress after a Technology Grant is awarded. According to this methodology, progress is evaluated by visiting the research sites while technical and financial progress reports are obtained every six months. The financial reports relevant to the Grant numbers mentioned above were properly obtained and evaluation was conducted. These information with dates are given in Annexure 1. Further, the Amount of Expenditure according to the Expenditure Reports obtained relevant to each Grant and progress evaluation conducted by us is indicated in the Annexure. (*Annexure 06*)

Arrangements will be made in the future to conduct evaluation according to the above methodology by obtaining technical and financial progress reports on time.

The Annual Expenditure Reports related to 04 of the 06 Grants mentioned in the Audit Report were obtained and arrangements were made to update the ledger. The entire Grants awarded to these projects were spent. Arrangements were made to obtain Annual Expenditure Reports of the remaining 02 Grants and get back the balance funds to the National Science Foundation. These balances should be changed as follows. Details are given below.

Grant No.	Final balance
TG/2012/Tech-D/04	24,479.34
TG/2012/Tech-D/10	535,283.40
TG/2013/Tech-D/01	Nil
TG/2013/Tech-D/05	Nil
TG/2015/Tech-D/06	Nil
TG/2015/Tech-D/09	Nil

d) (i)(ii)(iii)

The NSF decided in 2015 to design and install a Rain Water Harvest Unit and an advance of Rs. 51,635/- was handed over to the National Engineering Research and Development Centre on 4th November 2016. However, at the end of 2016 the Management decided to develop the NSF premises. Because the preliminary work for the new project has commenced, and as a result, identification of the location for the installation of the Rain Water Harvest Unit would be delayed, the National Engineering Research and Development Centre was requested to return the money to the NSF.

4.3 Operational Inefficiencies

The mentioned cash advances were obtained to pay the Committee Members for attending Committee meetings and for the expenses related to field visits. Because the Committee members did not attend the meetings as they confirmed the money was spent as estimated.

The estimates are prepared according to the NSF Scheme of Payment for lodging, fuel for the vehicle, accidents/illness/maintenance of vehicles, for potable water/food in long distance travels related to field visits. However, for various reasons, expenses are not made as estimated.

5. Accountability and Good Governance

5.1 Procurement Plan

- a) Of the mentioned activities of Rs. 68.271 M in the Action Plan, Rs. 22.924 M activities were implemented. The reasons as to why those were not implemented are indicated in *Annexure 07*.

5.2 Budgetary Control

In order to adapt to changes in the priorities and requirements of the institution within the year, the budget needed to be revised. Therefore, such revisions of the Budget were made, with the approval of the Board of Management.

In the last Income and Expenditure Report, between the capital expenditure and the actual expenditure the 4 variable items were from 24% to 60% while all other values were less than 24%. Also, the recurrent expenditures were from 25% to 80% of the 18 variable items while 6 items of value Rs. 2.8 M were not spent. All variables reduced to 25%.

5.3 Action Plan

- a) According to the facts pointed out by the Audit observation, a progress report for the year 2016 including the physical progress of the activities of the National Science Foundation was submitted. Also action will be taken in the forthcoming years to present progress report, clearly indicating the physical progress of the activities.
- b) Explanation for activities not implemented and those postponed to a later date, according to the Action Plan was indicated in *Annexure 08*.

6. Systems and Control

a) Human resource Management

When staff is recruited, in order to confirm his/her experience, certified copies of required certificates will be included in the personal files while letters were issued again to request for Medical Reports. Currently arrangements were also made to obtain the Oath of Allegiance.

b) Award, supervision and management of Research Grants

Steps had been taken to obtain Financial Reports as per Agreement, while the reports received for a month is updated in the same month in order to keep the Grant ledger updated.

However, Grants not updated were noted to be updated in the Grant ledger.

**The Chairperson
National Science Foundation**

NATIONAL SCIENCE FOUNDATION
Statement of Changes in Net Assets/Equity
for the year ended 31st December, 2016

	Contributed Capital	Revaluation Reserve	Other Reserve	Documentation Fund	Research Fund	MAB Fund	Miscellaneous Fund	Scientific Reserve Fund	Foreign Aid Fund	NSF Fund	Total
Balance as at 01.01.2016	-	422,548,735.64	560,974,852.00	1,955,791.06	16,391,243.67	1,829,977.19	1,021,847.75	6,784,183.70	8,088,147.10	(44,162,983.34)	975,431,794.77
Changes in accounting Policy	-	-	-	(1,955,791.06)	(16,391,243.67)	(1,829,977.19)	(1,021,847.75)	(6,784,183.70)	(8,088,147.10)	36,071,190.47	36,071,190.47
Prior year adjustments	-	-	-	-	-	-	-	-	-	(2,816,275.24)	(2,816,275.24)
Restated balance as at 01.01.2016	-	422,548,735.64	560,974,852.00	-	-	-	-	-	-	(10,908,068.11)	972,615,519.53
Change in net asset/equity for 2016	-	(1,700,000.00)	-	-	-	-	-	-	-	-	(1,700,000.00)
Revaluation Reserve on Dispose Vehicles	-	-	-	-	-	-	-	-	-	-	-
Foreign operations	-	-	-	-	-	-	-	-	-	-	-
Grants From Treasury	-	-	-	-	-	-	-	-	-	229,462,229.14	229,462,229.14
Capital	-	-	-	-	-	-	-	-	-	113,249,500.00	113,249,500.00
Recurrent	-	-	-	-	-	-	-	-	-	22,447,730.28	22,447,730.28
Other operations	-	-	-	-	-	-	-	-	-	-	-
Expenditure during the year	-	-	-	-	-	-	-	-	-	(237,481,132.13)	(237,481,132.13)
Capital	-	-	-	-	-	-	-	-	-	(130,666,835.91)	(130,666,835.91)
Recurrent	-	-	-	-	-	-	-	-	-	(2,985,508.62)	(2,985,508.62)
Total recognised revenue and expenses for the period	-	(1,700,000.00)	560,974,852.00	-	-	-	-	-	-	(13,896,576.73)	(4,685,508.62)
Balance as at 31st December 2016	-	420,848,735.64	560,974,852.00	-	-	-	-	-	-	(13,896,576.73)	967,927,010.91

NATIONAL SCIENCE FOUNDATION
Statement of Changes in Net Assets/Equity
for the year ended 31st December 2016

	Contributed Capital	Revaluation Reserve	Other Reserve	Other Capital Fund	NSF Fund	Total Accn. Fund	Total
Balance as at 01.01.2016	-	422,548,735.64	560,974,852.00	36,071,190.47	(44,162,983.34)	(8,091,792.87)	975,431,794.77
Changes in accounting Policy	-	-	-	(36,071,190.47)	36,071,190.47	-	(2,816,275.24)
Prior year adjustments	-	-	-	-	(2,816,275.24)	(2,816,275.24)	(2,816,275.24)
Restated balance	-	422,548,735.64	560,974,852.00	-	(10,908,068.11)	(10,908,068.11)	972,615,519.53
Change in net asset/equity for 2016	-	(1,700,000.00)	-	-	-	-	(1,700,000.00)
Revaluation Reserve on Dispose Vehicles	-	-	-	-	-	-	-
Foreign operations	-	-	-	-	-	-	-
Grants From Treasury	-	-	-	-	229,462,229.14	229,462,229.14	229,462,229.14
Capital	-	-	-	-	113,249,500.00	113,249,500.00	113,249,500.00
Recurrent	-	-	-	-	22,447,730.28	22,447,730.28	22,447,730.28
Other operations	-	-	-	-	-	-	-
Expenditure during the year	-	-	-	-	(237,481,132.13)	(237,481,132.13)	(237,481,132.13)
Capital	-	-	-	-	(130,666,835.91)	(130,666,835.91)	(130,666,835.91)
Recurrent	-	-	-	-	(2,985,508.62)	(2,985,508.62)	(2,985,508.62)
Total recognised revenue and expenses for the period	-	(1,700,000.00)	560,974,852.00	-	(13,896,576.73)	(13,896,576.73)	(4,685,508.62)
Balance as at 31st December 2016	-	420,848,735.64	560,974,852.00	-	-	-	967,927,010.91

Summary

Output of Completed Technology Grant 2014 -2016

Grant No.	Project Title	Output
TG/2011/Tech-D/02	Improvement and field testing of a solar powered lift and carry type milking machine	<p>A potable 10 L capacity milking machine which operates via rechargeable battery or electricity. The battery can also be charged by solar power. The machine is ergonomically improved to address the local small scale dairy farmer needs and to avoid spread of mastitis.</p> <p>A start-up company is formed and started production in small scale. Seven machines were initially manufactured. Machines were tested and now on sale. Local dairy farmers will be benefited from this improved machine which is affordable to them compared to high cost imported machines.</p>
TG/2011/Tech-D/03	COP Sayura : The three Dimensional Coastal Surveillance System for SLN High Command	<p>A coastal surveillance system which can enhance the decision making capabilities in Port traffic control.</p> <p>The system is deployed at Sri Lanka Coast Guard, Mirissa.</p>
TG/2012/Tech-D/02	Scaling up the invention of spherical container for Natural rubber latex industry	<p>22,000 L capacity spherical vessel developed under this grant to store centrifuged latex is installed at Lalan Rubbers Warakapola factory. This new design reduces material wastage during storage and transfer from maturing tanks to containers. The system is now in operation at Lalan Rubbers. According to Lalan Rubbers, cost saving per dry tone of centrifuge latex manufactured through this system in LKR is given below;</p> <p>Coagulated and left over rubber – 121.08 Ammonia – 44.32 Labor – 3.33 Total saving- 238.73</p>
TG/2012/Tech-D/03	Novel Accessible Technologies on Touchscreen Devices	<p>A software product (“iBraille Notes”) which facilitates blind users to interact with modern touch screen devices. It’s dynamic virtual keyboard ensures that keys are always underneath user’s fingers and user need not to move their fingers to find buttons. Now the product is in the Apple App. store which can be</p>

Grant No.	Project Title	Output
		<p>downloaded online.</p> <p>Socio-economic gain This product has created an enabling environment for blind people to interact with modern touch screen devices for the purpose of learning and information exchange.</p> <p>Revenue generated to date from selling the product is approximately Rs. 19 M.</p>
TG/2012/Tech-D/04	High performance lighter weight prosthetic foot based on hybrid nanomaterial filled natural rubber nanocomposite	<p>A new prosthetic foot based on rubber nano-composite material with improved properties. Long life span is a feature compared to imported expensive prosthetic feet. A new process has been developed to produce nano-composite material and to manufacture prosthetic foot. Test trials were carried out at the collaborator's ('Ranaviru Sevana', Ragama) premises with promising results</p> <p>Socio-economic gain Locally developed prosthetic foot with improved performance, low cost and enhanced durability compared to imported prosthetic foot hence saving foreign exchange within country. Negotiations are in progress to transfer the know-how to the 'Ranaviru Sevana'</p>
TG/2012/Tech-D/07	Assessment of socio-economic viability of simplified hydroponics to improve the household food production and to develop a strategy for commercialization	Simplified hydroponic system consist of grow boxes, inert medium and nutrient solution was introduced to schools (10) households (19 places) and government institutions (08) in Colombo and Kaluthara districts to promote household food production in urban areas. The system was tested and proven for different vegetable crops; brinjals, ladies fingers, capsicum etc. Marketing strategy was developed to popularize the system in urban households. A technology transfer workshop was conducted to disseminate the knowledge and technology to potential customers.

Grant No.	Project Title	Output
TG/2012/Tech-D/09	To grow the algae Spirulina to overcome malnutrition in children and pregnant and lactating mothers in villages in Sri Lanka	Techniques were developed to grow algae Spirulina in tanks. to dry and powder for using as a food supplement. Technology is transferred to Kandekadu Army Farm.
TG/2012/Tech-D/11	Development of an Aloe vera (<i>Aloe barbadensis</i> Miller) incorporated ready-to-serve beverage (for product development at scaling up level)	Aloe vera ready to serve beverage as an alternative beverage over other types of beverages and as a food supplement for patients at pre diabetic stage- a pandemic disease in Sri Lanka. The grantee applied for 02 patents. The project resulted in a MPhil degree. Product commercialization is being done through Science Industry Interaction Cell (SIIC) of the Faculty of Science, University of Peradeniya.
TG/2012/Start-up/01	Manufacture and marketing of cost effective, environmentally friendly cooking stoves for domestic and commercial cooking purposes	<p>A Start-Up business to manufacture and market environmentally friendly cooking stoves for domestic and commercial cooking purposes. The stove will save up to 50% of energy cost compared to the use of LP gas. No toxic fumes are generated during cooking. Rural community engaged in pottery and charcoal industries are benefited.</p> <p>At present, it is running as a viable business with monthly average production of 300 cooking stoves. . Distribution of the product has been expanded even into north & eastern provinces.</p> <p>Socio-economic gain</p> <ul style="list-style-type: none"> • Direct employment is provided for 6 people • Indirect employment is provided for 40 people (rural pottery makers) • Monthly saving for households which were switched from LPG to this charcoal based stove. • Minimized respiratory system related disorders in rural villagers associated with biomass smoke.

NTRP/2012/FS/PG-01/P-01

මෙම ව්‍යාපෘතිය මඟින් නිමකල ලද මෘදුකාංගය කෘෂිකර්ම දෙපාර්තමේන්තුව විසින් මුළු දිවයිනෙහිම ආහාර නිෂ්පාදනය ඇගයීමට හා කරුණු එක්දස් කිරීමට යොදා ගැනීමට තීරණය කර තිබෙන අතර මෙම මෘදුකාංගය ගරු ජනාධිපතිතුමා විසින් දියත් කිරීමද සිදු කරන ලදී.

NTRP/2012/FS/PG-01/P-02

මෙම ව්‍යාපෘතිය මඟින් ගොවීන්ගෙන් බෝග වගාවන් පිළිබඳව තොරතුරු එක්දස් කිරීමට, තොරතුරු ගොවීන් හට ලබා දීමට, තොරතුරු බෙදා හැරීමට පරිඝනක යෙදුමක් නිර්මාණය කරන ලදී.

NTRP/2012/FS/PG-05/P-02

යාපනය විශ්ව විද්‍යාලයට අනුබද්ධ කෘෂිකර්ම පීඨයේ ආදර්ශ ගෙවතු වගා ගොවිපලක් මෙම ව්‍යාපෘතිය මඟින් පවත්වාගෙන යයි. එමෙන්ම උතුරු පළාතේ දිස්ත්‍රික්ක 5ක තෝරා ගත් ගොවීන් සමඟ ගෘහස්ථ ගෙවතු 12ක් පිහිටුවා ඇත. පුහුණු වැඩසටහන් පැවැත්වීමත් ජනලාභී හරහා දැනුවත් කිරීමේ වැඩසටහනක් දියත් කිරීමත් සිදු කරන ලදී.

Guideline for Reviewers to review the recommended Final Reports of NSF Research Awards

Evaluation criteria for Reviewers

- 1) *Scientific Merit of the project*
- 2) *Impact of the work*
 - i) *Publications in peer reviewed journals*
 - ii) *Application of the findings*
 - iii) *Patents obtained, if any*
 - iv) *On Government Policy formulation*
- 3) *Innovative nature of the work*
- 4) *Reviewer's overall impression of the work. Use this section to highlight notable features (Positive and negative) that influenced the Reviewer's view of the merits of the study*
- 5) *Any other comments*
- 6) (a) *Please give your comments as to whether you recommend this study for a*
 - (i) *NSF Research Award*
 - or
 - (ii) *Certificate of Commendation ***
- (b) *If you do not wish to recommend this study for either of above, please give reasons*

*** Projects which are considered to be of high quality but do not reach the standards required for a "NSF Research Award" may be considered for a "Certificate of Commendation".*

Actions proposed to minimize delays in submission of Final Reports

- 1) Send reminders as follows from the date of completion of the grant.
 - a) 01st Reminder (email to all the Investigators) - Two weeks before the end of the project period reminding when it is due to end and when the Final Report is due. Format (Already in practice) will also be sent.
 - b) 02nd Reminder- 04 weeks after the due date of submission of final report. Letters sent to all Investigators reminding that the FR was due and not submitted yet and requesting them to submit within one month
 - c) 03rd Reminder – 12 weeks after the due date of submission of final report. Letter sent reminding that the FR was due and not submitted yet and requesting them to submit within one month. Letter copied to Heads of the Departments of all Investigators.
 - d) 04th Reminder (final) – 20 weeks (05 months from due date) after the due date of submission of final report. Letter sent (under registered post) reminding that the FR was due and not submitted yet and requesting them to submit within one month. Also mentioning that failure to do so will compel the NSF to terminate the grant and consider the grantee as ‘defaulter’ and if so, the grantees will not be eligible to seek any grants/awards/nominations (e.g : Travel, OSTP, IPSAT, Sponsorships, Page charges, SUSRED etc.) administered by the NSF for a minimum period of five years from such declaration. Letter copied to Heads, Deans and VCs/Heads of the Institutes of all Investigators.
 - e) If FR is not submitted yet (ie 06 months from due date), a Board paper will be put up to terminate the grant and designate the grantee as ‘defaulter’.

2) Revising period given to submit FRs

An analysis is in progress to see the trend in submission of FRs before 2011 (06 months were given to submit FR) and since 2011 (03 months were given to submit FR).

- 3) A suitable penalty (to be decided) to be imposed on grantees who delay the submission of FR by more than 03 months, without valid justification (Item 1 c above).
 - *The 09 months period (from completion of project period) was given to grantees considering the fact that sometimes there are financial constraints at the NSF causing delays in fund transfers and also understanding that there can be reasons such as delays in purchasing consumables, equipment etc.(beyond control of grantee). Also the grantees are mostly from Universities and sometimes they face difficulties in completing on due date due to their other commitments such as teaching and administrative work.*

ප්‍රදාන අංකය, ව්‍යාපෘති කාලය සහ ව්‍යාපෘති ආරම්භක දිනය	මූල්‍ය වාර්තා ලබා ගැනීම හා ඇඟවීම											
	1 වන වාර්තාව ලැබූ දිනය (1 වන මාස 6)	2 වන වාර්තාව ලැබූ දිනය (2 වන මාස 6)	3 වන වාර්තාව ලැබූ දිනය (3 වන මාස 6)	4 වන වාර්තාව ලැබූ දිනය (4 වන මාස 6)	5 වන වාර්තාව ලැබූ දිනය (5 වන මාස 6)	ඇඟවීම සිදු කළ දිනය	ප්‍රදානය කළ ප්‍රමාණය (රුපියල්)	වියදම් කරන ලද ප්‍රමාණය (රුපියල්)				
TG/2012/Tech-D/10 මාස 18 2013/08/12	2014.02.24	2014.03.18	2014.03.18	2014.11.07	2015.01.01	2015.01.01	2016.02.17	2016.05.26	2016.05.26	ව්‍යාපෘති කාලය මාස 18 ක් නිසා අදාළ නොවේ.	771,000.84	235,717.44
TG/2012/Tech-D/04 අවුරුදු 02 2013/05/28	2013.12.09	2013.12.10	2013.12.10	2014.07.15	2014.07.16	2014.07.16	2015.01.27	2015.01.28	2015.05.06	2015.12.30	4,933,625	4,628,820.66
TG/2013/Tech-D/01 මාස 18 2014/04/03	2014.07.11	2014.11.20	2014.11.20	2015.11.06	2015.11.12	2015.11.12	2016.04.05	2016.04.22	2016.04.22	ව්‍යාපෘති කාලය මාස 18 ක් නිසා අදාළ නොවේ.	967,590	870,831.00
TG/2013/Tech-D/03 අවුරුදු 03 2014/04/03	2015.02.11	2015.04.02	2015.04.02	2016.02.18	2016.02.18	2016.02.18	2016.02.18	2016.02.18	2016.05.25	2017.04.06	595,990	227,369.00
TG/2013/Tech-D/05 මාස 12 2014/04/29	2014.12.17	2014.12.27	2014.12.27	2015.12.07	2015.12.15	2015.12.15	2015.12.16	2016.01.18	2016.04.27	2017.04.11	1,703,320	1,532,988.00
TG/2013/Tech-D/11 අවුරුදු 03 2014/04/29	2015.01.16	2015.01.20	2015.01.20	2015.11.12	2015.11.17	2015.11.17	2015.12.16	2016.01.18	2016.05.24	2017.04.11	3,950,000	2,584,347.18

1-2014/Tech-D/01 අවුරුදු 02 2014/09/04	2015.04.25	2015.05.29	2015.11.20	2015.12.09	2016.04.04	2016.05.05	ව්‍යාපෘති කාලය අවුරුදු දෙකක නිසා අදාළ .නොවේ.			3,215,340	3,188,166.06	
TG/2014/Tech-D/02 අවුරුදු 03 2014/08/28	2015.03.03	2015.03.19	2015.12.11	2016.01.15	2016.04.26	2016.05.04	2016.11.01	2016.11.29	2017.03.17	2017.03.30	1,616,788.24	
TG/2014/Tech-D/03 අවුරුදු 2 1/2 (අනුමත ව්‍යාපෘති කාලය දීර්ඝ කිරීම සමඟ) 2014/08/28	2015.01.19	2015.01.19	2015.09.15	2015.10.26	2016.02.03	2016.02.03	2016.08.24	2016.11.21			694,907.20	
TG/2014/Tech-D/04 අවුරුදු 03 5/05/27	2015.12.11	2016.02.24	2016.07.11	2016.10.12	2017.01.03	2017.01.23	ව්‍යාපෘති කාලය ඇතුළත ලබා ගැනීමට නියමිතය.			5,552,019	5,516,537.82	
TG/2014/Tech-D/06 මාස 12 2015/05/13	2015.12.09	2016.02.24				ව්‍යාපෘති කාලය මාස 12 නිසා අදාළ නොවේ.					2,692,000	1,578,957.38
TG/2014/Tech-D/07 අවුරුදු 1 1/2 (අනුමත ව්‍යාපෘති කාලය දීර්ඝ කිරීම සමඟ) 17/07/2015	2016.02.08	2016.05.10	2016.11.09	2017.03.17	අවසන් වාර්තාව ලබා ගැනීමට සිහි කැඳවීම් යවා ඇත.	ව්‍යාපෘති කාලය අවුරුදු 1 1/2 ක් නිසා අදාළ නොවේ.					1,488,092.80	227,710.00
TG/2015/Tech-D/01 මාස 20 2016/05/20	2017.01.16	2017.02.08			ව්‍යාපෘතිය සිදු වෙමින් පවතියි					511,787	312,264.15	

TG/2015/Tech-D/02 අවුරුදු 01 2015/09/25	2016.05.23	2016.06.06	2017.01.19 (අවසන් වාර්තාව)	2017.05.02	ව්‍යාපෘති කාලය අවුරුදු 1 ක් නිසා අදාළ නොවේ.	81,792.80	81,281.40
TG/2015/Tech-D/03 අවුරුදු 02 2015/09/11	2016.03.17	2016.05.04	2016.09.08	2016.10.04	ව්‍යාපෘතිය සිදු වෙමින් පවතියි	4,876,892	3,718,023.50
TG/2015/Tech-D/04 අවුරුදු 02 2015/09/25	2016.03.29	2016.05.09	2016.09.27	2016.11.02	ව්‍යාපෘතිය සිදු වෙමින් පවතියි	810,000	274,395.00
TG/2015/Tech-D/05 මාස 18 2015/10/23	2016.05.24	2016.07.05	2016.12.05	2017.01.06	ව්‍යාපෘතිය සිදු වෙමින් පවතියි	3,541,590	1,747,246.75
TG/2015/Tech-D/06 මාස 9 2015/09/02	2016.03.04	2016.03.04	2017.01.19 (අවසන් වාර්තාව)		ව්‍යාපෘති කාලය මාස 9 ක් නිසා අදාළ නොවේ.	246,300	246,300.00
TG/2015/Tech-D/08 අවුරුදු 2 2015/11/03	2016.05.12	2016.05.12	2016.08.26	2016.09.27	ව්‍යාපෘතිය සිදු වෙමින් පවතියි	1,959,500	550,000.00
TG/2015/Tech-D/09 මාස 09 2015/09/30	2016.05.13	2016.09.02	2016.07.25 (අවසන් වාර්තාව)	2017.01.03	ව්‍යාපෘති කාලය මාස 9 ක් නිසා අදාළ නොවේ.	3,745,500	3,745,500.00
TG/2015/Tech-D/10 මාස 10 2015/11/30	2016.08.01	2016.10.12	අවසන් වාර්තාව ලබා ගැනීමට සිහි කැඳවීම් යොමු වී ඇත.		ව්‍යාපෘති කාලය මාස 10 ක් නිසා අදාළ නොවේ.	1,981,175	1,735,931.79

2016 වර්ෂයේ ක්‍රියාත්මක නොකරන ලද ප්‍රසම්පාදන කාර්යයන්

01. Service and Goods for International Conference on transcending Knowledge Frontiers
 මෙම සමුළුව පැවැත්වීම සඳහා කළමනාකරණ මණ්ඩලයේ අනුමැතිය නොලැබීම නිසා ප්‍රසම්පාදනයන් අවශ්‍ය නොවුණි.

02. Data collection services of hired enumerators
 අංශයෙහි සංශෝධිත අයවැය අනුව මෙවැනි සමීක්ෂණ ඉවත් කරන ලද නිසා අවශ්‍යතාවයක් මතු නොවීය.

03. Land & building improvements
 මෙම ව්‍යාපෘතිය සඳහා 2016 වසරේදී සංවෘත ලංසු කැඳවා එම මිල ගණන් ඇගයීම සඳහා තාක්ෂණික ඇගයීම් කමිටුව වෙත යවන ලදී. නමුත් එහිදී එම මිල ගණන් (BOQ) පිළිබඳව උපදේශක සේවා සපයනු ලබන මොරටුව විශ්ව විද්‍යාලයේ ඉංජිනේරු ඇගයීම් කමිටුව එකඟතාවයකට පත් නොවීම නිසා එම ලංසුපත් ඇගයීම අවලංගු කරන ලදී. නමුත් මෙම ව්‍යාපෘතිය වෙනුවෙන් නව උපදේශක සේවා සපයන ආයතනයක් තෝරා ගැනීම සඳහා උපදේශක සේවා සපයන ආයතනවලින් කැමැත්ත ප්‍රකාශ කිරීම සඳහා ආරාධනා කර ඇත.

04. Repairs & Maintenance Works
 ප්‍රසම්පාදන ඉල්ලුම්පත්‍ර ලැබී ඇති පරිදි අදාළ අලුත්වැඩියා කටයුතු සිදු කර ඇත.

05. S & T Award Ceremony
 2016 වර්ෂයේ ක්‍රියාකාරී සැලැස්මේ පරිදි විද්‍යා හා තාක්ෂණ ක්ෂේත්‍රයේ විශිෂ්ටයින් ඇගයීමේ සම්මාන සඳහා අයදුම්පත් කැඳවනු ලැබ ඒවා ඇගයීමට ලක් කරන ලදී. එහිදී සම්මාන ලැබීමට ප්‍රශස්ත ලකුණු ලබාගැනීමට සමත් වූයේ එක් අයදුම්කරුවෙක් පමණි. එක් සම්මානලාභියෙක් වෙනුවෙන් අධික වියදමක් දරා සම්මාන උත්සවය පැවැත්වීම අර්ථ විරහිත නිසා සම්මාන උත්සවය පැවැත් නොවූ අතර සම්මානලාභියාට අදාළ සම්මානය ඉදිරි සම්මාන උත්සවයකදී ලබා දෙනු ඇත. ඒ අනුව මෙම ක්‍රියාකාරකම සඳහා වෙන් කළ මුදල් වියදම් නොවූ අතර, මෙය අපගේ පාලනයෙන් තොර වූ සාධකයක් නිසාවෙන් සිදුවිය.

06. Equipment Service Agreement

2016 වර්ෂය සඳහා ඡායා පිටපත් යන්ත්‍රයේ හා මුද්‍රණ යන්ත්‍රයේ නඩත්තු සේවා කටයුතු සඳහා අදාළ සැපයුම්කරු සමඟ සේවා ගිවිසුමට එළඹීමට සැලසුම් කරන ලදී. එහෙත් නිලධාරී ඡායා පිටපත් යන්ත්‍රය අළුත්වැඩියා කළ නොහැකි තත්ත්වයට දෝෂයට ලක් වූ නිසා අළුතින් ඡායාපිටපත් යන්ත්‍රයක් මිලදී ගැනීමට සිදුවිය. එම නිසා නඩත්තු සේවා කටයුතු සඳහා සැලසුම් කළ මුදල් වියදම් නොවුණි.

07. Science Research Project Competition (SRPC)

වැඩසටහන ක්‍රියාත්මක කරන ලදී. නමුත් ප්‍රසම්පාදනය අවශ්‍ය නොවුණි.

08. S.L Science & Engineering Fair (SLSEF)

වැඩසටහන ක්‍රියාත්මක කරන ලදී. නමුත් ප්‍රසම්පාදනය අවශ්‍ය නොවුණි.

09. Out Reach Programmes

මෙම වැඩසටහන් ජාතික විද්‍යා පදනමින් බැහැරව වෙනත් ස්ථානවල සංවිධානය කෙරෙන වැඩසටහන්ය. මේ යටතේ අන්තර් පාසල් විද්‍යා සමාජ තරඟාවලියට සහ විද්‍යා පර්යේෂණ ව්‍යාපෘති තරඟයට අයත් වැඩසටහන් විවිධ ප්‍රදේශවලදී සංවිධානය කෙරුණි. නමුත් ඒ සඳහා ප්‍රසම්පාදන ක්‍රියාවලිය අනුගමනය කිරීමේ අවශ්‍යතාවයක් පැන නොනැගුණි.

10. Telecasting of the Mihimadale Programme

මිහිමඩල විඩියෝ වැඩසටහන් නිෂ්පාදනය කිරීමේ කටයුතු අඛණ්ඩව මෙම වසර තුළ ක්‍රියාත්මක කිරීම සිදු කෙරුණු අතර ඒවා රූපවාහිනී නාලිකා ඔස්සේ විකාශය කිරීම සිදුනොවීය. එනිසා විකාශය සඳහා ප්‍රසම්පාදන ක්‍රියාවලිය අනුගමනය කිරීමේ අවශ්‍යතාවයක් පැන නොනැගුණි.

11. Other Activity identified by the two Committees of the Division

අංශය මගින් ක්‍රියාත්මක කරන ලද වැඩසටහන් සඳහා ඉහත කමිටු දෙකෙහි සහයෝගය සහ උපදෙස් ලැබුණු අතර ඊට අමතරව ඒවා මගින් වෙනත් කටයුතු (Other Activities) හඳුනාගැනීමක් සිදුනොවීනි.

12. Scheme for funding Page Charges

මෙම වැඩසටහන 2016 ජනවාරි මසදී කළමණාකරන මණ්ඩලය විසින් අනුමත කරන ලදී. ජාතික විද්‍යා පදනමේ අන්තර්ජාල පිටුව (website) මගින් හා විද්‍යා හා තාක්ෂණ කළමණාකරන තොරතුරු පද්ධතිය (STMIS) විද්‍යාඥයින් අතර ප්‍රසිද්ධියට පත් කල අතර 2016 තුළදී එක් අයදුම්පතක් පමණක් ලැබුණි.

13. Training Workshop and Seminars (0.4Mn) (NSLRC)

Sri Lanka scientific and Technical Network නැමති ජාලයේ කේන්ද්‍රීය මධ්‍යස්ථානය ලෙස ක්‍රියා කරන ඉහත අංශය, එම ජාලයට සම්බන්ධ සියලුම සාමජිකයන්ගේ දැනුම යාවත්කාලීන කිරීමේ අරමුණෙන් පහත සඳහන් එක් දින සම්මන්ත්‍රණය 2016.10.06 වන දින ජාතික විද්‍යා පදනමෙහි ශ්‍රවණාගාරයේදී පවත්වන ලදී.

Seminar on Scientrometric Indicators, evaluation of research publications, individual scientist and research institution through Scopus.

ඉන්දියාවේ පිහිටුව ඇති Elsevier (Ltd) ආයතනයේ සේවයේ නියුතු විෂය සම්බන්ධ ප්‍රවීණ සම්පත් දායකයකු මෙම සම්මන්ත්‍රණය මෙහෙයවන ලද අතර, එම සම්පත් දායකයාගේ ගුවන් ගමන් ගාස්තු, මෙරට නැවතීමේ ගාස්තු, ගෞරව දීමනාව, සහභාගී වන්නන්ගේ දිවා ආහාරය සහ තේ පැන් සංග්‍රහ ආවරණය වන පරිදි රු.400,000/= පිරිවැයක් ඇස්තමේන්තුගතකර ප්‍රසම්පාදන කාර්යය ලැයිස්තුවට ඇතුළත් කරන ලදී.

එනමුත් සම්පත් දායකයාට අදාළ ගුවන් ගමන් ගාස්තු හා මෙරට නැවතීමේ ගාස්තු දැරීම සඳහා Elsevier ආයතනය කැමති කරවා ගැනීමට හැකි වූ බැවින් රු. 36,765/= පමණ මුදලක් වැය කිරීමෙන් මෙම සම්මන්ත්‍රණය නිම කල හැකි විය.

14. Hosting Charges for SLJOL database

Sri Lanka Journal online (SLJOL) යනු එංගලන්තයේ INASP (International Network for Availability of Scientific Periodicals) ආයතනය සහ ජාතික විද්‍යා පදනම ඒකබද්ධව ක්‍රියාකරනු ලබන මාර්ගගත දත්ත පදනමකි. ශ්‍රී ලංකාවේ පළවන මනාලෙස විචාරයට ලක් වූ සඟරා සඳහා ජත්‍යන්තර ප්‍රචාරණය ලබා දීම මෙහි මූලික අරමුණ වේ. මෙම දත්ත පදනමේ Hosting service provider ලෙස ක්‍රියා කරනු ලැබූ කැනඩාවේ PKP ආයතනය එම සේවය ලබා දීමෙන් ඉවත් වූ බැවින් එම සේවය අඛණ්ඩව සාධාරණ ගාස්තුවකට ලබා ගැනීම සඳහා INASP ආයතනයේ පූර්ණ සහයෝගයෙන් එංගලන්තයේ Ubquity Press ආයතනය තෝරා ගන්නා ලදී. ඒ අනුව 2016 සැප්තැම්බර් 15 වන දින ජාතික විද්‍යා පදනම සහ Ubquity Press ආයතනය සමඟ එලඹුණ ගිවිසුම අනුව Annual hosting ලෙස රු.373,655/=

මුදලක් 2016.10.24 දින ගෙවනු ලැබීය. මෙම ගාස්තුව ආවර්ණය කරනු ලබන සඟරා මත රඳා පවතින අතර ගිවිසුම් අත්සන් කරන තුරු එයට අදාල මුළු මුදල නිවැරදිව පුරෝකථනය කල නොහැකි බැවින් එය 0.5Mn ලෙස ප්‍රසම්පාදන ලැයිස්තුවට ඇතුළු කරන ලදී.

15. Workshops & Meetings

වැඩමුළු හා රැස්වීම් 08ක් 2016 වසර තුළදී පවත්වා ඇති අතර ඒ සඳහා අවශ්‍ය වූ ප්‍රසම්පාදනයන් සිදුකර ඇත.

16. Ussangoda geo-park nomination

මෙම ක්‍රියාකාරකම වෙනුවෙන් වැඩසටහන් 2016 වසර තුළ ක්‍රියාත්මක නොවූ නිසා ප්‍රසම්පාදනයන් අවශ්‍ය නොවුණි.

17. Follow-up of periodic review (PR) process

සැලසුම් කල පරිදි ප්‍රසම්පාදනයන් අවශ්‍ය නොවුණි.

18. Seminar (MAB)

එක් වැඩමුළුවක් පැවැත්වූ අතර ඒ සඳහා අවශ්‍ය ප්‍රසම්පාදනයන් පමණක් සිදුවිය.

19. Updating the publication on “Natural Resources of Sri Lanka”

2016 වසර තුළදී ලංසු කැඳවීම සිදුකල ඇති අතර 2017 වසරේදී ප්‍රසම්පාදනයන් සිදුකිරීමට නියමිතය.

20. MAB publications

මෙම වැඩසටහන යටතේ ප්‍රකාශනයන් සඳහා ඉල්ලීම් නොවූ නිසා ප්‍රසම්පාදනයන් අවශ්‍ය නොවුණි.

21. Nomination of National BRs

සැලසුම් කල පරිදි ප්‍රසම්පාදනයන් අවශ්‍ය නොවුණි.

22. Firewall subscription renewal

2016 වසරේදී මෙය සිදුකර ඇත.

23. Concise oxford English Dictionary

අවශ්‍යතාවය මත 2016 වසරේදී මෙම ප්‍රසම්පාදනය සිදුකල නොහැකි වූ අතර එය 2017 වසරේදී මිලදී ගැනීමට අපේක්ෂිතය.

24. Office Consumables

අවශ්‍යතාවය පරිදි 2016 මිලදී ගැනීම් සිදුකර ඇත. ඒ සඳහා වෙන් කරන ලද සියලු ප්‍රතිපාදන වැය නොවුණි.

25. Journal database (3.00Mn)

2017 වර්ෂය මුල් කාර්තුවේදී නිකුත් වීමට නියමිත මනා ලෙස යාවත්කාලීන වූ scopus (abstract/ citation) දත්තු පදනම සඳහා වූ Annual renewal free - 2017 Elsevier ආයතනයට 2016 වර්ෂයේ දෙසැම්බර් මස ඉකුත්වීමට ප්‍රථම ගෙවීමේ අරමුණින් මෙම මුදල ප්‍රසම්පාදන ලැයිස්තුවට ඇතුළත් කරන ලද්දේ සාමාන්‍යයන් පවත්වාගෙන යන ක්‍රමවේදයට අනුවය.

ශ්‍රී ලංකාවේ විද්‍යා තාක්ෂණ ප්‍රජාවට තමන්ගේ පර්යේෂණ ප්‍රතිදානය (Research outputs and citations) පිළිබඳ පූර්ණ විස්තරයක් ලබාගත හැකි මෙම මෙවලමට ලඟාවිය හැක්කේ ජාතික විද්‍යා පදනම තුළින් පමණකි.

අදාල වාර්ෂික ගාස්තු ගෙවීම සඳහා පදනමේ කළමනාකාරීත්වයේ නිසි අවසරය ලැබූන ද නියමිත ඉන්වොයිසිය Elsevier ආයතනයෙන් 2016 දෙසැම්බර් 31ට පෙර නොලැබූන හොත් එම ගාස්තුව 2016 වර්ෂය නිමවීමට පෙර ගෙවිය නොහැකි විය.

එනමුත් සාමාන්‍යයෙන් වාර්ෂිකව ලබා ගන්නා අනෙකුත් තොරතුරු මූලාශ්‍ර වෙනුවෙන් පුරෝකථනය කරන ලද මුදලින් රු. 822,794/- වැය විය.

26. Book Reference Sources Special Collections (0.2 Mn)

ඇමරිකාවේ Cornell විශ්ව විද්‍යාලය නිකුත් කරන ඉහළ ගණයේ කෘෂිකාර්මික පර්යේෂණ පත්‍රිකාවල තොරතුරු අඩංගු දත්ත පදනමක් වන TEEAL (Digital Library of Agricultural Research) ලබා ගැනීම සඳහා අදාළ ගාස්තු ගෙවීමට සහ පදනමේ විද්‍යාත්මක නිලධාරීන්ගේ ඉල්ලීම පරිදි පොත්, සංවෘත්ත තැටි ලබා ගැනීමට මෙම මුදල 2016 වර්ෂය සඳහා වෙන් කළ නමුත් Cornell විශ්ව විද්‍යාලය අදාළ සංවෘත්ත තැටිය වෙනුවට 1993-2013 දක්වා යාවත්කාලීන කළ සියලු පර්යේෂණ විස්තර අඩංගු කුඩා පරිගණකයක් ගාස්තු අයකිරීමකින් තොරව ලබා දුන් හේතුවෙන් පුරෝකථනය කළ මුලු මුදලින් පොත් කිහිපයක් මිලදී ගැනීම සඳහා රු. 3,050/- ක් පමණ වැය විය.

27. PABX System

මේ සඳහා 2016 වර්ෂයේදී දෙවරක් සංවෘත ලංසු කැඳවීම් සිදු කර ඇති අතර ලංසු 03කට වඩා අඩු ප්‍රමාණයක් ලැබීම නිසා එම ලංසු අවලංගුකර පුවත්පත් දැන්වීමක් මගින් නැවතත් 2017 වසරේදී ලංසු කැඳවීම සිදු කර ඇත.

28. FM mice sound system

අංශයෙහි සංගෝධිත අයවැය අනුව සඳහන් කරන ලද භාණ්ඩ මිලදී නොගන්නා ලදී.

29. Replace obsolete network switches

2016 වසරේදී මෙය සිදුකර ඇත.

30. NVivo data Analyzing Package

අංශයෙහි සංගෝධිත අයවැය අනුව NVivo data Analyzing Package අවශ්‍ය වූ සමීක්ෂණ ඉවත් කරන ලද නිසා අවශ්‍යතාවයක් මතු නොවීය. අංශයෙහි සංගෝධිත අයවැය අනුව සඳහන් කරන ලද භාණ්ඩ මිලදී නොගන්නා ලදී.

31. Accounting Software Package

2017 වසරේදී මෙය සිදුකිරීමට කටයුතු යොදා ඇත.

32. Meeting management system & Grants management system

Meeting Management System

මෙකී පද්ධතිය හඳුන්වාදීමේ යෝජනාවේ මූලික අරමුණවූයේ ආයතනයේ කළමනාකාර මණ්ඩලයේ තොරතුරු වාර්තා කරණය පහසු කිරීම සහ විදිමන් කිරීමය. ආයතනයේ කළමනාකරණ රෙජිස්ට්‍රි වලදී මේ පිළිබඳව දීර්ඝ වශයෙන් සාකච්චාකර පසුව එම යෝජනාව ඉවත්කර ගන්නාලදී.

Grants Management System

මෙකී පද්ධතිය හඳුන්වාදීමේ යෝජනාවේ මූලික අරමුණවූයේ ආයතනයේ මූල්‍ය ප්‍රදාන ලබාදීමේ ක්‍රියාවලිය වඩාත් කාර්යක්ෂමව කිරීම, අධීක්ෂණය කිරීම හා වාර්තා ගතකිරීම පහසු කිරීමයි. මෙකී ක්‍රියාවලිය ඉතා සංකීර්ණ සහ අවදානම් බැවින් නිසි අධ්‍යයනයකින් පසුව සලකා බැලීම සඳහා 2017 වර්ෂය සඳහා ඇතුලත් කරනදී.

1. Operationalization of the National Bio Safety Frame work in collaboration with Ministry of Environment

මෙම ක්‍රියාකාරකම පරිසර අමාත්‍යාංශය සමඟ එක්ව ජාතික ජෛව සුරක්ෂිතතා ආකෘතිය යටතේ සිදු කිරීමට තීරණය කර තිබුණද, පරිසර අමාත්‍යාංශය මේ සඳහා විදේශීය ප්‍රතිපාදන අපේක්ෂාවෙන් පසු වූ බැවින් මෙම ක්‍රියාකාරකම 2016 දී සිදු කිරීමට නොහැකි විය.

2. SUSRED grant scheme

SUSRED ප්‍රතිපාදන වැඩසටහන සඳහා අදාළ වූ අයදුම්පත් කැඳවීම, අයදුම්පත් ඇගයීම හා ත්‍යාග ප්‍රදානය කිරීමට සියළු කටයුතු 2016 දෙසැම්බර් මස සූදානම් කරන ලදී. කෙසේ වුවද විද්‍යා, තාක්ෂණ හා පර්යේෂණ කටයුතු අමාත්‍යවරයා හට ඒ සඳහා දිනයක් දෙසැම්බර් මස වෙන් කිරීමට නොහැකිවීම හේතුවෙන් එම උත්සවය 2017 ජනවාරි 31 වන දින පවත්වන ලදී..

3. Conduct state holder meetings brainstorming session and workshop etc.

2016 වසරේ ජූලි 7 හා 8 යන දෙදින ජාතික විද්‍යා පදනම මගින් “NSF Research Summit 2016; Empowered by Research & Innovation” සමුළුව පවත්වන ලදී. මෙම සමුළුවේදී “ජාතික තේමා පර්යේෂණ වැඩසටහන” මගින් ආමන්ත්‍රණය කිරීමට යෙදුණු තේමා, ආහාර සුරක්ෂිතතාව, දේශගුණික විපර්යාස, ස්වභාවික විපත් සහ ජල සුරක්ෂිතතාව, එක් එක් අංශ යටතේ කලාබහට ලක් කරන ලදී. මෙම සමුළුවේදී මෙම තේමා වලට අදාළ ප්‍රශ්න හා වෙනත් ගැටළු දීර්ඝ ලෙස සහ සවිස්තරාත්මකව සාකච්ඡාවට බඳුන් කරන ලදී. මෙම හේතුවෙන් මේ සඳහා පාර්ශවකරුවන් හා නවත් සාකච්ඡාවක් 2016 වසරේදී වෙනමම නොපවත්වන ලදී. මෙම සමුළුවෙන් පසු ජාතික විද්‍යා පදනම මගින් දේශගුණික විපර්යාස සහ ස්වභාවික විපත් වලට අදාළ තේමා පත්‍රය සම්පූර්ණ කරන ලද අතර, එම තේමාවන් සඳහා පූර්ණ පර්යේෂණ යෝජනා කැඳවීම සඳහා පුවත්පත් දැන්වීම් පළ කරන ලදී.

4. SPD Organizing training workshop on science communication for local scientist

වසර මූල අංශය සඳහා වෙන් කරන ලද ප්‍රතිපාදන ප්‍රධාන ක්‍රියාකාරකම් සඳහා පමණක් වෙන් කරන ලද අතර ඉදිරි අයවැය සංශෝධනයේදී ප්‍රතිපාදන ලබාගැනීමේ අරමුණින් මෙම ක්‍රියාකාරකම ක්‍රියාකාරී සැලසුමෙන් (Action Plan) ඉවත් නොකෙරිණි. එහෙත් වසර මැද සිදු කරන ලද එම අයවැය සංශෝධනයේදීත් මෙම කටයුතු සඳහා ප්‍රතිපාදන නොලැබුණු බැවින් එය ක්‍රියාත්මක කිරීමට හැකියාවක් නොලැබුණි.

5. SPD Young Science Leaders Programme

මෙම වැඩසටහන සඳහා දීප ව්‍යාප්තව සිසුන් බඳවා ගැනීමට යෝජනා කරන ලදී. නමුත් කොළඹින් බැහැරව පැමිණෙන සිසුනට මෙම වැඩසටහනට සහභාගීවීමේදී ඇති වන ප්‍රායෝගික ගැටළු සහ ඔවුනට පහසුකම් සැලසීමේදී වැයවන මුදල සලකා මෙම වැඩසටහන ක්‍රියාත්මක කිරීම විද්‍යා, තාක්ෂණ, ඉංජිනේරු ක්‍රියාකාරී සහ ගණිත කමිටුවේ අනුදැනුම ඇතිව අත්හිටුවන ලදී.

6. SPD Conduct awareness campaign on Emerging Technologies

වසර මූල අංශය සඳහා වෙන් කරන ලද ජර්නලයක ප්‍රධාන ක්‍රියාකාරකම් සඳහා පමණක් වෙන් කරන ලද අතර ඉදිරි අයවැය සංශෝධනයේදී ප්‍රතිපාදන ලබාගැනීමේ අරමුණින් මෙම ක්‍රියාකාරකම ක්‍රියාකාරී සැලසුමෙන් (Action Plan) ඉවත් නොකෙරේ. එහෙත් වසර මැද සිදු කරන ලද එම අයවැය සංශෝධනයේදී මෙම කටයුතු සඳහා ප්‍රතිපාදන නොලැබුණු බැවින් එය ක්‍රියාත්මක කිරීමට හැකියාවක් නොලැබුණි.

7. SPD Capacity building of Teachers on good laboratory Practices

මේ යටතේ සිදුකෙරුණේ රසායන විද්‍යාවේ භෞතික විද්‍යාවේ සත්ව විද්‍යාව සහ උද්භිත විද්‍යාව යන විෂයයන් යටතේ විද්‍යා ගුරුවරුන් සඳහා පුහුණු අත්පොත් එකකින් පිටපත් 450ක් බැගින් මුද්‍රණය කර අධ්‍යාපන අමාත්‍යාංශයට භාර දීමක් පමණි. මේවා මුද්‍රණය කරන ලද්දේ ජාතික විද්‍යා පදනමේ මුද්‍රණ අංශය මගිනි. එනිසා මෙම කර්තව්‍යය සඳහා ප්‍රතිපාදන වෙන් කිරීමක් සිදු නොකෙරුණි.

සමාලෝචිත වර්ෂය තුළ සිදුනොකර පසුවට කල් දමා තිබුණු ක්‍රියාකාරකම් පහත පරිදි වේ.

1. SPD Vidya Ganitha Athyvela

මෙම වැඩසටහනෙහි පසුගිය වසරවල කරන ලද ප්‍රතිඵල විද්‍යාල තාක්ෂණ ඉංජිනේරු සහ ගණිත ක්‍රියාකාරී කමිටුවෙහි උපදෙස් මත සමීක්ෂණයක් සිදු කිරීම මගින් සමාලෝචනය කරන ලදී. එහිදී මෙම වැඩසටහන මගින් ගණනය සහ විද්‍යා විෂය සමත් වීම කෙරෙහි එතරම් බලපෑමක් කිරීමට හැකියාවක් නොමැති බව හඳුනා ගන්නා ලදී. එම නිසා ඉහත කමිටුවේ නිර්දේශය මත මෙම වැඩසටහන ක්‍රියාත්මක කිරීම අත්හිටුවන ලදී.

2. Conducts need Assessment survey on capacity Building of scientists and administration in NRIS

සංශෝධිත අයවැය අනුව ව්‍යාපෘතිය ඉවත්කරන ලදී.

3. Study on to investigate the status of A/L Science Education in Sri Lanka

ප්‍රතිපාදන නොමැතිවීමත් ප්‍රමාණවත් පරිදි සේවක මණ්ඩලය නොසිටීමත් නිසා මෙම වැඩසටහන ක්‍රියාත්මක නොකෙරේ.

4. Assessment of A/L student Project in meeting National Educational Objectives

ප්‍රතිපාදන නොමැතිවීමත් ප්‍රමාණවත් පරිදි සේවක මණ්ඩලය නොසිටීමත් නිසා මෙම වැඩසටහන ක්‍රියාත්මක නොකෙරේ.

5. Innovation system study on Floriculture Industry in Sri Lanka

සංශෝධිත අයවැය අනුව ව්‍යාපෘතිය ඉවත්කරන ලදී.

6. Conduct survey to collect Information on patent holders of 2008-2012

සංශෝධිත අයවැය අනුව ව්‍යාපෘතිය ඉවත්කරන ලදී.



Annexes

Research Grants awarded - 2016

Working Committee on Agriculture & Food Science

Grant No. & Duration	Grantee(s)/Institute	Project Title	Total Allocation (Rs.)
RG/2016/AG/01 (3 Years)	Dr T.H.P.S. Fernando Dr K.V.V.S Kudaligama Mr M.K.R. Silva Dr P. Senevirathne Rubber Research Institute Agalawatta	Investigation on biological control measures for white root disease of rubber to improve integrated disease management strategies	4,244,232/-
RG/2016/AG/02 (2 1/2 Years)	Dr (Ms) Ilmi G.N. Hewajulige Food Technology Division, ITI Dr Chandrika M. Nanayakkara Dept. of Plant Science Univ. of Colombo Dr W.W.P. Rodrigo Biotechnology Unit Ms. D.U. Rajawardana Food Technology Section, ITI, Colombo 07	Biodiversity and technological potential of micro-flora from selected Sri Lankan dairies	2,000,500/-
RG/2016/AG/03 (3 Years)	Dr W.A.M. Daundasekera Dept. of Botany Dr M.Y. Udugala Ganehenege Dept. of Chemistry Faculty of Science Univ. of Peradeniya	Efficacy of soluble silicone in inducing disease resistance against postharvest fungal pathogens in banana	2,196,862/-

Working Committee on Basic Sciences

Grant No. & Duration	Grantee(s)/Institute	Project Title	Total Allocation (Rs.)
RG/2016/BS/01 (3 Years)	Prof. R.M.G. Rajapakse Prof. G.R.A. Kumara Dept. of Chemistry Faculty of Science University of Peradeniya	Photon upconversion as a tool to harvest infrared radiation for direct illumination in the dark and to fabricate dye-sensitized solar cells to generate electricity under illumination as well as in the dark	4,975,000/-
RG/2016/BS/02 (3 Years)	Prof. Anura Wickramasinghe Dr Susanthi Jayasinghe Dept. of Chemistry Faculty of Science University of Peradeniya	Synthesis of biologically active natural product libraries of 3β-[α-L arabinopyranosyl]oxy]olean-12-en-28-oic acid	4,147,000/-
RG/2016/BS/03 (1 1/2 Year)	Dr Thusitha Nanda Dept. of Science & Technology Uva Wellasa University Dr Dilru Rathnaweera Dept. of Chemistry University of Sri Jayawardenepura Prof. Veranja Karunathne Dept. of Chemistry University of Peradeniya	Synthesis and characterization of structure-property correlation of biomass (lignin) based polyurethane foams as a replacement for petrochemical based foams used in Sri Lanka	1,297,900/-

RG/2016/BS/04 (2 Years)	Dr W.M.C.J. Wijekoon Prof. G.Y. Jayasinghe Prof. S.D. Wanniarachchi Dept. of Soil Science Faculty of Agriculture University of Ruhuna	Applications of ultrasound technology for energy efficient water purification	2,199,100/-
RG/2016/BS/05 (3 Years)	Dr (Mrs) Champika Vithana Hettiarachchi Dr (Mrs) Ishanie Rageeka Perera Dept. of Chemistry Faculty of Science University of Peradeniya	Development of metal organic frameworks as semiconductor materials for dye sensitized solar cells	4,059,500/-

Working Committee on Basic Sciences

Grant No. & Duration	Grantee(s)/Institute	Project Title	Total Allocation (Rs.)
RG/2016/BT/01 (2 Years)	Dr S. Nimali Tharangani Dept. of Biotechnology Faculty of Agriculture and Plantation Management Wayamba University Prof. D.P.S.T.G. Attanayake Faculty of Agriculture and Plantation Management Wayamba University	Expression of raw starch hydrolyzing alpha amylase gene from <i>Geotrichum candidum</i> in <i>E coli</i>	2,019,160/-
RG/2016/BT/02 (2 Years)	Prof. Kamani Tennekoon Institute of Biochemistry Molecular Biology and Biotechnology 90, Cumaratunga Munidasa Mawatha, Colombo - 03	Possible anti-carcinogenic mechanisms of novel cytotoxic compounds isolated from <i>Camptosperma zeylanica</i> on breast cancer cells: Evaluation of molecular mechanisms and validation of anti-breast cancer pathway/s.	3,571,000/-
RG/2016/BT/03 (2 Years)	Dr A. Arulkanthan Centre for Aquatic Animal Disease Diagnosis and Research (CAADDR) Dept. of Veterinary Pathobiology Faculty of Veterinary Medicine and Animal Sciences University of Peradeniya Dr S.S.S. De S. Jagoda CAADDR, Univ. of Peradeniya	Studies on mycobacteriosis in fresh water ornamental fish: identification of risk factors, and clinico-pathological features, and development of rapid diagnostic technique	3,759,000/-
RG/2016/BT/04 (3 Years)	Prof. R.S. Dassanayake Dept. of Chemistry Faculty of Science University of Colombo Prof. (Mrs) Y.I.N.S. Gunawardena Molecular Medicine Unit Faculty of Medicine University of Kelaniya	Transgenic reconstitution of RNA interference pathway in <i>Pichia pastoris</i> yeast model system	4,534,135/-

Working Committee on Engineering, Architecture & ICT

Grant No. & Duration	Grantee(s)/Institute	Project Title	Total Allocation (Rs.)
RG/2016/ EA & ICT/01 (2 Years)	Dr G.M.R.I. Godaliyadda Dr M.P.B. Ekanayake Prof. J.B. Ekanayake Department of Electrical and Electronic Engineering Faculty of Engineering University of Peradeniya	Non intrusive load monitoring for flexible demand estimation and management	1,582,768/-

Working Committee on Environment & Biodiversity

Grant No. & Duration	Grantee(s)/Institute	Project Title	Total Allocation (Rs.)
RG/2016/EB/01 (2 Years)	Dr Sumudu C.K. Rubasinghe Dept. of Botany Faculty of Science University of Peradeniya	Taxonomy and biogeography of Sri Lankan leafy liverworts (Jungermanniade)	2,295,425/-
RG/2016/EB/05 (2 Years)	Dr W.A Priyanka de Silva Prof. S.H.P. Parakrama Karunaratne Dept. of Zoology Faculty of Science University of Peradeniya	Species diversity and the potential vector status of frog-biting mosquitoes in selected localities in the wet and dry zones of Sri Lanka	1,420,620/-
RG/2016/EB/02 (3 Years)	Dr Sisira Ediriweera Dept. of Science & Technology Uva Wellassa University Badulla Prof. B.M.P. Singhakumara Dept. of Forestry & Env't. Sciences University of Sri Jayawardenepura	Study on vegetation structure and above-ground carbon dynamics over a 40 year period in a Lowland rainforest in Sri Lanka	1,995,000/-
RG/2016/EB/03 (2 Years)	Dr Pamoda B. Ratnaweera Dept. of Science & Technology Uva Wellassa University	Antibacterial drug leads and insecticidal agents from endophytic fungi of a selected <i>Cyperus</i> species	2 370 000/-
RG/2016/EB/04 (3 Years)	Dr M.M. Pathmalal Dept. of Zoology University of Sri Jayawardenepura	Detection and removal of geosmin and MIB in drinking water by native bacteria; Bioremediation approach for green solution	3,864,219/-

Working Committee on Health Sciences

Grant No. & Duration	Grantee(s)/Institute	Project Title	Total Allocation (Rs.)
RG/2016/HS/01 (2 Years)	Dr Lochana C. Menikarachchi Department of Pharmacy Faculty of Allied Health Sciences University of Peradeniya	Development of a software platform for fully automated chemical structure identification in metabolomics	1,844,000/-
RG/2016/HS/02 (3 Years)	Dr A.P. De Silva Dr Rashan Haniffa National Intensive Care Surveillance Castle Street Hospital for Women Colombo 08	Develop, implement and assess effectiveness of a Rapid Response System (RRS) utilizing an Early Warning score (EWS) for Moneragala District General Hospital	3,224,000/-

RG/2016/HS/03 (2 1/2 Years)	Dr A.P. Attanayake Prof. K.A.P.W. Jayatilaka Dept. of Biochemistry Prof. L.K.B. Mudduwa Department of Pathology Faculty of Medicine University of Ruhuna	Protective effects of selected medicinal plant extracts in rats with chemically induced nephropathy	1,545,000/-
RG/2016/HS/04 (3 Years)	Dr Nilupa R. Amarasinghe Dept. of Pharmacy Faculty of Allied Health Sciences University of Peradeniya	Investigation of acetylcholine esterase inhibitory activity of Sri Lankan grown spices as potential therapeutic agents for Alzheimer's disease	2,385,000/-
RG/2016/HS/05 (2 Years)	Prof. Neelika Malavige Dept. of Microbiology Faculty of Medical Sciences, University of Sri Jayawardenepura Dr Ananda Wijewickrama Infectious Disease Hospital, Gothatuwa, Angoda	Determining the functionality and phenotype of T cell responses that associate with protection in acute dengue infection	6,105,000/-

Working Committee on Oceanography and Marine Sciences

Grant No. & Duration	Grantee(s)/Institute	Project Title	Total Allocation (Rs.)
RG/2016/OMR/01 (2 Years)	Dr M.D.S.T. de Croos Department of Aquaculture & Fisheries Faculty of Livestock Fisheries & Nutrition Wayamba University of Sri Lanka	Generation of new knowledge for sustainable resource usage: Jellyfish resource off Sri Lankan waters	3,121,168/-

Research Grants Completed during – 2016

Working Committee on Agriculture & Food Science

Grant No. & Duration	Grantee(s)/Institute	Project Title	Total Allocation (Rs.)
RG/2010/AG/03 (3 Years)	Dr (Mrs.) D.S.M. De Silva Prof. (Mrs) S. Wimalasena Dept. of Chemistry Faculty of Science University of Kelaniya	Selenium content in agricultural crops and diets of the Sri Lankan population	1,230,020/-
RG/2011/AG/02 (3 Years)	Dr Jaanaki Gooneratne ITI, Bauddhaloka Mawatha Colombo 07	Value addition to fruits and vegetables by clarifying, concentrating, separation of bioactive components using membrane filtration technology and process modeling	1,920,000/-
RG/2011/AG/04 (3 Years)	Prof. R.M.C.P. Rajapaksha Dept. of Soil Science Faculty of Agriculture University of Peradeniya	Isolation and screening of beneficial arbuscularmycorrhize for exotic vegetables grown in the up country of Sri Lanka and production of mass cultures for inoculation	1,364,700/-
RG/2012/AG/01 (3 Years)	Prof. U.L.B. Jayasinghe Natural Products Division, National Institute of Fundamental Studies	Chemistry and bioactivity of some popular edible fruits: Studies on possible application in health and agriculture	2,300,964/-
RG/2012/AG/03 (2 1/2 Years)	Dr (Mrs) J.W. Damunupola Dr W.A.M. Daudasekara Dept. of Botany Faculty of Science University of Peradeniya Dr S.A. Krishnarajah Dr D.S.A. Wijesundara Royal Botanical Gardens, Peradeniya	Growth responses of <i>Ophiopogon japonicus</i> ('Silver dragon' or 'Mondo grass') for differential potting media, plant growth hormones and fertilizer treatments	1,651,720/-
RG/2012/AG/05 (2 Years)	Dr D.L.C. Kumari Fonseka Prof. S.S. Subasinghe Department of Crop Science Faculty of Agriculture University of Ruhuna Sheron Weerasooriya Agronomy and Plant Breeding Division Cinnamon Research Institute Palopitiya, Thihagoda	Mass Production of Elite Cinnamon (<i>Cinnamomum verum</i> Presl.) lines through in-vitro Culture	1,332,980/-

Working Committee on Basic Sciences

Grant No. & Duration	Grantee(s)/Institute	Project Title	Total Allocation (Rs.)
RG/2011/BS/04 (1 1/2 Years)	Dr Nilmini Jayasena Dept. of Basic Veterinary Sciences Faculty of Veterinary Medicine & Animal Science University of Peradeniya	Who listens to whom? Interspecific communication between common palm squirrels and yellow-billed babbler for predator awareness	556,124/-

RG/2011/BS/06 (3 Years)	<p>Dr Pradeepika Saputhanthri Dept. of Plant Sciences Faculty of Science University of Colombo</p> <p>Dr G.A.S. Premakumara Director General, ITI, Bauddhaloka Mawatha, Colombo 07</p> <p>Dr Hashendra Kathriarachchi Dept. of Plant Sciences University of Colombo</p>	Bioassay guided fractionation and isolation of bioactive natural compounds from bryophytes	1,859,000/-
RG/2011/NANO/01 (3 Years)	<p>Prof. L. Karunanayake Dept. of Chemistry University of Sri Jayawardenepura</p> <p>Dr Shantha Amarasinghe SLINTEC</p> <p>Prof. Veranja Karunarathna Dept. of Chemistry Faculty of Science University of Peradeniya</p> <p>Dr Masilamani Koneswaran Dept. of Chemistry Faculty of Science Eastern University of SL</p>	Water based UV -curable polyurethane latex coatings with nano - particles to impart special properties	1,908,500/-
RG/2012/BS/01 (3 Years)	<p>Dr H.K.I. Perera Dept. of Biochemistry Faculty of Medicine University of Peradeniya</p> <p>Prof. U.L.B. Jayasinghe Natural Products Division National Institute of Fundamental Studies, Hantana Road, Kandy</p> <p>Prof. R. Sivakanesan Dept. of Biochemistry Faculty of Medicine University of Peradeniya</p>	Identification and isolation of potential antidiabetic compounds from Sri Lankan medicinal plants	1,306,000/-
RG/2012/BS/04 (3 Years)	<p>Prof. M.A.K.L. Dissanayake National Institute of Fundamental Studies Hantana Road, Kandy</p> <p>Dr G.K.R. Senadeera The Open University of Sri Lanka, Polgolla, Kandy</p>	Optimization of the growth process of cadmium sulfide (CdS) semiconductor thin films for efficiency enhancement in CdS/CdTe solar cells	2,800,000/-
RG/2012/BS/05 (3 Years)	<p>Prof. Namal Priyantha Dept. of Chemistry University of Peradeniya Peradeniya</p>	Investigation of sorption of industrial pollutants on selected natural substances and development of a pilot scale treatment facility for industrial effluent	2,710,895/-

Working Committee on Biotechnology

Grant No. & Duration	Grantee(s)/Institute	Project Title	Total Allocation (Rs.)
RG/2010/BT/04 (3 Years)	Dr Sulochana Wijesundera Dept. of Biochemistry & Molecular Biology, Faculty of Medicine Dr V. Chandrasekaran Dept. of Chemistry University of Colombo	Construction and Characterization of expression vector cassettes containing genes for wheat proteins, gliadin and glutenins - towards the development of Wheat - like rice	2,607,456/-
RG/2011/BT/01 (3 Years)	Dr Devika M. De Costa Dept. of Agricultural Biology Faculty of Agriculture University of Peradeniya	Development of a molecular detection system of causal agents for controlling virus and virus-like diseases of chilli (<i>Capsicum annum L.</i>) in Sri Lanka	3,581,997/-
RG/2011/BT/02 (3 Years)	Dr N.S. Kottearachchi Dept. of Biotechnology Fac. of Agriculture and Plantation Management, Wayamba University Dr Gamini Samarasinghe Biotechnology Unit, RRDI, Batalegoda	Molecular mapping for improved salinity tolerance in rice	1,519,000/-
RG/2011/BT/03 (3 Years)	Prof. Kamani Tennekoon Inst. of Biochemistry Molecular Biology and Biotechnology (IBMBB) Dr Shamy de Silva Dept. of Paediatrics Dr Faiz Marikar IBMBB, University of Colombo	Characterization of mutations and sequence variants of Growth Hormone (GH) and Growth Hormone Releasing Hormone Receptor (GHRH-R) in a cohort of Sri Lankan children with GH deficiency	2,997,926/-
RG/2011/BT/05 (3 Years)	Dr (Mrs) Radhika Samarasekera Herbal Technology Section ITI, 363, Baudhaloka Mawatha, Colombo - 07 Dr O.V.D.S.J. Weerasena IBMBB, University of Colombo	Development of <i>Bacillus thuringiensis</i> (<i>Bt</i>) microbial pesticide with enhanced and broad spectrum activity to control rice and vegetable pests	4,008,000/-
RG/2011/BT/06 (3 Years)	Dr Shyama R. Weerakoon Dept. of Botany The Open University of Sri Lanka Nawala Ms. A.S.K Abeysekera RRDI Dr O.V.D.S.J. Weerasena IBMBB, University of Colombo	Assessment of Genetic diversity and tracing the origin of weedy rice population found in rice fields in Sri Lanka	2,289,852/-
RG/2011/BT/10 (3 Years)	Prof. T.D. Silva Dept. of Plant Sciences Faculty of Sciences University of Colombo Ms. N.P.S. de Silva RRDI	Anther culture with local <i>Oryza sativa</i> subsp. <i>Indica</i> (rice) germplasm for doubled haploid production	3,000,000/-

RG/2011/BT/11 (2 Years)	Prof. H.B.S. Ariyaratne Dr D.M.S. Munasinghe Dr L.G. Sampath Lokugalappatti Dr Anura P. Jayasooriya Dept. of Basic veterinary Sciences, Faculty of Veterinary Medicine and Animal Sciences University of Peradeniya	Genetic characterization of Sri Lankan indigenous goats (<i>Capra hircus</i>) using DNA based technologies	1,859,000/-
RG/2012/BT/01 (2 Years)	Dr H.A.M. Wickramasinghe Dept. of Agricultural Biology Faculty of Agriculture University of Peradeniya	Genomics and proteomic approaches of identifying dehydration stress responsive genes from selected rice varieties in Sri Lanka	2,706,350/-

Working Committee on Environment & Biodiversity

Grant No. & Duration	Grantee(s)/Institute	Project Title	Total Allocation (Rs.)
RG/2012/NRB/01 (3 Years)	Prof E.D. de Silva Dept. of Botany University of Colombo	Isolation of antimicrobial compounds from endophytic fungi of endemic flora of Sri Lanka	4,255,000/-
RG/2011/NRB/03 (3 Years)	Prof Deepthi Yakandawala Dept. of Chemistry University of Peradeniya	Taxonomic study on <i>Nymphaea nouchali</i> Burm.f. and identification of hybrid taxa using molecular data	3,285,422/-

Working Committee on Health Sciences

Grant No. & Duration	Grantee(s)/Institute	Project Title	Total Allocation (Rs.)
RG/2006/HS/05 (3 Years)	Dr M.K. Pathmanathan Dept. of Botany Dr J.P. Jeyadevan Dept. of Chemistry University of Jaffna	Isolation and characterization of novel anti-bacterial and anti-dipteran lead molecules from medicinal plants	3,565,275/-
RG/2009/HS/01 (2 Years)	Prof. R.P.V.J. Rajapakse Dept. of Veterinary Pathobiology Faculty of Veterinary Medicine & Animal Science Dr S.A.M. Kularathne Dept. of Medicine Faculty of Medicine University of Peradeniya	Preliminary investigation of Rickettsial infections in human in Sri Lanka: Special Reference on species Identification, Diagnosis, Transmission and Reservoir Animals Studies	2,185,000/-
RG/2011/HS/09 (2 Years)	Dr Sharmini Gunawardena Prof. Nadira Karunaweera Dept. of Parasitology Faculty of Medicine University of Colombo	Screening for Glucose-6-Phosphate Dehydrogenase (G6PD) enzyme deficiency among a selected population within the districts of Kurunegala and Anuradhapura	985,700/-

RG/2011/HS/11 (2 Years)	Dr Sulochana Wijetunga Dept. of Pathology Dr K.B. Galketiya Department of Surgery Faculty of Medicine University of Peradeniya	<i>Helicobacter pylori</i> detection by histology in endoscopic biopsy specimens: assessment of the detection rate and an analysis of associated problems	615,800/-
RG/2011/HS/17 (2 Years)	Dr D.W.N. Dissanayake Dr P.M. Atapattu Dept. of Physiology Faculty of Medicine University of Colombo	The effects of vitamin B12 deficiency on the central and peripheral neurophysiological parameters in patients on long term metformin treatment	883,800/-
RG/2011/HS/19 (3 Years)	Dr Shiroma Hadunnetti IBMBB Prof. Senaka Rajapakse Department of Clinical Medicine, Faculty of Medicine Prof. Sunil Premawansa Department of Zoology Faculty of Science University of Colombo Prof. Janaka De Silva Faculty of Medicine University of Kelaniya	Studies on comparing immunodiagnostic methods and immune status of leptospirosis patients in Colombo and Gampaha Districts	3,513,292/-
RG/2014/HS/07 (1 1/2 Years)	Dr N.M. Carukshi K. Arambepola Dept. of Community, Medicine Dr M.G.B Senanayake Department of Community Medicine, Fac. of Medicine University of Colombo	Prevalence and social determinants of chronic stress and its association with selected mental disorders among adults in the district of Colombo	862,680/-

Working Committee on Science & Technology Policy Research

Grant No. & Duration	Grantee(s)/Institute	Project Title	Total Allocation (Rs.)
RG/2011/STP/02 (3 Years & 7 Months)	Prof. Ajith de Alwis Dept. of Chemical & Process Engineering, University of Moratuwa	An extended analysis of biofuels for the Sri Lankan transportation sector; Techno-economics and national opportunity for carbon trading	2,967,000/-

Working Committee on Social Sciences

Grant No. & Duration	Grantee(s)/Institute	Project Title	Total Allocation (Rs.)
RG/2014/SS/01 (2 1/2 Years)	Dr A. Balasuriya Faculty of Medicine General Sir John Kotalawala Defence University	An intervention study on effectiveness of parenting	992,320/-
RG/2015/SS/01 (1 Year)	Dr S.M.P Chandra Padmini Council for Agricultural Research Policy	Development of floricultural supporting networks for women growers in Sri Lanka	1,315,750/-

Summary of Research Grants Scheme - 2016

		Agriculture & Food Science	Basic Sciences	Biotechnology & Bioethics	Environment & Biodiversity	Engineering, Architecture & ICT	Health Sciences	Indigenous Knowledge Sciences	Social Sciences	Science Education	S & T Policy Studies	Oceanography & Marine Sciences	Total
01	Total no of ongoing grants as at 31.12.2016	21	12	18	26	06	28	01	02	-	-	02	116
02	Applications received in 2015 for awarding grants in 2016	20	27	10	15	04	19	01	-	03	02	03	104
03	Applications received in 2016	07	09	01	08	03	08	-	01	-	-	-	37*
04	Grants awarded	03	05	04	05	01	05	-	-	-	-	01	24
05	Grants completed	06	06	09	02	-	07	-	02	-	01	-	33
06	Grants withdrawn	-	-	-	-	-	-	-	-	-	-	-	-
07	Grants terminated	-	-	-	-	-	-	-	-	-	-	-	-
08	RSs appointed/to be appointed	06	04	04	04	01	04	-	-	-	-	01	24
09	RSs registered for postgraduate degree/ to be registered for post graduate degree	03	04	03	03	-	02	01	-	-	-	-	16
10	TAs appointed/to be appointed	02	01	-	01	02	06	01	-	-	-	-	13
11	Postgraduate degrees obtained												
	PhD	-	01	01	01	-	02	-	-	-	-	-	05
	MPhil	02	03	02	01	-	02	-	-	-	-	-	10
	MSc	-	-	-	-	-	-	-	-	-	-	-	-
	MD	-	-	-	-	-	01	-	-	-	-	-	01
12	No of publications arising from grants (Foreign)	01	04	04	02	02	12	-	01	-	-	-	26
13	No of publications arising from grants (Local)	02	-	03	02	06	-	-	04	-	04	-	21
14	Communications	06	19	54	05	01	23	01	02	-	-	02	113

* - Being Processed.

Ongoing Projects of the National Thematic Research Programme on Food Security - 2016

Programme	Grant No	Project leader	Title
01	NTRP/2012/FS/PG-01/P-01	Dr R.M. Herath Department of Agriculture	Development of web based crop forecasting system in Sri Lanka
	NTRP/2012/FS/PG-01/P-02	Prof. G.N. Wikramanayake University of Colombo School of Computing	A social life network to enable farmers to meet the varying food demands of the population, by providing needed information just in time and better monitoring and management of crop production
02	NTRP/2013/FS/PG-02/P-01	Prof. K.K.D.S. Ranaweera Dept. of Food Science and Technology University of Sri Jayawardhenepura	Application of novel techniques to minimize postharvest losses of five selected fruit and vegetable varieties
	NTRP/2013/FS/PG-02/P-02	Dr H.L.D. Weerawewa Dept. of Botany, Open University of Sri Lanka	Food security through adoption of pre-harvest technologies: Improving quality of fresh produce by soil application of potassium and silicon
03	NTRP/2012/FS/PG-03/P-01	Dr T.B. Ananda Jayalal Ministry of Health	Establishing a national system for ensuring microbiological food safety
04.	NTRP/2012/FS/PG-04/P-01	Prof. Udith K. Jayasinghe Mudalige Dept. of Agribusiness Management, Faculty of Agriculture & Plantation Management University of Wayamba	Assessing internal and external trade policies and practices affecting food security in Sri Lanka, and identifying areas for improvement
	NTRP/2012/FS/PG-04/P-02	Dr Athula Senarathna Institute of Policy studies	A study of supply and price behavior relating to selected crops and livestock products in Sri Lanka
05	NTRP/2012/FS/PG-05/P-01	Dr S. Pathmarajah Dept. of Agric. Engineering, Faculty of Agriculture University of Peradeniya	Development of household food security models for poverty stricken areas of Sri Lanka
	NTRP/2012/FS/PG-05/P-02	Prof. G. Mikunthan Dept. of Agric. Biology, Faculty of Agriculture, University of Jaffna	Development of sustainable integrated food production systems to enhance household food and nutritional security, economic growth and livelihood of resource poor families in the Northern region of Sri Lanka

Research Equipment Grants - Awarded - 2016

#	Applicant / Designation & Institute	Responsible Officer for the Equipment	Equipment	Approved Amount (Rs.)
1	Prof. K R R Mahanama Dean, Faculty of Science University of Colombo	Prof. Preethi Udagama Department of Zoology University of Colombo	Laboratory Autoclave	741,813/-
2	Prof. K R R Mahanama Dean, Faculty of Science University of Colombo	Prof. Preethi Udagama Department of Zoology University of Colombo	Ultra Low Temperature Freezer (-860C)	1,332,000/-
3	Prof. Kapila Seneviratne Dean, Faculty of Science, University of Kelaniya	Prof. Kapila Seneviratne Department of Chemistry, Faculty of Science, University of Kelaniya	L1600000A Perkin Elmer SpectrumTwo FTIR with a computer and a printer	4,190,000/-
4	Prof. Kapila Seneviratne Dean, Faculty of Science, University of Kelaniya	Mr M.M. Gunawardena Department of Microbiology, Faculty of Science, University of Kelaniya	Anaerobic Growth Chamber	4,264,620/-
5	Dean Faculty of Agriculture University of Peradeniya	Dr Suranga Kodithuwakku Department of Animal Science, Faculty of Agriculture, University of Peradeniya	Inverted Florescence Microscope	4,588,330/-
6	Director Tea Research Institute of Sri Lanka Talawakelle	Dr N.P.S.N. Bandara Agronomy Division, Low country Station, Tea Research Institute of Sri Lanka, Ratnapura	Photosynthesis system with soil respiration chamber (compact & portable)	4,571,000/-
7	Dean Faculty of Science Eastern University Chenkakalady	Dr M. Vinobaba Department of Zoology, Faculty of Science, Eastern University	Euduro TM Horizontal Gel Boxes	166,500/-
8	Dean Faculty of Science Eastern University Chenkakalady	Dr M. Vinobaba Department of Zoology, Faculty of Science, Eastern University	Micro centrifuge	271,950/-
9	Dean Faculty of Science Eastern University Chenkakalady	Dr M. Vinobaba Department of Zoology, Faculty of Science, Eastern University	High performance gradient thermal cycler	495,000/-
10	Dean Faculty of Arts University of Peradeniya Peradeniya	Prof. P. Wicramagamage Department of Geography, Faculty of Arts, University of Peradeniya	Frantz Laboratory Isodynamic Separator	5,000,000/-
11	Director National Institute of Fundamental Studies Hantana Road, Kandy	Dr N.D. Subasinghe Department of Geophysics National Institute of Fundamental Studies, Hantana Road, Kandy	Proton Precision Magnetometer	1,500,000/-

12	Dean Faculty of Science University of Colombo Colombo 03	Prof. K.P.S. Chandana Jayaratne Department of Physics Faculty of Science University of Colombo	Selective Radiation Meter	2,100,000/-
13	Dean Faculty of Medicine University of Colombo Colombo 08	Dr Enoka Corea Department of Microbiology Faculty of Medicine, University of Colombo	Bio-safety level 2 safety cabinet	1,148,184/-
14	Dean Faculty of Agriculture University of Peradeniya Peradeniya	Prof. W.A.J.M. De Costa Department of Crop Science Faculty of Agriculture University of Peradeniya	Water Potential Meter	2,216,004/-
15	Dean Faculty of Agriculture University of Peradeniya Peradeniya	Dr K.W.L.K. Weerasinghe Department of Crop Science Faculty of Agriculture University of Peradeniya	Portable Photosynthesis Meter	3,799,000/-
16	Dean Faculty of Science University of Peradeniya Peradeniya	Dr G.A.D. Perera Department of Botany Faculty of Science University of Peradeniya	Plant Growth Chamber	1,887,000/-
17	Director Coconut Research Institute Lunuwila	Dr Chandi Yalgama Coconut Processing Research Division, Coconut Research Institute, Lunuwila	Fat extractor (Soxhlet extractor)	1,942,500/-
18	Director Coconut Research Institute Lunuwila	Dr Chandi Yalgama Coconut Processing Research Division, Coconut Research Institute, Lunuwila	Gas Chromatograph	4,414, 086/-
19	Director Coconut Research Institute Lunuwila	Dr A.D.N.T. Kumara Crop Protection Division, Coconut Research Institute, Lunuwila	Electrophysiological laboratory equipment for insect research (GC EAD + SSR Set up)	5,000, 000/-
20	Dean Faculty of Medicine University of Colombo, Colombo 08	Prof. Mangala Gunathilake Department of Physiology Faculty of Medicine University of Colombo	Ultra Low Freezer	2,553,000/-
21	Dean College of Chemical Sciences Institute of Chemistry Ceylon 341/22, Kotte Road Welikada, Rajagiriya	Prof. K.A.S. Pathiratne College of Chemical Sciences Institute of Chemistry Ceylon 341/22, Kotte Road Welikada, Rajagiriya	Microwave digester	2,025,464/-
22	Dean Faculty of Agriculture University of Peradeniya Peradeniya	Prof. Devika M. De Costa Department of Agricultural Biology Faculty of Agriculture University of Peradeniya	- 860C Ultra Low Temperature Deep Freezer	1,578,087/-
23	Dean Faculty of Science University of Peradeniya Peradeniya	Dr Chamara Jayasundera Department of Chemistry Faculty of Science University of Peradeniya	UV Visible Spectrophotometer	2,850,000/-

24	Dean Faculty of Science University of Peradeniya Peradeniya	Prof. R.M.G. Rajapaksha Department of Chemistry, Faculty of Science, University of Peradeniya	930 Compact IC Flex	5,000,000/-
25	Dean Faculty of Engineering University of Moratuwa Moratuwa	Ms Nilanthi Gunathilake Environmental Engineering Laboratory Department of Civil Engineering University of Moratuwa	Vacuum Filtration System (Vac - Elute manifold)	866,910/-
26	Dean Faculty of Engineering University of Moratuwa Moratuwa	Ms Nilanthi Gunathilake Environmental Engineering Laboratory Department of Civil Engineering University of Moratuwa	Rotary Evaporator	1,063,635/-
27	Dean Faculty of Engineering University of Moratuwa Moratuwa	Ms Nilanthi Gunathilake Environmental Engineering Laboratory Department of Civil Engineering University of Moratuwa	Analytical Balance	4,247,235/-

Grand Total = Rs. 69,812,318 /-

Spare Parts for Research Equipment Grants - Awarded 2016

#	Applicant Designation & Institute	Spare Parts	Estimated Cost (Rs)	Sub Total (Rs)
1.	Dr Pulani Lanerolle Dept. of Biochemistry & Molecular Biology, Faculty of Medicine, University of Colombo	Equipment - HPLC 228-35281-91 Plunger holder assay (2 Qty) 228-35146 Seal 42455 (2 Qty) 228-34016-02 Deuterium lamp L6585-05 80+ /10V (1 Qty) Deuterium Lamp, L6380 80V (1 Qty) Halogen Lamp NA55917 12V (1 Qty)	139,708.80 39,372.48 139,708.80 78,321.60 12,700.80	409,812.48
2.	Dr Nanda Gunawardena Director International Research Centre University of Peradeniya	Equipment - Scanning Electron Microscope (SEM) Filaments (50 Qty) Stage O-ring (03 Qty) Gun O-ring (03 Qty) Aperture O-ring (03 Qty) Aperture 20 micron 2MM Platinum (02 Qty) Aperture 30 micron 2MM Platinum (02 Qty) 100µm Platinum VP Aperture Vat (11%)	237,550.00 52,311.00 28,197.00 24,228.00 63,400.00 63,400.00 55,460.00 57,700.06	582,246.06
3.	Prof. N.A.K.P.J. Seneviratne Dean Faculty of Science University of Kelaniya	Equipment - Rotary Evaporator (Model No. HS - 2005V) Vaccump Pump (1 unit) Vat (11%)	185,000.00 20,350.00	205,350.00

#	Applicant Designation & Institute	Spare Parts	Estimated Cost (Rs)	Sub Total (Rs)
4.	Prof. N.A.K.P.J. Seneviratne Dean Faculty of Science University of Kelaniya	<u>Equipment - Agilent 1100 liquid chromatographic system</u> Stator Face assy for 5063 - 6502 valve : 1 unit (model No.0100 - 1859) Stator for G1328A manual injector : 1 unit (Model No. 0100 - 1860) Bearing Ring : 1 qty SEAL, ISOLATION : 1 unit (Model No. 1535 - 4046) Vat (11%)	49,060.00 130,480.00 3,730.00 5,460.00 20,760.30	209,490.30
5.	Dr Sisira Ediriweera Department of Science and Technology Uva Wellassa University	<u>Equipment - Light Sensor Logger and Quantum Sensors</u> LI-1500 Light Sensor Logger and Delivery cost	345,000.00	345,000.00
6.	Mr K. Prashanthan Department of Physics University of Jaffna	<u>Equipment - Solar Simulator</u> 150 W Adjustable Power Supply with Touchscreen	500,000.00	500,000.00

Technology grants awarded - 2016

Grant No:	Project title	Duration	Total budget (Rs.)
TG/2016/Tech-D/01	Cloud based software and hardware platform for early detection of kidney diseases and severe stages of dengue by non- invasive monitoring of endothelial function	12 months	7,174,325/-
TG/2016/Tech-D/02	Synthesis and commercialization of value added products from Sri Lankan dolomitic lime	3 years	20,000,000/-
TG/2016/Tech-D/03	Development and Validation of an Administration and Analysis Software for 3 Neuropsychological Scales in Sinhala and Tamil	12 months	669,543/-
TG/2016/Tech-D/04	Development of the truck-trailer combination vehicle to suit the road network of Sri Lanka	12 months	1,940,000/-
TG/2016/Tech-D/05	Introduce most effective and efficient colour and clarity enhancement methods for Semi precious gem minerals found in gem gravel beds in Sri Lanka	3 years	9,975,088/-
TG/2016/Tech-D/06	Development and introduce a low cost highly nutritious beverage from whey protein, a byproduct of cheese factory	1 1/2 years	3,742,000/-
TG/2016/Tech-D/07	Making an improved screen printing machine	9 months	188,720/-
TG/2016/Tech-D/08	Manufacturing of compost blocks using invasive freshwater plants and introduce to the market	6 months	1,389,000/-

Projects selected for NSF Technology Awards/ Certificate of Commendation 2015

Award/ Certificate of Commendation	Grant Details	Team Leader/ Team Member/s - Affiliation Collaborator
Award	<p>Grant No.: TG/ 2012/ Tech-D/ 04</p> <p>Title : High performance lighter weight prosthetic foot based on hybrid nanomaterial filled natural rubber nanocomposite</p>	<p>Team Leader :</p> <p>Dr Upul Ratnayake Senior Research Officer Rubber Research Institute</p> <p>Team Members Ms Dilhara Edirisinghe Mr Sampath Wickramage</p>
Certificate of Commendation	<p>Grant No.: TG/ 2011/ tech-D/ 03</p> <p>Title : COP Sayura: A three dimensional coastal surveillance system for SLN high command</p>	<p>Team Leader :</p> <p>Prof. N.D. Kodikara University of Colombo School of Computing</p> <p>Team Members Rear Admiral (L) K.R. Senadheera (Rtd) Prof. R.S.D. Rosa G.K.A. Dias Dr C.I. Keppitiyagama Dr K.D. Sandaruwan</p>

SUSRED AWARDS 2016

- MPhil -

	Names and affiliations of Supervisory Team	Title of the Thesis
1.	Dr Lanka Ranawake Department of Agricultural Biology Prof. S. Subasingha Department of Crop Science Faculty of Agriculture, University of Ruhuna	Submergence tolerance of selected traditional rice cultivars of Sri Lanka with respect to SUB 1A gene
2.	Prof. P.A. Paranagama Dr Suranga Wickramarachchi Department of Chemistry Faculty of Science, University of Kelaniya	New bioactive secondary metabolites from selected endolichenic fungi occurring in two lichens, <i>Parmotrema sp.</i> and <i>Usnea sp.</i> collected from Hakgala Botanical Garden
3.	Dr D.H.N. Munasinghe Department of Zoology Faculty of Science, University of Ruhuna	Investigation of genetic structure and habitat characteristics of commercially important lobster <i>Panulirus homarus</i> in Southern coastal belt of Sri Lanka
4.	Prof. S.B. Navaratne Dr Indira Wickramasinghe Department of Food Science & Technology Faculty of Applied Sciences University of Sri Jayawardenepura	Fortification of selected food products with natural antioxidants by incorporating dehydrated fruits and vegetables
5.	Dr K.R. Gamage Department of Fisheries & Aquaculture Faculty of Fisheries and Marine Sciences & Technology Prof. Vajira Bulugahapitiya Department of Chemistry Faculty of Science, University of Ruhuna	Evaluation of alternative feed ingredients for preparation of low cost fish feed for sustainable ornamental aquaculture industry in Sri Lanka
6.	Dr Prasad M. Jayaweera Department of Computer Science, Faculty of Applied Sciences University of Sri Jayawardenepura	Legal ontology driven legal service process management
7.	Prof. H.A. Dharmagunawardhane Department of Geology Faculty of Science, University of Peradeniya	Assessing geo-thermal energy development potential in some thermal spring areas of Sri Lanka
8.	Prof. H.M.T.G.A. Pitawala Dr Jagath Gunatilake Department of Geology Faculty of Science, University of Peradeniya	Assessment of heavy metal pollution in sediments, dust and surface soils in the Colombo metropolitan region
9.	Prof. R.G.N. Meegama Department of Computer Science Prof. M.M. Pathmalal Department of Zoology, Faculty of Applied Sciences, University of Sri Jayawardenepura Dr M.K. Jayananda Department of Physics, Faculty of Science, University of Colombo	Single chip wireless sensor node for in-situ measurement of selected water quality parameters

- PhD -

	Names and affiliations of Supervisory Team	Title of the Thesis
1.	Prof. C.A.N. Fernando Department of Electronics, Faculty of Applied Sciences Wayamba University of Sri Lanka	Synthesis of p-CuI films sensitized with quantum dots of Cu ₂ O for chemical storage and solar cell applications
2.	Prof. C.A.N. Fernando Department of Electronics, Faculty of Applied Sciences Wayamba University of Sri Lanka	Fabrication and characterization of Cu ₂ O and CuI based solar cell devices
3.	Prof. C.A.N. Fernando Department of Electronics, Faculty of Applied Sciences Wayamba University of Sri Lanka	Investigation of junction effects of n-Cu ₂ O thin films coupled with coconut shell activated carbon and graphene for solar energy conversion devices
4.	Prof. T.S.G. Peiris Department of Mathematics, Faculty of Engineering University of Moratuwa	Semi-elliptical exponentially weighted moving average scheme for jointly monitoring mean and variance of Gaussian processes
5.	Prof. Nedra Karunaratne Prof. Veranja Karunaratne Prof. A.D.L.C. Perera Department of Chemistry Faculty of Science, University of Peradeniya	Improving the bioavailability of bioactive components for drug and cosmetic based applications
6.	Prof. D.U.J. Sonnadara Department of Physics Faculty of Science, University of Colombo	High resolution climate change projection for Sri Lanka
7.	Prof. R.M.G. Rajapakse Department of Chemistry, Faculty of Science Dr H.M.T.U. Herath Department of Medical Laboratory Science Faculty of Allied Health Sciences University of Peradeniya	Synthesis of hydroxyapatite nanomaterials for their potential use in fabrication of bone-implants
8.	Dr Srimathie Indraratne 515, Poratage Avenue, Winnipeg Canada Prof. Rohan Weerasooriya Dr U.W.A. Vitharana Department of Soil Science Faculty of Agriculture, University of Peradeniya	Investigation of background concentrations and behavior of trace metals in a selected soil association of dry zone of Sri Lanka
9.	Dr G.R.A. Kumara Prof. R.M.G. Rajapakse Department of Chemistry Faculty of Science, University of Peradeniya	Development of atomized spray pyrolysis for fabrication of thin films and development of dye-sensitized solid-state solar cells
10.	Prof. M.M. Pathmalal Prof. B.G.D.N.K. de Silva Department of Zoology Dr S.D.M. Chinthaka Department of Chemistry, Faculty of Applied Sciences University of Sri Jayawardenepura	Isolation, identification and characterization of microcystin degrading bacteria for water treatment solution

11.	<p>Prof. M.M. Pathmalal Department of Zoology Faculty of Applied Sciences University of Sri Jayawardenepura</p> <p>Prof. Kamani Tennekoon IBMBB, University of Colombo</p> <p>Prof. B.G.D.N.K. de Silva Department of Zoology Faculty of Applied Sciences University of Sri Jayawardenepura</p>	Molecular identification of toxigenic cyanobacteria and effects of cyanotoxins on human renal cell lines
12.	<p>Dr D.G.G.P. Karunaratne Department of Chemical & Process Engineering Faculty of Engineering</p> <p>Prof. H.M.T.G.A. Pitawala Department of Geology Faculty of Science, University of Peradeniya</p>	Petrographical and geochemical characteristics of Sri Lankan marbles and carbonatites: implications for their genesis and economic potential
13.	<p>Dr D.G.G.P. Karunaratne Department of Chemical & Process Engineering Faculty of Engineering</p> <p>Prof. H.M.T.G.A. Pitawala Department of Geology</p> <p>Prof. R.M.G. Rajapakse Department of Chemistry Faculty of Science, University of Peradeniya</p>	Nanomaterials from impure marbles: synthesis, characterization and specific properties
14.	<p>Prof. R.G.N. Meegama Department of Computer Science Faculty of Applied Sciences University of Sri Jayawardenepura</p> <p>Prof. M. Kapurubandara Sri Lanka Institute of Information Technology (SLITT)</p>	Active contour based medical image segmentation
15.	<p>Prof. W. Abeywickreme Department of Parasitology</p> <p>Dr Menaka Hapugoda Molecular Medicine Unit</p> <p>Prof. A.R. Wickremasinghe Department of Public Health Faculty of Medicine, University of Kelaniya</p>	Distribution of major and potential malaria vectors in Mannar and Trincomalee districts and systematic of anophelines in Sri Lanka

NASTA awards/ Certificate of Merit recipients under different categories and their projects

National Awards

Merit Award winner	Project title	Category
Jlanka Power & Energy (Pvt) Ltd.	Online Electricity Monitoring & Controlling System	Innovative applications of advanced technologies

Grants for Scientific Meetings and Training Programs 2016

#	Sponsorship	Organization	Category	Amount (LKR)
1.	South Asian Regional Conference of Family Doctors 2016	College of General Practitioners (SL)	Medical Science	200,000/-
2.	8 th Biennial Scientific Sessions of the Allergy and Immunology Society of Sri Lanka	Allergy and Immunology Society of Sri Lanka	Medical Science	230,000/-
3.	25 th Anniversary Medical Exhibition	University of Kelaniya	Medical Science	100,000/-
4.	Annual Academic Sessions 2016 of College of Pathologists of Sri Lanka on Breast and Female Genital tract Pathology	College of Pathologists of Sri Lanka	Medical Science	400,000/-
5.	24 th Triennial Conference of the Commonwealth Medical Association	Health Informatics Society of Sri Lanka	Medical Science	2,000,000/-
6.	Annual Scientific Sessions of the Physiological Society of Sri Lanka 2016	Medical Science	Medical Science	175,000/-
7.	Workshop on "A step-wise approach to understand the unknown aspects of CKDu in Sri Lanka: Establishing a community-based surveillance and longitudinal cohorts"	NSF in collaboration with WHO	Medical Science	-
8.	1 st Clinical Nutrition Annual Academic Sessions - 2016 of Sri Lanka Medical Nutrition Association	Sri Lanka Medical Nutrition Association	Medical Science	400,000/-
9.	Symposium on Cancer in Collaboration with National Science Foundation	University of Sri Jayewardenepura	Medical Science	1,200,000/-
10.	Annual Scientific Sessions 2017 of Medical Sciences,	University of Sri Jayewardenepura	Medical Science	400,000/-
11.	3 rd Biennial Conference of the Sri Lanka Association for Child Development	Sri Lanka Association for Child Development	Medical Science	200,000/-
12.	International Symposium on Agriculture and Environment	University of Ruhuna	Agriculture	400,000/-
13.	Faculty of Agriculture Undergraduate Research Symposium	University of Peradeniya	Agriculture	400,000/-
14.	28 th Annual Congress of the Postgraduate Institute of Agriculture	University of Peradeniya	Agriculture	400,000/-
15.	10 th Annual Research Conference of Sri Lanka Agricultural Economics Association	Sri Lanka Agricultural Economics Association	Agriculture	51,000/-
16.	22 nd Annual Scientific Sessions of the Sri Lanka Association for Fisheries and Aquatic Resources (SLAFAR)	Sri Lanka association for Fisheries and Aquatic Resources	Agriculture	200,000/-

17.	South Asian Symposium for Sustainable Environmental Management (SASEM)	University of Peradeniya	Environment and Forestry	150,000/-
18.	International Forestry and Environment Symposium 2016	University of Sri Jayewardenepura	Environment and Forestry	250,000/-
19.	The National Conference on Understanding and Managing Unsettled Drought (NCUMUD - 2017)	Rajarata University of Sri Lanka	Environment and Forestry	263,000/-
20.	PGIS Research Congress 2016	University of Peradeniya	Science	300,000/-
21.	72 nd Annual Sessions of the Sri Lanka Association for the Advancement of Science	Sri Lanka Association for the Advancement of Science (SLAAS)	Science	1,269,526.24/-
22.	International Research Symposium - 2017 - Uva Wellassa University	Uva Wellassa University	Science	400,000/-
23.	Peradeniya University International Research Session (iPURSE)	University of Peradeniya	Science	400,000/-
24.	SLAYS Open Forum 2017 titled "Research for Impact : March of the Sri Lankan Young Scientists"	Sri Lanka Academy of Young Scientists	Science	1,744,000/-
25.	Workshop on Scientific Data Management, Analysis and Interpretation	Post Graduate Institute of Science (PGIS) - University of Peradeniya	Science	100,000/-
26.	Workshop on Scientific Writing	Post Graduate Institute of Science (PGIS) - University of Peradeniya	Science	120,000/-
27.	36 th Annual Sessions of the Institute of Biology	Institute of Biology	Biology	200,000/-
28.	Moratuwa Engineering Research Conference 2016	University of Moratuwa	Engineering	75,000/-
29.	12 th International Conference of the Institute for Infrastructure Resilience and Reconstruction (IIIRR) 2016	University of Peradeniya	Engineering	400,000/-
30.	Manufacturing and Industrial Engineering Symposium (MIES)	University of Peradeniya	Engineering	300,000/-
31.	International Conference on Cities, People and Places (ICCPP - 2016)	University of Moratuwa	Architecture	300,000/-
32.	FARU 2016 - 9 th International Conference on Architecture	University of Moratuwa	Architecture	520,000/-
33.	National Conference of Technology and Management - 2016 (5 th NCTM)	Sri Lanka Institute of Information Technology	Information and Communication Technology	150,000/-

34.	16 th International Conference on Advances in ICT for Emerging Regions (ICTer 2016)	University of Colombo School of Computing	Information and Communication Technology	300,000/-
35.	6 th National Conference on Technology and Management	Sri Lanka Institute of Information Technology	Information and Communication Technology	150,000/-
36.	The International Industrial Mathematics Conference	University of Sri Jayewardenepura	Mathematics	400,000/-
37.	5 th International Conference of Sri Lanka University Economists - Sri Lanka Economic Research Conference	University of Kelaniya	Business and Economics	200,000/-
38.	26 th Asian Economic Symposium	International Research Centre (InRC) University of Peradeniya,	Business and Economics	180,000/-
39.	32 nd Annual Technical Sessions and Annual General Meeting of Geological Society of Sri Lanka	Geological Society of Sri Lanka	Geology	200,000/-
40.	9 th Annual Research Conference of Royal Asiatic Society of Sri Lanka	Royal Asiatic Society of Sri Lanka	Arts - History, religions, languages, literature, arts, sciences and social conditions of Sri Lanka	300,000/-
41.	CVCD Excellence Awards	Committee of Vice Chancellors and Directors (CVCD)	-	1,500,000/-

Research Scholarships Awarded in 2016

#	Grant no & Duration	Scholar and Institution	Supervisors	Title
1.	NSF/SCH/2016/01 04 years	Dr Lalindra Sanjaya Kaththirarachchi Faculty of Graduate Studies University of Sri Jayawardenepura	Principal Supervisor Prof. S.W. Wimalasekara Department of Physiology Faculty of Medical Sciences University of Sri Jayawardenepura Co-Supervisors Prof. A.L.S. Mendis Department of Physiology Faculty of Medicine, University of Ruhuna Dr D.C. Hewage Department of Physiology Faculty of Medical Sciences University of Sri Jayawardenepura	Cognitive functions and associated psychosocial determinants of adolescents in Colombo District, Sri Lanka
2.	NSF/SCH/2016/02 03 years	Mr Ashoka Ranjeewa Deegoda Gamage Faculty of Science University of Colombo	Principal Supervisor Prof Devaka Weerakoon Department of Zoology Faculty of Science University of Colombo Co-Supervisors Dr Prithiviraj Fernando Centre for Conservation and Research No 35, Gunasekara Gardens, Nawala Road, Rajagiriya	The Asian elephant male: Behaviour and life stages of male Asian elephant in Udawalawe, Sri Lanka
3.	NSF/SCH/2016/03 02 years	Ms Abiramy Thurairajah Faculty of Agriculture University of Jaffna	Principal Supervisor Dr (Mrs) Nalina Gnanavelraja Faculty of Agriculture University of Jaffna Co-Supervisors Dr Renuka R. Ratnayake National Institute of Fundamental Studies	Isolation of denitrifying bacteria and their potential use in nitrate removal from well water of Jaffna district
4.	NSF/SCH/2016/04 03 years	Miss Joanne Tiphania Kotelawela Institute of Biochemistry, Molecular Biology and Biotechnology University of Colombo	Principal Supervisor Prof. Kamani H. Tennekoon Institute of Biochemistry, Molecular Biology and Biotechnology Co-Supervisors Dr Kanishka De Silva National Cancer Institute	Characterization of mitochondrial DNA mutations in the D-loop and mtDNA haplogroups in Sporadic Breast Cancer

5.	NSF/SCH/2016/05 01 year	Mrs D.M.C.M. Kumari Dassanayake Department of Food Science & Technology, Faculty of Livestock Fisheries and Nutrition, Wayamba University of Sri Lanka	Principal Supervisor Prof. C V L Jayasinghe Department of Food Science & Technology, Faculty of Livestock Fisheries and Nutrition, Wayamba University of Sri Lanka Co-Supervisors Dr M.A. Wijewardana Department of Mechanical Engineering, Faculty of Engineering, University of Moratuwa	Energy efficiency and renewable energy potential in the fruits and vegetable value chains in Sri Lanka
6.	NSF/SCH/2016/06 03 years	Miss Maduja Vyanga Manike Divarathna Department of Microbiology Faculty of Medicine University of Peradeniya	Principal Supervisor Dr F. Noordeen Department of Microbiology, Faculty of Medicine, University of Peradeniya Co-Supervisors Dr A.J Morel General Hospital, Kegalle	Characterization of respiratory syncytial and human metapneumo viruses causing acute respiratory tract infections in a selected cohort of hospitalized children in Sri Lanka

Research Scholarships Completed in 2016

#	Grant no & Duration	Scholar and Institution	Supervisor/s	Title
1.	NSF/SCH/2013/01 MPhil 2 1/2 Years	Ms Geethi Kaushalya Pamunuwa Dept. of Chemistry Faculty of Science Uni. of Peradeniya	Prof. V. Karunaratne Prof. N. Karunaratne Dept. of Chemistry Faculty of Science Uni. of Peradeniya	Liposomal preparations with improved properties for topical administration of ferulic acid and curcumin
2.	NSF/SCH/2013/03 MPhil 2 Years	Ms Achala Kamaladasa Dept. of Microbiology Uni. of Sri Jayawardenapura	Dr Neelika Malavige Dept. of Microbiology University of Sri Jayawardenapura	Investigation of innate immune responses to dengue virus
3.	NSF/SCH/2012/03 PhD 3 Years	Ms UTN Senarathne Dept of Microbiology Faculty of Medicine University of Peradeniya	Dr F. Noordeen Dept of Microbiology Faculty of Medicine University of Peradeniya	Role of virus encoded virulence determinants and pro-inflammatory cytokines in the pathogenesis of dengue virus infection
4.	NSF/SCH/2012/03 PhD 3 Years	Ms Shabrina Buharideen Dept of Pathology Faculty of Medicine University of Peradeniya	Dr S. Wijetunge Dept of Pathology Dr F. Noordeen Dept of Microbiology Faculty of Medicine University of Peradeniya	Histology, serology, one minute rapid urease test and polymerase chain reaction as diagnostic tools in detecting <i>Helicobacter pylori</i> infection in symptomatic patients with endoscopic mucosal abnormalities in the stomach

Travel Grants Awarded 2016

#	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
1.	Ms R.S. Hewawasam PhD Student Post Graduate Institute of Science University of Peradeniya, Peradeniya	Isolation and characterization of an ethanol resistant bacterium from sap of <i>Saccharum officinarum</i> for efficient fermentation <i>Oral Presentation</i>	18 th International Conference on Applied Bioscience and Biotechnology (ICABB 2016) Singapore 07 - 08 January 2016
2.	Ms H.A. Pathberiya Lecturer (Probationary) Dept. of Statistics, Faculty of Applied Science, University of Sri Jayawardenapura, Nugegoda	A comparison of clustering algorithms in categorizing economic events based on behavior of exchange rates <i>Oral Presentation</i>	4 th Annual International Conference on Operations Research and Statistics (ORS 2016) Canning Walk, Singapore 18 - 19 January 2016
3.	Mr S.S. Gajaweera Postgraduate Researcher Dept. of Chemistry, Faculty of Science University of Colombo Colombo 03	Unfolding of β -amyloid from MPP ⁺ derivatives <i>Oral Presentation</i>	4 th Annual International Conference on Chemistry, Chemical Engineering and Chemical Process 2016 (CCEP 2016) Fort Canning, Singapore 18 - 19 January 2016
4.	Dr P.M. Sirimanne Senior Lecturer Dept. of Science & Technology Uva Wellassa University Badulla	Multi-dye coated electrodes for solid-state dye sensitized solar cells <i>Invited Lecturer</i>	The Energy, Material, Nanotechnology (EMN) meeting of Photovoltaics Hong Kong, China 18 - 21 January 2016
5.	Dr R.P. Hewawasam Senior Lecturer / Head Dept. Of Biochemistry University of Ruhuna, Galle	Therapeutic potential of GSTM2-2 C terminal domain and its mutants, F157A and Y160A on the treatment of cardiac arrhythmias: effect on Ca ²⁺ transients in neonatal ventricular cardiomyocytes <i>Oral Presentation</i>	18 th International Conference on Pharmaceutical Sciences & Pharmacology (ICPSP 2016) Paris, France 21 - 22 January 2016
6.	Dr H.M.D.K. Kanatiwela Research Assistant National Institute of Fundamental Studies (NIFS), Hantana Rd, Kandy	Anti-virulence activity of root extract of <i>Pongamia pinnata</i> (L.) pierre - <i>Oral Presentation</i>	6 th International Conference on Natural Products for Health and Beauty (NATPRO 6) Khon Kaen, Thailand 21 - 23 January 2016
7.	Ms A.G. Guruge Research Assistant Institute of Chemistry Ceylon University of Colombo Colombo 03	Molecular docking study on coumarin derived inhibitors for human to poisomerase I <i>Oral Presentation</i>	The 7 th Asia-Pacific Conference of Theoretical and Computational Chemistry (APCTCC7) Kaohsiung, Taiwan 25 - 28 January 2016

#	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
8.	Ms M.K.O.K. De Silva Lecturer (Probationary) Dept. of Clinical Sciences Faculty of Medicine General Sri John Kotelawala Defence University, Rathmalana	Effect of dysmenorrhea on psychological distress in a group of Sri Lankan females <i>Oral Presentation</i>	IX European Conference on Social and Behavioral Sciences (ECSBS) Paris, France 03 - 06 Feb. 2016
9.	Prof. V.P. Bulugahapitiya Head/Dept. of Chemistry University of Ruhuna Matara	Evaluation of anti-oxidant power of <i>Fueggea leuopyrus</i> wild, a medicinal herb used as complementary medicine for cancer and characterization of new anti-cancer compounds <i>Oral Presentation</i>	18 th International Conference on Natural Products and Drug Discovery Kuala Lumpur, Malaysia 11 - 12 Feb. 2016
10.	Dr K.T.M.U. Hemapala Senior Lecturer Dept. of Electrical Engineering University of Moratuwa, Moratuwa	Developing of scalable SCADA in view of acquiring multi-protocol smart grid devices <i>Oral Presentation</i>	International Conference on "Advances in Electrical, Electronics, Information, Communication and Bio-Informatics" (AEEICB - 16) Chennai, India 27 - 28 Feb. 2016
11.	Ms D.L.N.L. Ubhayawardana Post Graduate Student Faculty of Graduate Studies University of Sri Jayawardenapura Nugegoda	Helicobacter pylori infection: correlation to disease severity and clarithromycin resistance in a Sri Lankan setting <i>Oral Presentation</i>	17 th International Congress on Infectious Diseases Hyderabad, India 02 - 05 March 2016
12.	Ms A.S. Panditharatne Mphil/PhD Student Faculty of Graduate Studies University of Colombo, Colombo 03	The subjective well-being of married women in & out of the workforce in Sri Lanka <i>Oral Presentation</i>	02 nd Global Conference on Happiness Budapest, Hungary 14 - 16 March 2016
13.	Ms H.M.S. Wasana PhD Student Post Graduate Institute of Science University of Peradeniya, Peradeniya	Cumulative effects of chronic synergistic exposure to multiple elements on kidney with special emphasis on chronic kidney disease of unknown etiology (CKDu) <i>Oral Presentation</i>	Chemistry Conference for Young Scientists (ChemCYS 2016) Blankenberge, Belgium 16 - 18 March 2016
14.	Prof. S.S. Iqbal Professor in Chemistry Faculty of Natural Sciences Open University of Sri Lanka Nawala	Polymer layer silicate composites in fuchsine dye removal <i>Poster Presentation</i>	Green & Sustainable Chemistry Conference, Berlin, Germany 03 - 06 April 2016
15.	Prof. D.A.L. Leelamanie Professor Department of Soil Sciences Faculty of Agriculture University of Ruhuna Mapalana, Kamburupitiya	Time dependence of soil - water contact angle in pine and eucalyptus plantation forest soil in Sri Lanka <i>Oral Presentation</i>	3 rd Kuala Lumpur International Agriculture, Forestry and Plantation Conference Kuala Lumpur, Malaysia 21 - 22 May 2016

#	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
16.	Ms S.D. Perera Research Student Dept. of Mathematics University of Colombo Colombo 03	Sensitivity and stability of dengue virus dynamics <i>Oral Presentation</i>	International Conference on Applications of Mathematics to Nonlinear Sciences Kathmandu, Nepal 26 - 29 May 2016
17.	Prof. K.L.W. Kumara Dean, Faculty of Agriculture University of Ruhuna Mapalana, Kamburupitiya	Cultivation potential of <i>Lentinus giganteus</i> (Urupaha) : A wild edible mushroom of Sri Lanka <i>Oral Presentation</i>	ISMS Congress, International Society for Mushroom Science Amsterdam, Netherland 29 May - 02 June 2016
18.	Ms H.S.L. Jayasinghe Lecturer (Probationary) Dept. of Export Agriculture Uva Wellassa University of Sri Lanka, Badulla	Allelopathic effects of cyperus rotundus L. and Cynodan dactylon L. on germination and growth responses of lettuce (<i>Lactuca sativa</i>) <i>Oral Presentation</i>	3 rd International Conference on Agriculture and Forestry Manila, Philippines 01 - 03 June 2016
19.	Mr A.N.R. Weerawansa Lecturer (Probationary) Dept. of Export Agriculture Uva Wellassa University of Sri Lanka, Badulla	Effect of postharvest treatments on vase life and quality of <i>Cordylone frucosa</i> cut foliage - <i>Oral Presentation</i>	3 rd International Conference on Agriculture and Forestry Manila, Philippines 01 - 03 June 2016
20.	Dr T.N. Wickramaarachchi Senior Lecturer Dept. of Civil & Environmental Engineering Faculty of Engineering University of Ruhuna Karapitiya, Galle	Frequency analysis of flood discharge in Gin River at Tawalama, Sri Lanka <i>Oral Presentation</i>	7 th International Conference on Water Resources and Environment Research (ICWRER 2016) Kyoto, Japan 05 - 09 June 2016
21.	Prof. T.S.G. Peiris Professor in Applied Statistics Head, Dept. of Mathematics University of Moratuwa Moratuwa	Non linear bilinear type models to forecast critical dry spell lengths in Anamaduwa, Sri Lanka <i>Oral Presentation</i>	International Conference on Biological and Environmental Science 2016 (BIOES 2016) New Jersey, USA 08 - 09 June 2016
22.	Prof. R.L.R. Chandrajith Dept. of Geology University of Peradeniya Peradeniya	Toxic trace elements in native and improved rice varieties in different climatic zones - implications to chronic renal failures in dry zone of Sri Lanka <i>Oral Presentation</i>	25 th Symposium of the Environmental Chemistry Nigata, Japan 08 - 10 June 2016
23.	Dr M.S. Vithanage Senior Research Fellow National Institute of Fundamental Studies, Hantana Road Kandy	Interaction of Arsenic with biochar in Soil <i>Oral Presentation</i>	6 th International Congress on Arsenic in the Environment - Arsenic Research and Global Sustainability (AS2016) Stockholm, Sweden 19 - 23 June 2016

#	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
24.	Prof. M.C.V.S. Gunathileke Dept. of Botany University of Peradeniya Peradeniya	Life - time contribution to tropical forest ecology and conservation science in Sri Lanka <i>Award Winner</i>	53 rd Annual Congress of the Association for Tropical Biology and Conservation (ATBC) Montpellier, France 19 -23 June 2016
25.	Ms S.A.E.C. Wijesinghe Lecturer (Probationary) Dept. of Horticulture & Landscape Garden, Wayamba University of Sri Lanka Kuliyapitiya	Designing with Wild plants for maximizing insect richness in urban areas <i>Oral Presentation</i>	VI International Conference on Landscape and Urban Horticulture Athens, Greece 20 - 25 June 2016
26.	Dr K. Kannan Senior Lecturer Dept. of Mathematics and Statistics University of Jaffna, Jaffna	Approximation property pass to free product <i>Oral Presentation</i>	18 th International Conference on Mathematical Sciences - ICMS 2016 London, UK 23 - 24 June 2016
27.	Ms F.Z. Rafi Demonstrator Dept. of Natural Resources Faculty of Applied Sciences Sabaragamuwa University of Sri Lanka, Belihuloya	Genetic and phenotypic divergence in zosterops white-eyes along a dry elevation gradient in Sri Lanka <i>Oral Presentation</i>	Conservation Asia 2016 National University of Singapore, Singapore 29 June - 02 July 2016
28.	Ms C. Devadawson Senior Lecturer Faculty of Science Eastern University of Sri Lanka Chenkalady	Assessment of feeding habits of Sri Lanka freshwater fishes on their muscle lipid fatty acid composition and tocopherol contents <i>Oral Presentation</i>	2 nd Global Summit on Aquaculture & Fisheries Kualampur, Malaysia 11 - 13 July 2016
29.	Ms R.M.H. Tharangani Lecturer (Probationary) Dept. of Animal Sciences Uva Wellassa University Badulla	Comparison of broiler chick performance in single stage incubation and multi stage incubation <i>Oral Presentation</i>	2016 International Conference on Agricultural and Biological Science (ABS 2016) Shanghai, China 23 - 26 July 2016
30.	Prof. G.Y. Jayasinghe Professor, Dept. of Agric. Engineering Faculty of Agriculture University of Ruhuna Mapalana, Kamburupitiya	Assessment of poultry sludge filter pressed cake as a Co-digestion component with market waste for compost production <i>Oral Presentation</i>	4 th International Confernece on Agricultural, Environmental and Civil Engineering (AECE 2016) Pattaya, Thailand 08 - 09 August 2016
31.	Mr P.K.K. Kumarasinghe Technical Assistant Post Graduate Institute of Science Dept. of Physics University of Peradeniya Peradeniya	1. Effect of substrate temperature on structural properties of CdTe thin films 2. Influence of substrate temperature on optical, electrical and compositional properties of thermal evaporated CdTe thin films <i>Oral Presentation</i>	International Conference on Advances in Functional Materials Jeju Island, South Korea 08 - 11 August 2016

#	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
32.	Mr K.A.S.H. Kulathilake Post Graduate Research Student Dept. of Information Technology University of Moratuwa, Moratuwa	Computing lumen diameter of coronary arteries using segmented vessel's geometry and line tracking <i>Oral Presentation</i>	02 nd International Conference in Information Science - ICIS Cochin, Kerala, India 12 - 13 August 2016
33.	Mr T.S.P. Fernando Lecturer (Probationary) Dept. of Zoology Faculty of Natural Sciences The Open University of Sri Lanka Nawala, Nugegoda	Dynamics of a hybrid zone between an island endemic and its continental sister species of flameback woodpeckers in Sri Lanka <i>Oral Presentation</i>	6 th North Americal Ornithology Conference Washington DC, USA 16 - 20 August 2016
34.	Dr K.A.C. Alwis Head, Dept. of Special Needs Education Open University of Sri Lanka Nawala, Nugegoda	Educational experiences : The Academic success of students with blindness and visual impairments - <i>Oral Presentation</i>	Joint WBU and ICEVI General Assembly Events Florida, USA 18 - 25 August 2016
35.	Dr W.M. Sriyani Senior Lecturer Faculty of Applied Sciences Rajarata Universitiy, Mihintale	Effects of attitudinal changers on composition of mixed species bird flocks in montane forest of Sri Lanka <i>Oral Presentation</i>	5 th International Ecosummit 2016 - Ecological Sustainability : Engineering change Montpellier, France 29 Aug. - 01 Sep. 2016
36.	Prof. R.M.C.P. Rajapaksha Dept. of Soil Sciences University of Peradeniya Peradeniya	Screening of arbuscular mycorrhizae fungal inoculants for leeks (<i>Allium ampeloprasum</i>) grown on an ultisol of Sri Lanka <i>Poster Presentation</i>	5 th International Ecosummit 2016 - Ecological Sustainability : Engineering change Montpellier, France 29 Aug. - 01 Sep. 2016
37.	Ms A.S. Weerasinghe Research Assistant Dept. of Building Economics University of Moratuwa Moratuwa	A simplified model for predicting running costs of office buildings in Sri Lanka <i>Oral Presentation</i>	ARCOM 2016 - 32 nd Annual Conference and Annual General Meeting Manchester,UK 05 - 07 Sep. 2016
38.	Dr (Mrs) T. Ramachandra Senior Lecturer Dept. of Building Economics Faculty of Architecture University of Moratuwa, Moratuwa	A framework to enhance the productivity in construction projects involving international professionals and contractors : Case of Sri Lanka <i>Poster Presentation</i>	RICS COBRA 2016 Toronto, Canada 19 - 22 Sep. 2016
39.	Mr M.K.A.C. Mahasinghe Lecturer (Probationary) Dept. of Mathematics University of Colombo Colombo 03	A quantum algorithm for solving the heat equation with neumann boudary conditions <i>Poster Presentation</i>	IQIS 2016 - 09 th Italian Quantum Information Science Conference Rome, Italy 20 - 23 Sep. 2016

#	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
40.	Mr A.D.N. Gunarathne Senior Lecturer Dept. of Accounting Faculty of Management Studies and Commerce University of Sri Jayawardenapura Nugegoda	1. Stakeholder influence on health and safety controls 2. Implementation of environmental management accounting in hotel sector: challenges and barriers <i>Oral Presentation</i>	20 th Environmental and Sustainability Management Accounting Network (EMAN) Conference Luneburg, Germany 22 - 23 Sep. 2016
41.	Dr I.M.K. Fernando Senior Lecturer Dept. of Physics University of Colombo, Colombo 03	Special attention to impedance of conductivity enhancing backfill materials <i>Poster Presentation</i>	33 rd International Conference on Lightning Protection Estoril, Portugal 25 - 30 Sep. 2016
42.	Eng (Mrs) M.M.G.V. Shymalee Lecturer (Probationary) Industrial Training and Career Guidance Unit, Faculty of Engineering University of Peradeniya Peradeniya	Influence of sample size in extraction of employability skills of engineering graduates using factor analysis <i>Oral Presentation</i>	3 rd International Conference on Education and Social Science (ICESS-2016) Bangkok, Thailand 09 - 11 Oct. 2016
43.	Dr W.A.J.P. Wijesinghe Senior Lecturer Dept. of Export Agriculture Faculty of Animal Science & Export Agriculture Uva Wellasa University Badulla	Bio - processing of tomato (<i>Lycopersicon esculentum</i>) into value- added product <i>Oral Presentation</i>	15 th International Conference on Food Processing & Technology Rome, Italy 27 - 29 Oct. 2016
44.	Dr W.A.K. Somadasa Senior Lecturer Dept. of Civil and Environmental Engineering Faculty of Engineering University of Ruhuna Hapugala, Galle	Shear design rules for lipped channel beams with non- circular web openings <i>Oral Presentation</i>	7 th International Conference on Coupled Instabilities in Metal Structures Washington, USA 07 - 08 Nov. 2016
45.	Ms A.M.P.S. Arachchi Postgraduate Student Faculty of Graduate Studies University of Sri Jayawardenapura Nugegoda	Association of <i>Helicobacter pylori</i> infection and virulence factors with selected human leukocyte antigen - DQA 1 and - DQB1 alleles among dyspeptic patients <i>Oral Presentation</i>	7 th International Conference on Biotechnology, Bio Informatics, Bio Medical Sciences and Stem Cell Applications (B3SC) Nanyang Technological University Singapore 11 - 12 Nov. 2016
46.	Mr S.W.M.A.I. Senevirathne Lecturer Dept. of Mechanical Engineering University of Moratuwa Moratuwa	Effect of minimum quantity lubrication aerosol temperature on surface roughness in machining AISI P20 and D2 steels using coated tungsten carbide tool inserts <i>Oral Presentation</i>	2016 STLE Tribology Frontiers Conference, Society of Tribologists and Lubrication Engineers Chicago, USA 13 - 15 Nov. 2016

#	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
47.	Ms A.N. Kodithuwakku Research Assistant Dept. of Agricultural Biology Faculty of Agriculture University of Ruhuna Kamburupitiya, Matara	Effect of a plant growth promoting bacterium on Sri Lankan rice Bg 300 under greenhouse condition <i>Oral Presentation</i>	3 rd International Plant Breeding Conference 2016 Selangor, Malaysia 15 - 16 Nov. 2016
48.	Dr M.A.P.C. Piyathilaka Lecturer Dept. of Zoology Faculty of Applied Sciences University of Sri Jayawardenapura Nugegoda	Microcrystal-LR contamination status along with some physico-chemical water quality parameters of five selected recreational water bodies in Sri Lanka <i>Oral Presentation</i>	Environment and Natural Resource International Conference 2016 Ayutthaya, Thailand 16 - 17 Nov. 2016
49.	Dr I.G.P. Rajapakse Senior Lecturer Dept. of Architecture University of Moratuwa Moratuwa	Effect of spatial ambience on thermal adaptation : Case of free running shared spaces in tropical coastal hotels of Sri Lanka <i>Oral Presentation</i>	Sustainable Built Environment 2016 Sydney, Australia 17 - 18 Nov. 2016
50.	Ms G.K. Kodituwakku Demonstrator (Speech & Language Therapist) Dept. of Disability Studies Faculty of Medicine University of Kelaniya Ragama	A comparison of word retrieval performance between grammatical class and linguistic contexts; and its effect on the information content of discourse in individuals with aphasia, post -stroke <i>Oral Presentation</i>	American Speech and Hearing Conference 2016 Philadelphia, USA 17 - 19 Nov. 2016
51.	Dr S.S. Jayasinghe Senior Lecture /Head Dept. of Pharmacology Faculty of Medicine University of Ruhuna Karapitiya, Galle	Antioxidant therapy on paraquat induced pulmonary injury; quantified with Human Clara Cell Protein ELISA <i>Oral Presentation</i>	Asia Pacific Medical Association of Medical Toxicology Singapore 17 - 20 Nov. 2016
52.	Dr B.W. Wijesuriya Biometrician Principal Research Officer Rubber Research Institute Dartonfield, Agalawatta	Drought indices to identify rainfall anomalies in rubber growing areas of Sri Lanka <i>Oral Presentation</i>	IRRDB International Rubber Conference Siem Reap, Cambodia 21 - 22 Nov. 2016
53.	Mr A.M.I.E. Gunathilake Postgraduate Student Postgraduate Institute of Science University of Peradeniya Peradeniya	Electrical and structural studies of a LiBOB - Based gel polymer electrolyte <i>Oral Presentation</i>	15 th Asian Conference on Solid State Ionics (ACSSI 2016) Patna, India 27 - 30 Nov. 2016
54.	Dr K. Vignarooban Senior Lecturer Dept. of Physics Faculty of Science University of Jaffna, Jaffna	Poly-acrylonitrile based gel-polymer electrolytes for sodium-ion batteries <i>Oral Presentation</i>	15 th Asian Conference on Solid State Ionics 2016 Patna, India 27 - 30 Nov. 2016

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55.	Mr H.G.L.D. Chamain Lecturer on Contract Department of Electronics and Telecommunication University of Moratuwa Moratuwa	Stitching 3D Ultrasound head images of neonates to monitor changes in ventricular volume <i>Oral Presentation</i>	Conference on Biomedical Engineering and sciences (IECBES) Kuala Lumpur, Malaysia 04 - 08 Dec. 2016
56.	Ms K.R.M. Sudharshani Research Assistance Faculty of Medicine University of Colombo Colombo 08	Iron Depletion in Early Pregnancy in Urban Sri Lankan Women: Warrants Urgent Attention <i>Oral Presentation</i>	25 th FAOBMB (The Federation of Asian and Oceanian Biochemists and Molecular Biologists) International Conference 43 rd PSBMB Annual Convention Manila, Philippines 2016 05 - 07 Dec. 2016
57.	Dr H.M.L.K. Herath Lecturer Faculty of Agriculture and Plantation Management Wayamba University of Sri Lanka , Kuliyaipitiya	An Alternative approach to specify models in ARCH/GARCH family <i>Poster Presentation</i>	Australian Statistical Conference 2016 Canberra, Australia 05 - 09 Dec. 2016
58.	Prof. K.R.D. de Silva Associate Professor in Anatomy Dept. of Anatomy Faculty of Medical Sciences University of Sri Jayawardenapura Nugegoda	Culture and lifestyle factors in cognition screening and neuropathology of aging : A South Asian experience <i>Invited Lecturer</i>	Symposium on 'Braub Ageing and Dementia in Developing Countries' Nairobi, Kenya 06 - 09 Dec. 2016
59.	Ms V. Manoharan PhD Student Institute of Biochemistry, Molecular Biology & Biotechnology University of Colombo No 90, Cumaratunga Munidasa Mw Colombo 03	Cytotoxic potential of the RG7388 MDM2-p53 binding antagonist and the GSK2830371 WIP1 inhibitor on MX-1 and MCF-7 human breast cancer cells <i>Poster Presentation</i>	The San Antonio Breast Cancer Symposium : 2016 San Antonio, USA 06 - 10 Dec. 2016
60.	Mr G.H.I.M. Wickramasinghe Temporary Research Assistant Faculty of Medicine University of Colombo Kynsey Rd, Colombo 08	β 1,4-Xylosidase (XYL) containing recombinant Pichia stipitis: cloning, expression and homology modeling <i>Oral Presentation</i>	International Conference on Environmental Engineering, Transport and Renewable Energy (EETRE - 2016) Bencoolen, Singapore 07 - 08 Dec. 2016
61.	Dr D.N. Magana-Arachchi Senior Research Fellow National Institute of Fundamental Studies Hantana Rd, Kandy	Expression Profiling of Chronic Kidney Disease of Uncertain aetiology (CKDu) Patients in Sri Lanka <i>Invited Lecturer</i>	14 th EURASIA Conference on Chemical Sciences (EuAsC2S-14) Karachi, Pakistan 15 - 18 Dec. 2016

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62.	Mr P.P.A.M.S.I. Rathnayake Graduate Research Assistant Dept. of Chemistry Faculty of Science University of Colombo Colombo 03	Molecular dynamics simulation and binding studies of beta-sitosterol with transcortin <i>Oral Presentation</i>	CSBio 2016 - The 7 th International Conference on Computational Systems - Biology and Bioinformatics 2016 University of Macau, Macau, China 19 - 22 Dec. 2016
63.	Ms H.K.A.V.A. Kulasena Postgraduate student Department of Zoology and Environment Sciences University of Colombo	1. Environmentally relevant levels of chromium induces histopathological changes in <i>Duttaphrynus melanostictus</i> tadpoles 2. Haematological alterations elicited in <i>Labeo dussumieri</i> ; the Malabar Labeo, from exposure to environmentally relevant levels of Chromium <i>Oral Presentation</i>	4 th International Conference on Environment Pollution and Prevention (ICEPP 2016) Kyoto, Japan 25 - 27 Dec. 2016

OSTP Grants Awarded 2016

No.	Name and address	Type of OSTP Award	Title of the training programme, venue and Date
1.	Dr K. Vignarooban Senior Lecturer Gr I, Department of Physics, University of Jaffna.	NSF Training Fellowship	Research Training on Non-noble Metal Catalysts for Proton Exchange Membrane Fuel Cells and Polymer Electrolytes for Sodium Ion Rechargeable Batteries, Arizona State University, USA, 01 Mar. - 30 Apr. 2016.
2.	Dr Duminda Subasinghe Senior Registrar in Gastrointestinal Surgery, Postgraduate Institute of Medicine, University of Colombo, Colombo- 07	NSF Training Scholarship	Human Epidermal Growth Factor Receptor (HER 2) Testing by Silver <i>In Situ</i> Hybridization (SISH) in Sri Lankan Gastric Cancer, Department of Anatomical Pathology, Pathwest, QE 11 Medical Centre (J Block), Hospital Avenue, Nadlands, Perth WA 6009, Australia, 01 Feb. - 01 Mar. 2016
3.	Dr G.V.M.C. Fernando Lecturer (Probationary), Department of Family Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura, Nugegoda	NSF Training Scholarship	Advanced European Bioethics Course "Suffering, Death, and Palliative Care", Radboud Universitair Medisch Centrum, Nijmegen, The Netherlands, 16 - 19 Feb 2016
4.	Mr A.M.I.E. Gunathilaka Postgraduate Institute of Science, University of Peradeniya, P.O. Box 25, Peradeniya.	NSF Training Scholarship	Synthesis and Characterization of LiBOB based gel electrolytes for Li - ion batteries, Centre for Ionics, University of Malaya, Malaysia. 01 st March - 30 th April 2016
5.	Prof. P.M.C.S. De Silva Department of Zoology, Faculty of Science, University of Ruhuna, Matara	NSF Training Fellowship	Research Training on Development of Urinary Biomarkers for early detection of CKDu cases in Sri Lanka, Harvard Medical School, Boston, Massachusetts, USA, 09 th March - 01 st June 2016
6.	Ms H.S.D. Fernando Department of Zoology, University of Sri Jayawardanapura, Gangodawila, Nugegoda	NSF Training Scholarship	Comprehensive Training in Advanced Techniques for Phylogenetic and Population genetic for the Analysis of Datasets in the Mosquito <i>Aedes aegypti</i> - Colorado State University, Colorado State University, USA, 16 April. - 15 June 2016.
7.	Dr M.M.P. Sumith Senior Lecturer, Department of Livestock Production, Sabaragamuwa University of Sri Lanka, Belihuloya.	NSF Training Fellowship	Training Programme on Frontiers in Reproduction, Summer Programme 2016, Marine Biology Laboratory (MBL), Woodshall, Manchester, USA, 30 th April - 12 th June 2016.
8.	Mr A.M.J.S. Weerasinghe Research Assistant, National Institute of Fundamental Studies, Hantana Road, Kandy	NSF Training Scholarship	Research Training Visit to Chalmers University of Technology, Sweden under Research Collaboration on Dye Sensitized Solar cells between NIFS and Chalmers University of Technology, Chalmers University of Technology, Gothenburg, Sweden, 30 th April - 30 th June 2016.

No.	Name and address	Type of OSTP Award	Title of the training programme, venue and Date
9.	Dr N.M. Wickramage Senior Lecturer, Department of Physics, University of Ruhuna, Matara	NSF Training Fellowship	Continuation of the research on "Measurement of the Transverse Momentum Distribution of Z bosons at the center of mass energy of 14 TeV in CMS experiment at LHC" with the CMS collaboration at CERN, European Organization for Nuclear Research, Switzerland, 27 th April - 27 th July 2016
10.	Mr T.U.K. Silva Research Officer (Botanist), Rubber Research Institute of Sri Lanka, Dartonfield, Agalawatta	NSF Training Scholarship	Special Training on Latex Harvesting Physiology and Bark Anatomical Studies, Rubber Research Institute of China, Chinese Academy of Tropical Agricultural Sciences (CATAS), Haikou, Hainan, China, 08 - 23 April 2016
11.	Dr P.K. Perera Senior Lecturer, Institute of Indigenous Medicine, University of Colombo, Rajagiriya	NSF Training Fellowship	18 th International Pharmacovigilance Training Course, WHO Collaborating Centre for International Drug Monitoring, Uppsala, Sweden, 16 th - 27 th May 2016.
12.	Ms H. A. Pathberiya Lecturer (Probationary), Department of Statistics, Faculty of Applied Sciences, University of Sri Jayewardenepura, Gangodawila, Nugegoda	NSF Training Scholarship	Overseas Training for a part of PhD as a Visiting Scholar, Western Sydney University, Australia, 15 May - 31 July 2016
13.	Ms W.A.A.P. Wijesundara Hydrographic Surveyor, National Hydrographic Office, NARA, Crow Island, Colombo 15	NSF Training Scholarship	Training Programme on "Ocean Governance: Policy, Law and Management", International Law Institute, Dalhousie University, Halifax, Nova Scotia, Canada, 18 May - 15 July 2016
14.	Mr S.M.H. Darshana Research Scientist, Genetech Research Institute, 54, Kitulwatta Road, Colombo - 08	NSF Training Scholarship	Course on Bioinformatics; Computer Methods in Molecular and Systems Biology, International Centre for Genetic Engineering and Biotechnology (ICGEB), Trieste, Italy, 23 rd -27 th May 2016.
15.	Ms K.A.A. Kasthuri Archaeological Research Assistant, Department of Archaeology, Sir Marcus Fernando Mawatha, Colombo 07.	NSF Training Scholarship	International Course on 'First Aid to Cultural Heritage in Times of Crisis', ICCROM and The Smithsonian Institution, Washington DC, USA, 02 nd to 29 th June 2016.
16.	Ms M.G. G. Awanthi Lecturer (Probationary), Department of Agric. Engineering, Faculty of Agriculture, University of Ruhuna, Mapalana, Kamburupitiya	NSF Training Scholarship	38 th Annual Postharvest Technology of Horticultural Crops - Short Course", Postharvest Technology Center, Department of Plant Sciences, University of California, Davis, The United States of America, 13-24 June 2016

No.	Name and address	Type of OSTP Award	Title of the training programme, venue and Date
17.	Dr W.A.H. Champa Senior Research Officer, R and D Center, Institute of Postharvest Technology, Jayanthi Mawatha, Anuradhapura	NSF Travelling Fellowship	38 th Annual Postharvest Technology of Horticultural Crops - Short Course", Postharvest Technology Center, Department of Plant Sciences, University of California, Davis, The United States of America, 13-24 June 2016
18.	Mr I.K.G.G. Lakmal Temporary Demonstrator, Department of Physics, Faculty of Science, University of Ruhuna, Matara	NSF Training Scholarship	CERN Summer Student Programme (Non Member States), European Organization for Nuclear Research, Geneva, Switzerland, 13 June- 05 August 2016
19.	Prof. J.M.S. Bandara Research Professor, Institute of Fundamental Studies, Hantana Road, Kandy	NSF Training Fellowship	Renewed Research Stay in Germany, Max-Planck-Institut Für Eisenforschung GmbH, Dusseldorf, Germany, 01 st July to 30 th Sep 2016
20.	Ms J.M.K.W. Kumari Research Assistant, National Institute of Fundamental Studies, Hantana road, Kandy.	NSF Training Scholarship	NSF Training Scholarship - Research Training Visit, University of Malaya, Kuala Lumpur, Malaysia, 15 July to 10 September 2016.
21.	Ms H.P.H. Hapugaswatta Research Assistant, Department of Chemistry, Faculty of Science, University of Kelaniya, Kelaniya	NSF Training Scholarship	Molecular Diagnostics for Rickettsia and genotype diversity of Scrub typhus and spotted fever group rickettsioses, The University of Texas, Medical Branch, Department of Pathology, USA.
22.	Ms V.S. Senevirathna Deputy IT Manager, Coordinating Secretariat for Science, Technology and Innovation (COSTI), Ministry of Science Technology and Research, 3 rd Floor, Sethsiripaya - Stage - 1, Baththaramulla.	NSF Training Scholarship	Training Workshop on Developing Leadership Talents of Women in Science, Technology and Innovation (STI), International Science, Technology and Innovation Centre for South-South Cooperation under the auspices of UNESCO (ISTIC), Malaysia, 18 th to 22 nd July 2016.
23.	Mr A.C.P. Priyankara System Engineer, Faculty of Agriculture, University of Ruhuna, Mapalana, Kamburupitiya.	NSF Training Scholarship	International Research Studentship on Geographical Information Science, Graduate School of Life and Environmental Sciences, University of Tsukuba, Japan, 20 th October 2016 to 31 st March 2017.
24.	Ms H.D.S.M. Perera Research Scientist, Herbal Technology Division, Industrial Training Institute, 363, Baudhaloka Mawatha, Colombo 07	NSF Training Scholarship	Visiting Research Scholar, Department of Medical and Biological Chemistry, College of Pharmacy and Pharmaceutical Sciences; University of Toledo, USA, 05 th September 2016 to 05 February 2017.

No.	Name and address	Type of OSTP Award	Title of the training programme, venue and Date
25.	Ms D.G. Liyanaarachchi Research Assistant, Herbal Technology Section, Industrial Training Institute, 363, Baudhaloka Mawatha, Colombo 07.	NSF Training Scholarship	Visiting Research Scholar, Department of Medical and Biological Chemistry, College of Pharmacy and Pharmaceutical Sciences; University of Toledo, USA, 05 th September 2016 to 05 February 2017.
26.	Ms U. Rajagopalan Research Student, Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo, 90, Cumaratunga Munidasa Mawatha, Colombo 03.	NSF Training Scholarship	Training for her research on Isolation of Anti-cancer Stem Cell Compounds and Training on NMR and Related Techniques for Structure Elucidation of Natural Compounds, H.E.J. Research Institute of Chemistry, International Centre of Chemical and Biological Sciences (ICCBS), University of Karachchi, University Road, Karachchi, Pakistan, 15 September to 13 th December 2016.
27.	Ms P.D.C. Padukkage Research Assistant, Department of Agricultural Biology, Faculty of Agriculture, Mapalana, Kamburupitiya.	NSF Training Scholarship	Determination of Interaction between <i>Bradyrhizobium japonicum</i> ORS 278 and selected rice: Investigation of Molecular Basis for interaction at the ICGEB, Buenos Aires, Argentina, 02 nd January - 02 nd April 2017.
28.	Ms C.S. Munasinghe M.Phil student, Postgraduate Institute of Science, University of Peradeniya, Peradeniya.	NSF Training Scholarship	12 th International Seagrass Biology Workshop (ISBW), 16 th to 21 st October 2016, Wales, UK.
29.	Ms A.M. Ranasinghe Project Scientist, Coordinating Secretariat for Science Technology and Innovation (COSTI), Ministry of Science Technology and Research, 3 rd Floor, Sethsiripaya, Stage -1, Battaramulla.	NSF Training Scholarship	International Convention of Science, Technology and Innovation, Ministry of Science, Technology and Environment of the Republic of Cuba, 31 st October to 04 th November 2016.
30.	Mr K.K.L.B. Adhikaram Lecturer, Computer Unit, Faculty of Agriculture, University of Ruhuna, Mapalana, Kamburupitiya.	NSF Training Scholarship	The Technology application training class of automation & information for developing countries 2016, Ministry of Science and Technology of People's Republic of China, 10 th to 29 th October 2016.
31.	Dr K.D.C.U. Wijayasiri Head, Sports Science and Exercise Medicine Unit, Colombo South Teaching Hospital, Kalubowila, Colombo.	NSF Training Scholarship	Visiting Research on Cardio-Pulmonary fitness amongst Sri Lankan national athletes engaged in running events and their determinants, School of Applied Social Sciences, Durham University, UK, 24 th October to 14 th November 2016.
32.	Prof P.R.T. Cumarathunga Senior Professor and Professor of Fisheries Biology, Department of Fisheries Biology, Faculty of Fisheries, Marine Science and Technology, University of Ruhuna, Matara.	NSF Travelling Scholarship	To Develop a collaboration between the Dept. of Fisheries and Aquaculture of the Faculty of Fisheries and Marine Sciences & Technology and the Laboratory of Aquaculture & Artemia Reference Center, Faculty of Bio-Science Engineering of Ghent University, Brussels, 01 st to 30 th October 2016.

No.	Name and address	Type of OSTP Award	Title of the training programme, venue and Date
33.	Mr W.A.D.S.S. Weerasinghe Research Assistant, Polymer Electronics Research Laboratory, Department of Electronics, Faculty of Applied Sciences, Wayamba University of Sri Lanka, Kuliapitiya.	NSF Training Scholarship	Collaborative Research on Development of Energy storing devices using conducting polymers, Centre for Ionics, University of Malaya, Malaysia, 01 st November to 27 th December 2016.
34.	Mr T.S.P. Fernando Probationary Lecturer, Department of Zoology, Faculty of Natural Sciences, The Open University of Sri Lanka, Nawala, Nugegoda.	NSF Training Scholarship	Postgraduate Research Programme, Biodiversity Research Centre, Department of Zoology, University of British Columbia, Vancouver, Canada, 06 th November to 11 th December 2016.
35.	Mr K.M.B.W.R.A.I. Wathupola PhD Student, Department of Zoology and Environmental Sciences, Faculty of Science, University of Colombo. Colombo 03.	NSF Training Scholarship	ICGEB Workshop on Human Papilloma virus: From Basic Biology to Cancer prevention, Prince of Wales Hospital, Hong Kong, 7 th to 12 th November 2016.
36.	Dr D.R. Jayasundara Senior Lecturer, Department of Physics, Faculty of Science, University of Colombo, Colombo 03.	NSF Training Fellowship	NSF Training Fellowship for Collaborative Research on Functional Graphene synthesized from Sri Lankan vein Graphite, University of Dublin Trinity College, Dublin, Ireland, 05 th January 2017 to 04 th April 2017.
37.	Prof. C. Jayasinghe Professor, Department of Civil Engineering, University of Moratuwa, Katubedda, Moratuwa.	NSF Training Fellowship	Research Collaboration Programme at the University of Bath, United Kingdom, 01 st June to 01 st September 2017.
38.	Ms H.B.P. Sandani PhD Student/Research Assistant, Board of Study in Agriculture, Faculty of Graduate Studies, University of Ruhuna, Mapalana, Kamburupitiya.	NSF Training Scholarship	Characterization of antifungal compounds produced by the antagonists, Industrial Biotechnology Group, IBIOBA-ICGEB, International Centre for Genetic Engineering and Biotechnology, Polo Cientifico Tecnologico, Godoy Cruz 2390, C1425FQD, Bs. As., Argentina.
39.	Dr M.T. Napagoda Senior Lecturer, Department of Biochemistry, Faculty of Medicine, University of Ruhuna, Karapitiya, Galle.	NSF Training Fellowship	Training on GC-MS, LC-MS and LC-MS-NMR techniques for isolation and structure elucidation of Secondary Metabolites, The Max Planck Institute for Chemical Ecology - Jena, Germany, 11 th December - 21 st December 2016.
40.	Dr M.A.M.P.A. Karunarathne Senior Lecturer, Department of Mechanical Engineering, University of Moratuwa, Katubedda, Moratuwa.	NSF Training Fellowship	Experiments and Training Session at Diamond Light Source Ltd. Through Imperial College London, London, United Kingdom, 09 th to 21 st December 2016.

No.	Name and address	Type of OSTP Award	Title of the training programme, venue and Date
41.	Mr H.V.H.H. Senavirathna PhD Candidate, Department of Mechanical Engineering, University of Moratuwa, Katubedda, Moratuwa.	NSF Training Scholarship	Experiments and Training Session at Diamond Light Source Ltd. Through Imperial College London, London, United Kingdom, 09 th to 21 st December 2016.
42.	Mr T.M.S.A. Tennakoon Research Assistant, Department of Agricultural Biology, Faculty of Agriculture, University of Ruhuna, Mapalana, Kamburupitiya.	NSF Training Scholarship	A Visiting Research on the Study on Evolution of Weedy Rice in Sri Lanka; Gene Introgression and Domestication, at Ge's Lab, Institute of Botony, Chinese Academy of Sciences, Beijing, China, 02 nd December 2016 to 02 nd February 2017.
43.	Mr P.S. Sandamal Researcher (M.Phil), Department of Agricultural Biology, Faculty of Agriculture, University of Ruhuna, Mapalana, Kamburupitiya.	NSF Training Scholarship	A Visiting Research on the Eco-Geographic Diversity of Sri Lankan <i>Oryza nivara</i> and <i>Oryza rufipogon</i> populations revealed by Molecular and Morpho-Physiological Techniques, at Ge's Lab, Institute of Botony, Chinese Academy of Sciences, Beijing, China, 02 nd December 2016 to 02 nd February 2017.
44.	Dr R.H.G. Ranil Senior Lecturer, Department of Crop Science, Faculty of Agriculture, University of Peradeniya, Peradeniya.	NSF Travelling Fellowship	Training on Chromosomal Analysis Techniques of Ferns and Lycophytes, Taiwan Forestry Research Institute, Council of Agriculture, Executive Yuan, Taipei, Taiwan, 09 th to 20 th January 2017.
45.	Ms G.S.N. Fernando Lecturer (Probationary), Department of Food Science & Technology, Faculty of Agriculture, University of Ruhuna, Mapalana, Kamburupitiya.	NSF Training Scholarship	Training on Advanced Food Analysis, The Graduate School VLAG, Wageningen, The Netherlands, 23 rd to 27 th January 2017.
46.	Prof Vajira H.W. Dissanayake Director, Human Genetics Unit, Faculty of Medicine, University of Colombo, Kynsey Road, Colombo 08.	NSF Travelling Fellowship	The Follow Up Activity of the Science and Technology for Society Forum at Houston, USA, 11 th to 17 th December 2016.
47.	Dr Gotabhaya Ranasinghe Consultant Cardiologist, The National Hospital of Sri Lanka, Colombo 10.	NSF Travelling Fellowship	The Follow Up Activity of the Science and Technology for Society Forum at Houston, USA, 11 th to 17 th December 2016.
48.	Dr Sanjeeva Gunasekera Acting Paediatric Oncologist, National Cancer Institute, Maharagama.	NSF Travelling Fellowship	The Follow Up Activity of the Science and Technology for Society Forum at Houston, USA, 11 th to 17 th December 2016.

IPSAT Award - 2016

Primary Applicant & Grant No	Secondary Applicant/s	Programme
Dr T.V. Thadhani 2016/01	Prof. Wei Zhang Centre for Marine Bioproducts Development Flinders University of South Australia, Level 4, Health Sciences Building, Registry Road, BEDFORD PARK SA 5042 Australia	To provide Airfare, Local Transport and Partial Accommodation and Living Expenses for a Consultant of Feasibility Studies on - "Potential Applications of Main Seaweeds Produced in Sri Lanka", SLINTEC , 9-15 January 2016
Prof. T.S. Suresh 2016/02	Prof. Noriyuki Kasai Tohoku University Center for Laboratory Animal Research Seiryu-machi 2-1, Aoba-ku, Sendai, 980-8575, JAPAN Dr Vijay Pal Singh In Charge Animal Facility, Discovery Genomics-1, Institute of Genomics and Integrative Biology New Delhi-110025	To Provide Accommodation and Local Transport (Airport Transfer, Visit to Veterinary Institute and Local Travel) for two Resources Persons of the Third Annual Scientific Sessions of Sri Lanka Association for Laboratory Animal Science, 28-29 January 2016
Prof. Rohan Weerasooriya 2016/03	Mr Huasheng QIU Research Centre for Eco- Environmental Science, Chinese Academy of Sciences, Beijing, China	To provide Airfare and Accommodation for a Consultant to participate at a Workshop on CKDu Prevention, Control and Research, 15 March 2016
Prof. Vijaya Kumar 2016/04	Prof. Jai Mittal National Academy of Sciences Dr Deepak T. Nair UNESCO Regional Centre for Biotechnology Prof. Malik Peries University of Hong Kong	To provide funds to facilitate Accommodation for three Plenary Speakers of the 16th Conference of the Science Council Asia, 30 May - 01 June 2016, Colombo
Dr Rakinwasan Sanjeewa 2016/05	Prof. Goong Chen Texas A&M University Prof. Ilias Kotsireas Wilfrid Laurier University Prof. James G. Nagy Emory University Dr Sivaguru S. Sritharan Air Force Institute of Technology, Ohio	To provide Board and Lodging for four resource persons of the International Industrial Mathematics Conference, University of Sri Jayawardenepura 3 - 5 June 2016,

Primary Applicant & Grant No	Secondary Applicant/s	Programme
<p>Dr D.H.N. Munasinghe 2016/06</p>	<p>Prof. Khedkar Gulab Dattarao Paul Herbert Centre for DNA Barcoding and Biodiversity Studies</p> <p>Dr Babasaheb Ambedkar Marathwada University</p>	<p>To provide airfare, food and accommodation and local travel of the resource person of the awareness programme on bar coding of biological samples and application of DNA bar coding as a tool for identification of biological samples - with special reference to economically and ecologically significant coral reef fishes in Sri Lanka, University of Ruhuna</p> <p>July 2016 - June 2017</p>
<p>Prof. M.V. Vithanapathirana 2016/07</p>	<p>Dr Felicity Callard Department of Geography, Durham University, UK</p> <p>Prof. Moti Nissani CC 79, El Bolson, (8430) Rio Negro, Argentina</p> <p>Prof. D. Narayana Rao General President, Indian Science Congress Association (ISCA), University Building, 4th Floor, SRM University, Kattankulathur - 603203, Dist. Kancheepuram</p> <p>Prof. Shahid Akhtar Hossain President, Bangladesh Association for Advancement of Science</p> <p>Dr Shaukat Hamed Khan Coordinator General COMSTECH, COMSTECH Secretariat, 33 Constitution Avenue, G-5/2, Islamabad</p>	<p>72nd Annual sessions being organized SLAAS</p> <p>5-9 December 2016</p>
<p>Prof. Subathini Ramesh 2016/08</p>	<p>Prof. Ranjit T. Koodali Associate Professor and Graduate Programme Director, Department of Chemistry, University of South Dakota, 414 E. Clark Street, Vermillion SD 57069</p> <p>Dr Rachel Tribe School of Psychology University of East London</p>	<p>Jaffna University International Research Conference University of Jaffna</p> <p>12 - 13 August 2016</p>
<p>Dr P.P.R. Perera 2016/09</p>	<p>Dr Siok-Im Koh School of Chemical and Life Sciences Singapore Polytechnic, Singapore</p> <p>Prof. Philip Nagley Department of Biochemistry and Molecular Biology, Monash University Clayton, Australia</p> <p>Prof. Piamsook Pongsawasdi Department of Biochemistry Faculty of Science, Chulalongkorn University, Thailand</p>	<p>To provide accommodation for three resource persons of the Workshop on Biochemistry: Towards Academic Excellence and EC Meeting of the FAOBMB, University of Sri Jayawardenepura</p> <p>21-24 June 2016</p>

Primary Applicant & Grant No	Secondary Applicant/s	Programme
Dr Thadhani V. Moolchand 2016/10	Prof. Wei Zhang Centre for Marine Bioproducts Development Level 4, Health Sciences Building Registry Road, BEDFORD PARK SA 5042 Australia	Quantification of <i>Sargassum sp.</i> & <i>Sargassum crassifolium</i> around the coastal zone of Sri Lanka, for its effective utilization through sea weed bio-refinery, August - December 2016
Lt. Col. (Dr) Aindralal Balasuriya 2016/11	Dr N.M. Nadinath B. Nillegoda Zentrum für Molekulare Biologie der Universität Heidelberg, Im Neuenheimer Feld 282, D-69120 Heidelberg, Germany	9 th International Research Conference, Sir John Kotelawala Defence University, 08 - 09 September 2016
Prof. D.M.S.H.K. Ranasinghe 2016/13	Dr Michael Knous Head of the International Department Institute for Applied material flow Management Trier University of Applied Sciences Environmental Campus Birkenfeld, 55765 Birkenfeld, Germany Mr David Abbas Public information Officer United Nations Framework Convention on Climate Change Kolumbursring 11, Bonn, Germany	3 rd International Conference of Multidisciplinary Approaches Club Palm Bay Hotel Marawila, Sri Lanka, 12-14 October 2016
Dr L.M.H.R. Alwis 2016/14	Prof. Kristein Benkendorff South Cross University, New South Wales Australia Prof. Cheorun Jo Seoul National University, South Korea Prof. Li Cheng Sichuan University Chengdu, China	International Research Symposium - 2017 (IRSUWU-2017) of Uva Wellassa University 19 - 20 January 2017
Dr Shalindra Ranasinghe 2016/15	Dr Ahmed Abd El Wahed Division of Microbiology and Animal Hygiene University of Goettingen Burckhardtweg 2, 37077 Goettingen, Germany	Workshop on Introduction of Recombinase Polymerase Amplification Assay Based Mobile Suitcase Laboratory to Sri Lanka through Diagnosis of Cutaneous Leishmaniasis Lectures and Laboratory work University of Sri Jayawardenapura Field visits- Hambantota, Anuradhapura, Tangalle, 06 -10 March 2017

Primary Applicant & Grant No	Secondary Applicant/s	Programme
<p>Dr S. Tharanga Thoradeniya 2016/16</p>	<p>Ms Tengku Nila Malaysian Technology Development Corporation Sdn. Bhd. Ground Floor, Menara Yayasan Tun Razak Jalan Bukit Bintang, 55100 Kuala Lumpur, Wilayah Persekutuan, Malaysia</p> <p>Prof. A. Prasanna de Silva Chair of Organic Chemistry School of Chemistry Queens University Belfast, Northern Ireland</p> <p>Prof. Monte Cassim Special Aide to the Chancellor of Ritsumeikan trust and Professor Beppu, Oita, Japan</p> <p>Prof. Reinhard H. Dammann University of Giessen Ludwigstraße 23, 35390 Gießen, Germany</p>	<p>Sri Lankan Academy of Young Scientists (SLAYS) Open forum 2017 “Research for Impact: March of the Sri Lankan Young Scientists”, Hilton, Colomb,</p> <p>28 Feb. - 01 March 2017</p>

NSF Staff Participation at local and foreign conferences, workshops and training programmes

Staff Local Training - 2016

Name of the Officer	Description on participation
Mr J.G. Shanthasiri Ms Madhuka Senaratne Ms Buddhi Wickramasinghe	Practical aspects of bid evaluation' conducted by the Skills Development Funds Ltd., 26-27 February, 2016.
Ms Nadeeja Wickramarachchi	Seminar on "Research & Development, Patenting and Technology Transfer" - 09 th - 10 th March, 2016
Ms Anjali Perera Ms Ruwanthi Ipalawatte	Procurement & Evaluation of IT products - 14 th - 15 th March, 2016
Ms Ajantha Kanthi	Filing - 17 th March, 2016
All Staff	Live Fire Demonstration - 18 th March, 2016
Ms M.M. Jayajeewani	Scheme of Recruitment - 31 th March - 01 st April, 2016
Ms Uthpala Karunaratne Ms Abhimani Ranatunge	Basic Statistics & Data Analysis for Managers & Researchers - 04 th - 05 th June, 2016
Ms N.A.H. Priyadharshani Mr A.I. Ahangama Mr C.A.B. Wickramasinghe	National conference on Library and Information Science - 23 th June, 2016
Ms Thilinakumari Kandanamulla Ms Upuli Ratnayake Mr Balashangar	Interdesiplinary in Scientific Research Commercialization & Technology Transfer - 28 th June, 2016
Ms M.M. Jayajeewani Mr I.W.S. Sujeewa Ms W.A.D.A. Pereera Ms Pushpa Ellapallage	Salary Management & Salary conversion - 25 th August, 2016
Mr J.G. Shanthasiri	Mphil degree -
Ms H.D.N. Jayaweera	Msc - Environmental Studies
Ms P.S. Warakagoda	TISC - 13 th - 15 th September, 2016
Ms T.K. Kandanamulla	Essential management Skills - 28 th - 30 th September, 2016
Ms D.L. Sirimathi Ms W.A.H.V. Chandi	Labour Law for Administrative Professionals - 29 th - 30 th September, 2016
Ms G.G.K.P. Sumudu Kumari	Water Quality And Human Health - 04 th October, 2016

Name of the Officer	Description on participation
Mr M.L. Gunapala Mr R.P.C.J. Perera	Skills Development of Drivers - 06 th - 07 th October, 2016
Ms M.A.D.D. Munasinghe	SPSS for Data Analysis - 11 th - 13 th November, 2016
Ms C.G. Yapa Ms G.R.P.I. Abesiri Ms Thilinakumari Kandanamulla	SLAAS Theme Seminar - 06 th December, 2016

Staff Foreign Training - 2016

Name of the Officer	Description on participation
Mr Wasantha Anuruddha	The 13 th International Convention – The Bio Asia 2016 - India, 08 th to 10 th February 2016, National Science Foundation
Mr K.G.J. Karunasena	Intel International Science Engineering Fair - USA, 07 th to 16 th May 2016, Intel Corporation
Mr Wasantha Anuruddha	22 nd Session of the International Center for Genetic Engineering and Biotechnology Board of Governors - South Africa, 22 nd to 27 th May 2016
Ms Thilinakumari Kandanamulla	2016 Annual Meeting of the Global Research Council - India, 25 th to 27 th May, 2016
Dr P.R.M.P. Dilrukshi	International Training Programme on STI Policy & Management for Developing Countries - Malaysia, 08 th to 12 th August, 2016
Dr P.R.M.P. Dilrukshi	Social Science Research Status & Policy Issues - Indian Council for Social Science, India, 04 th to 06 th November, 2016
Ms Thilinakumari Kandanamulla	Asia Pacific Regional Meeting of the Global Research Council - Malaysia, 20 th to 21 st November 2016, National Science Foundation
Mr J.G. Shantha Siri	International Workshop on Evolving Energy Models in Emerging Economies - Ahmedabad, India, 11 th to 15 th December, 2016, National Science Foundation & NAM S&T Center

Principal Staff - As at 31.12.2016

Chairman / Chairperson

Prof. Sirimali Fernando, MBBS (Colombo), Dip.Med.Micro (Colombo), M.Sc (London)

Director General (Covering)

Dr T F Dias, M.Sc. (Hons) (Moscow), Ph.D. (Moscow)

Additional Director

Dr Seetha I Wickremasinghe, B.Sc. Special (Hons) (Peradeniya), MSc. (Agric.) (Peradeniya), Ph.D. (JNU, New Delhi)	Upto 05.05.2016
Dr T F Dias, M.Sc. (Hons) (Moscow), Ph.D. (Moscow)	From 06.05.2016 Upto 18.08.2016 (Covering)
Mr K G Janaka Karunasena, B.Sc. Agric. Special (Hons)(Peradeniya), M.Phil. (Agric.) (Peradeniya)	From 19.08.2016 (Covering)

Research Division (RD)

Dr C G Yapa, BSc. Special (Hons),(Colombo), Ph.D. (Colombo)	Head/Principal Scientific Officer
Dr P V S Panawala, B.V.Sc. (Peradeniya), M.Phil. (Peradeniya)	Scientific Officer
Mrs H D N Jayaweera, BSc (Hons.), Sri Jayawardenepura	Scientific Officer
Ms W L C Dasanayake, BSc. Agric. (Hons) (Peradeniya), MSc. (Peradeniya), MSc (Japan), M.Eng (Germany)	Scientific Officer
Ms Amali Ranasinghe, BSc. (Hons), (Bangalore), MSc.(Food & Nutrition), (Peradeniya)	Scientific Officer
Ms Sarani K Meneripitiya, BSc Special (Hons.) (Kelaniya)	Scientific Officer
Mrs G G K P S Kumari, BSc (Special) in Agriculture (Peradeniya)	Scientific Officer
Ms S S Ediriweera, BSc (Special) Uni. of Kelaniya, M.Phil (Colombo)	Scientific Officer

Science and Technology Policy Research Division (STPRD)

Dr P R M P Dilrukshi, BSc. Special (Hons) (Peradeniya), Ph.D. (Peradeniya)	Head (Covering), Senior Scientific Officer
Ms Chamika Dharmasena, BSc. Special (Hons) (Colombo)	Scientific Officer
Ms W M U K Rathnayake, BSc. Special (Hons) (Wayamba)	Scientific Officer
Ms M A D D Munasinghe, BSc. Special (Agric.) (Hons) (Peradeniya)	Scientific Officer

International Liaison Division (ILD)

Mr S M A W Anuruddha, BSc. (Hons) (Colombo), MSc. (Colombo)	Head, Principal Scientific Officer
Ms E M D C K Ekanayake, BSc. Agric.(Hons) (Peradeniya), MSc. (Peradeniya)	Scientific Officer
Ms A M N S Nadugala, BSc. Agric.(Hons) (Peradeniya), MSc. (Asian Institute of Technology)	Scientific Officer
Ms K A T K G Kandanamulla, BSc. Agric.(Hons) (Ruhuna), MSc. (Colombo)	Scientific Officer
Miss M Prishanthini, BSc (Hons.) (Eastern University), MSc (PGIA)	Scientific Officer

Technology Division (TD)

Mr J G Shanthasiri, <i>BSc. (Hons) (Colombo), MSc. (Kelaniya)</i>	Head (Covering)/ Senior Scientific Officer
Ms D N Wickramarachchi, <i>BSc. (Hons) (OUSL), MSc. (Sri Jayawardenepura)</i>	Senior Scientific Officer
Miss P S Warakagoda, <i>BSc (Agric.) (Hons) (Ruhuna), M.Phil. (Ruhuna)</i>	Scientific Officer
Miss S T Gonapinuwala, <i>BSc Special (Hons.) (Wayamba), MSc (Peradeniya)</i>	Scientific Officer

Science Popularization Division (SPD)

Mr K G Janaka Karunasena, <i>B.Sc. Agric. Special (Hons) (Peradeniya), M.Phil. (Agric.) (Peradeniya)</i>	Head / Senior Scientific Officer (Upto 18.08.2016)
Ms M D Senarathne, <i>Graduateship in Chemistry (I. Chem.)</i>	Head (Covering) / Scientific Officer (From 19.08.2016)
Mr D M Dilan Rasika, <i>BSc. Special (Agric.) (Hons) (Peradeniya)</i>	Scientific Officer
Mr K H N D Rupasinghe, <i>BSc (Hons.) (Uni. of Peradeniya)</i>	Scientific Officer

Journal Publication Unit (JPU)

Dr S A V Moorthy, <i>BSc. (Jaffna), MSc. (Colombo), Ph.D. (Colombo)</i>	Head (Covering) / Senior Scientific Officer
Ms Uthpala Karunarathne, <i>BSc. Special (Hons) (Kelaniya)</i>	Scientific Officer
Ms R A A R Ranatunga, <i>BSc. Special (Hons) (Colombo)</i>	Scientific Officer
Dr H I Sandanayake, <i>B.V.Sc. (Peradeniya)</i>	Scientific Officer
Mrs S Samarasekera, <i>BSc Special (Hons.) (Sri Jayawardenapura), BSc (Economic & Mgt.) (Uni. of London)</i>	Scientific Officer

National Science Library and Resource Centre (NSLRC)

Ms A Tennakoon, <i>BSc. (Kelaniya)</i>	Head (Covering) / Senior Information Officer
Ms R P Sugathadasa, <i>BSc. (Sri Jayawardenepura)</i>	Senior Information Officer
Mr Pujitha D Hewawasam, <i>B.Com (Swinburn University)</i>	Information Officer
Ms M Niyas Thasneem, <i>BSc (Southern University)</i>	Information Officer

Director General's Office

Ms G R P I Abeyesiri, <i>BSc (Agric.) Special</i>	Scientific Officer
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Administration Division

Mr P Sapumohotty, <i>BSc. (Peradeniya)</i>	Senior Administrative Officer
Ms B T Wickremasinghe, <i>BSc. (Sri Jayawardenepura)</i>	Procurement & Transport Officer

Finance Division

Mr W B Herath, <i>JPAI, BMS, FCMA, APFA</i>	Head Administration & Finance
Ms T D P P Samaranayake, <i>Professional Part II of ICASL</i>	Senior Accountant
Ms E M P Bamunendra, <i>B.Com (Sri Jayawardenepura), Licentiate Certificate of ICASL</i>	Accountant

Internal Audit Unit

Ms M M Jayajeevani, *BSc., B.Ad.(Special) (Sri Jayawardenepura)* Internal Auditor

IT Unit

Mr H M M Perera, *MBCS* IT Manager

Mr W A B Fernando, *BSc (Networking) (Wolverhampton)*

Printing Unit

Mr K P Senanayake Printing Manager

Confidential Secretaries

Ms Sobitha Wijenayake, *B.Com (Sp.) (Sri Jayawardenepura)* (Chairperson's Office)

Miss Ayomi Palihawadana

Recruitment during the year 2016

One Scientific Officer

Resigned during the year 2016

Ms Subhani De Silva 25.02.2016

Ms Amalka Nilmini 23.06.2016

Mr W B C Vijayamunige 30.09.2016

Mr K Balashangar 30.11.2016

Retired Employees 2016

Dr Seetha I. Wichramasinghe 05.05.2016

Mr L B Ekanayaka 02.07.2016

Mrs Anusha Amarasighe 31.07.2016

